

C R E A  
T I V E  
A U S  
T R I  
A N S

# Creative Austrians

Innovators for the society of the future

# Creative Austrians

– *the new Austrian international culture programme*

How is Austria mirrored in the major challenges of our time?

How does art support the culture of innovation?

Does the future belong to those who own data?

What impact does the increasing use of technology have on peoples' lives?

What are the future prospects for work?

How do algorithms influence the way we form our opinions?

What will democracy look like in the future?

Which creative skills are demanded by the “digital revolution”?

How do we assume responsibility?

What contributions can Austria make towards achieving the goals for sustainable development?

Creative Austrians presents creative questions and ideas for change – including for dialogue between Austria and the rest of the world.

Ermöglicht mit Mitteln des

**ZukunftsFonds**  
der Republik Österreich

C R E A  
T I V E  
A U S  
T R I  
A N S

# Creative Austrians

Innovators for the society of the future

 EUROPE  
INTEGRATION  
FOREIGN AFFAIRS  
FEDERAL MINISTRY  
REPUBLIC OF AUSTRIA

  
austria kultur<sup>int</sup>

# Contents

## Creative Austrians

<i>Karin Kneissl</i> Creative Austrians – A new programme of the Austrian International Cultural Policy	14
---	----

## Introduction

<i>Teresa Indjein</i> Building bridges to the future – Lines of transmission between culture, society and the economy	18
---	----

## Part I: Authors' contributions

### 1. Creativity & Zeitgeist

The time is now: paradigms of yesterday and tomorrow

<i>Gerald Bast</i> On the culture of creativity – The time is now	26
<i>Peter Strasser</i> Diversity forced into line – A case for the rediscovery of creativity	40
<i>Eva Maria Stadler</i> Freedom as a political dispositive – To every art its freedom: creative adjustment or the resistance of the aesthetic	48
<i>Johannes Rauchenberger</i> Criticising false gods – On the ethical responsibility of the creatives	54

### 2. Creativity & Society

Open everything: all is in flux in the societies of today

<i>Daniel Erlacher</i> Creative democracy – On the influence of creative media usage on the democracies of the future	62
---	----

<i>Gerfried Stocker</i> <b>Artists as catalysts for innovation –</b> C – what it takes to change	68
<i>Hansjürgen Schmölzer</i> <b>Mobile creatives</b> – The places that attract creatives	76
<i>Christoph Thun-Hohenstein</i> <b>Ideas for change</b> – Perspectives at the interface between art and creative industries	88
<i>Irmgard Frank</i> <b>the architectural space</b> – A sensory experience	94

### 3. Creativity & Responsibility

Open Source: creativity and responsibility in  
designing the future

<i>Marina Fischer-Kowalski in an interview with Hansjürgen Schmölzer</i> <b>Using less to achieve more</b> – Creative strategies for a global quality of live	102
<i>Sonja Bettel</i> <b>On sharing ideas</b> – Open Source and Creative Commons	120

<i>Irmi Salzer</i> <b>Creativity &amp; feeding the world</b> – Rethinking food systems	126
<i>Rainer Rosegger</i> <b>Cradle-to-cradle design</b> – Creative concepts for a circular economy	132

### 4. Creativity & the Economy

More than money: creativity and meaningful  
commercial activity

<i>Eric Poettschacher in an interview with Hansjürgen Schmölzer</i> <b>Hip, hip, hooray: creative industries!</b> – Creative industries policy and its search for meaning	140
<i>Doris Rothauer</i> <b>Art-based creative solutions for the economy</b> – New synergies between two worlds	148
<i>Sabine Pümpel</i> <b>The DNA of the creative industries</b> – Innovation cultures and potential	154
<i>Gerin Trautenberger</i> <b>The creative industries effect</b> – The creative industries are more than the sum of their parts	162

## Part II: Portraits

### 1. Creativity & Zeitgeist

*Manu Luksch*

**Art controls the controllers** –  
Filming against surveillance 172

*Micha Elias Pichlkastner*

**Michaelias** – Media art and the  
human-machine relationship 176

*Jerome Becker, Florian Sammer, Lukas Vejník*

**Bedroom Exodus** – Concepts for a sleep culture  
revolution in public space 180

*Florian Satzinger*

**Character design** – The Paperwalker, or  
the fantastical journey of “John Starduck” 184

### 2. Creativity & Society

*Marlies Pöschl*

**And other stories** – Cultural investigations at the  
interface between film, art and society 190

*Julia Bachler*

**Use Potential** – Social empowerment through a  
database of refugees’ skills 194

*Astrid Hainzl*

**Too few women in supervisory bodies** – What are the  
mechanisms that lead to such a low proportion of women  
in supervisory bodies? 198

*Elisabeth Marek*

**The creative fillip** – Creative workshops for  
socially disadvantaged people 202

*Martin Hollinetz*

**Otelo** – Open technology laboratories as future hubs  
in rural areas 206

### 3. Creativity & Responsibility

*David Groß*

**Wastecooking** – Fighting food waste and xenophobia  
with “artivism” 212

*Andrea Lunzer*

**Lunzers grocery by weight** – Shopping without packaging waste 216

*Markus Enenkel*

**SATIDA** – A drought app that acts as an early warning system for drought and famine 220

*Gerhard Fraundorfer*

**CornProtect** – Protecting maize crops through pest control with sex pheromones 224

#### 4. Creativity & the Economy

*Andreas Weingartner*

**s::can** – Clean drinking water from an innovative light measurement technique 230

*Kristina Tsvetanova*

**Blitab** – A tactile computer tablet for blind people 234

*Michaela Maresch, Gerald Brencic*

**COMMOD house** – A sustainable modular house to take away 238

*Simon Niederkircher, Michael Galhaup*

**simon** – A mini power station for all 242

### Part III: Services

Funding programmes, creative industries 248

Funding programmes, academic study 250

Funding programmes in the federal states 252

Creative studies 256

Communities, networks und interest groups 262

# Creative Austrians

## A new programme of the Austrian International Cultural Policy

— Karin Kneissl

Federal Minister for Europe, Integration and Foreign Affairs

*„If creativity is the key to our future, then art  
and creative creation need to play a much more  
important role than they have in the past.“*

*Doris Rothauer*

After having received positive feedback, the Foreign Ministry decided to publish an English version of the 2016 publication “Creative Austrians. Innovators for the society of the future”.

The “CREATIVE AUSTRIANS” programme supports innovative minds, who work on socio-politically relevant topics and provide practical solutions for possible future developments, which can be applied both at local and global levels. It helps these progressive thinkers achieve recognition beyond Austria’s borders, find opportunities to present their work internationally, and make relevant contacts. In addition, this programme also aims to spark international interest

in Austria’s dynamic creative industry, particularly among a growing circle of “mobile creatives”.

Creativity and optimism are closely related. The most important driving forces for the release of creativity are the belief and confidence in being able to actively and positively shape the future through one’s own contribution and independent performance.

Austria is a creative country, not only in the spheres of arts and sciences, but also in the world of business. Hence, CREATIVE AUSTRIANS is rooted at the interfaces of these areas. This approach is a novelty for International Cultural Policy.

While Austria is relatively small in regard to land area and population – and most raw materials, resources and means of production are quantitatively limited – the same does not, however, apply to the potential of creativity. Austria, despite its relatively small size as a nation, is recognised throughout the world as a leader in culture, creativity and innovation, as has been proven time and time again.

The CREATIVE AUSTRIANS program, however, is about much more than a mere presentation of the economic benefits of creativity. The focus is primarily on those controversial areas that, apart from purely economic considerations, are among the major and important challenges of the present and cannot be solved without new creative concepts and ideas.

Many of these challenges are reflected in the list of problems and targets described in the UN Sustainable Development Goals. The complexity of these topics makes it necessary to address these issues with a variety of creative tools at a macro and micro level in social, environmental, political and economic spheres.

Well known individuals from Austria, whose ideas and achievements - both great and small - contribute to an inspiring, lively

and, one might hope, better future are featured in this publication. The range of topics is wide and reaches from astonishing concepts for improving global nutrition to tactile computer tablets for the visually impaired or design concepts for a socio-cultural re-evaluation of the function of sleep in everyday life.

CREATIVE AUSTRIANS should also encourage a discussion about which prerequisites and framework conditions a society needs, so that creativity can unfold itself ideally and multifaceted achievements of creatives become effective in the best possible way on an ethically stable foundation. For this program, we have invited a wide range of authors from the fields of science, culture and business to contributions that offer manifold perspectives.

Every year, the network of Austrian International Culture cooperates with 4,500 partner institutions worldwide and provides a platform which enables Austria to improve the networking opportunities of CREATIVE AUSTRIANS in the international discourse, and at the same time make Austria a relevant place of impulse and international exchange for creative solutions to future challenges.

# Building bridges to the future

Lines of transmission between culture, society and the economy

— Teresa Indjein

Director General for Cultural Policy

It has already been evident for some time that we can no longer draw on the paradigms and concepts of the present in order to tackle the problems of the future. We need curiosity, innovativeness and courage, as well as a large measure of inner freedom, to abandon our current conceptual approaches.

Here, creativity and innovation usually emerge in the transition zones and at the boundaries between different sections of society. New approaches are generated when people, objects and ideas come together that would normally never engage with each other.

In this context, the cultural section of the Ministry of Foreign Affairs sees itself as a builder of bridges along these boundaries in geographical, socio-cultural and political terms. This book and funding programme, CREATIVE AUSTRIANS – Innovators for the society

of the future, is a reflection of this objective.

Our aim with this new programme is to interconnect different „worlds“, in the hope that something new and creative will emerge as a result.

Today, when we refer to „creatives“, we frequently do so from an economic perspective. However, the contribution that creative individuals can make to society goes far beyond this. And it is also part of our culture.

With this publication, we aim to open up a framework for discussion and to juxtapose theoretical positions with highly practical applications and achievements of young Austrian creatives. Over four chapters, these will be presented twice over, in two very different ways:

We will look at issues relating to the relationship between creativity and the zeitgeist, society, responsibility and the economy. We will do so first from a theoretical perspective with written contributions from creative Austrian thinkers, and a second time through portraits of a series of „Creative Austrians“ who have not only considered these issues in theory, but have already developed very practical solutions and concepts with which they have made a very specific contribution towards resolving present-day problems. These solutions can be applied on a global scale as well as locally at the community level.

Here, the range of topics is deliberately broad. They include cultural theory and philosophical positions, with contributions from Gerald Bast and Peter Strasser, for example, who present fundamental considerations regarding the influence of existing paradigms on the development of creativity, through to examinations of society such as in the contribution by Daniel Erlacher, or the influence of creative uses of the media on the democracies of the future, and considerations as to how creative concepts can be used to meet the

challenges with which we will inevitably be faced arising from globally limited resources with simultaneous population and economic growth.

This range of theoretical topics is rounded off with a discussion of the direct relationship between creativity and the economy, which demonstrates that the „creative economy“ can generate far more than just profit maximisation, of which many creatives are sceptical anyway, as the pointed criticisms by Eric Poettschacher make clear.

An illustration of the repercussions on a practical level of a creative-critical assessment of the zeitgeist is provided, for example, by the works of Manu Luksch, which through film and video art actionism cast a critical light on the paradigm of aiming to create security through maximum surveillance.

When it comes to the relationship between creativity and society, it emerges that often very simple ideas can have huge potential. This is true, for example, of the „Use potential“ database platform created by Julia Bachler, with which the individual skills and qualifications of refugees can be evaluated.

Examples of how creative solutions can generate opportunities for bearing responsibility in society are projects such as the SATIDA drought app from Markus Enenkel, which with the help of voluntary data input by smartphone users from a particular region can produce highly precise forecasts regarding impending drought or starvation, which until now had not been not possible with the satellite forecast models provided to date. This data can provide international aid organisations with key information in order to provide sufficient relief supplies in good time.

And the fact that creative business ideas can be of economic benefit to customers as well as producers is demonstrated by projects such as „simon - the miniature power station for everyone“ by Simon Niederkircher and Michael Galhaup. These are just some examples of

the work of Austrian creatives presented in this book.

The book is rounded off by a comprehensive service section, which provides a detailed overview of funding, study offers, communities, networks and interest groups of and for creatives in Austria.

Our purpose with the Austrian international cultural programme is to support many „Creative Austrians“ as partners in their international activities over the coming years, to enable them to make their contributions as builders of bridges to the future.

# Authors' Articles

Authors' contributions to the society  
of the future

# 1. Creativity & Zeitgeist

The time is now:  
paradigms of yesterday and  
tomorrow

*„Since we are largely blind when it comes to the future, it is yet possible that under the now unbearable yoke of superficiality and bureaucratic straightjacketing, the creative individual will ultimately again create a new stage - by blasting away the old one with their creative spirit.“*

– PETER STRASSER

# On the culture of creativity

The time is now  
— Gerald Bast

More than two centuries after the first industrial revolution, we again find ourselves at a social and economic crossroads. In this situation, can we really afford to leave to chance the teaching of the key cultural techniques, the creative skills, needed for participation in our 21st century society and economy? Non-linear thinking, imaginative potential, the ability to make unconventional connections, and the willingness to question what is familiar in order to develop new scenarios, are the cornerstones for constructing a creative society.

*“If ever there was a need to stimulate creative imagination and initiative on the part of individuals, communities and whole societies the time is now. The notion of creativity can no longer be restricted to the arts. It must be applied across the full spectrum of human problem-solving.”*

If you run through the history of humankind in your imagination, what spontaneously comes to mind? What do you see when you think of the Stone Age? Cave paintings, perhaps... the outline of a hand on the rock wall that is created when the hand is placed on the rock and dye dust is blown onto it... or ochre-coloured hunting scenes with mammoths? What do you see when you think of the history of Egypt? Pyramids... the death mask of Tutankhamun? And what image emerges in connection with Greek history? The Acropolis?

What does it mean when for years, every TV report about the Greek financial crisis was accompanied by the Parthenon Temple in the background? And television reports about the global financial crisis usually include a picture of the New York Stock Exchange on

## The author



Dr. Gerald Bast, born 1955, studied law and economics at the Johannes Kepler University Linz. He gained his doctorate in law at the University of Linz in 1979. He also attended the Austrian Federal Academy of Public Administration. Since 2000, Gerald Bast has been Rector of the University of Applied Arts Vienna. He is also a member of the governing body of the Austrian

universities and member of the European League of Institutes of the Arts, or ELIA. Since 2015 he has also been a member of the European Academy of Sciences and Arts and other organisations.

Photo © corn

Wall Street. It looks like a Greek temple - and you don't need to be of a sarcastic mindset to interpret it as being a symbol of the real underlying power structure. And yet: what continues to have an impact over the centuries is art. What remains is art. Everything else has an expiry date - even the most outstanding technical achievements. We no longer work with hand axes. We no longer illuminate our cities with gas lamps. We no longer travel in horsedrawn carriages. Our technology museums show whole cars, not the naked engines.

Innovation is the driving force of human civilisation. However, innovation is a process, the success of which is not based solely on science and technology. The first petrol-driven car, which was built by Siegfried Marcus in 1889, was wholly unsuccessful in its time. Success came a few years later with the Benz automobile. The difference lay not in the technology. The basic technical principle of the engine was identical; indeed, most cars are still driven by combustion engines today. The key difference was in the aesthetics; the difference that led to success lay in the design, as it still does today. Rationally speaking, the speed that can be achieved is to a large degree a psychological factor. The Marcus vehicle drove at 6 - 8 km/h, while the first Benz built in 1896 reached 14 - 16 km/h, and the 1907 Benz already achieved a maximum speed of 95 km/h. Today, most cars are driven in cities - with an average speed of between 19 and 35 km/h.

Look at the iPhone. It is an object of fascination across all cultural and social boundaries. It is not fascinating because of its technological perfection - there are devices available with better and more wide-ranging technology. The key attraction is its aesthetics, the social positioning, the emotive image that transports and produces "lifestyle". What is the decisive factor for its success? It is not the individual capabilities that are of importance, but rather the interplay between capabilities and possibilities.

Our brain is a myriad of nerve cells. The simple growth of nerve cells in the brain is not sufficient in order to increase memory capacity; instead, it is the connections between the nerve cells, the

synapses, that are important. It is the synapses which enable the potential of pure information to be of productive use. Of key importance are the quality and reaction speed of the connecting paths and the synapses between the individual cell regions. The same applies to knowledge-based society: the lines of connection, the communication between the branches of knowledge determine the degree of effectiveness of the knowledge in society. Without sufficiently well-functioning knowledge synapses, the pillars of knowledge remain isolated and self-referential - however impressively towering they may be!

Culture is a complex, synergetic system of knowledge, a will to create, and values that are shared by a group. In an increasingly sensory-deprived desert of economism, the shareholder value appears to be the only one that is still flourishing. Knowledge is becoming fragmented and isolated, and art and science are treated as separate spheres which are more concerned with the development of their own discipline or sub-discipline than with the development of society. And then some of us wonder why young people who are socialised in Europe or the US join up to fight holy wars against the values of the Enlightenment. About 20 years ago, Jürgen Habermas spoke of the "enlightened perplexity"<sup>2</sup> in which society finds itself. Today, it rather appears to be the case that our society is increasingly in a state of detached perplexity. Values are no longer even relativised, but are more likely to be regarded as an interference to the system and ignored. While today, we are confronted with the fictionalisation of reality (money, assets and debts become fictitious financial constructs which only a small number of people understand in their complexity and in the multiple related mechanisms), art works with the notion of the realisation of fictions. For art, values are not interference factors within the system of functioning, but are necessary fundamental working principles. To illustrate this point, here are some examples from the fields of digital art, restoration, graphic design and social design at the University of Applied Arts Vienna:

In a piece entitled "Constraint City", a mechanical corset which

reacts to WiFi signals makes the virtual architecture of the city visible and tangible. The stronger the signals, the tighter the corset is drawn, making its wearer painfully aware while walking around the city how real the invisible architecture actually is.

The Institute for Conservation and Restoration is supporting the salvage of Unesco-protected cultural monuments following the earthquake in Nepal, which for the local population are not only a key element of their cultural identity, but also a central economic basis of existence. The project is being funded by the Ministry of Foreign Affairs and the Arts and Culture Division of the Federal Chancellery of Austria.

The “Minorities’ Expo” is dedicated to those among us who have little power in society, and who therefore also have little financial and political influence: the poor and the sick, the refugees, the elderly, and children.

The “Feel Dementia” project focuses on the social stigmatisation of dementia as a disease. Using artistic objects, visual and auditory perception is altered. People passing by public places are given the opportunity to experience the phenomena of disorientation and overstimulation themselves and to take time for reflection; changes in awareness through artistic intervention as a prerequisite for social inclusion.

Our world has become more complex, more multi-layered, more interwoven. While our scientific landscape is dominated by increasing splintering and is bringing forth a growing amount of specialist knowledge, it is becoming increasingly important to think and act in a connected way, because everything is related to everything else.

We can guess at and experience causal relations even if their mechanisms of action are impossible to understand. Perhaps this is because aside from quantum physics, scientists still work with linear, consecutive patterns of causality. Cross-discipline research is - if at all - practised primarily according to the system of adding aspects of knowledge and/or following the hierarchical pattern of the main and ancillary discipline.

During the 20th century, our planet - or at least large swathes of it - has been transformed from a world of certainty to a world of questioning and doubt. And the arts have had at least the same part to play in this influence over worldview as the sciences. Indeed, if you take a closer look at the parallels between the history of art and the history of science, particularly during the early 20th century, from the fundamental upheavals in music, the visual arts and design through to the paradigm changes in physics, psychology and medicine, it even becomes clear just how strong the interplay between these apparently separate spheres actually was. Here, however, it is also evident that the power of science and art can be further exponentiated when the two engage constructively with each other - with an awareness of both their own strength and identity and of their synergetic potential for social impact - beyond the citation indices and art market rankings. Artists are experts in dealing with uncertainty and ambiguity, which is by no means an unimportant trait in times in which populists are peddling simple solutions and cheap patent remedies. It is increasingly clear that our societies and human living conditions are becoming ever more complex at a dramatically accelerating rate. And we are becoming more aware of the fact that this complexity, with the linear continuation of what already exists, will soon become impossible to control.

“With a scientific theory, you know even before it has been proven that it is correct because it is aesthetically pleasing. Not because it is logically coherent, but simply because it ‘feels right’.”<sup>3</sup> These are not the words of some obscure esoteric. No, they come from Professor Wolf Singer, Director emeritus at the Max Planck Institute for Brain Research. He claims that when scientific theories are developed, criteria are used that go far beyond what is known as logical conclusion. For Singer, creativity in science, just as with the arts, is “the ability to see something in connection which has not until now been seen in connection, to create references that are not random”. The brain researcher is convinced “that with everything that does not use rational languages - the visual arts, music, dance - a knowledge is transported which cannot be transported through rational language

[...] But in order to do so, the language of art must be learned.”<sup>4</sup> The art universities are the last bastions in this country that still teach the language of art in a serious way. And this bastion, of all things, has been systematically under fire over the past decades with arguments that seek to subject education to the dictate of short-term service-ability and usefulness in the interest of employability. In primary and secondary schools, art - if at all - leads a miserable existence, continuously subject to reductions, and paradoxically also through decisions made autonomously by the schools, often timetabled at the end of the school day, because the “more important” subjects are allotted to times when the pupils are potentially able to concentrate better. Overall, art is taught in subject units that are usually entirely separate from each other. Austrian universities and professional higher education colleges offer more than 1,600 study programmes, and worldwide, the number of academic disciplines has grown to 4,000 - an impressive spectrum of academic diversity. Within these disciplines and sub-disciplines, which are becoming increasingly fragmented, research is primarily conducted with the opportunity to publish in mind, with which points can be awarded for one’s academic career. Bringing together knowledge from different disciplines is not on the academic agenda. Quite the contrary.

The blunt alternatives presented to young people - “MINT oder Masse” (“STEM or mass”) - to help them decide which subjects to study, and aim to attract more students to specialist fields in mathematics, informatics, the natural sciences or technology. In this way, a wedge is driven further into our education system and our society, which is still dominated by the spirit of the industrial revolution, the drivers of which were fragmentation, specialisation and rationalisation. Today, however, it is not cleavers that our education system needs, but bridges, intellectual and emotional bridges. Bridges that recognise artistic creative knowledge and ingenuity as being essential cornerstones of social and economic development, and not merely a nice luxury accessory for a small elite. Bridges that connect art, science, the economy and society in a synergetic way. Yet in reality, bridges are printed on euro notes. How symbolic!!

Are our school and higher education graduates well prepared for a world in which everything is interconnected? In which the great social challenges can only be resolved through interdisciplinary collaboration? Our education and academic system functions essentially according to principles that were developed during the industrial era in the 18th and 19th centuries: multiplication of knowledge, appropriation of knowledge and as a result, specialisation - intellectual division of labour.

As with all socio-economic upheaval, we are again heading towards a “race between education and technology”<sup>5</sup>, as emphasised by the Harvard economists Claudia Goldin and Larry Katz. The changes to our education system will now have to be similarly drastic to those made in the 18th century. At that time, in tandem with the first industrial revolution, obligatory schooling for all was introduced throughout Europe - against huge political doubt as to the point of such a measure in what was to a very large extent still an agrarian society. And unlike with the earlier redesigns of the education system, the purpose this time will not be to provide additional knowledge and skills, but the creative joining together of knowledge, as well as the provision of alternative, interrelational ways of thinking that deviate from known patterns, imagination, and the awareness that there are also other forms of communication than written and verbal ones - in short: the acquisition and trying out of “creative skills” must become the focus of the new education revolution.

Theodor Adorno once claimed that “Art is magic, liberated from the lie of the truth!”<sup>6</sup> And here, he hits a nerve of artistic creativity that runs through history, one which revolves around transforming reality, of values and identity. The breakthrough from a geocentric to a heliocentric worldview went hand in hand with the development of one-point perspective in Renaissance painting. In both of these fundamental paradigm changes, the starting point of one’s view onto the world shifted to a fixed point beyond earthly existence.

In some of his works, Picasso dissolved the visual and intellectual relation between material, form, time and place, a few years

before Einstein formulated his theory of relativity and Heisenberg declared the standard concept of reality to be obsolete with his uncertainty principle. These few examples point to the fact that there are perhaps invisible lines of connection between artistic creativity and scientific-technical innovation, which are sometimes also known by the vague term of “zeitgeist”. Ironically, it is precisely the modern natural sciences that have taught us that critically important ideas are not always developed along a predictable timeline or according to the pattern of linear causality.

Friedrich Kiesler, the visionary thinker, architect and designer who emigrated from Austria to the US in 1926, developed his theory during the 1930s which did away with all artistic genres and incorporated scientific knowledge to regard humankind and the environment as a holistic system of complex interrelations. This theory, which he called “correalism”<sup>7</sup> is of greater relevance today than could originally have been imagined. Kiesler’s conviction that visionary thinking is at the same time realistic thinking gives us courage in times of increasing lack of courage. Moreover: Kiesler’s approach is increasingly relevant the more our world becomes characterised by insecurity and ambiguity, since these challenges can no longer be met with algorithms and robots, but only with visionary, correlative thinking that stands boldly in defiance of the standardisation and fragmentation that dominate our society.

Before the industrial revolution, in the mid-18th century, nobody could imagine that Europe, and later the US and parts of Asia, would in just a few decades experience a deep-rooted, lasting transfiguration of economic, working and living conditions. New inventions, based on the use of mechanical processes, changed the way in which products were made and goods and people were transported. Large swathes of the population lost their jobs and income. Traditional professions such as that of the weaver disappeared and new ones arose in their place, together with an increase in social inequality.

Today, it is hard to imagine how greatly our working world will change as a result of the digital revolution. It is difficult to imagine

what it means that in a few years, consumers will be able to produce a broad range of products at home or in digital 3D print shops - as is the case with photos today - or that mobility will for the most part be driverless, and that even some jobs from the creative industry sector will be controlled by algorithms and intelligent programmes. And we are even less able to imagine what changes biotechnology and quantum physics will make to our lives. We do not know “how” these changes will influence our culture. But it is certain that they “will” do. How our civilisation responds is not least a question of how we treat the term “innovation”. It makes a difference whether innovation is understood and implemented as a domain of technology, the natural sciences and the economy, or whether we understand innovation to be a civilisational process in which holistic thinking and action are required, where fantasy and creativity have a necessary place. The digitalisation and automation of our world – as paradoxical as this might sound – will secure a central role for cultural education (the germ cell for “creative skills”) in society. Or to put it better, the interconnection between cultural education and cognitive education, between the economy and society.

According to a study by Oxford University<sup>8</sup>, in the next 20 years, 47% of the jobs currently existent in the US will be seriously at risk.

Wherever work or working steps can be standardised or determined by algorithms, people will be replaced by machines. Computers and robots are faster, more flexible and more precise – and above all, cheaper – than human labour.

This will have an impact not only on production companies, but also the transport industry, the finance industry, large parts of the service sector, parts of the creative industry, the management sector, administration, professions in education, legal professions, even medical professions, particularly in the fields of diagnostics and medication. Even if in one study<sup>9</sup> the OECD estimates the effects of automation as being quantitatively lower, the fact remains undisputed that the consequences of this fourth industrial revolution

will initially reach deep into the middle classes, who are considered to be well educated. It is not difficult to imagine the huge political explosive impact when in less than a single generation a considerable part of what we currently regard as being work will disappear. This development cannot be stopped. It can either be ignored, played down or faced head on. Currently, the tendency is to ignore it and play it down, in both the political and economic spheres. Politicians refuse to talk about it and pretend that the situation is not so serious in order to avoid unsettling the population, i.e. the voters. And businesses hope to profit from the gains in productivity anticipated from automation for as long as they can. The industries that are not yet producing goods at 4.0 status are even now demanding training for additional specialist staff who in 20 years are likely to share the same fate as the Silesian weavers. The future of work, according to the Oxford study mentioned above, lies in the fields of creativity and the social sphere – but not in a linear extrapolation of what we have today. New fields for economic and social added value must be developed. It is for this that an education system should be preparing us; *this* type of development work should be provided by our universities in the 21st century – just as technical universities facilitated the development of the industrial society and the service industry was supported by the business schools. A report for the European Commission, “The Impact of Culture and Creativity”, already stated in 2009 that “It is time to take a creative risk of valuing imagination, the poetic, the symbolic, the aesthetic or the spiritual (features of culture-based creativity) as factors of innovation, social progress and European integration”<sup>10</sup>. Yes, it is time to take risk!

In a world dominated by artificial intelligence, digitalisation and robotics, we humans can now only be effective socially and economically through creative thought processes. In other words, through processes that in a way that has not been considered before, or which has been considered impossible, we must create connections between familiar and therefore increasingly automated fields of activity and knowledge. Just like the transformation in our society caused by demographic developments and migration movements,

the changes in work, education and leisure will open up new social challenges as fields of activity in terms of the way people live together. The so-called “digital revolution” differs from the waves of the industrial revolution to date in one fundamental aspect: for the first time in the history of human civilisation, the human capacity for thought will be taken over by machines. This has more than just an economic dimension, since the already existing and as yet foreseeable developments in the field of “artificial intelligence” present us with the deeply philosophical question of the role of humankind on this planet.

In such a situation, can we really afford to leave the teaching of key cultural techniques for participation in society and the economy of the 21st century, the “creative skills”, to chance, according to the system of collateral benefit?

- Non-linear thinking
- Imaginativeness
- Creating unconventional connections
- Questioning the familiar
- Developing new scenarios

It is claimed that Jean Monnet, one of the founding fathers of the European Union, once said that “If I had to do it again from scratch, I would start with culture.” Jean Monnet would have been even more certain of the truth in these words if he had been able to witness the threat with which we are faced today of the European economy and what we call the “European values” of the Enlightenment being blown apart. We do not need to call for a hegemony of culture in place of the hegemony of the economy. However, the necessary reform of education and work – not just in principle, but in reality – is not a challenge that can be tackled simply through technocratic means. Instead, it is a cultural task – and cultural tasks have a long gestation period.

There will, and must, continue to be artists who dedicate themselves passionately to what is referred to as “autonomous art”. The “creative industries” sector should and will continue to exist. And we cannot do without the work and knowledge of highly specialised

scientists. Yet the world also urgently needs people with “creative skills”, with translational competencies, people who are able to build bridges between the islands of specialisation.

There also will and must be new, correlative education programmes and professional profiles, entirely different forms of work and income than those with which we are currently familiar. These should be developed and implemented. And here, too, the power of art will play a decisive role – as an integrated part of our social, economic and education system. “Creativity” not only as a small, albeit growing section of the overall economy. Cultural education not merely as a marginalised, isolated segment in the education landscape. The next “revolution” after the industrial revolution, namely a knowledge revolution and the digital revolution, will also need to be a “creative revolution”.

More than two centuries after the first industrial revolution, we are again at a social and economic crossroads. The key question now is: will we succeed in making the development and implementation of creative ideas and visions a trademark of our societies?

In light of the challenges that we are facing, there is in reality only one option – to develop and build a creative society.

1 World Commission on Culture and Development, UNESCO 1995, online URL: [http://portal.unesco.org/culture/en/ev.php-URL\\_ID.15019&URL\\_DO.DO\\_TOPIC&URL\\_SEC-TION.201.html](http://portal.unesco.org/culture/en/ev.php-URL_ID.15019&URL_DO.DO_TOPIC&URL_SEC-TION.201.html) (version: 05.08.2016).

2 Jürgen Habermas: Aufgeklärte Ratlosigkeit. Warum die Politik ohne Perspektiven ist. In: Frankfurter Rundschau, 30.12.1995.

3 Singer, Wolf: Ein neues Menschenbild. Gespräche über Hirnforschung, Frankfurt/Main: Suhrkamp 2003, p. 103ff.

4 Ibid.

5 Claudia Goldin and Lawrence F. Katz: The Race between Education and Technology, Cambridge, Massachusetts: The Belknap Press of Harvard University Press 2008.

6 Theodor W. Adorno: Minima Moralia. 22nd edition, Frankfurt/Main: Suhrkamp 1994, p. 298.

7 Frederick Kiesler: On Correalism and Biotechnology. A Definition and Test of a New Approach to Building Design, Frederick Kiesler. In: Architectural Record, 86/3, September 1939.

8 Carl B. Frey and Michael A. Osborne: The Future of Employment: How susceptible are Jobs to Computerization, September 17, 2013, online URL: [http://www.oxfordmartin.ox.ac.uk/downloads/academic/The\\_Future\\_of\\_Employment.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf) (version: 05.08.2016).

9 The Risk of Automation for Jobs in OECD Countries, online URL: [http://www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries\\_5jlz9h56dvq7-en](http://www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries_5jlz9h56dvq7-en) (version: 05.08.2016).

10 The Impact of Culture and Creativity, p. 161, online URL: <http://www.keanet.eu/docs/impactculturecreativityfull.pdf> (version: 05.08.2016).

# Diversity forced into line

A case for the rediscovery of creativity

— Peter Strasser

What remains of the “Universitas”, the notion of an inclusive community of teachers and students, at a time when universities are increasingly being organised according to the efficiency principles pursued by large corporations on the market? Which creative skills is our society losing as a result? What “higher” benefits can the sciences provide when the hegemony of the natural sciences, the search for the “true, good and beautiful” – and therefore also work in the arts and humanities – is allowed to be the subject of criticism, reflecting a general distrust among the neoliberal establishment, that it serves no useful purpose?

The history of the term “nerd” is characteristic of our times. The fact that so-called “nerds” are deficient characters, have difficulty in interacting, are asocial and “morons” goes hand in hand with the assertion that nerds are only able to develop their creativity when they are concentrating compulsively on the Internet and living in isolation as a result. The positive myth of the nerd is a comment on the oversocialisation of our current knowledge industry.

While we used to say proverbially that genius and madness are close companions, today, we attach importance to the fact that Bill Gates, who has one of the most brilliant minds and the most outstanding business acumen of our times, used to be a nerd in his youth. Without placing great value on semi-legends of this nature, our organised knowledge industry does have something to learn from this. The nerd offers a counter-image to what is now popularly presented to young academics as “research excellence”. This “research excellence” is characterised by a series of features of which it can be said without much exaggeration that they tend to suffocate creativity rather than promote it.

## The author



Associate Univ.-Prof. Dr. phil. Peter Strasser, born 1950, teaches philosophy and the philosophy of law at the University of Graz. From 1990 to 1995, he was a member of the advisory board of the “steirischer herbst” avant-garde festival. Since 1999, he has also been a lecturer and visiting Professor at the Institute for Philosophy at the Alpen-Adria-Universität Klagenfurt. From 2002 to 2008, Strasser was coeditor of the “Bibliothek der Un-

ruhe und des Bewahrens” published by Styria Verlag), and from 2010 he was an academic advisor for the series of essays “Unruhe bewahren” published by Residenz Verlag. In 2014, Peter Strasser received the Österreichischen Staatspreis für Kulturpublizistik. In his photorous publications, Strasser discusses questions of ethics, legal theory, criminology, metaphysics and the philosophy of religion.

Photo © Michaela Vretscher

It began with war being declared against the old-school hierarchical universities. It was claimed that the dust of a thousand years had settled on the professors' robes. On the one hand, this was not in keeping with the times, while on the other, the liberal-capitalist model demanded its tribute. So it was that in the long term, the universities were not reformed in line with the new attitudes in the spirit of the anti-authoritarian model of the '60s generation. Instead, to a far greater extent, the university of the 21st century is proud of being organised according to the principles of efficiency pursued by large corporations on the market, naturally with the questionable implication of being neither listed on the stock exchange nor having the purpose of maximising profit. What needs to be maximised is creativity. Here, those working in the hard sciences, who create financially lucrative products that are of practical use, are of course most highly regarded - and incidentally also stipulate the guidelines for interaction for research excellence.

And since there is a desire for liberation from state constraints (in truth, statehood in the knowledge industry meant a considerable degree of protection against instrumentalisation and exploitation), the catchword is: "autonomy". In the university context, the word is merely window dressing, concealing as it does a rigid hierarchisation of the management structures through all academic sectors. The rector's office, senate and university council stipulate focal areas that are binding right through to individual deaneries and institutions. This is compounded by a bureaucracy at the executive and coordination levels that has grown more rapidly over recent decades than any other area of university life.

To this is added the element of what is known as "third-party funding", which is gaining in importance. If young researchers want to make progress in their career, they must apply for projects for the funds provided under the supervision of a professorial authority.

The decision as to whether or not these projects are approved lies in the hands of assessors, who precisely in the more exotic subjects, which are particularly dependent on such funding, frequently issue evaluations that are questionable for being highly subjective and which are in practice incontestable.

The likelihood of being placed in what is anyway a precarious working position as a project participant increases when applicants have two competencies ("soft skills") which both impede creativity: first, the ability to "network", to generate status in so-called "excellence networks"; and second, the ability to roll out standardised academic speak off the cuff, where the key skill is to leave the correct terminological "scent marks" - rather than original ideas - in the right places.

In this way, a research industry is created, the "team" nature of which (a euphemism for authoritarian-led project personnel) may be similar to a think-tank, but which - particularly in the "soft sciences" - certainly offers no protective realm for creativity. In the interim, we have towering stacks of research projects that have no epistemological value, but which are instead sprinkled with the terms and phrases favoured by the system, thus creating the impression that they are "optimising" a knowledge-generating optimisation programme. These projects are the product of the labour of young researchers who have no secured employment and who therefore have no choice but to comply with what is required of them by the mainstream.

Laypersons can hardly imagine the pressure to standardise forms of expression, which becomes all the stronger the more those who use the language feel obliged to be "politically correct". Here is an extract from an assessment made by the Dachverband für Gender Diversity dated 19th August 2014 which was sent electronically via the university lecturers' association at the University of Graz:

*"The most recent personal and generalising attacks on antidiscriminatory approaches - be they contemporary, pro-diversity sex education,*

*gender/diversity-conformant language or emancipatory, feministic or other anti-discriminatory positions - are not solely the backward clinging to longstanding and convenient, since privileged, securities such as social structures and views of the world and reality that it is claimed are ordained by nature. There is also the fantasy that science is the disinterested discovery of a given and unchanging truth."*

One might well claim that one of the biggest factors influencing the destruction of creativity was the one that aimed to drive out from all talented academics the notion of "the disinterested discovery of a given and unchanging truth". The origin of all creativity lies in a driving force that can only unfold when the creative individual is not forced to act in the service of one interest or another. Indeed, it is the virtue of the "purposelessness" which first engenders that higher purpose that goes hand in hand with the discovery of the new in the service of the search for the "true, good and beautiful".

The people who speak in the manner of the quote I have given above - and this kind of language is one of the soft skills that every academic should master if they want to get ahead in their research career - has already entered into the service of "instrumental rationality". In so doing, the researcher is directed from the outside in the manner criticised by many academics during the 1960s, particularly Herbert Marcuse, Günter Anders, Theodor W. Adorno and Jürgen Habermas. More names could be added to the list. Here, it is noticeable that the main area of criticism - the "instrumentalisation of the truth" - applied to the infiltration of the model of knowledge of the natural sciences into the humanities. Their hope was in turn directed towards their own, "emancipatory" knowledge type, which also claimed validity for all artistically ambitious undertakings.

In reality, the development took a very different turn. While the natural sciences shone with truly titanic innovations, from

genetics through to electronics and the colonisation of outer space, in the humanities, a globalised pattern emerged. The global networking of language and therefore also thought structures increased the pressure to conform to the standard on creative individuals, under the marketable banner of "sustainability". The only reason why this pressure isn't immediately apparent is that an internal differentiation is made, as desired by the knowledge bureaucracy, between the "points of view" and consequently also the largely standardised schools of thought. The male-dominated republic of academics has turned into an anthill of an operation consisting of industrious mental worker teams, who are subject to constant evaluations and regional optimisation maxims.

Keeping the several outstanding minds, which of course also exist, out of the system is a deflection manoeuvre away from the standard case scenario. In the field of what used to be called the humanities, the fact must be rediscovered that without those freedoms and institutionally supported muses - yes, muses! - creativity is impossible. Instead, a vast, rhizome-like complex of symbolic, deconstructive, meta-layered thought patterns is currently unfolding, all under the protective covering of a monotonous, academic English language style that is drained of all spirit.

Aside from the freedom of movement permitted within its own luxury niches, which society would not want to do without (after all, we hope to convince ourselves that we are still devoted to achieving a deeper spirituality that creates meaning) - this complex is focussed above all on modelling and commenting on the "discourses" that are currently in circulation. Here, aided by terminology markers such as "innovation" and "diversity", a fake simulation of diversity is advocated which pulls anything that deviates from it into the general debate on "diversity forced into line".

It is a matter of doubt as to whether within the framework

of such a dynamic anything substantially new can be created that might be able to bring about some kind of mental vitality. However, since we are largely blind when it comes to the future, the possibility cannot be excluded that under the unbearable yoke of flattening and bureaucratic straightjacketing, the creative individual will ultimately come to create a new academic stage - by blowing the old one to pieces with the tools of the creative spirit. The dream of the old "Utopia of the Universitas litterarum" has not died...

*Postscript: As someone born in 1950, I was fortunate to experience academic freedoms which today have largely disappeared. I admit that the various negative aspects of the old system have also vanished. However, in order for my creativity, such as it was, to develop, I needed to be granted a certain degree of security by the "university" system over the course of time. The most important safeguard was my "pragmatism". As a result, I became a nonfirable public official, who no longer needed to bow before any request for instrumentalisation. Today, I would not be able to survive the system, and I have had the misfortune to have witnessed the failure of several of my most creative students to find their place within it.*

# Freedom as a political dispositive

To every art its freedom: creative adjustment or the resistance of the aesthetic

— Eva Maria Stadler

What constitutes the “art of freedom”? In order to understand our own actions in a social and increasingly globalised context, we need a culture in which education, knowledge, thought and critical skills again become a political category. Here, art plays a decisive role, since it has the capacity for connecting sensual perception and experience with rationality, cognitive thought and criticism in their opposition to each other.

The golden lettering on the Vienna Secession, the gleaming white building designed by Joseph Maria Olbrich, portrays the slogan of the 20th century: Der Zeit ihre Kunst. Der Kunst ihre Freiheit (“To every age its art, to every art its freedom.”). The text, which was formulated with a certain amount of pathos by Ludwig Hevesi, became the programme for art of the modern age. Art should be free, free of political appropriation and representation. The freedom of art continues to be put to the test, even if it is possible in some cultural circles to at least agree that freedom is an inherent right.

Currently, the abandonment of a qualitative understanding of freedom is certainly a cause for concern. However, appropriation and the transformation of aesthetic freedom by liberalist concepts are also a focus for criticism. Here, a key contributing factor is a misunderstanding of the term “creativity”.

“Creatio ex nihilo” is the magic formula invoked by all those for whom creativity promises the prospect of participation in the creative process. Creation from nothing - the phrase sounds sweet and alluring. Nothing appears to be needed in advance; no material, no skill, merely the will to create. It is hardly surprising that in a world in which boundless growth has become an ideology, the promised land is indeed increasingly becoming obligatory, since it is driven by

## The author



Eva Maria Stadler is Professor of Art and Knowledge Transfer at the University of Applied Arts in Vienna, and a curator for contemporary art. She has taught at the Academy of Fine Arts in Munich and Vienna, and at the State Academy of Fine Arts in Stuttgart. From 2012-2013, she was head of the Galerie der Stadt Schwaz. From 1994-2005, she was Director of the Grazer Kunstverein,

from 2006-2007 curator in residence at the Academy of Fine Arts in Vienna, and from 2007-2011 curator for contemporary art at the Belvedere in Vienna. Eva Maria Stadler lives in Munich and Vienna.

Photo © Eva Maria Stadler

the hope or speculation that capital can be made from it. But what is its price?

The avant garde function of art, which was attributed to it at the beginning of the 20th century, and its forward-looking perspective, became its precondition, and thus also its limitation. After all, progression, the future, linearity and the belief in the new ultimately create a uni-dimensional foil against the background of which expectations of art are developed. The liberation from totalitarian regimes that was supported by the avant garde, the attainment of freedom in art and thought, is put at risk when it allows itself to be appropriated by the logic of usability in its desire to create the new. The term “freedom” has come to be associated with “liberty”. While “freedom” can be understood as being the emancipation from hegemonial conditions, “liberty” refers to the freedom to act, to do whatever the moment permits. Art has its part to play in this development, since it is of key importance in bringing the individual to light. The aesthetic sensibility of the subject, which has been formed in tandem with the political and social upheavals of the French Revolution, the romanticised notion of the return to oneself as an individual and the value of self-determination, autonomy and independence, have all contributed to the continuing empowerment and fragility of the individual. The crisis, the tenuous high point when the opportunity must be seized, can be seen as an expression of this fragility. Its dynamic, its steep upward and downward trajectories, set the tempo.

Democratic processes are caught up in the undertow of curves, eruptions and cycles in the system of share indices coordinates, and in so doing lose their power of creation. The legitimisation of political power is increasingly being explained through the acceptance of economic necessities, which according to Jaques Rancière is a self-abnegation of power. To describe this equation of democracy with the dynamics of the economy, Rancière coined the term “post-de-

mocracy”. He talks of post-democracies as ideological formations which delegate the striving for freedom and self-realisation to the individual. Individual responsibility, rather than social responsibility, is advocated. Eve Chiapello and Luc Boltanski refer in this context to the model function of artists for an ideology that idealises individualisation, mobility and flexibility, turning them into the normative role model. The desire for self-determination and independence appears to counterbalance fragile living conditions, but moreover, these conditions appear to also produce it. According to Juliane Rebentisch in her study “Die Kunst der Freiheit” (“The art of freedom”), with a view to the “model of freedom of post-democracy, the ideal self of creative self-realisation must be returned to a social context and be recognised in its ideological function”<sup>1</sup>.

In order to understand our own actions in a social and increasingly globalised context, we need a culture in which education, knowledge, thought and critical skills again become a political category. And this not only with the aim of being armed against the dictate of the economy, but in order to be able to negotiate social contexts. Here, art plays a decisive role. It is able to connect sensual perception and experience with rationality, cognitive thinking and criticism in their opposition to each other. The ability to think in a sensory way, to ask questions, to take a step back, should be schooled and made part of our culture. To an excessive degree, these areas are assigned to a supposed elite, which is in a position to amass education and culture in the capitalist sense. And in reality, knowledge is accumulated in our education system, but seldom digested. The fact that access to education is regulated primarily through the ability to accumulate knowledge appears to be particularly questionable. The thirst for the novel, like the thirst for knowledge, is an important productive factor, but should not an educated society have more than just a pile of knowledge? Even the development of skills currently

being discussed appears inadequate here, since the key factor is the way in which knowledge is handled, together with the use of those skills that can have a formative effect.

Currently, we are unfortunately again seeing knowledge as a being classified as a threat from established power relationships, and as a result, the opponents of education are allying themselves with those for whom access to education capitalism is denied. Resistance against developments such as these consists simply of formulating questions or thoughts that make it possible to conceive of alternatives, open spaces and counter-models that take into account not only the wellbeing of the individual, but also that of a community.

Networks, cooperation and participation are the keywords that result from the diagnosis of the individualisation of the subject. Their potential, but also their weaknesses, should be taken into consideration. All too quickly, these strategies of communality have been, and continue to be, appropriated in order to avoid endangering the political retention of power. Thus, the architect Markus Miessen argues that participation “has become radical chic and a fashion item among politicians who want to ensure that the tool itself produces no critical content, but instead becomes something that demonstrates criticality.”<sup>2</sup>

Attempts to also use art for such a form of fauxcriticality are also the order of the day. Art is popularly degraded to the role of representative of the resistance, to a simulation of freedom and social participation. Miessen describes this form of participation as a buoyancy aid and social sedative, whereby the ground has been cut from under people’s feet from which they “could have actively criticised the actions of the decision-makers and people’s representatives”.

On the pretext of a phenomenal promise of freedom, resistance and criticism are being muzzled. Art and politics are needed

in equal measure to give a form to freedom, and to prevent it from being mired in a swamp of rights and the entitlement to them.

<sup>1</sup> Juliane Rebentisch: *Die Kunst der Freiheit, Zur Dialektik demokratischer Existenz*. Berlin: suhrkamp taschenbuch wissenschaft 2012, p. 374.

<sup>2</sup> Markus Miessen: *Albtraum Partizipation*. Berlin: Merve Verlag 2012, p. 39.

# Criticising false gods

On the ethical responsibility of the creatives

— Johannes Rauchenberger

Art, so it would appear, has recently, if not earlier, lost the pathos of its hard fought-for, in some cases merely simulated, autonomy. It finds it either necessary to justify itself or at least to consider its specific contribution in these uncertain times. A glance at the current state of cultural life in Austria already reveals that no artistic director, no opening speaker, can afford to design a programme or draft a ceremonial speech in which there is no reference to the present situation with its evident crises. On one end of the scale is Angela Merkel's historical comment, made in September 2015 in the wake of the sudden influx of refugees, that "We will manage", to which even a year later, the "steirischer herbst" festival, in its tradition of exhibiting politically advanced art, referred in an almost truculent way. At the other end – yet again – the aesthetic counter-programme of art religion from the spirit of the Romantic age, which was presented at the opening ceremony of the Salzburger Festspiele by Konrad Paul Liessman precisely with a view to our contemporary problems – and as distinct from them: Friedrich Hölderlin's poem "To the Fates", which ends with the words "more isn't necessary".

May art and creative output be sufficient unto themselves? Do creatives also owe society a "service" or "return service"? What connections are there between the paradigms of the modern mesociety, in which self-optimisation, self-functionalisation and efficiency maximisation are idealised and subjected to an exploitation logic and creative output per se?

## The author



Johannes Rauchenberger, born 1969, MMag., Dr., curator, art historian, culture publicist, theologian. Since 2000 head of the "Kulturzentrums bei den Minoriten" culture centre in Graz, lecturer in art and religion at the Universities of Vienna and Graz. Numerous exhibitions, most recently: "Im Kampfgebiet der Poesie. Text+Bild im Widerstand", with B.

Pözl, Verlag Bibliothek der Provinz 2016); numerous publications, most recently: "Gott hat kein Museum. Religion in der Kunst der beginnenden XXI. Jahrhunderts" (3 vols., 1120 pages, Schöningh 2015).

Foto © J.J. Kucek

The work of art, the 28-year-old Hölderlin assures us, might remain, despite all the horror and broken idealisms (from Napoleon and his legacy through to today) that accompany it.

### More is necessary

To whomever we direct our supplication: to the gods of art, the market, the spirit of innovation or the creator themselves, the fact that “more is necessary” in this world of art is something that admittedly almost everyone must acknowledge who has made art a profession. Ultimately, we have to earn our living. And today, that means that we have to position ourselves. We have to attract attention. We have to network. We have to also communicate the innovative output that we have just produced. This is the cycle that is known as the “art operating system”. Where is there any place in all this for ethical responsibility? Is the highest value ultimately given to what Wolfgang Ulrich called “Siegerkunst”<sup>1</sup> – art that has successfully asserted itself in the system of the markets? Art and money have always been more closely interconnected historically than we like to admit. And yet: the individuals who have been driving up the prices in recent years look somehow old hat in light of the current challenges we are facing. Despite the helplessness of aesthetic activity, it must therefore be said that more is necessary, precisely in the field of art.

Naturally, the difficulties that are currently so often the subject of debate can be set against an imperialist backdrop, as the Chinese star artist Ai Weiwei did in the summer of 2016 in front of the Upper Belvedere, where he installed lifejackets used for refugees in the Mediterranean in the shape of a lotus flower. But the same can also be expressed with “clothes for a freezing soul” (the title of a very small, modest artwork made of knitted wool by the Viennese artist Daniel Amin Zaman). Fundamentally, the theme – despite the hierarchical difference in the value of the art – is the same. The subject is salvation, pure survival. Or at least the survival of the soul in cold conditions. The tragic refugee crisis – with 65 million people fleeing

their homes every year – which has only really penetrated our awareness over the course of the past year, the stirring up of fears and the sense of our own insecurity in our wealthy, comfortable lives demand answers from all of us. This also includes art – indeed to an even greater degree. The sea change in public opinion in recent months has shown how easy it has become to publicly disseminate hateful, brazenly simplistic views. How subtly we promote a radicalisation of opinion by permitting such expression. And how quickly historic changes can occur.

### Against the logic of usefulness

Until now, we have been engaged with an entirely different matter: beyond this breach of authorised language standards, which has been manifest since the outbreak of the refugee crisis in Central Europe – Emergency situation! Maximum limit! – another process has already been developing, over a far longer period, which can be described as the spread of a subtle, apparently self-evident, but above all all-pervasive logic of usefulness. This logic has already been penetrating through to the last corner of our existence for a long time: the attention parameters in the form of online rankings and access figures, the “likes” with their value scales, but ultimately also economic usefulness. To put it directly: neoliberalisation in the form of (self-)exploitation, (self-)optimisation, (self-)functionalisation, efficiency maximisation, etc. We live in a strangely ambivalent world, in which we learn to think in terms of “me, me” and to voluntarily subordinate ourselves and allow ourselves to be exploited. And the saddest element of all this is that creatives are putting themselves at the forefront of this development. Because they have to in order to survive – indeed, in order to be noticed in the first place. The antagonistic forces are therefore not only to be found in others, but by all means within ourselves.

But how to escape them? What strategies must we develop, or to use neoliberal diction, what strategies must we apply, in order

to avoid being quickly pulled back into the all-consuming system? The exploitation of all criticism is also a new phenomenon. At least, it takes the sting out of its tail. Equally, the compulsion to innovate takes the depth away from what really is novel (Boris Groys). Unlike in former times (and shockingly, again in current, illiberal political systems among our direct neighbours), almost everything can be expressed in art in western societies. Here, artistic freedom is a hard fought-for (!) ultimate asset. But for how long? Its pathos of former years has vanished. It has long been domesticised and degraded as a plaything of the economy and compulsive innovation. What use is criticism, and how can injections of innovation help, when they are ultimately regarded either as a playing field for a small number of dutifully publicly subsidised institutions or artists, or are forced to subjugate themselves to the all-encompassing logic of usefulness? The decisive driving forces of our society are elsewhere. Or they mercilessly exploit the energy of the creatives for their own purposes – assuming that they are of use in the first place.

### Gods

Being unavailable is a characteristic that art has now lost. In this regard, religion, of all things, must be taken into account, from which art has quite rightly emancipated itself. Religions usually have gods. And in former times, art was only too happy to depict them. These gods still have their place in theatre. There, they are objects of projection for human passions, but are somehow more powerful than humans. They play with the art of human activity. But with their disappearance, criticism of them has also vanished. And there is one activity from which art above all may not cease: the criticism of false gods – even those that relate to art itself. This also entails taking a critical look at the respective perceived gods of the current times, such as the god of innovation. Every social force wants to see it –

before immediately appropriating it.

Unavailability was once presented in one great narrative by the monotheistic god: he alone decided what was right - and not the golden calf. This scene depicts the sharpest criticism of idolatry. The god in this story binds morality to himself as an entity. It becomes an unconditional matter of the heart that this morality be acknowledged in the form of commandments. This is a new phenomenon, as stressed by the religious expert Jan Assmann, who otherwise tends to criticise monotheism with its latent tendency to violence. At the same time, he points out that the virtues of such a “human obligation” have an astonishing consistency across all religions and societies. They are: love of fellow man, justice and tolerance. Compassion. In light of the battle zones currently being drawn in our societies, with their radicalisations and fundamentalisms, we can certainly agree with Assmann by referring to them as “weapons”. Or, in light of the diminishing presence of the gods in our societies, the principles of ethical action have been considerably stripped down. Those who still take to heart the bright sides of the religions, state art, and the arts overall, deserve our encouragement.

<sup>1</sup> Wolfgang Ullrich: *Siegerkunst. Neuer Adel, teure Lust*. Berlin: Verlag Klaus Wagenbach 2016.

*“Creativity needs space to unfold.  
This space should be free of commercial determination, but at the same time full of sociopolitical meaning.”*

– DANIEL ERLACHER

## 2. Creativity & Society

Open everything: all is in flux in the societies of today

# Creative democracy

On the influence of creative media usage on  
the democracies of the future

— Daniel Erlacher

How will the hegemony of just a few corporations in the field of social media influence the democracies of the future? What role can the public-service media in particular play in the democratic process in our increasingly complex world? How are algorithms already influencing democratic opinion formation and creative processes today? How can fair and sustainable information technology benefit democracy?

*“Overall, creativity is the ability to create something that was not there before, something original and constantly new.”*

## The initial situation

In the still young 21st century, in light of the radical developments in the different fields of technology, including the media, the question arises as to how the potential offered by creativity can best be used to benefit people. Or rather: what new opportunities arise from these new framework conditions in relation to social policy and democracy?

In addition, current developments in the field of information technology and media usage must be critically assessed. A monopolisation of social media and its concentration on just a few US corporations which dominate the entire market is problematic, precisely from a democratic perspective. IT giants such as Amazon, Apple, Facebook, Google, Microsoft, etc. are after all not offering their services in order to strengthen democracy, but to generate a profit. The fact that in the process, the users themselves become products, whose data is

## The author



Daniel Erlacher has been cofounder and organiser of the Elevate Festival in Graz since 2005. His work focusses above all on the interfaces between free and open technologies, media, art and critical discourse. He coordinates the discussion section of the festival, the Elevate Mediachannel and the Elevate Awards. As a musician, he has made numerous recordings for

international record labels. He is also a member of the jury for the Austrian Big Brother Awards and runs several web servers.

Photo © Joanna Pianka

used behind their backs to do big business, is becoming clear to an increasing number of people. However, there is little awareness of the significant role played by algorithms in deciding what users get to see when they log onto Facebook. Or how their Google search result is personalised. It is evident that here, so-called “filter bubbles”<sup>2</sup> are created – and not necessarily to the benefit of the user. When our lives are optimised by algorithms, we run the risk of losing much that played a decisive role in the evolution of humans: the ability to take a broader view; the unusual; the random; the NON-pre-determined.

### Algorithms and creativity

According to Vince Ebert, cabaret artist, author and qualified physicist, “Algorithms are optimising away creativity”<sup>3</sup>. Can creativity be programmed? Are inspiration and mechanisms irreconcilable in the long term? A large number of entirely new questions arises from the system constraints imposed by the new technologies. The answers will be of an evolutionary nature.

One thing is certain: information technologies, modern media and the algorithms that form their basis can be of enormous benefit to the creative process of their users, and thus trigger a cascade of innovations. There are many examples of this. The boom in apps for mobile operating systems is a particularly good current example. As the saying goes, creativity knows no bounds. But does this also apply here? Generally speaking, no. The bounds of creativity for mobile apps are set by the conditions of use and general terms of the corporations that dominate the market. There have already been several cases of censorship<sup>4</sup> – particularly when creativity also turns political or transgresses boundaries.

### Public service media in the 21st century

In Europe, public service media companies have been an established part of life for decades, and are also regarded as being

an important component of our democracy. In contrast to private media, they are subject to democratic control and are based on a value system dedicated to the common good. Classic public service media (“PSM”) broadcasters traditionally focus on TV and radio and are usually obliged to abide by rigorous regulation standards for their activities online.<sup>5</sup>

However, it is the PSMs in particular that have enormous potential for promoting creativity in the “media and technology” field – above all in terms of their relevance to democratic policy.

To this end, the relevant legal framework conditions would have to be put in place, while with regard to content, the focus would have to be on the sustainable production of innovation.

### The promotion of fair and sustainable IT

Creativity and innovation must be promoted under specific conditions in the context of the added public value that they can generate and their democratic relevance: programmers should design codes with the free software licence models, and in this way make them transparent and re-usable. In turn, funding models should make sure that developers are paid fairly and create framework conditions that bring innovation and creativity to the fore. The creation of suitable rooms for exchange and interaction between people working in this field should be facilitated.

Targeted promotion measures and the embedding of developments into the PSM ecosystem in Europe would ensure that the innovations receive the relevance and reach that they need. Precisely defining certain challenges and basing projects on specific issues surrounding the politics of democracy can channel creative potential to make it relevant to social policy. There are many examples of exciting ideas in this area<sup>6</sup>, such as a “public service operating system”<sup>7</sup>.

### Open data and free software

Two important terms for commons-based innovation and sustainability are “open data” and “free software”. Many data pools that can in the interim be used creatively as a result of the open data movement are already of real benefit, and not only in order to promote transparency. Whether they are official, cartographic data pools within the framework of the OpenStreetMap<sup>8</sup> project or public transport data, the added value is only provided when this data is made freely accessible. They are in turn usually used with codes and licences from the world of free software.

### Creative media use and democracy

The technology that forms the basis of the media used, together with its quality, must be closely questioned, and measures must be taken to avoid subordinating the potential of human creativity to the logic of profit, but instead to stress its relevance to socio-political development.

There is enormous creative potential in the modern technologies: democratic decision processes, forms of organisation in society in the local and national context, knowledge transfer, education and information systems, open data and free cartography, mobile applications, the ability to overcome language barriers and much more.

Creativity needs space to unfold. This space should be free of commercial determination, but at the same time full of socio-political meaning. The scope of opportunity is broad – particularly when Europe-wide cooperation is expedited. In this area, the “old continent” might indeed have the potential for setting democratic policy and ethical standards of global relevance that are unlikely to emerge from other regions of the world in the near future. Support and

framework conditions are required that place the focus clearly on the creative use of media and technologies in the context of the further development of our democracies in this still young 21<sup>st</sup> century, and in so doing, also secure their future – within Europe and beyond.

<sup>1</sup> Michael Mumford: Where have we been, where are we going? Taking stock in creativity research. In: *Creativity Research Journal*, 15/2003, p. 107–120.

<sup>2</sup> Cf. Eli Pariser: *The Filter Bubble. How the New Personalized Web Is Changing What We Read and How We Think*. New York [u.a.]: Penguin Books 2012.

<sup>3</sup> Ingo Rentz: Kabarettist Vince Ebert. “Algorithmen optimieren die Kreativität weg” In: *Horizont Online*, 17.05.2016. Online URL: <http://archive.is/uoRoB> (version: 29.06.2016).

<sup>4</sup> Online URL: [https://en.wikipedia.org/wiki/Censorship\\_by\\_Apple](https://en.wikipedia.org/wiki/Censorship_by_Apple) (version: 29.06.2016).

<sup>5</sup> Christian Meier: Die Zukunft des öffentlich-rechtlichen Rundfunks im digitalen Zeitalter. Einführung in die Debatte. Online URL: <http://www.bpb.de/gesellschaft/medien/medienpolitik/171926/einfuehrung-in-die-debatte?p=3> (version: 29.06.2016).

<sup>6</sup> Online URL: <http://document.li/cu7A> (version: 29.06.2016).

<sup>7</sup> Stephan Doerner: CCC fordert EU-Betriebssystem für Smartphones. In: *The Wall Street Journal*, 08.05.2014. Online URL: <http://archive.is/kvh37> (version: 29.06.2016).

<sup>8</sup> Online URL: <http://openstreetmap.org> (version: 29.06.2016).

# Artists as catalysts for innovation

C – what it takes to change

— Gerfried Stocker

The challenges we are currently facing are too major and complex to be able to be solved by the expertise of individual groups or disciplines. Even if there is a willingness to cooperate among different groups in principle, a suitable catalyst is still needed in order to trigger a process of creative cooperation. But which models for creative cooperation also lead to innovative results?

*“Knowledge, creativity, ideas: the raw materials of the future. Available for free! Word about this now really has got around, and it is being routinely and enthusiastically propagated by politics and business. Everyone is in favour of creativity, everyone wants better trained employees, and everyone wants to benefit from new ideas. Great! But who will contribute something towards this process? Who understands that these raw materials cannot just be extracted, but must also be established and built up, that they are not simply there for the taking, but require prior investment? Only when we understand the ecosystem of creativity and innovation, when we respect it and supply it with sufficient nutrients, can we hope to profit from it. Creativity and innovation don't simply fall from the sky, and also cannot be planned into being through clever design thinking and strategic innovation management. An interdisciplinary approach cannot mean that many people share the same cake and each receives a piece, but rather that they bake the cake together, with each person bringing their own piece. Is that a platitude? Of course it is, but try telling this to the CEOs, the research and development heads, the marketing directors and culture managers, or to the policymakers. So, what is needed, and what must we do? What is actually more important, striking out on new paths or taking a different direction...”*

The author



Gerfried Stocker is a media artist and communications technology engineer. In 1991, he founded x-space, a team for realising interdisciplinary projects, who have created numerous installations and performance projects in the field of interaction, robotics and telecommunications. Since 1995, Gerfried Stocker has been Artistic Director of Ars Electronica. In 1995/1996, he built up a separate research and

development section in the team, the Ars Electronica FutureLab. From 2004, under his leadership, the international exhibition programme Ars Electronica was established, and in 2005, work on planning and the creation of a new content focus began on the new and extended Ars Electronica Center.

Photo © Rubra

In 2014, this pamphlet set out the theme for the Ars Electronica, the international festival for art, technology and society, which has already been held in Linz since 1979. In 2014, we devoted the entire festival, which was entitled “C – what it takes to change” to the question of what role art can play in the change and innovation processes. Here, the C did not stand for “change” per se, but for many different factors that are needed, naturally starting with “creativity” and “collaboration”, then also catalyst. This term has been used with increasing frequency in recent years to describe the dynamics of “change” and “innovation”.

Sure, the word “catalyst” sounds good; it’s also a term used in the sciences, and gives the vague terminology used in relation to art a dose of predictability and practicability. And that can never hurt if you suddenly want to position art not as a pleasant leisure activity or as decoration for bank foyers, but as a part of the value chain.

However, if we desist from regarding the word merely as a trendy term and immediately start to pick it to pieces – and I think in the interim there are a large number of successful examples of the potential for innovation that arises from creative, artistic approaches and practices – then it really is worth looking up what a catalyst actually is and does.

The starting point is chemistry. We still remember from school that in order to produce a chemical reaction, energy usually needs to be provided. Sometimes, however, simply too much energy is needed, and that’s where a catalyst comes into play.

A catalyst is a substance that makes it easier for the elements that you want to react to open up to each other and to create something new. Specifically, a catalyst reduces the free energy needed for a reaction without using itself up.

And this is precisely the situation in which we currently find

ourselves. The challenges we are now facing are greater than the expertise of individual groups or disciplines, and we know that we must create new constellations and paradigms for collaboration in order to go beyond well-trodden paths. We must turn a state of existing side by side into one of mutual collaboration, often between ways of working or even worldviews that cannot by themselves be persuaded to work together without a high level of energy from the outside. In order for such “chemical” reactions as these to be able to take place and to lay down the essential basis for innovations, we need the almost magical properties offered by materials that Jöns Jakob Berzelius discovered in 1835 and called catalysts. 60 years later, the Nobel prizewinner Wilhelm Oswald defined a catalyst as follows: “(...) a substance that increases the speed of a chemical reaction, without itself being used up in the process (...)”. Could that not also be an excellent description of the impact of art? To make a difference, to set something in motion, allow the unexpected to unfold, and so on. An impact with which it was always credited, traditionally above all in processes of social transformation and renewal, when horizons needed to be expanded and new ideas put forward.

However, this is precisely the effect that we need for the innovation processes that we are repeatedly told are needed in technology and business. Not because the engineers might suddenly run out of ideas for solutions, but because in entirely new forms and levels of intensity we find a crossover between technological innovation and social issues and individual needs. In a world in which technology and humans (and that then always also means “product and user”) “cohabit” so closely as we are in some cases already doing, but in a way that will become incomparably more intensive over the coming decades, the standards for innovation go far beyond the original fields of engineering and design.

The motivation and conceptual framework for “the artist as catalyst” has on the one hand emerged from the practical experience of many creative innovative projects that we have gathered through the Ars Electronica FutureLab, which was founded in 1996, but also from the knowledge gained from the Prix Ars Electronica, our international competition for CyberArts, which attracts 3,000-4,000 submissions every year from all over the world – a unique observation laboratory for trends and developments in art and technology.

In the FutureLab, the in-house thinktank and prototype laboratory of Ars Electronica, not only are the exhibition projects for the Ars Electronica Center and Artists in Residence projects created for the festival, but a large number of research projects are conducted for industry.

It is due to the positioning of Ars Electronica for 37 years now at the nexus of art, technology and society – once a no-man’s land, and now a highly rated hotspot – that here, a sensitive ecosystem could be created in which work is conducted on the original artistic output as well as on creative innovation for industry that is oriented to specific assignments. The spectrum to be covered here could hardly be broader, and yet all these activities have one basic feature in common: curiosity, openness, the willingness to take risks and the highest degree of interdisciplinary composition of the respective project teams, who are not divided up along artistic and commercial lines, but who work to an equal extent in both spheres and who profit from the gains in experience and knowledge made on both sides.

These are not cooperative projects in which industry sponsors art and expects an image transfer or something to distract from everyday life in return. No, this goes beyond the creative industry metaphor, in which art becomes a craft and is sheathed in sellable products. These are models that have proven for a long time now that they are valid and necessary. If, however, we refer to artists as

catalysts, more wide-reaching expectations arise, in which art can unfold its impact far beyond its own territories, and is raised to the same level as its partners from research and industry. This equal status and mutual respect are incidentally fundamental requirements in order to be able to exploit the diversity of approaches and to render it effective. It is superfluous to point out that this demands a high degree of adaptation and flexibility on both sides, and that processes of this nature also require skilful moderation. Although we should not forget that with our approach, we are still in very new, uncertain territory, even if we already have an astonishingly large number of successful projects to show for it.

The list of international corporations who are currently our partners is satisfyingly long and diverse, and includes companies such as Daimler, Honda, Toyota, BMW, Audi, VW, Siemens, Toshiba, INTEL, and SAP to name just the major international flagships, who do not subject their cooperation with art to an NDA. In an attempt to give form and method to this highly promising idea, a pioneering cooperation project has been developed in recent years. Under the “Future Catalysts” label, we are collaborating with Hakuhodo, the second-largest advertising and consultancy agency in Japan, and are testing and refining our “Art Thinking” project.

This is a further development of the now highly successful “Design Thinking”, the purpose of which is not to find solutions to specific problems, but to a far greater extent to act as a preliminary stage in this process – a stage that allows us to find our bearings in the large number of potential options and opportunities that arise as a result of the rapid, far-reaching transformation of our times, to determine our current position and to identify the relevant vectors of the future. Entirely in the spirit of the well-established description, according to which science exists in order to provide answers, but the role of art is to ask questions, we have developed the principle of

“Creative Questions”, according to which, starting from the experimental settings of artistic projects, pluriversal future scenarios are designed and analysed. These processes take place in groups, which each consist of artists, technology specialists, social activists and entrepreneurs. “Creative Questioning” is here a type of “reverse engineering” of future scenarios, by means of which weak points can be detected, but also unseen directions and opportunities are revealed. For example, if self-driving cars are the answer, what are the questions that we need to ask along the way to producing them?

This is a comparatively simple example of the questions and decisions that we must face head on as a society. With this in mind, the C in the festival title of 2014 also stood for “confidence” and “craving”, in other words, for our trust in and yearning for change.

# Mobile Creatives

## The places that attract creatives

— Hansjürgen Schmölzer

The competition over “the creatives” has become global. Every city, every region, every country is trying to persuade them to move there. These people are also highly mobile. The question therefore arises as to which framework conditions locations must be able to offer in order to be attractive to “creatives”. Can they still be tempted at all with promises of jobs and money? Or are there very different factors that play an important role, such as freedom of speech and the media, open, democratic and multicultural societies, urban planning, building culture or the music scene in a city? One thing certainly appears to be the case: already, “Silicon Valley” is no longer the top location it once was.

When the former mayor of Berlin, Klaus Wowereit, said in 2003 that “Berlin is poor but sexy”<sup>1</sup>, he was referring not only to its socio-economic state and zeitgeist at that time. He incidentally also found the briefest possible formula to characterise the astonishing power of attraction exerted by Berlin on creatives all over the world.

His description consolidates almost all the elements that the American economist and political scientist Richard Florida identified in his publication “The Rise of the Creative Class”<sup>2</sup>, which has now been promoted to a standard work, as the determining parameters for the power of attraction of cities for creatives: an open, tolerant, multicultural society, a lively culture scene with a high density of creatives from a wide range of different areas, and uninhibited access to modern technologies. Florida calls this the three T’s: tolerance, talent and technology.

Put in extremely simplistic terms, the attractiveness of cities for creatives, according to Florida, can above all be gauged on the basis of two key indicators: how lively is the music scene in this city? And how tolerant is the city towards its gay community? It is now more than a decade since Florida’s book was first published and

### The author



Hansjürgen Schmölzer is a cultural entrepreneur, journalist and communications consultant. He is editor-in-chief and publisher of the culture magazine CREATIVE AUSTRIA and as a TV journalist and documentary filmmaker covers socio-cultural, cultural and contemporary history topics. As a communications consultant, he was responsible for the marketing and communications concepts

of numerous major international cultural projects (Graz 2003, Linz 2009, Wiener Mozartjahr, Haydnjahr 2009, etc.) For his work, he has been awarded the Austrian State Prize for Marketing and the Globe Award for the best communicated culture project worldwide (Graz 2003).

Photo © Hansjürgen Schmölzer

Wowerit made his claim. During this time, both the socio-economic framework conditions and the dominant cultural values within the milieu of these “creatives” and the society that surrounds them have altered considerably.

The global financial crisis, fundamentalist terror and – particularly from a European perspective – the current major migration movements have led to a split and a polarisation within societies in the economically more highly developed countries, which in some places has also taken on some clearly anti-democratic features.

It doesn't require much imaginative effort to picture a situation in which cities such as Warsaw or Istanbul that just a short time ago were still regarded as having a potentially dynamic future as “creative cities”<sup>3</sup>, will not be particularly attractive to creatives in the future, when freedom of speech and the media, free research and teaching, the independence of the judiciary, and thus an open and democratic society overall, are coming increasingly under pressure.

The global financial crisis and the Snowden revelations have considerably considerably widened the already latent critical distance between the financial, economic and political elites on the one hand and the intellectual creative milieu on the other.

At the same time, right-wing populist and nationalist movements, both in Europe and North America, are driving the ruling politicians in the western democracies before them – in a direction that also alienates the vast majority of this creative milieu.

These developments are not without impact on the competition to attract creative minds, which has now taken on global proportions. It is precisely those countries with few raw material resources that regard the creatives as being one of the most important factors for success for their economic and wealth development in the future. Creatives as means of production, as it were – but means that cannot simply be purchased for money.

In considering the framework conditions that locations must provide in order to attract “the creatives”, clarification is first needed as to which groups of people are actually meant.

If one views creatives as being not only those individuals who are active in the cultural, artistic and creative industry fields in the narrow sense, but instead broadens the term to include all those who spend their everyday lives in creative activity or who earn their living by producing their own mental or creative output, from scientists, software developers and engineers to journalists and those who are still training for these professions or are studying, then their share of the growing population in many urban and metropolitan regions in the industrialised countries is often more than 50%.<sup>4</sup>

### **Creatives are highly mobile**

Richard Florida describes this group of people as the “creative class”. These individuals have an above-average level of education and are above all mobile to an above-average degree. However, the socioeconomic background is so broad that the use of the term “social class” as defined by Dahrendorf<sup>5</sup> or Bourdieu<sup>6</sup>, for example, is not practicable. I therefore suggest that they be described as “mobile creatives”<sup>7</sup> below, since they are the most mobile group among the global population. Their reasons for being mobile are very wide-ranging and of different longevity: alongside a quantitatively high number of private journeys, they also include participation in conferences, project work and engagements, research residencies, visiting semesters, tours, research trips, further training, studies abroad, etc. through to the temporary or permanent relocation of their residential base.

What attracts these people in particular? The high level of willingness to move location among creatives has led to the assumption that they only need enough money to hand to

enable them to combine the relevant technologies, training facilities and job offers and “cluster” around creatives at any random location. Then, they jazz up their newly-founded company with a relaxed corporate culture that resembles a student style of working, and that’s it, no more effort required. The Silicon Valley of the past few decades acts as a role model here. Indeed, business delegations from provincial regions throughout the world make the pilgrimage to Silicon Valley on a weekly basis in order to copy what they see there. Yet they are probably already studying a model that belongs to the past: many creatives are no longer interested in relocating to “the Valley”, or are moving away from it, even though they have the opportunity of earning far more there than they would in Berlin, Auckland, Barcelona, Vienna or Graz. Why?

### Core values have changed

Core values have shifted considerably in the last ten years. Even the prospect of more stock options on some start-up company and becoming a multi-millionaire in your late twenties after flotation on the stock market is no longer sufficiently attractive. Finance and industry managers fixated on numbers and bonuses, as well as politicians, have difficulty in understanding this change. Since the bursting of the dotcom bubble and the financial crisis, the speculator’s dream has become discredited, and is now only of interest to a minority of “creatives”. Instead, individual fulfilment has become increasingly important, as has an inspiring environment sustained on the ground by a broad range of cultural offerings and a high degree of diversity among subcultural milieus and lifestyle concepts that are not merely oriented around financial success. This by default also requires dense, multicultural urban structures which the greenfield projects in Silicon Valley are unable to offer with their campus-like company complexes and the largely socially homogenised sleepy bungalow settlements

that surround them.

Christoph Kerschbaumer is one example of the exodus from Silicon Valley. He ranks among the leading software developers in the world for browser content security, and has quit his highly-paid job at Mozilla in California in order to return to Austria, because the quality of life and leisure time, social climate and cultural offerings there are far more attractive to him than at his former place of work. However, because Mozilla is unwilling to simply let one of its best minds go, it has set up a company in Europe especially for Kerschbaumer, with the sole purpose of keeping his knowledge and skills for itself.

This is just one, albeit extreme, example of how conditions have begun to reverse. While formerly, creatives moved to those locations where the most attractive employers had their major business bases in their field, now companies are in competition with each other to attract the best talent, and are increasingly moving to the places where these people themselves would like to live – and where they can also survive financially.

One of the main reasons for this turnaround in the dynamic – in light of the precarious financial situation in which many creatives currently live, it would probably be euphemistic to talk of a turnaround in power relationships – is that in the creative milieu in particular, the notion of a longstanding, perhaps even lifelong relationship between employer and employee, with which we became familiar from the industrial era, has largely vanished.

The “digital natives”, who are now in their 20s, 30s and 40s, and who largely constitute the milieu of the creatives, grew up in an age where they no longer experienced a long-term relationship between employers and their employees.

The “work placement generation” has now become the “project commission generation”. At the same time, not wanting to commit themselves in the long term is also an expression of an inner need

to work creatively per se, and is part of a way of living that has been very consciously selected by many creative people. Constantly changing constellations, work tasks and team structures are ultimately also a source of inspiration and the basis for their own further creative development.

These circumstances also influence the question of where creatives make their home. While it used to be enough for *one* single attractive employer to draw creatives to a certain location with a specific job offer, for the creatives of today, this is no longer the case, purely for practical reasons. Nowadays, “fixed employment” has been increasingly supplanted by often very short-term project commissions and freelancer jobs.

In order to be able to survive financially in such an environment, these creatives are dependent on finding the ideal balance between several factors. One of these is a sufficient number of clients and project partners on site, so that there is a prospect for a reasonably continuous flow of orders for various different temporary project orders. Another factor is affordable living and accommodation costs, so that creatives don't have to worry about not being able to survive during periods when contracts are thin on the ground.

Locations with high living costs or few dominant clients are therefore becoming increasingly less attractive. In pricey London, this pressure to move out is already being clearly felt in some areas of the creative industry. For example, “poor but sexy” Berlin has succeeded quite well in recent years in enticing a significant market share of post-production and visual effects orders, a steadily growing branch of the film industry, away from the Thames and towards the river Spree, because the highly qualified key employees who are needed prefer – and can afford – to live in Berlin. Large contract volumes for Hollywood productions have also emigrated across the Atlantic to Berlin – and not just as a result of individual tax incentives. Howev-

er, the shortage of residential accommodation in Berlin and the rise in living costs that result will perhaps soon trigger new pressure to move on to other, cheaper, cities.

### **Creatives are looking for places offering cultural diversity**

The increasing disappearance of classic full-time employment in this segment has gone hand in hand with a shift in attitude towards one's own role and role setting in the creative field, which is also moving culturally further away from the traditional, linear career patterns in the industrial and service sector. Pursuing different activities and working on several different jobs at the same time is not just a consequence of financial necessity, but increasingly also reflects an interest in personal fulfilment. Graphic designers pursue their singer-songwriter music projects, communications consultants open up microbreweries on the side, journalists set up their own fashion beverage label, university lecturers hire themselves out as DJs to create a life balance, and casting agents found urban gardening groups and organise flea markets to inject new life into the inner city areas where they live.<sup>8</sup> Sharing economy concepts, the do-it-yourself and repair economy, the independent appropriation of public space for creative activities, and the resulting integration of social cohabitation are forms of expression of this cultural milieu, which needs a culturally diverse urban environment, one that can be independently moulded, in order to develop.

### **Place matters**

When the Styrian state government decided several years ago to remove creative studies programmes from Graz and relocate them to the provincial town of Kapfenberg, which was suffering from a chronic lack of students, a wild storm of protest broke out among both students and teachers in Graz.<sup>9</sup> They were adamantly against

the idea of “shrivelling dry in Kapfenberg”<sup>10</sup>, where “there is almost nothing except a station”<sup>11</sup>. Ultimately, the politicians were forced to concede that creative minds cannot simply be forced to relocate to places that do not meet their lifestyle expectations, and finally dropped the proposal. However, it is not just the diversity of urban cultures that plays a role when it comes to the question of where creatives want to live.

### **Creatives avoid intolerant places**

Nationalism, culturally and intellectually rigid social orders which restrict freedoms of belief, have hegemonial or even theocratic features, and are highly discriminatory towards minorities, as well as towards ways of living and forms of expression that are alien to the majority population, fail to provide creatives with the living conditions offered by an open society that they need. Richard Florida refers to this when he cites the visibility of the gay and lesbian community as being an indicator for the attractiveness of a city for creatives. After all, this is a manifestation of the structures that dominate politically overall. What in Vienna, Berlin or San Francisco might be an inherent part of society leads to near panic attacks among the political caste in Moscow, Abu Dhabi or Montgomery/Alabama.<sup>12</sup>

### **Creatives are drawn to places that offer democracy, freedom of speech and freedom of the media**

Dictatorship, autocracy, control of the media and restrictions on freedom of speech are of course obstacles to the dynamic free development of creativity. On the one hand, it is true that precisely in societies that are strongly controlled by the state, particularly creative forms of subversion of the state control systems have frequently been developed. Such forms of creative civic resistance – from the Samisdat movement in the former Eastern Bloc countries to the “El

Paquete Semanal” USB stick network, which trounced the state censorship of the Internet in Cuba using weekly data packages with news and films that were passed from hand to hand, to the online activists avoiding Internet surveillance in China or Russia through electronic means – might promote solidarity within the groups in question. However, they lack the necessary element of freedom in order to be able to generate sufficient innovation and creative exchange processes that reach deep into everyday life and ultimately also into the economy of these societies.

This is also not something that can be successfully simulated through creativity that has been bought in at international level with an injection of large amounts of capital and central state planning. While for some architects, it might be an interesting challenge to design city districts or even entire cities according to a master plan and without the irritating obstacles presented by the cumbersome citizens’ participation procedures characteristic of western democracies, such ready-made concepts, from China to the Gulf States, have until now not really succeeded in establishing a dynamic, multi-layered, creative environment in these places. Sterile marble or glass palaces do not engender a bubbling, dynamic creative community.

Architecture, urban planning and urban development policy play a crucial role in the development of creative milieus - but in a different way to how the city planners with their beloved master plans, as well as some architects who are convinced of the effectiveness of their comprehensive design concepts, might imagine. The sterile lifelessness of the failed experiments of many of these supposedly highly successful, centrally controlled urban district development concepts can be visited in numerous cities in democratic countries - from the Hafencity in Hamburg to La Défense in Paris, to the Seestadt Aspern in Vienna. You can talk these places up as you will, but creatives simply don’t want to move there.

## Creatives want to be involved in shaping the city in which they live

Creatives are looking for spaces which they can continuously redesign and mould with their ideas.

The many European city centres in particular that have grown organically over many centuries offer a type of natural habitat protection for creative lifestyles. Structures such as these change in small steps and do not lend themselves to grandiose master plans – unless entire old urban districts are suddenly torn down.

As a result, they also offer space for small-scale creative and economic experiments, as well as for a multi-layered, diverse, constantly changing cultural scene. Multiculturalism in all definitions of the word is also one of the most important sources of inspiration for creative processes.

From the perspective of a European optimist, it is possible to venture the following prognosis: more than anywhere else, European cultural cities in open, tolerant, democratic societies have the potential to be of particular benefit to creatives. I say “have the potential”, since this requires shrewd policies that succeed in preserving this open, pluralistic, tolerant and democratic society in the future.

<sup>1</sup> Klaus Wowereit in an interview in Focus Money, 6 November 2003.

<sup>2</sup> Richard Florida: *The Rise of the Creative Class*. New York: Basic Books 2002; Richard Florida: *The Rise of the Creative Class Revisited*. 2nd fully revised edition, New York: Basic Books 2014.

<sup>3</sup> Cf. Yigit Evren, Zeynep Meray Enil: Towards a creative city. Online URL: <http://www.mmnieuws.nl/article/towards-a-creative-city/> 2012; <http://www.dazeddigital.com/artsandculture/article/24724/1/10-creative-ci-ties-to-leave-the-country-for> (version: 09.09.2016).

<sup>4</sup> Cf. US Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics (OES) Survey, 2010. Online URL: <http://www.bls.gov/oes/>. Analysis by Kevin Stolnarik. Quoted from Florida, 2014.

<sup>5</sup> Cf. Ralf Dahrendorf: *Soziale Klassen und Klassenkonflikt in der industriellen Gesellschaft*, Stuttgart: Enke 1957, particularly p. 231.

<sup>6</sup> Cf. Pierre Bourdieu: *Die feinen Unterschiede. Kritik der gesellschaftlichen Urteilskraft*. Frankfurt/Main:

Suhrkamp 1982, particularly p. 31, p. 162.

<sup>7</sup> Cf. Hansjürgen Schmölzer: *Living Cultures and Creative Societies – Mobile Creatives and policies to attract these people, Case Study Creative Austria*. In: UNWTO/UNESCO Conference Report. *Tourism and Culture – Building a New Partnership*, Siem Reap 2015, p. 82f.

<sup>8</sup> The examples given are all from the author’s personal circle of acquaintances.

<sup>9</sup> Online URL: <http://derstandard.at/3032420/Kampf-um-Kapfenberg> (version: 09.09.2016).

<sup>10</sup> Online URL: <http://wittenbrink.net/lostandfound/in-kapfenberg-v/> (version: 09.09.2016).

<sup>11</sup> Online URL: [http://diepresse.com/home/bildung/bildungallgemein/331685/StudentenMangel\\_Ungeliebte-FH-Kapfenberg](http://diepresse.com/home/bildung/bildungallgemein/331685/StudentenMangel_Ungeliebte-FH-Kapfenberg) (version: 09.09.2016).

<sup>12</sup> The online portal <http://www.spartacusworld.com/gaytravelindex.pdf> produces an annual global gay travel country index, which ranks countries according to 14 criteria, and which shows an astonishingly high degree of correlation.

# Ideas for change

## Perspectives at the interface between art and the creative industries

— Christoph Thun-Hohenstein

New Ideas come “from below”. With this in mind, there is currently a trend for promoting start-ups, on which commercial hopes in particular are placed. But can such hopes be realised in reality? Is there not a danger, precisely due to this focus on the economic aspect of creative output, of overlooking the creatives’ real potential?

Are the creative industries inspired by art an engine for growth on the path to a post-human, exponential enhancement society or to an increase in quality characterised by humanism? The question may appear unusual, but in its pointedness, it at the same time provides a basis in order to illustrate the key potential of art and the creative industries - and thus of the artists and creatives - in promoting positive change. Anyone hoping for clear definitions of art and the creative industries will be disappointed, however, since the boundaries are fluid (which can also be regarded as being an advantage).<sup>1</sup>

In this context, mention should also be made of the difference between “high” fine art, which is free with regard to its content and which is not required to be of immediate use, and applied art, such as fashion, design and architecture, which is functional and utilitarian, and therefore more closely connected to everyday life. As can be expected, fine art provides impulses to the creative industries in terms of content, but it is encouraging to see the inspiration flowing just as abundantly in the other direction.

We are currently not living in a period of “business as usual”,

### The author



Christoph Thun-Hohenstein (born 1960) has been Director of the MAK - the Austrian Museum of Applied Art/Contemporary Art - since 1 September 2011. He held overseas posts in Abidjan, Geneva and Bonn as an employee of the Austrian Federal Ministry of Foreign Affairs. From 1999 to 2007, he was Director of the Austrian Cultural Forum New York, before becoming managing director of departure, the creative

centre of the Vienna Business Agency. Christoph Thun-Hohenstein has published work on European integration in particular, as well as on topics related to contemporary culture and art, and has also given numerous lectures in these areas. He has curated contemporary art exhibitions and regularly works as a jury member.

Photo © Aleksandra Pawloff/MAK

however, but at the start of a new modern age, which is dominated by all-embracing digitalisation and therefore also by an exponential enhancement dynamic. There are certain catchwords in circulation that give us a clear idea of the direction in which we are heading: big data, predictive algorithms, the Internet of Things, measurement of the digital economy and surveillance (the “glass human being”), robotics, super-intelligence, human enhancement/intellectual amplification, singularity, virtual reality, augmented reality and mixed reality, nanotechnology, digitally driven genetics and synthetic biology in the sense of the targeted manufacture of new organisms, and the Internet of Everything – not to mention the playgrounds for cyber-criminality that they engender.<sup>2</sup> In contrast to the last western modern age, which extended from the beginning of industrialisation until late in the 20th century, today, we are facing an almost explosive period of “instant modernity”, which even goes so far as to call into question the future of humanity itself.

There is no doubt that aside from major risks such as the automation of manual and intellectual human work worldwide, digitalisation also offers huge potential, such as in education. Its true qualities will be measured primarily in terms of how it transforms humans in society in the digital modern age, how it will enable inclusion, reduce the chasm between the rich and the poor, resolve intensifying conflicts between the generations and counteract climate change.

A new era demands new approaches. In light of the decrease in the public sector budget, top-down control is becoming less important, with new types of opportunity for action arising for bottom-up initiatives. Currently, it is the start-up culture, the global glamorisation of which began and continues to emanate from Silicon Valley, which is the most trusted form of exploiting the opportunities for growth offered by the digital modern age, and thus securing prosperity for the future. This cult should not lead one to the conclusion, however, that promotion of start-ups, regardless of their content, will automatically lead to positive change. Start-ups are character-

ised by two features: innovation and the potential for rapid growth, neither of which provides any information regarding the direction of the changes triggered by start-ups, however. In other words: business models that are spurred on by digitalisation can lead to positive and/or negative change. Start-ups are best able to develop their positive potential when they are fuelled by qualified social expectations that are not (only) impressed by profits made, but also in particular by a high degree of common benefit. It becomes all the more important to examine the content of their activity when the current investment philosophy in Silicon Valley, propagated specifically by Peter Thiel, (and the centres of innovation in China have a similar view), preaches the creation of decades-long monopolies instead of fostering competition.<sup>3</sup> A future situation in which a small number of digital monopolies conducts global business in different areas of life, while avoiding paying taxes, can neither be in the interest of politics nor of small- and medium-sized businesses, and certainly not of society. Quite the contrary: long-term quality of life must be secured on the basis of regional diversity and common values. In this sense, we need strong re-decentralisation of the Internet to offset the global “winner-takes-all” situation.

It is no accident that many start-ups can be classified as being part of the creative industries, since creatives (but specifically also younger artists) are frequently associated with the following, in addition to their creativity: innovation, flexibility, networking, cooperation, resilience, resonance, knowledge intensity/transfer, affinity with technology, customer orientation and internationality. These are excellent prerequisites. In order to move the world in a positive direction in the long term, high quality standards must also be met with regard to the content of their activity.

As significant movements of an earlier modern age, such as Bauhaus in Germany, have shown, in times of fundamental upheaval, it is not only new forms that are important, but above all new content, indeed, the search for the new human. A future life worth living

can today only be forged through a holistic approach, in other words, every positive partial contribution must harmonise with the whole, and be compatible with partial contributions in other areas.

The digital age has currently opened up a window of opportunity for human creativity, with no-one knowing how long it will stay open. Precisely in light of the all-encompassing digitalisation, it is creativity that cannot be predetermined in advance that is emerging as the quality that separates us humans from computers and other machines. In the future, human creativity, at a time when the Internet of Things is experiencing an almost unimaginable dynamic, for example, – must still be granted sufficient space. With a view to the necessity of resonance, which has masterfully been described by the German sociologist Hartmut Rosa<sup>4</sup>, artists and creatives in turn appear to be particularly highly suited to transforming the many silent global connections into resonant ones. They are therefore bearers of hope, who combine creativity and innovation in order to develop model initiatives and activities for a sustainable, resonant digital modern age that is oriented to the common good. An enlightened new modern age, in which growth completes a process of positive change from the quantitative enhancement dynamic of our current throwaway society to a circular economy and growth in quality! An age in which the digital megalomania, and the merging of human and machine that is so eagerly anticipated in many places, is overcome, with progress being made towards a humanistic community of values!

The current euphoria that justifiably surrounds “bottom-up” therefore enables artists and creatives to become bio-activists, regardless of whether they regard themselves as start-ups, (other) types of business people, social entrepreneurs or other moderators for positive change – whereby here, “bio” refers to creative engagement in relation to the role of humans in the digital society in particular. We need artists and creatives to produce a new digital humanism, and therefore as pioneers of an enlightened, socially responsible form of

digital citizenship. We expect them to provide a new vision for the mainstream of tomorrow (to overcome the angry society of today) – not least through the friction between art and the creative industries. The success of this artwork requires a constructive approach on the part of the public sector, which not only permits meaningful bottom-up activities, but which cleverly promotes, fuels and supports them.

Austria offers the best framework conditions for becoming a type of model region of an enlightened digital modern age. Increasingly innovative, yet committed to stable values, it is a compact, cosmopolitan, democratic country, embedded in the EU, with a strong export economy in which art and culture enjoy a higher status than ever before. The door to a new “Digitale Wiener Moderne” (“Digital Viennese Modernity”), which is enriched to a considerable extent by art and the creative industries, is wide open.

<sup>1</sup> Before joining MAK, I myself headed departure, the creative centre of the Vienna Business Agency, from 2007 to 2011, which was founded in 2003 in Vienna as the first Austrian institution for promoting the creative industries in the form of support for the commercial use of innovative and creative output. The following fields were covered: the music industry, architecture, literature/publishing, print media, audiovisual art, fine art and the art market, fashion, design, graphic design, multimedia, software, games, Internet, and even so-called “Services for Creative Industries”. In contrast to departure, the Kreativwirtschaft Austria also counts advertising and the “market for performing art” among the creative industries, but not fine art and the art market.

<sup>2</sup> Cf. e.g. Marc Goodman: *Inside the Digital Underground and the Battle for Our Connected World*, London: Future Crimes 2015.

<sup>3</sup> Cf. Peter Thiel (with Blake Masters): *Notes on Start-ups, or How to Build the Future*, New York: Zero to One 2014.

<sup>4</sup> Cf. Hartmut Rosa: *Eine Soziologie der Weltbeziehung*, Berlin: Resonanz 2016.

# The architectural space

A sensory experience  
— Irmgard Frank

Design shapes our awareness. How does the architectural space that surrounds us influence our perception? Forms, materials, sounds and smells impress themselves on our senses, and in so doing, also determine the mental and associative space in which creative processes take place.

We perceive our environment through our physical senses or sensory organs, and also the interplay of the senses in the form of sensations. Our individual and collective memory also plays a role.

The unreflected memory is all that is archetypal in the sense of C.J. Jung's collective unconsciousness, which is anchored within us. I think of an image of a house, for example, like the ones in children's drawings. A part of the reflected collective memory is the artistic and cultural heritage that also has an effect on our awareness levels. In our memory – our individual and collective memory – we store sensations and mental attitudes, which are subject to constant change, however. Conventions and traditions are created by being transformed into a pattern that can be understood by people at large. We perceive space, spatial contexts, buildings or our environment in a visual, haptical and olfactorial way – in other words, through our senses or sensory organs. We use adjectives to describe the sensations triggered by the sum total of our sensual impressions. This approximation of sensations verbalised through adjectives is controlled by the cultural or social context in which we find ourselves. In other

## The author



Irmgard Frank, born in Vienna, studied architecture and interior architecture and industrial design at the University of Applied Arts in Vienna. Since 1992, she is an officially authorised architect in Vienna. She teaches at the ETH Zurich, at the University of Applied Arts and the University of Art and Design Linz. From 1997 to 2001 she was chairwoman of the board of

the ÖGFA, the Austrian association for architecture. Since 1998, she has been Professor ordinaria for interior design and design at Graz University of Technology. Focal research areas: "Spatial perception and spatial imagination as parameters in architecture", "Light as a design element and immaterial component in the perception of space".

Photo © Irmgard Frank

words, the adjectives that we generally use are aligned to the values with which we assign objects. For example, the term “beautiful” or also “aesthetic” have mutated repeatedly, or have taken on a different semantic context.

The word “aesthetic” has its origins in the Greek “aisthetos” and means “perceivable through the senses”. Plato regards the true, the good and the beautiful as being a single entity, with the beautiful most clearly expressing the sensory. In the philosophy of values, the aesthetic experience is regarded as being the experience of a value. This value is recognised and defined as such within a cultural context. In his habilitation treatise, “Abstraction and empathy” (“Abstraktion und Einfühlung”) written in 1909, Wilhelm Worringer describes aesthetic pleasure as objectified self-pleasure. In his paper of 1984, “Architecture and avant-garde” (“Architektur und Avantgarde”), Michael Müller suggests that the value perception assigned to the aesthetic form, and thus to the “sensual appearance of a different ideational necessity”, has removed the purely purpose-related, the useful from architecture, and in so doing, has set it apart from pure construction work. Finally, Venturi, Schott Brown and Izenour point out in “Learning from Las Vegas” that aesthetically high-quality architecture is no longer perceived and understood as such in the world of commodities by which it is surrounded. They refer to the trivial architecture of an “architecture of seduction”, an architecture that follows the commodity aesthetic utility value of consumer goods production. In the accompanying architectural sign language, which can generally be understood by everyone, they see a reconciliation with the reality of life, which is characterised by consumerist behaviour.

If, following this brief discussion of the way in which the term “aesthetic” has altered, we return to its original meaning, sensual perception is a subjective sensation absorbed via the senses, which is overlaid with objective criteria by the cultural and social context. Our sensual organs enable us to perceive the different realities of

the world, but at the same time, these senses can also mislead us. Architecture – and to me, this is the key factor – is located precisely in this field of tension between sensory experience and sensory illusion. The individual sensory organs differ in their level of importance with regard to our perception of architecture, although it is only through the complex interplay between the senses that space and spatial contexts can be experienced as a whole in their specific architectural quality. At this point, it is constructive to consider the individual sensory perceptions in order to recognise their role in the way in which we perceive space.

### **Olfactory sensory perception**

In architecture, little or no meaning is given to the olfactory. However, smells in particular are of great importance to the way our memory works, and are often more strongly present there than spatial contexts. Smell can either be emitted directly from the space and its materials, or through the actions and interactions that take place in the space. Certain materials were and still are used on the basis of the smell that they give out. For example, stone pine is used to keep pests such as moths at bay due to its resinous smell. The recognition of the smell of a particular space can bring the space itself in its configuration back to life, as well as the personal memories and feelings that are associated with it. The space that is returned to memory and the event in this space merge to create a remembered atmosphere.

### **Acoustic sensory perception**

The acoustics of a space usually reflect its constructed contour. Blind people can orient themselves in a space through acoustic feedback. The spatial acoustics support or counteract the atmosphere of a space. A stone floor in a public area such as a hotel lobby, a train station or an airport can emphasise urban hustle and bustle through the reverberation of sound when you walk through it. On the

other hand, too many hard materials, such as in a restaurant, often generate reverberant noise that inhibits or hugely interferes with communication with your table partner. The almost exclusive use of hard materials in contemporary architecture leads to an unpleasant spatial acoustic, which only becomes acoustically acceptable when soft materials such as textiles are also used.

### Haptical sensory perception

Touching things enables us to grasp them. We perceive surfaces and also physical forms by feeling them. Surfaces can feel cool or warm, rough or smooth, uneven or even, hard or soft, sharpened or round. The haptics of materials are ultimately also perceived through visual information. We are constantly making this connection by visually recognising the quality of surfaces without having touched them. One inevitable haptical experience is the floor, however. We receive feedback via the soles of our feet, and adapt our behaviour in the space accordingly.

### Visual sensory perception

There is no doubt that space and spatial contexts are primarily perceived visually. Our sense of sight is a remote sense and provides an overview. The narrower the distance between the eye and the object, the more we block out from our environment, and the overview becomes a detailed view. Visually, we experience space through its physical presence and materiality, and through the immateriality of light. Light enables us to visually experience space in the first place. Without light, we cannot visually perceive space. In this case, we use our sense of touch and acoustic feedback in order to create an image of the space. However, light can also produce particular sensory perceptions. With light, space can be perceived as altered in its constructed contour, whereby attention hierarchies are generated,

spatial volumes are brought to the fore and others recede into the background.

Under closer observation, we realise that each space has atmosphere and has an impact on us. We particularly experience our being-in-the-space atmospherically through sensual impressions. In the strict sense, atmosphere is only created where space enables more than just the pure absorption of structural actualities of geometrically definable facts and functions. It is this “more” that we take in by means of our senses, but also by means of our sensitised intellectuality. Architecture is created where a field of tension builds up between the physical space in its structural materiality and the space that we experience through our senses.

Wilhelm Worringer: *Abstraktion und Einführung*. Munich: Piper 1908.

Michael Müller: *Architektur und Avantgarde*. Frankfurt/Main: Syndikat 1984.

Robert Venturi, Denise Scott Brown, Steven Izenour: *Learning from Las Vegas. The Forgotten Symbolism of Architectural Form*. Cambridge: MA:MIT Press 1977.

*“A decisive factor will be how successfully development can be decoupled from the consumption of resources.”*

– MARINA FISCHER-KOWALSKI

# 3. Creativity & Responsibility

Open Source: creativity  
and responsibility in designing the future

# Using less to achieve more

Creative strategies for a global quality of life

— Marina Fischer-Kowalski

in an interview with Hansjürgen Schmölzer

How can globally just development be achieved when many resources are reaching the end and the world's population nonetheless continues to grow? And what contribution can creative thought processes and solution approaches make to overcoming these problems? These issues can only be considered when there is a willingness to undergo a fundamental change in perspective. In this interview, Marina Fischer-Kowalski formulates a series of surprisingly conclusive, if also surprisingly simple, thoughts on some of these questions.

*Recently, the Federal Ministry of Science, Research and Economy presented a new creative industries strategy for Austria. According to this strategy, "The creative industries should be strengthened and further developed in order to be able to generate an even greater impetus for growth and employment in the future". In your opinion, do we need more growth?*

That is an ambivalent question. If we attempt to continue along the road that we have already taken, then we will need more growth, since many things along this route cannot function without growth. But my suggestion is of course that we should seek a different path. That's why I'm not so unhappy about the global financial crisis of 2008, since it created a pressure to look for new approaches. The general public was also forced to acknowledge that the old ones are no longer working. Given the scientific insights that I have gained, to me, that's not a bad thing.

*You once said: "If a large number of people seize the opportunities presented to them with intelligence and courage, great systemic changes can occur". How is this hope reinforced?*

## About the interviewee



Univ.-Prof. Dr. Marina Fischer-Kowalski is the founder and long-term director of the Institute of Social Ecology in Vienna, Professor of Social Ecology at Alpen-Adria-Universität Klagenfurt and Senior Lecturer in Sociology at the University of Vienna. In 2015, she was presented with the Austrian Cross of Honour for Science and Art, First Class. Alongside numerous other functions, she was President of the

International Society for Ecological Economics from 2013-2016, and chair of the scientific advisory board of the Institute for Climate Research in Potsdam. Her research focuses on social ecology, the societal metabolic process, socio-ecological transitions, theories of social change, environmental sociology and the societal use of resources.

Photo © Marianne Weiss

By looking at examples. There is a hope that must always be nurtured by making interesting new observations. And you need to make a bit of an effort, for example by looking at how happy everyone was that the world climate summit in Paris did yield results in the end. There were so many people afterwards who breathed a sigh of relief and who thought that yes, there is some progress after all. But since then, not much has happened. Far greater attention is paid to the influx of refugees, borders and other issues - although ultimately, this is also related to the climate. The more we militarise, the more difficult we make it for ourselves to deal properly with the climate. To this extent, hope also has to be actively nurtured. And I of course also nurture it through empirical data. A study by Julia Steinberger in Sussex shows that worldwide, for the past 40-50 years, we need an ever decreasing amount of energy and resources in order to reach the same "human development level" as defined in the United Nations index system. Every five years, this resource consumption curve flattens slightly.

*But it's only the growth in resource consumption that is flattening, not resource consumption itself. Isn't that right?*

Yes. But we can say that in 2005 - the latest year for which figures are available from this study - we needed 35% less energy to achieve the same high HDI (editor's note: Human Development Index) of 0.85, in other words, about the same standard of development that we have in Austria, as we did in 1975. You could say that the western industrial countries have reached a saturation point since the 1970s with regard to resources and energy consumption. I find that encouraging. However, this of course is not yet of any great significance worldwide, since the aspiring economies are rocketing upwards in a way that significantly overcompensates the slowdown among the rich industrial countries.

*Is the Human Development Index not also problematic as a parameter in this context, implying as it does that others who are not yet as advanced in this development must begin a process of catching up? To which from an ethical point of view they are entitled. However, this means that resource consumption growth then automatically continues to increase. An ethical dilemma?*

Yes. But the example of the flattening of the connection between human development and resource consumption does after all apply worldwide. This connection does not only apply to the western industrial countries. If you take a closer look at resource consumption in the western industrial countries, you can see that since the 1970s, the gross national product has consistently increased - and resource consumption is plateauing. This is a positive development. On a global scale, this can at least be used to demonstrate that these countries no longer need the same amount of energy and resources in order to achieve a high level of development. We have therefore, if you like, learned some lessons worldwide as a society. We have learned how to manage with less. This does not mean that we therefore actually do so, but we do have the opportunity. And that's already a very good thing.

*This is due to the fact that technology has become more efficient. Despite this, the consumption behaviour of every one of us has a part to play in the level of resource consumption. To what degree is every individual with their way of life in a position to control resource consumption in the first place?*

I believe that no single individual is so terribly important. However, the individual is significant to the extent that the things that you have experienced yourself are communicated to others and reported as experiences. But no single person ultimately controls their resource consumption. This occurs primarily through the context and

the situation as a whole in which the individual is embedded. You have the available technology on the one hand and the functioning of the economy and many other contexts on the other. Take cities, for example: if you have a very good public transport system, as we do in Vienna, then public transport is used for 40% of all kilometres travelled. And if you have a terrible public transport system like the one in Los Angeles, then everyone drives around in their SUV. And that's not easy to control as an individual, because in Los Angeles, you can't travel anywhere without a car. The framework of opportunity for action by people must be changed within society. Only then can the activity itself change. At least that's my conviction as a sociologist.

*With regard to frameworks of opportunity, where can incentives be developed on a scale that goes beyond the regional level?*

For resource consumption, the design and the sales strategies of goods are of course an extremely important factor. Naturally, short service lives, rapid wear, and even expiry cycles installed in the products themselves, are poison when it comes to low resource consumption. That's quite clear. However, I believe that here, regulatory intervention really is possible. For example, it could be a requirement that a certain proportion of all industrially produced goods should be generated from secondary resources. Currently, the entire recycling industry, as imaginative as it has become to some degree, has constant economic problems, because proper recycling also costs money. Resources have become more expensive, but are so terribly volatile that you can't really be sure that as a recycler, you can successfully sell your product. This is where regulatory intervention could come into play. And that would certainly make sense, since it is impossible to see why no resources at all should be left over for those countries that develop later than the wealthy industrial nations.

*Here, the argument also applies that when only one national domestic economy takes regulatory action, the other countries benefit from*

*the costs involved – and in so doing, also gain competitive advantages that arise from such regulations. How can this be counteracted?*

Since the wealthy western industrial countries have an unbelievable reserve of resources – more than anywhere else in the world – both in the form of their wealth of goods and their waste, this really is an opportunity at a time in which we are threatened with a shortfall of resources. If the recycling industry is not adjusted to such technical and economic opportunities in good time, it will not be possible to benefit from this chance at the right moment. However, in this regard, I am actually very optimistic. We are not talking about unending regulation, but rather about a regulatory intervention that offers an impetus for a certain period of time in order to bring about a change in strategy. In my view, this is justifiable and is also possible. Probably not as an individual country, but within the European Union, it would by all means be possible.

*One important and not entirely unproblematic issue with regard to creative output is patent and copyright protection. There are almost sacrosanct paradigms among the industrial nations that patent protection is an essential requirement for scientific and economic progress. Is that the case?*

No. And in the areas in which this no longer applies, either legally or illegally, you can already see that those involved are not disadvantaged as a result. Of course, it is a huge business, for example in the pharmaceutical industry. There, the issue is particularly highly contested. As a result, the pharmaceutical industry develops products that are intended for a wealthy market, but not necessarily for a large market. This is a misallocation, if you like: no new anti-Malaria products have been developed, since nobody living in the wealthy countries is suffering from the disease. Yet progress has certainly been made against illnesses that are common in the western industrialised countries, because that's where the money lies. And here, I find it entirely understandable that developing countries or

also China are circumventing this protection. This is not damaging to creativity or to economic progress. The clearest example of this is in the IT sector, where apps, games and who knows what other good ideas are developed and given away for free, and make an important contribution to the intellectual landscape. Evidently, it is possible to live with such mechanisms.

*When it comes to global food supplies, patent protection is of far greater importance than in the pharmaceutical industry. How can we get around the problem that a small number of companies control a majority share of global food production?*

In my view, this really is very problematic. One of the hopes that I nurture in this regard is that in the long term, industrial agriculture will undermine its own foundations. I can't imagine that we can or should be able to endlessly feed the world through industrial agriculture. Some parts of the global agricultural sector are repeatedly trying to break out of these monopolies and escape from these exploitation strategies in order to pursue other paths. I regard this as being extremely important. It is impossible to estimate the extent to which this might succeed and whether there may even be a revolution against this control of seed. But that is an extremely important ethical problem.

*You once said: "There must be a global process of negotiation over the use of our resources, otherwise we will descend into barbarity". How could such a negotiation process be realistically implemented that really does achieve results?*

Currently, we regard the global climate, although it is different wherever you go, as being to some degree a *global common good*. Until now, this has certainly not been the case for resources. Take *freshwater*, for example. Currently, it is traded – as we say, virtually – on the global market on an incredible scale. In other words, it is needed in order to produce one product or another, which is then traded

on the market. This is not particularly problematic in regions such as Latin America or parts of Asia, where there is a relatively high level of precipitation. However, in many other countries, this is already a problem. The result, for example, is that through these goods, the US, which overall has sufficient precipitation, has become one of the largest virtual freshwater importers, without having to visibly "suction off" rain from other countries. Here, I can imagine that an approach involving documentation and – to put it one way – denunciation could have a certain impact. These processes need to be exposed and made visible. When it comes to metals and rare earths that are only found in certain places and which are monopolised to an unbelievable degree, there is, as far as I know, no commercial field that is controlled by so few companies as the metal mining industry. This is a problem that the world has been faced with since Roman times. Then, too, the issue was a source of conflict: who owned the silver mines, and how could the Roman state continue to pay its soldiers when the silver mines suddenly became less productive?

*The answers to this problem then have still continued to apply during the two thousand years that have followed: they belong to those who have military might.*

That is correct. But the Roman state was still extremely keen to maintain its power over the silver mines. And here, nature also played its role along the way, of course, in that some mines were sooner or later simply depleted and it was not so easy to find new ones. And we all know what happened to the Roman Empire.

*Let us turn from the major consumers and controllers of resources to the creatives. Can they contribute anything at all to improving the world, or are they far too weak in realpolitik terms?*

Many people claim that artists and art have a keen sense and are harbingers of new opportunities, who also demonstrate which outdated ones should be eliminated from the world. And who signal

this in an as yet pre-political form. I think this is plausible. If for example you look at the role that art has played in the fossil fuel revolution, which was accompanied by the French Revolution and the revolution of 1848, you can see that art had already anticipated a new world in advance which had by no means yet become an established concept at the level of political imagination and economic facts. This is why I hope that these anticipatory feats of the imagination in its institutionalised form as art – in the broadest sense of the term – still exist today.

*The Age of Enlightenment, which placed rational man with the human rights to which he is “naturally” entitled at the forefront, led to the great revolutions. To American independence, to the French Revolution. For this reason, one might say that in principle, we do not in reality have any further need of it. What might come next?*

I am of a slightly different opinion. I am currently working on a study about the timing of revolutions. The question is how the timing of revolutions correlates with an energy transfer from a land-based, biomass economy to a fossil energy-based manufacturing and subsequently industrial economy. And you’d be amazed how close the relationship is. All these revolutions, including the Russian and Chinese revolutions, take place in their various countries during the period when the use of fossil energy first increases. In this first transition from an agrarian to an industrial mode of production. In way that can be precisely replicated using mathematical models, all major revolutions occur when there is a jump in fossil energy consumption of between 2 and 10 gigajoules per head. Around 50 countries are currently in this critical range, such as Afghanistan, Haiti and almost all the southern African countries. On the other hand, of the approximately 200 countries in the world, around 50 lie within the uppermost range of the fossil energy transition. Other countries will never be able to start using coal, oil and gas on the same scale as was the case with the wealthy industrial nations, since we simply don’t have

sufficient fossil energy – quite apart from the consequences to the climate. But precisely during this period of initial upswing in the use of fossil energy, those countries that today are undergoing this transition, such as Myanmar, Bangladesh or Nepal, are all experiencing political change, be it democratic or failed change. So, we’ve not yet got past this phenomenon.

*This work is based on the theory that social change of this nature is triggered in parallel with an upturn in energy consumption. But could it not be the case that this energy consumption growth indicator was only valid during a certain historical period? During the industrial revolution, it was energy that was needed for system change. Today, however, we are on the brink of a digital revolution. Now, it is not energy consumption per se that is the driving momentum, but access to information.*

I agree with you. I also don’t believe that the rich western industrial countries will at the present time change their social structures as a result of an increase in their energy consumption. In the highly developed countries, other mechanisms play a role that may trigger social changes on a larger scale. This has to do with the level of technological development. The upcoming conversion to more decentralised, renewable energies will probably also lead to social changes. This will probably not be as revolutionary as the examples I gave just now, but at the same time, we should not underestimate how many countries are today still in precisely this low energy situation, in which just a small increase in energy consumption can require changes to the entire social structure – which can also be suppressed or fail.

*In this context, let us look at the role of creatives, including in an economic sense. If you take the strategies in most highly developed countries that relate to the economy and creative industries, then the opening credits are always the same: the creative industries will be a driving force for economic change. Here, a paradigm of the scalability of innovations*

*produced by the creative industries also comes into play as a goal. The purpose is always growth. On the other hand, on a social level, an increasing refusal can be observed among creatives themselves to comply with such a life concept, which is geared towards entrepreneurial scalability. Are these countries counting their chickens before they are hatched?*

A considerable share of the creative industries operates primarily in advertising, and is therefore already very closely associated with growth. But the essential factor in the creative field may also be that this is a new type of working model, in which the people in this area are looking for intrinsic satisfaction, which does not usually make them particularly rich people, however. For many of them, this is also not the main goal. Instead, the activity per se should be something enjoyable, useful and satisfying. We can now say that in the same way as the old revolution led to wage labour in the cities and largely pushed farming to the margins as a model of dependence, so work will again change at a fundamental level with the next energy transition. I think that the creative industries are already in part anticipating a new working model – possibly for the better or worse – with a great deal of social uncertainty, unlimited working hours, which penetrate one's whole life. But also with models for inner satisfaction and the desire to communicate, to create something together with others or by oneself that is meaningful.

*The industrial revolution led to the introduction of wage labour as a mass phenomenon. And since then, when we talk about the economy, we always refer to this duality: creating jobs on the one hand, and having or obtaining a job on the other. Is this duality between employer and employee still at all applicable? Particularly in an area in which other creatives are designing their own ways of living? In this context, the further question arises as to how many people working in fields connected to the created industries are living in uncertain conditions. How can framework conditions*

*be created that provide these people with the prospect of escaping from this precarious situation?*

I agree with you. This duality between employer and employee applies less to this area. I remember a well-known French sociologist, Nicos Poulantzas, who had a theory that these many small selfemployed people are trying out different economic and design strategies. And the ideas that really are successful are adopted by large-scale industry, where they are further developed so as to make a profit. But the others are unsuccessful. Poulantzas views the field of the small-scale self-employed as a practical experiment field for large-scale industry, where something can be tried out without much risk involved, and is only adopted when it has already been fully developed. In his view, these one-person companies are the victim of this employer-employee duality. However, I'm not sure whether this theory fully answers these questions. I suspect that this dominant model of 40-hour week wage labour as the life-characterising feature, from the moment you leave school until you draw your pension will not be the labour model of the future. On the other hand, we are naturally at the same time seeing the social state being undermined in many areas. And as a result, all those who are not lucky enough to find shelter in this social state model are exposed to major risks.

*But as yet, hardly any more highly developed social state – such as those in Europe – has been able to find a halfway satisfactory answer to this question. At the same time, it is precisely this stratum of creatives, who are mainly living in a socially insecure, if not precarious, situation, who are being promoted in the search for new economic policy solutions for the future. Can this work?*

There are already individual elements of the social state that reflect this, such as educational leave. This is something that I see in my field of work. If someone loses their job or small companies do

not have enough income to continue employing someone, then that person is often “sent” for one or two months or even half a year on educational leave. And then they can come back. These are models that also favour creatives in the Austrian welfare state. In other areas, this is of course not nearly as common. What can also be observed to an increasing extent in this context are these patterns of one person holding down two or three jobs at the same time. On the one hand, you have your creative job, while on the other you earn your living, by working in a restaurant, for example.

*If you take a closer look at the sociocultural milieus in which these people move, and they are relatively similar in most European cities, do you have the impression that there, life models are being tried out first that might also function beyond the bounds of the growth logic of the post-war years? What influence can such sociocultural milieus have on societal development overall?*

This growth logic has been applied since the Second World War. We also call what happened during the 1950s and 60s “the great acceleration”. This logic was first called into question with the cultural revolution of ‘68. At that time, the question was asked for the first time as to whether this really was such an admirable life model, that we are now all growing and consuming more and more. That was the first time that consumption was criticised on a huge scale. From the hippies to the anarchists and the entire broad spectrum that developed in this atmosphere – worldwide, from Japan to Argentina, right around the globe. This critical attitude also dominated the debate in the 1970s.

*The debate, perhaps, but not the effects?*

Yes, the effects, too. What I said at the beginning of the interview about the stagnation of resource consumption began in

the western industrialised nations during the 1970s. Physical consumption no longer grew so rapidly. And the gross national product grew somewhat less. However, then came this neo-liberal wave with Thatcher and Reagan, in which the only message was: now we must grow. During the 1960s, growth was not talked up to the same extent. It simply happened. However, these neo-liberal approaches now make it the key political goal, precisely because it’s no longer so easy to achieve. But in my view, these new social strata that we now have, like the hippies before them, are perhaps developing a concept for different ways of living that is no longer of such minority interest. And that will also have a political impact.

*If you take that in the context of the latest tax reforms proposed by our current government, you see the fundamental paradigm that appears to apply across the political arena in most other European countries: domestic consumption must be encouraged by reducing taxes, in order to generate economic growth. Does this correspond to the chosen way of living of people in these countries on the one hand, while also complying with an economically sensible logic designed to save resources?*

I think it follows an understandable logic – although the tax model never really achieved this – in that there are large social strata who really are too poor and who have too few opportunities for consumption. Who do indeed urgently need a better chance to consume for the very sensible satisfaction of needs. Where waste really occurs is in the upper regions of the income hierarchy. Where not only a second home, but a third home is purchased, or the third car and the SUVs that we see driving around in Vienna, that look as though we’re in the middle of a civil war and the owners have to shield themselves from attack in their big cars. These are symptoms of consumer behaviour gone mad. But they are not to be found in the middle and lower sections of society.

*Is that not a phenomenon that is no longer as prevalent in western Europe as it is in the former Eastern Bloc countries, for example, where a few people have become very rich, and consumption is very much in focus. Is this consumption as a way of advertising your status not already a fading phenomenon in western Europe?*

Here, it is no longer regarded as being in good taste to brag about your own consumption. But if you look at the proportion of SUVs in the cities as an indicator, then you can see that it is still on the increase. In this regard, I don't have the impression that it's no longer important. Take the latest bank crisis as an example. A large number of people rose to higher social levels who until then had full employment security and who earned very well. Who dealt with money day in, day out. And for whom money is of great importance in their private lives. Suddenly, they are in a position of insecurity. That has consequences for society. When they have to worry that they can no longer afford the latest SUV models, they get upset. This might not be as spectacular as a few oligarchs in the east who slam down caviar onto tables by the kilogram in various desirable skiing resorts, but still, it's the same phenomenon. Those of us who remember life in the 1950s in the west will know that during that time, people really flaunted their wealth. And we are now seeing the same thing happen in the east.

*If you fulfil the Maslow's hierarchy of needs from the bottom to the top, and basic needs are covered, then in reality the only questions that must be answered are: what makes life worth living? And what makes us happy?*

Also: what brings us approbation? That's the really tricky question. Approbation and attention from others. That's becoming a rare commodity. In order to achieve that – and this is extremely important – there are naturally different methods that also function differently, depending on which social group you belong to.

*Do we then need a new strategy for the approbation economy in order to be able to reduce material consumption? Social media is one such phenomenon to a certain extent.*

That's exactly what it is. This opportunity of receiving resonance from others for my opinions and my own self-depictions is something that social media offers. And that seems to satisfy a great many people. This attention economy that exists alongside the money economy, and which is not at all necessarily that closely linked to it, is already a new form of satisfaction that our society has to offer.

*Could that ironically help us reduce material resource consumption?*

I think it could. This old concept that if you are poor, you are lonely, because you don't have the means to move in the public space, to make connections, is of course changed by this media. Perhaps not for today's 80-year-olds, but certainly for the next generation of 80-year-old women.

*Even so, the domestic economies do not appear to be escaping from the clutches of the growth logic. Various attempts have been made to use other indicators as key criteria in politics instead of the gross national product. Gross national happiness in Bhutan, for example, of which you once said: "If all people are happy, that's all well and good, but it doesn't lead to anything". Do you have other suggestions as to how we might escape from the ecological and geopolitical consequences of the growth paradigm?*

There are different current positions on the subject of "growth reduction", or a "degrowth economy". From my perspective, a decisive factor is the extent to which it is possible to decouple economic development from the consumption of resources. In my view, there are two areas in which a great deal could be achieved without having to negatively impact on people's quality of life and level of

development. The first area is nutrition. A considerable portion of calorie consumption, particularly in the industrial states, is attributable to animal food. Yet industrial meat production in particular is extremely wasteful of resources. The second area is construction. We must become more compact. Sprawling growth in housing over larger areas will result in irreversible resource consumption consequences in the longer term. That's why it's particularly exciting to examine the structures and concepts of cities that are in the process of being newly created.

Here, interesting options arise. For example in the field of supply and disposal. Or transport. A current report by the Worldwatch Institute entitled "Can Cities be Sustainable?" tackles issues such as these. And it can be seen that good concepts can improve the resource consumption balance 2 or 3 times over. As well as space development and infrastructure concepts, the design of small-area social structures and the social organisation of needs supply in particular are also playing an important role. These are not only ideas taken directly from the *sharing economy*; the fundamental principle applies that a supportive, integrated, peaceful society generally requires fewer resources, because those already available are being used more efficiently.

# On sharing ideas

## Open Source and Creative Commons

— Sonja Bettel

The digital age demands that we change our way of thinking, since ideas and works are our most important asset, and cannot be locked away. Open Source and Creative Commons are good solutions for revolutionising the free exchange of creative ideas.

On the whole, people who work creatively only need to sell their ideas. According to the rules of the market economy, we need to protect our valuable *assets* well. We can therefore lock away records of our ideas and our works; we can make it impossible to copy our works through technical measures (or at least try to do so), or we can protect our ideas through legislation and contracts. In the digital age, all these measures have proven inadequate. Mechanisms designed to protect against copying have been hacked, and what were thought to be secure data safes have been broken open, contracts have been infringed and threats of punishment ignored. This is a source of frustration and anger for many creatives. They feel that they have been robbed, undervalued and exploited. Others have wondered whether their ideas really are theirs, and whether they alone should be able to profit from them. Don't we all benefit when ideas are shared, when others can build on them and modify them? The Open Source and Free Culture movement likes to quote the English physicist and mathematician Isaac Newton on this subject: "If I have seen further, it is by standing on the shoulders of giants" (1676 in letter to his

### The author



Sonja Bettel is a journalist and author, focussing on science, digital technologies/network policies and society. She works for Radio Ö1, Deutschlandradio Kultur, die Furche, LebensArt, upgrade, LandLuft and book publications, among others. Since the 1990s, she has observed and documented the developments

around free networks, free culture and free knowledge.

Photo © Thomas Bredenfeld

rival, Robert Hooke. Although Newton did not invent this image, as is explained in detail in the article “Standing on the shoulders of giants” in the Englishlanguage version of Wikipedia).

The pioneers of the movement promoting the free exchange of creative works come from the field of software development. Richard Stallman and Linus Torvalds are the best known representatives of the group, because the former introduced the “GNU General Public License” (GPL), while the latter initiated the Linux operating system. For Stallman, it was important that work with software should be conducted in a lively and open exchange between developers and users, as he experienced in the 1970s while he was working at the Massachusetts Institute of Technology. When in the early 1980s, companies started selling software with licences and secret source codes, he founded the GNU project and the free software movement. Free software has for several years usually been referred to as “Open Source software”, a term with which Richard Stallman doesn’t agree, since it reduces the importance of his focus on the source code, but that is another story. The term “Open Source” is now used for things other than software, but we’ll return to that topic later.

When the content industry began in the 1990s to react to digital copying opportunities and music exchange sites by introducing digital rights management and huge legal cases against so-called “music piracy”, there was resistance in the cultural field, which led to a solution approach known as “Creative Commons”. The initiative was founded in 2001 in the US by the professor of law Lawrence Lessig at the Stanford Law School, among others. At the end of 2002, the first licenses for more freedom of action in the use of creative works were published.

Creative Commons had such a liberating effect in that in 2004, the initiative was awarded the “Goldene Nica” at the “Prix Ars Electronica” in the “Net Vision” category. A sense of a new beginning followed, with which all areas of culture became infused. At the “iSummit” of the “iCommons” Initiative in Dubrovnik in June 2007, highly committed people from all over the world from the fields of knowledge, music, education, film, literature, law, software, development cooperation, art and much more came together to discuss how even more cultural works could be made freely available to even more people. Unfortunately, at the conference, the founder of “Creative Commons”, Lawrence Lessig, announced that he was quitting the project in order to devote his energy to fighting corruption, as a result of which the movement lost its charismatic leader figure. After one more iSummit, the initiative (perhaps for this reason), gently faded from view, although its protagonists remain active. Creative Commons might hardly be mentioned in the media these days, but it still exists and is flourishing. In the interim, 1.1 billion works have been published under a CC license. The licences are adapted to requirements in practice and to the various legislative frameworks. There is also a version designed for Austria. Separate platforms have been created for CC music, and the photo platform “Flickr”, over 870,000 photos with CC licenses are available. In literature, Creative Commons is still less widely used than in music or film, but the Canadian science fiction author Cory Doctorow demonstrates that a writer can make works freely available (online/digitally), and still live from them (by selling printed books). Cory Doctorow does this out of conviction, but also points out the benefits for his work. His novel “Little Brother”, in which he describes a society, and its resistance fight, subjected to total surveillance in an atmosphere of terrorism hysteria, has been translated into countless languages by volunteers thanks to the freely available digital version, and has been dissemi-

nated in countries with limited civic rights like a political document. According to the author, this would never have been possible if the book had been published using “classic” methods.

Creative Commons also reacts to contemporary social developments. Currently, licenses and projects are being developed for Arab countries. There is also an ongoing project for the “Black Lives Matter” movement and a discussion as to how CC licenses can best be applied to models for 3D printers. Incidentally, 3D printers are one field in which the importance of the free exchange of creative work has not yet been sufficiently acknowledged. At the “World Humanitarian Summit”, the first UN conference on humanitarian aid, which was held at the end of May 2016 in Istanbul, the “High Tech Humanitarians” and other initiatives demonstrated how communities affected by disasters, wars and flight can benefit from Open Source software, Open Source design and 3D printers. They are producing building plans and 3D models for medical instruments, solar power systems, “Open Street Map” roadmaps, apps, databases and much more. Their premise is: if my work has been made possible through research funding programmes, donations or (voluntary) collaboration, then I can make its results available to others for free - particularly to those who are disadvantaged due to injustice in the world and an unequal distribution of resources. As with the Open Source software movement, the idea is increasingly taking root in other areas that generosity and cooperation benefits everyone involved.

There are an increasing number of examples that show how creative work, free culture and commercial activity do not need to be mutually exclusive, but can flexibly supplement each other. To take just one recent story: the Vienna design studio EOOS received a request to submit a piece of work to the “Orte für Menschen” (“Places for People”) exhibition at the 2016 architecture biennale in Vienna. EOOS decided to adapt the former “Zollamtschule” (“customs office

school”) in the Erdberg district of Vienna, which is currently home to up to 600 asylum seekers. 18 different pieces of furniture were designed for use in common kitchens, shared living areas and rooms, which were built by the residents in the workshop set up in the local area and financed by donations. In contrast to common practice in the field of furniture design, the designs and building plans for this “Social Furniture” were not protected by copyright. Entirely in the spirit of Open Source, they were published in a separately produced catalogue under a Creative Commons license, “Attribution-NonCommercial-ShareAlike CC” BY-NC-SA, so that other initiatives could copy or change them, and use them (for noncommercial purposes) in communities.

# Creativity and feeding the world

## Rethinking food systems

— Irmi Salzer

How can we succeed in developing an agriculture and food system that offers a fair, autonomous opportunity to people in all regions of the world? What concepts and ideas are already available, and what role do creative approaches play here at the local and global level?

The global movement for food sovereignty is working to create fundamental change in our agrarian and food system. Food production and distribution must be democratised and re-organised.

Our agricultural and food system is currently facing a multifaceted crisis. This crisis, which can only be understood in connection with many other crises (the financial market, energy, climate, raw material, economic, democracy crisis, etc.) is manifest on the one hand in that globally, around 900 million people are starving - and not only in developing and threshold countries. On the other, it is reflected in the fact that in industrial countries, too, and even particularly there, an increasing number of people have no access to varied, high-quality food that is appropriate to the culture. The fact that in the EU and the US, both of which contribute to the problem of hunger in countries in the southern hemisphere through their exports there, are also suffering from food poverty, is a result of decreasing loans, rising unemployment and the erosion of welfare state systems, as well as an expression of an agrarian and food system that is aligned towards profit interests to a profound degree.

### The author



Dr<sup>in</sup> Irmi Salzer studied landscape architecture at the University of Natural Resources and Life Sciences in Vienna. Since 2002, she has run a small organic farm with her partner and three children in the Südburgenland region; since 2006, she has lectured in press and publicity work at the ÖBV-Via Campesina Austria. In this role, she is a member of the "Stop TTIP" and "Wir haben

es satt!" ("We've had enough!") platforms, and is working towards a socially just and environmental reorientation of the agrarian and food system.

Photo © Walter Fikisz

### **Food sovereignty – for a different agrarian and food system worldwide!**

The concept of food sovereignty was presented by “La Via Campesina”, the global alliance of small farmers, land workers, fishermen, landless and indigenous peoples, at the World Food Summit of the FAO (Food and Agriculture Organization of the United Nations) in 1996. Since then, it has been the political leitmotif of a growing number of actors from a range of different sectors in society: movements, initiatives and organisations from farming, environmental protection, human rights organisations, consumer and women’s movements and urban movements are fighting worldwide for a fundamental reorganisation of our agrarian and food system.

Food sovereignty is a pioneering concept that must be constantly adapted and democratically further developed to meet the respective social, economic and spatial challenges. It came about following criticism of the technical term of food security, which is used by institutions such as the FAO or the World Bank and which ignores production conditions, power and mechanisms of authority within the agrarian and food system. Agriculture which is based on monocultures and industrial-scale livestock farming, which pollutes the soil and water and damages the climate, and which requires migrants as poorly paid labourers living in precarious conditions is, according to the food security approach, just as capable of guaranteeing food security as a sustainable, cycle-based form of land management that is based on the sensitive use of resources.

By contrast, food sovereignty is the right among all people to good-quality, culturally appropriate food which has been produced using sustainable production methods, and the right of all people, nations and state communities to determine their food and agrarian policy themselves. Food sovereignty is based on the establishment of local and regional production systems which are interlinked in many different ways, the strengthening of local control, involvement in designing the systems, and international solidarity – and thus on

grassroots democratisation of the social, ecological and economic conditions that characterise the agricultural and food system.

### **Food sovereignty in practice - tradition, innovation and creativity**

The purpose of initiatives and movements that aim to generate and anchor food sovereignty as a day-to-day practice is the assumption of responsibility – for the basis of our existence, for future generations, and also and above all for the current state of our agrarian and food system. By (further) developing alternative practices, they work on an emancipatory social model that is aligned to a supportive way of living together.

Food sovereignty practices exist at the local, regional and global level. In the field of production, adaptable (resilient) agroecological methods of production are tested which use seedfast, regionally appropriate, seeds that are not genetically modified, and adapted technologies that reduce dependence on oil in agricultural production and are based on recycling. Progress in productivity, which is of great importance in the southern hemisphere in particular, is based on the promotion and development of farming agriculture. Innovative and participative training and further education offers, which include traditional knowledge as an equally valid component, play a key role here. Not least, the focus is on building up and further developing urban agriculture concepts.

In the area of food supply and distribution, producer-consumer networks are being established, whereby the standard markets are replaced e.g. by supportive relationships. In this way, for example, in CSA (Community-Supported Agriculture<sup>1</sup>) projects, products and prices are decoupled from each other, and the risk (such as crop failure) is borne jointly by the producers and the members of the initiative. Purchasing communities, known as “food cooperatives”, are based on the voluntary commitment of their members, and aim to

guarantee a basic income for the producers. In many such initiatives, surpluses are processed jointly and are distributed among those who need them. In order to enable everyone to participate and to facilitate inclusion, prices are set in a supportive environment, membership fees are staggered, or the initiatives function overall according to the principle of “everyone gives what they can (and takes what they need)”. Community certification systems (Participatory Guarantee Systems, PGS<sup>2</sup>) based on mutual consultation replace state control, creative direct marketing concepts such as share models (“sheep shares”<sup>3</sup>, animal sponsorships, “cheese not interest”<sup>4</sup>, square-meter purchasing<sup>5</sup>) guarantee that small operations, too, can continue their existence, and involve the consumers in taking on responsibility.

In order to interrupt the race for land and soil, and to make the land accessible to everyone who wants to manage it, models are being developed that take land away from the capitalist usage cycle and promote common usage forms (“commons”). In order to guarantee access to resources and try out alternative social organisation models in practice, intercultural gardens and “Volxküchen” (“people’s kitchens”) are being set up, community courtyards and cooperation between farmers are being established, community planting campaigns and land occupation are being organised, and so on.

By facilitating emancipatory processes, the aim is to enable citizens to participate actively and with equal rights in the design of the political framework conditions of the agrarian and food system. Base-oriented political education work, learning together and collective political action, as well as alternative education networks, are ensuring the knowledge is passed on “at eye level”, and create spaces for all those involved in the agrarian and food system to meet.

Despite their inventiveness, their level of commitment and the fact that they are growing in number, the initiatives and movements for food sovereignty are not yet in a position to stop the capitalist agrarian and food system and its mechanisms of exclusion and repression. Learning from each other, sharing experiences, imple-

menting exchange mechanisms, showing solidarity and courage, a willingness to act and creativity – these are the main challenges facing a movement that has not only set itself the goal of achieving “good-quality food”, but “a good life for all”. Or, as the delegates at the first European forum for food sovereignty, “Nyéléni Europe 2011” in Krems, put it: “We are convinced that food sovereignty is not only a step towards a change in our food and agricultural systems, but it is also a first step towards a broader change in our societies.” (declaration of Nyéléni Europe, August 2011<sup>6</sup>).

<sup>1</sup> CSA– Community Supported Agriculture, Online URL: [www.solidarische-landwirtschaft.org/](http://www.solidarische-landwirtschaft.org/) (version: 01.09.2016).

<sup>2</sup> Online URL: <http://www.ifoam.bio/en/organic-policy-guarantee/participatory-guarantee-systems-pgs> (version 01.09.2016).

<sup>3</sup> Online URL: <http://bioschaf.at/schaf-aktie/> (version: 01.09.2016).

<sup>4</sup> Online URL: <http://kaslabn.at/> (version: 01.09.2016).

<sup>5</sup> Online URL: <http://www.labonca.at/genussscheine/> (version: 01.09.2016).

<sup>6</sup> Online URL: <http://www.nyelenieurope.net/publications/nyeleni-europe-declaration-2011> (version: 01.09.2016).

# Cradle-to-cradle design

Creative concepts for a circular economy  
— Rainer Rosegger

Continuous economic growth is leading to an exponential increase in the consumption of globally limited resources and raw materials. A system with an expiry date. How can economic models be developed that are systematically supported by the concept of a circular economy? How can production and the consumption be decoupled from each other? The cradle-to-cradle concept is one approach at the microeconomic level.

Against the background of the increase in environmental pollution and damage to health, as well as an escalating shortage of resources, the cradle-to-cradle design concept defines a new approach to production and consumption. Contrary to the efficiency improvement approach that currently dominates our system, in other words, the attempt to reduce harmful and problematic influences, the goal of cradle-to-cradle design is to create products and processes in such a way that factors with a negative impact are eliminated, and positive effects are created when products are used. The key factor here is the concept of the circular economy on the basis of innovative technologies. According to this model, the production methods, the use and the re-use of the products are designed in such a way that the quality of the raw materials remains over several life cycles. This means that in this system, there is no longer any waste. Everything becomes nourishment: the right materials are used in defined cycles (“metabolisms”) at the right point in time and at the right place.

In this respect, cradle-to-cradle design differs fundamentally from standard recycling. Right from the start, materials are selected

## The author



The sociologist Mag. Rainer Rosegger, born in 1975, has worked since 1998 in the fields of residential building construction, architecture, and urban and regional development with different points of access and approaches as a researcher and consultant with his company SCAN. In 2006, he founded the network agency “Pilotprojekt” together with

engineer Georg Leitner and the designer Tammo Trantow. He also works as a lecturer at the University of Graz and at the Graz University of Technology. Since 2006, he has also been a member of the EST COST programme “Urban Knowledge Arena”.

Photo © Rainer Rosegger

and products are designed in order to enable the best possible cycle management. Michael Braungart, co-founder of this concept, refers in this context to the next industrial revolution. The opportunity arises here of creating environmentally intelligent products, of achieving economically positive effects through the re-use of raw materials at a time when prices are rising, and to redefine social responsibility in the production and consumption process. Here, nature is reflected as a model in the development of a cradle-to-cradle product. Blossom on trees in the spring is only a waste on the surface. Just a few blossoms lead to the production of new trees. All the blossoms which are not used for reproduction fall to the ground and become nutrients for other organisms.

With cradle-to-cradle design, products are managed in two different cycles. Consumer goods (natural fibres, cosmetic products, washing agents, etc.) are designed in such a way that they can be repeatedly used in the “biological cycle”. For this purpose, they are decomposed into biological nutrients and promote biological systems such as plant growth. The renewable raw materials and substances are then in turn the basis for new products. In the “technical cycle”, consumer goods (TVs, cars, synthetic fibres, etc.) are broken down into so-called “technical nutrients” after fulfilling their function, and enable the production of new consumer goods. Questions about consumption are redefined: the users/consumers only purchase the related service, such as television reception. The materials are retained in the technical cycle through redemption and cycling systems.

In this context, the creative industries and design take on a new significance. Through issues relating to aesthetics and functionality, design takes on the key role as an engine for taking change in a positive direction. Products must be designed in such a way that they can be managed in one of the two cycles in the best possible

way, and materials must be chosen in the premise of their suitability for re-use. In the field of material science and research, too, there is great potential for innovation. Additionally, there is great potential for innovation when it comes to finding effective ways of newly defining product uses and services. Thus, for example, the mobility of the future is not based solely on reducing the hazardous emissions of systems that have been in use to date. A far more important question is how we can best do justice to the mobility requirements of an increasingly flexible society, maximise the benefit to the individual and at the same time generate a positive influence on the environment and society. In the future, designers will function far more as consultants, supporting companies during processes of change and implementing systematic approaches in the different disciplines and across entire production and value chains.

Currently, prototypes are being developed for the traditional Vorarlberg-based company Wolford, which operates in the luxury textile segment. Here, 14 supplier operations have been integrated into the research consortium, which corresponds to around one-eighth of the entire Vorarlberg textile industry in terms of employees. This also demonstrates the necessity for cooperation beyond individual sectors. We can only design the future together.

With the “Europe 2020” growth strategies, the European Commission and the European Council also gave a clear commitment to promoting the “circular economy”. Clear goals and implementation strategies were defined with the EU action plan for the circular economy drawn up in 2015. Alongside the positive impact on the environment, reference is made to the potential for new, sustainable growth and the promotion of innovation and research.

The cradle-to-cradle design approach makes it possible to create the paradigm change that is needed in our society, and to generate

positive location development. Young people in particular are looking for new answers and ways of tackling the present extensive crises in our system. The sole orientation to increasing efficiency through linear approaches will come up against technical, social and environmental barriers. The “cradle-to-grave” mentality is a model that is becoming obsolete. To a far greater degree, we need new, effective approaches based on comprehensive systemic thinking. These new approaches must be integrated into our education system, and when educating designers, architects and engineers in particular, it is important that these new, innovative paths are taken and that we work together with the talent and knowledge of young people in order to change our society. In light of the challenges we face, we have little time left in order to make this change. But Austria in particular offers great potential for designing our future in a positive way.

*„As long as no money is  
involved, other currencies are  
valid.“*

– ERIC POETTSCHACHER

# 4. Creativity & the Economy

More than money: creativity and  
meaningful commercial activity

# Hip, hip, hooray: creative industries!

Creative industries policy and its search for meaning

— Eric Poettschacher

in an interview with Hansjürgen Schmörlzer

The creative industries are in vogue, and are raising high hopes for the future. Countless support initiatives have been established with the goal of creating a large number of new jobs in this segment in mind. These usually aim to enable innovative start-up ideas to develop into industrially scalable, “business as usual” concepts. But are these economic aspirations at all congruent with the global values and social reality of these so-called “creatives”? Eric Poettschacher compares the dominant economic paradigms with entirely different perspectives on the creatives, which can engender an “added value” for society that goes far beyond the economic dimension.

*You have been working as a consultant in the creative industries field for many years. Can this sector really live up to the economic hopes that have been invested in it?*

I have become very critical of the hype and the expectations associated with it. If you take a closer look, you can see that the goals behind the policy of promoting these industries, the environmental realities and the aspirations of the creatives are not necessarily compatible.

Naturally, the politicians hope that through the creative industries, employment will be created and economic locations will be strengthened. Currently, many people are looking to Silicon Valley and thinking: that’s what I want, too. Sexy start-ups, which conquer a global market with their products.

This approach is in line with an industrial paradigm that is now the subject of greater criticism than ever before. In this logic, scalable ideas are needed, in order to be able to grow as quickly as possible. All this occurs on the assumption that endless growth is possible and that there are no limits to resources. That might have been true when

## About the interviewee



Eric Poettschacher has worked as a self-employed communications and organisation consultant since 1994, with a focus on the cultural and creative industries and on the knowledge economy. The consultancy model developed by him, “Money & Meaning”, was used, for example, by NESTA (National Endowment for Science, Technology and Arts) for

the Creative Pioneer Programme in London. He completed his systemic organisation development training at the Beratergruppe Neuwaldegg consultancy group. From 2013 to 2016, he was managing associate of Shapeshifters, a global correspondent network for the creative industries.

Photo © Eric Poettschacher

Adam Smith was alive, but today, economic activity is conducted under different conditions. If you are willing to acknowledge them.

But let's return to the creatives. Tech companies naturally found it easy to become a synonym for creativity and innovation. They are the easiest to standardise and scale. I remember one venture capitalist in Silicon Valley who got the heart of the matter very nicely. He wanted to talk only about innovations that can be multiplied millions of times over at the touch of a button. And then he added: please, nothing that involves people. People have moods, get ill and are unpredictable. However, this way of thinking only represents a small proportion of a sector that we now refer to in general terms as the creative industries. While tech start-ups currently attract the greatest level of attention, there are very different – and in my opinion, more contemporary – business models which do not focus on unending rigid growth without any specific purpose, and which are successful precisely because of this. These companies consciously operate more slowly and sustainably. Sometimes they grow, and then they shrink back again. However, this no longer makes them the job and growth machine that economic policymakers would like to see, at a time when they are still searching for the magic formula that will enable them to produce unicorns en masse.

That's why I can't go along with this hip-hip hooray attitude and the propaganda that constantly stresses that the creative industries are our greatest hope for the future. Are we talking here about sustainably innovative business models that we urgently need, because "business as usual" has no future? Or is it all about more of the same – packaged as aesthetic, sustainable consumerism –, so that we can simply carry on as before?

*But new jobs really are being created in this field.*

That is correct. It has been proven that employment levels are increasing. But the monitoring reports also show that in this sector, the gross turnover and gross value added frequently also decrease for each employee at the same time. More people produce and earn less. Here, euphoria and facts stand diametrically opposed to each other. In our current gold-digger atmosphere, it's almost impossible to mention this without being branded a killjoy.

*Even so, this segment is currently attracting a huge number of people.*

Of course it is. This sector is presented in a very attractive way. Different age groups connect different expectations with it. Some want to break out of their old organisations and reinvent themselves. Others see the creative industries as a Mecca for professional fulfilment. And they are then also prepared to allow themselves to be exploited for this. The burn-out rate in the gaming industry is shockingly high; even managers from the old economy weren't subjected to this level of stress.

*There currently appears to be a willingness to invest quite a large amount of money in support of this field.*

This is certainly the case. Between Ecuador and Siberia, there's hardly anywhere that does not have "creative industry clusters". In the interim, many projects have been developed specifically with the question in mind: will I get funding for this activity? Yes, this field is probably being given more money than ever before. I would like to see facts and figures as to what became of the funded projects five years later. These statistics are almost non-existent, however.

*Do we have the wrong funding programmes?*

I can't and don't want to give a general answer to that question. All I can say is that now, I make a big difference between innovations that do nothing more than bring new products onto the market and those that make people or entire markets think again about consumption and lifestyles.

*What contribution of substance can creatives make to society?*

Creatives not only design products, but also make decisions about materials, sales strategies and the messages that a product transmits to the world. With their work, they determine which lifestyles are cool and which are not.

To this extent, they can be a role model for other industries and sectors, not just through their products, but also through their way of behaving. However, to do so, it's not enough to keep up the pretty, superficial appearance and conform to stereotypes. Creatives are needed who make public their own dilemma in the area of conflict between "money and meaning", and who communicate what it really means in practice to remain true to your own values and despite this, be professionally successful. I'd simply say now that this is on the mind of almost every working person in one way or another. Here, we can learn a lot from the creative industries, because there, the purpose is not always to maximise profit. There, valuable social capital is created every day, which can't immediately be converted into monetary values. Creatives are experts when it comes to researching "business NOT as usual" practices. I've now been working in the creative industries for more than 22 years, and this is the most fascinating aspect of them.

*Can you give some examples of "business not as usual" models?*

Take Patagonia, for example. They mainly make outdoor clothing. But instead of aiming solely to ensure that their customers buy new products from them as quickly and frequently as possible, they offer to repair an item of clothing if necessary, even if it has already been worn for a longer period of time. Naturally, this also creates a very different relationship between the company and its customers. Its customers are willing to pay more for long-lasting quality. While other fashion companies generate their added value in "fast fashion mode", in other words, constantly bringing new, cheap items onto the market designed to replace the old ones, Patagonia does just the opposite. This leads to changes in attitude and imitators. But there are so many other interesting market experiments: supermarkets without packaging, for example, or "food courts" that give a visual display of the environmental footprint and the journey taken by fruit and vegetables at the point of purchase. Due to the power that the large chains wield on the markets, such ideas can naturally only act as incentives at present. But these concepts pick up on extremely important issues in terms of how we redesign our economy in the long term. Creatives are good at designing lifestyles. Here, funding initiatives can help to promote alternative lifestyles – even if this is not what the mainstream wants.

*Until now, the main principle has been that economic success is cool.*

I know so many people from the creative industries who take a very differentiated view of their success. A successful start-up entrepreneur in Berlin, who now has several hundred staff, once told me: "I didn't want this at all. I never wanted to become so big. Now, I'm nothing more than an administrator in my own company. That

was never what I wanted to achieve.” This naturally also reflects a far more substantial issue than the more overtly visible one as to whether I can generate economic success with my idea. The point is whether my own company has grown in the way that I myself wanted it to, or whether it has done so in a way that other people have decided for me. There are people who make a few bottles of excellent Gruner Veltliner wine every year. And they have no interest in producing any more, even though they would be able to sell many more of them. They also don’t usually need external funding. People like that have their goals very clearly in focus.

*That naturally also takes us to the fundamental question: how is money connected to meaning in the first place? During the course of your work for the company you yourself founded together with an investor from Boston, shapeshifters, you have been intensively involved in thinking about this question for several years.*

With the investor, I founded a limited liability company. It took me a long time to understand what her motivation was as a “business angel” – aside from the purely monetary aspect. It only became clear to me much later that there can be an endless number of motivation factors when making an investment, and that there is not only a “monetary return” on investment, but also a “return on meaning”. Since then, I’ve been thinking about the reasons why people invest in creatives. And there are many interesting examples here. A short time ago, I got to know an artists’ collective consisting of 30 people. In terms of their way of working, they are a radical antithesis to every structured innovation process: they are in sole pursuit of their passion and are looking for ways and opportunities for realising it that emerge of their own accord, as it were. Probably, that’s exactly why

an author and producer of world renown invested in them; he shared their passion.

*However, at the same time, the question arises as to the impact on the collective itself when suddenly so much money appears on the table. Isn’t it the case that a lot of money can also destroy the creativity of this collective?*

You’re now addressing the organisation developer in me, of course. Yes, it’s true. As long as no money is involved, other currencies are valid. The thing that is exchanged and multiplied here is social capital within the group. That changes immediately when outside investment is introduced to this social system. This leads to very interesting processes. Then, questions suddenly arise that never used to be important. How much is my work here actually worth? What is the exchange rate between the social capital that has been brought in and the financial capital?

*And how much is given to whom? Are money and creativity actually natural-born enemies?*

Good question.

# Art-based creative solutions for the economy

New synergies between two worlds

— Doris Rothauer

Art has always followed its own paths beyond familiar thought patterns. Here, the key element is creativity, a problem solving skill that is also becoming more important in the business world in the search for innovative solutions and the development of existing potential.

“Design for the real world” is the programme title of the book by the visionary Austrian designer and theoretician Victor Papanek, which definitively changed our current understanding of design. Papanek already recognised the significance of the social context of design during the 1960s, claiming that all design has related social, economic and ecological consequences (Papanek, 1984). In his legendary polemic, he demanded that people develop greater awareness in the way that they handled this responsibility. At a time when the belief in uninhibited growth enabled an enormous upturn in the economy, there was at first very little understanding for his mission, however.

Interestingly, there is a reference embedded in the title to the fact that design obviously has nothing to do with the “real” world. This view is particularly true of art over the last 200 years, and reflects its historical development: art is here, life is there. This is a life which is dominated to a considerable degree by the economy.

As an “applied” art discipline, design now plays a very important role in society and the economy, as do most of the creative disci-

The author



Doris Rothauer is a culture manager, author and trained systemic consultant. After many years as a manager in the arts field, she founded the BÜRO FÜR TRANSFER in 2006, with a focus on strategic consultancy and coaching in the arts and creative industries field, and on mediation and cooperation projects at the interface between creativity,

economy and social impact. Her new book, “Kreativität. Der Schlüssel für eine neue Wirtschaft und Gesellschaft” has recently been published.

Photo © Katharina Gossow

plines that are currently covered by the general term “creative industries”. They make a key contribution to our innovativeness - including in the sense of generating “social” innovations. By contrast, the role of art in real life remains highly traditional, limited as it is to an elite entertainment and representation function, despite a broadening of the concept of art and interventionist practices. Art and the economy are in many ways still two separate, even opposite, worlds. Why is this so? Perhaps a simple explanation is sufficient: they are subject to fundamentally different paradigms and values.

### **Creativity as a problem-solving concept**

During the 20th century, our economy and working society were dominated by growth and measurability. This is in contrast with the paradigm of “creativity” at the centre of art – something intangible, non-measurable. These apparent contradictions can be seen in a different light today, however. What has brought us an unprecedented level of development and wealth in the industrial countries is now being increasingly called into question. At whose cost, and with what consequences, can we continue to increase productivity, bow to the pressure to achieve, or exploit our resources? While the paradigms of the industrial society amount to an exploitation of resources, creativity stands for the development of potential.

We know from neurology that creativity means, among other things, moving in fields of tension. Creativity is an ability to solve problems that thrives on a change of perspective, on free thought which is not oriented to familiar cognitive patterns, on the ability and openness of always reconnecting our knowledge anew instead of routinely repeating and storing it.

And that is precisely what we need today. Why? Because “business as usual” no longer works. We are experiencing the collapse of well-worn structures, systems and mechanisms on a daily basis, on a large and small scale. Our way of dealing with this situation, and our ability to create alternative models, requires new ways of thinking

and behaving that have not yet been tried out.

Artists and creatives constantly live and work in the field of tension between chaos and order, fantasy and reality, improvisation and perfection. What we know today about the opportunities for encouraging our own individual creativity are things that artists and creatives do instinctively: following diversions, allowing space for thought play, changing place and perspective, daring to enter unknown areas, releasing themselves from conventions and expectations, asking unusual questions, considering things that appear on the surface to be irrelevant. However, their repertoire also includes rituals and formal patterns, enormous discipline and tenacity and the desire to achieve maximum perfection.

In this sense, we can regard art and creativity as being “learning fields”. Learning fields that also make sense in the business world. What can companies learn from artists in terms of how they deal with increasing insecurity and complexity, as well as the pressure to innovate? The same applies on a personal level. We must increasingly learn how to improvise on the basis of a sense of insecurity, with the same high standards that we would have under perfect framework conditions. Transferred to “real” life, we need short-term, quick decisions and solutions to problems that do not feel safe, that have not been prepared and that cannot be planned long in advance.

### **Methods for anchoring artistic thinking and behaviour in the economic field**

The concept of “arts-based learning”, a tool for promoting learning ability that was first developed in teaching, and which makes use of artistic experience, is currently being tested as a way of applying artistic thinking and activity to management training and organisation development processes, for example. Starting in the US and the UK, a new artistic intervention practice has been developed over a period of about 15 years, particularly in the performing arts and music, called Arts-in-Business (cf. e.g. Seifert/Buswick 2005;

Darso 2004; Biehl-Missal 2011). The topics that can be transferred to the standards and processes in a company range from the process of composition via virtuosity on your instrument to playing in a band or an orchestra. The management theoretician Peter Drucker, another Austrian visionary in his discipline, already described the orchestra as an organisation model of the future at the end of the 1980s (Drucker 1988).

“Artful Organizations” is the name given by Danish innovation researcher Lotte Darso to companies which use artistic creativity as a source of energy and inspiration. When the experience of this creativity leads to a change of awareness that has an impact on the entire organisation, on the way in which the potential of the employees develops, and on the attitude towards customers and stakeholders (Darso 2014).

The methodological approach to creative problem-solving processes, “design thinking” – an iterative process that combines analytic thought with emotional experiences and collaborative creativity techniques – is today used in business, specifically in relation to innovation processes, all over the world.

“Artful thinking”, in the same way as design thinking, could be a new approach, as a mindset oriented towards artistic creativity: “(...) connect the mind with the body, heart, and spirit. This is what we need in organizations.” (Darso in: Rothauer 2016, 68). The areas of application that emerge from this range from creative leadership and team development and new holacratic forms of organisation through to system-changing business model innovations.

In all its radicality, art acts as a model, because it shows us how far creativity can go – starting from a basic ability that each one of us has. That’s why it’s so important to become involved with art, to learn about art. By examining the values and attitudes, strategies and methods that form the basis of artistic work, we learn ways of

thinking and acting that can provide reference points for solving our problems – including those in the economy. The time is ripe for a re-assessment and relocation of artistic creative activity. Austria in particular has huge potential for this form of “arts-based innovation”, as I call it: with its “hidden champions” in the industry, which are global market leaders in the niche markets, with its traditional companies that master the balancing act between tradition and innovation, with its new generation of innovative young entrepreneurs, and its rich cultural and creative scene which is well known for blowing away the boundaries of the conventional.

Brigitte Biehl-Missal: *Wirtschaftsästhetik. Wie Unternehmen die Kunst als Inspiration und Werkzeug nutzen*. Wiesbaden: Gabler 2011.

Lotte Darso: *Artful Creation. Learning-Tales of Arts-in-Business*. Frederiksberg: Samfundslitteratur 2004. Lotte

Darso: *The Artful Organization. Potentiating Business – Revitalizing Organizations*. Paper for the 7th Art and Organization Conference in Copenhagen 2014.

Peter Drucker: *The coming of the new organization*. In: *Harvard Business Review January Issue 1988*, p. 45–53.

Victor Papanek: *Design for the Real World. Human Ecology and Social Change*. New York: Van Nostrand Reinhold 1984.

Doris Rothauer: *Kreativität. Der Schlüssel für eine neue Wirtschaft und Gesellschaft*. Vienna: Facultas 2016.

Harvey Seifter, Ted Buswick (eds.): *Arts-based learning for business*. *Journal of Business Strategy* 26 (5), Guest Edition. Bradford: Emerald Group Publishing 2005.

# The DNA of the creative industries

## Innovation cultures and potential

— Sabine Pümpel

Why are some companies more innovative than others? How does the interplay between different systems work in the tension between chaos and order, so that they can use creativity to produce something new? What framework conditions are needed for a creative process? The DNA of the creative industries demands an open culture of innovation to enable them to become the driving force for the economy and society of tomorrow.

### The author



Sabine Pümpel has been developing and supporting impulses for the Austrian creative industries since 2004. Until 2006, she was responsible for setting up and establishing the first federal funding programme (“Impulsprogramm Kreativwirtschaft”). Since 2008, she has worked in the aws (austria wirtschaftsservice, or “Austria economy service”). Born in Vorarlberg, she spent a year in Berkley in the

US before studying commercial sciences at the Vienna University of Economics and Business. She then worked in product management at Kraft Foods/Milka and Ikea. During her sabbatical in 2015, she supported social businesses in Austria and South Africa. Since 2015, she has been a participant in the Ashoka Visionary Program, an international network for social entrepreneurship. Photo © Irina Gavrich

### I.

Why are some companies more innovative than others? Why do some people manage to achieve what others can't? Several years ago, this question was the focus of a study by the consultant and cultural anthropologist Simon Sinek, who now teaches at Columbia University. He discovered a surprising answer: the pattern of success that separates all successful individuals, companies and organisations from the rest of the world is that the focus of their thinking and action is on the question of the WHY. Why do we do what we do? What is the motivation behind it, and what effect can our actions have? With this simple observation and insight, Sinek secured himself a place among the most sought-after consultants and speakers worldwide. “Start with the why” is his formula for successful leadership. The surprising thing about it is that it is the opposite of our dominant orientation. While we are all conditioned to train our attention onto WHAT we do – and in doing so, also finding the answer to the HOW – we have pushed the question of WHY into the background. In the age of industrial progress, we have promoted the WHAT and the HOW to

the dominant paradigm of our thoughts and actions.

These are the fundamental pillars of any economic business model, oriented to maximum productivity and competitive advantage. While this might lead to continuous improvements and optimisations, it does so by turning only the small screws, while the existing situation is not fundamentally called into question. In times of permanent crises, this is no means of solving problems, however, which must be tackled at their root.

If we look at the creative industries, then the intrinsic motivation is a characteristic that always has been and still is the motor for creative effort. It is precisely in times of crisis that this is of great advantage, since creatives have a highly developed sensitivity to everything that happens around them, and therefore also around us. They tackle issues from the root up, analyse the causes and not the symptoms, consider problems from all possible perspectives and find new ways of approaching solutions to them by connecting and recombining what they have analysed. The fact that in doing so, the question of the “why” and the identification with their own work took precedence over the desire to make a profit meant that for a long time, the creative disciplines were banished to the margins of economic relevance. It is only now, during the course of the change in our society, which demonstrates limits of an economic framework based on a constant increase in productivity and the exploitation of resources that this entails, that we can and should make a reassessment of the creative industries. As a role model for alternative, useful ways and models of working, the creative industries really do offer an example of a new, value-oriented and therefore also future-oriented economy. Whether it’s a sustainable approach to the use of materials, providing a solution to social problems, changing consumer habits, overcoming digital overload or making productive use of networks, creatives are often “first movers” when it comes to social innovations

and new-style business models which combine entrepreneurship with social impact and creativity. They have an awareness of the social and economic effect of their own activity, coupled with an ability and a sensitivity that enables them to become aware of changes at a very early stage, or even “in advance”.

The desire to improve a situation often arises from a personal deficit or a personal need. However, the will to create, which follows this need, is placed at the service of a common good, a community interest, which goes beyond personal interest. The desire for unconventional solutions that arises from the ability to constantly change perspective, question what is presented as a given and combine what already exists in a new and experimental way is a problem-solving skill that creatives offer, as a result of which the creative industries play a substantial role in the necessity and striving for innovation. The fact that here, value orientation takes priority over everything else makes the creative industries a model for the future.

## II.

The desire to create something new, which combines the solution to a social problem with a high degree of motivation and identification, also created the impetus for Martin Hollinetz and his Otelo project: the creation of open, technology laboratories in rural areas, where committed people are provided with the space, infrastructure and advice to be able to realise their ideas. The focus is on mutual support, cooperation and sharing, exchanging ideas and experimenting, whether as a hobby or professionally, as a pensioner or as a start-up. The areas of activity range from cooking and sewing to making music, wood turning and tinkering with electrical equipment through to 3D printing and repairs. Otelo was created on the basis of a feasibility study in Upper Austria, which assessed the need for creative spaces with low-threshold access for people of all ages in

rural areas. In a region threatened by the exodus of young people and an ageing population, committed supporters of the idea were quickly found who wanted to set something in motion away from the urban centres – following the approach and way of working prevalent in the creative industries. The organisational form and structure that was chosen to manage the laboratory was also unusual: a type of association model that has features of a cooperative, while at the same time guaranteeing each individual member independence and autonomy. The Otelo base consists of independent associations, run by volunteers, which are connected by a charter and which provide the “humus”, while eGen acts as the “greenhouse” for implementing ideas and further developing the network. The model can also be multiplied, and an impressive network spanning different locations has been established since the first Otelos were founded in Vöcklabruck and Gmunden.

Otelo is one example of the open culture of innovation within the creative industries, and the innovation potential that they offer: how aims and goals emerge from needs, and from these, taking an experimental approach, new-style solutions that function as models and develop traction far beyond the area for which they were originally intended. Well-functioning ideas and formats from the creative industries can spread rapidly due to their open, social nature and be adopted by others. They can develop an impact that enables social innovations across the wide range of different communities. They create “spaces for opportunity” that permit far more innovation than closed systems, and which place people with their needs and abilities at the centre of attention. This is an “open culture of innovation”, which only functions, however, when it remains open, and is not – as can often be seen on the consultant market – transferred to a rigid methodology. Another effect is that as the example of Otelo shows, technological and social innovations go hand in hand. Nothing

expresses this better than the claim made by Otelo itself: “Otelo doesn’t make anything; Otelo makes things possible”.

### III.

The basic structure of the carrier of the genetic information of all living things, DNA, is a double helix: two parallel strands around a shared axis. An image that excellently illustrates the way in which the creative industries function, with all their tight connections and fissures. It is the interplay of different strands, the relationship between chaos and order, of interpretation and inspiration with structure and function, of creativity and a love of experimentation with the desire to create and produce form. It is the combination of the WHY combined with “another kind of” HOW that is the driving force in the creative industries. That’s where their great potential lies.

From a microeconomic perspective, the huge advantage of innovativeness is that for every question, every problem, an individual answer, an innovative solution is found. This is achieved not by repeating or continuing what already exists, but by connecting and recombining ideas beyond familiar thought patterns and routes. Instead of asking how we have behaved until now, we must always wonder how we can do things differently. We can learn a lot from this capacity for innovation in the creative industries.

From a macroeconomic perspective, this really does give the creative industries a transformative power that makes them a catalyst for change and renewal. What developed on a small scale as a micro-organism experiences a corresponding diffusion and dissemination through digitalisation – from an economic, social and cultural point of view. The individual responses, the innovative solutions, which are manifest many times over as local, new-style business models, come into contact with similar approaches worldwide, which network with

each other and in so doing, accelerate change. The DNA of the creative industries is the fuel for the economy and society of tomorrow, which has already begun to develop. In order to make use of these industries, we cannot allow ourselves to stick to old patterns, must not resort to old methods in the way that we treat them, or bundle them into old structures and forms. We should not destroy their DNA, but must instead use it by adopting their open culture of innovation.

# The creative industries effect

## Creative industries as more than the sum of their parts

— Gerin Trautenberger

The collaboration between traditional companies and companies from the creative industries leads to a large number of crossover effects from which both sides benefit. In recent years, a series of increasingly dense networks have been created between these different areas in Austria, which also make an essential contribution towards enabling the local economy to remain competitive overall. Therefore, it is not just the creatives themselves who benefit from the “creative industries effect”.

There’s hardly any area that has become more important in recent years as an economic and competitive entity in Europe than the creative industries. For the Austrian economy, the creative industries are an engine for growth and innovation, and are a significant factor for success. The potential for innovation is very high within the creative industries themselves, but it also acts as a catalyst for innovative products and services provided by other companies, contributing to their added value and growth. These crossover effects of the creative industries are the key to renewal and change in the traditional economy and local sectors. Regional innovation systems and business locations can themselves benefit from this creative industries effect.

### The creative industries as the avant-garde of the economy

Since 2003, the Kreativwirtschaft Austria (“KAT”) association has been following the development of the local creative industries with five reports about them. These reports illustrate how the creative industries are a pioneer for different developments in society as a whole, and how they themselves have developed in a positive way

#### The author



Gerin Trautenberger has been working as an Art and Creative Director for various companies in Europe and the US since 1992. In 2005, he founded Microgiants GmbH for product and service design, and is a specialist in design management and consultancy. From 2011 to 2013, he was a member of the European Design Innovation Initiative, where

he provided consultation to the European Commission on innovation and design policy. Since June 2013, Gerin Trautenberger has been Chairman of Kreativwirtschaft Austria (KAT) in the Austrian Chamber of Commerce.

Photo © Kreativwirtschaft Austria

over the years. In the interim, one in ten Austrian companies belongs to the creative industries segment. With over 140,000 employees in the creative industries, these 40,000 or so companies produce goods and services worth over 20 billion euros every year. This corresponds to 4% added value for all Austrian companies, and makes the creative industries an important cornerstone for the Austrian economy.

It is not only in terms of economic performance that the creative industries act as a pacemaker for other sectors. They are also a pioneering force when it comes to digitalisation. They stand out for their broad use of the latest technologies and methods, as well as the digitalisation of many processes in their daily work. With these experiences, the creative industries are paving the way and fuelling the digitalisation of added value chains, which is also described as the fourth industrial revolution, or “Industry 4.0”.

The current report published by Kreativwirtschaft Austria shows that 20% of the demand for creative services in the economy is generated either directly or indirectly by the public sector. This corresponds to a turnover of around 3.4 billion euros, which comes either directly from the state itself or via sub-commissions from public contractors. Creative companies help the public sector in developing new customer-oriented services and public services. This clearly illustrates the level of importance of the public sector as a client – a fact that is frequently overlooked.

### **Creative industry networks - small but perfectly formed**

One in ten companies in Austria belong to the creative industries. When only the service sector is taken into account, the figure even goes up to one in eight. The creative industries consist of architects, weavers, designers and acquisitive companies and selfemployed

individuals. The creative industries include music, books and artistic activities, radio and TV, software and games, publishers and video and film. The three largest creative branches, music, books and artistic activities (27% of all operations), software and games (24%) and advertising (23%) have the most employees, the largest turnover and the highest added value.

Two-thirds of the at least 40,000 local creative companies have no employees, but are one-person enterprises (OPEs). To compare: in the overall economy, only about one in three companies consists of a single person. This smallness of scale and manageable size is what gives power to the creative industries: in times of crisis, creative companies can react more quickly to changes in the market, and are more resilient in their response to structural changes. These small structures within the creative industries cooperate intensively with each other. This requires coordination, openness and collaboration when working with other creative companies and clients. For this reason, working together forms the core of the creative industries; collaborative and cooperative activities take the form of business partnerships and agency models or fall under a common label. When local creative entrepreneurs purchase services, they do so primarily from their own sector. 40% of the overall turnover of creative companies is generated by other companies from the creative industries.

### **The regional factor**

Finally, creative companies have not only proven their ability to survive in times of crisis; they also make an important contribution to positioning and developing cities, communities and regions. The creative industries are an important interface between innovation, culture, the economy and society, which ensure that an interplay is possible between technology, education, work spaces, culture and the economy. With their products and services, the creative indus-

tries support other sectors and regions, in order to remain competitive, better market themselves and create new, innovative business processes. Not only that: creatives are usually regarded as positive visionaries. This “spillover effect” in the sector also ensures that at the same time, social and cultural policy factors are impacted. Regions are strengthened through the new impulses coming from the sector. With fresh ideas and intelligent positioning, structural change can also be better managed.

### **Crossover effects of the creative industries**

The structure, conditions and peculiarities of the creative industries lead to “crossover” effects for society and the economy. These “crossovers” are found in collaboration with external experts and specialists, as well as within the creative industries themselves. Through these new forms of collaboration and the use of new methods and applications, new, innovative solutions are developed. In this context, new perspectives and new combinations emerge in the collaboration between individual sectors, branches and experts.

Innovations – new ideas, methods and approaches – are developed, tried out and refined in the creative industries, and can be adopted by traditional companies in transfer processes. Further evidence of how the creative industries can benefit companies is provided by the competition for the best creative industries story organised by KAT. KAT collects successful, interesting stories that demonstrate the impact of “crossover” effects, and how creatives, together with their clients from the business world, can turn simple products into wonderful experiences, or indeed, turn very complicated experiences into simple items in an ingenious way.

### **KAT - “Kreativwirtschaft austria”**

Kreativwirtschaft Austria (“Creative economy Austria”) offers a wide range of services to support the economic success of creatives and their cross-sector networking. Kreativwirtschaft Austria, as part of the Chamber of Commerce, represents the interests of the creative industries in Austria and in the European Union, and works to improve awareness of creative industry-based services.

# Portraits

Solutions for a society  
of tomorrow

# **1. Creativity & Zeitgeist**




---

**MANU LUKSCH**

Filmmaker and artist

[www.manuluksch.com](http://www.manuluksch.com)

[www.ambienttv.net](http://www.ambienttv.net)

---

## Art controls the controllers

### — Filming against surveillance

Manu Luksch is an artist living in Vienna and London whose work is a critical examination of Big Brother, data abuse and the control society. For her film project, “Faceless - Chasing the Data Shadow”, she used nothing but image material from omnipresent CCTV surveillance cameras, uncovering the oppressive reality of surveillance in our everyday lives.

In London, the city with the highest density of surveillance cameras worldwide, the activities of any individual citizen are on average captured on camera 300 times a day. Manu Luksch decided to use this surveillance network for her own purposes through artistic means. She took advantage of the British Data Protection Act of 1998, which specifies that a sign must be attached to every surveillance camera installed, and which grants every individual the right to obtain recordings on which they can be seen from the camera operators for a maximum fee of ten pounds. In an ingenious act of artistic aikido, Luksch used this law to transform this oppressive surveillance

power into a self-empowering film manifesto. The basic idea was to use not her own cameras or lights, but only recordings from surveillance cameras. Luksch had to be visible as a protagonist in all sequences, since this was the only way she would have the right to demand the video monitoring material. The sound had to be provided separately, since CCTV cameras are not allowed to record sound. All that had to be done to supply the film material, therefore, was to send off an application for the issue of the material to the individual operator of each camera directly after the recording was made, by registered post, with a photograph and a cheque for ten pounds.

---

### Art as a medium for designing alternative models for the future

Manu Luksch took seven years to produce the 50-minute film. Despite the clear legal situation, it was not so easy to gain access to the recordings. Very many of the camera operators ignored requests, made absurd demands, made excuses or referred to disappeared or defective storage media. The right to obtain a picture of yourself with your face does exist, but it is difficult to assert it. The title of the film, “Faceless”, does not originate from this difficulty in procuring the images, however. It is rather a comment on the current legislation which demands that on the recordings that are issued, all faces are obscured other than that of the person making the request.

Art as a medium for designing alternative models for the future, as a means of expressing criticism, such as of the predetermined nature of public space and the banishment of the individual from it, are core themes in the work of Manu Luksch, who repeatedly attracts attention with her projects.



In her work, Luksch takes a critical look at smart city technologies. Recently, there has been a strong drive in the industry to develop concepts that seek to cover the public space not only with cameras, but also with networks of different sensors, which constantly measure what is on the move, and how and where. The data collected can cover anything from wastewater volumes to flows of people.

According to these concepts, the purpose of real-time prognosis models based on such data is also to predict where undesirable situations might arise. This data can be used not only for commercial purposes, such as forecasting consumer decisions, but also for personality analyses in order to make predictions about potential unwanted future behaviour based on programmes and algorithms.

In her media projects, Luksch is critical of such efforts. In order to visualise the potential impact on an open, democratic society and make it possible to imagine them, she “constructs” fictitious people

who with their wide range of different patterns of behaviour become the subject of such data analyses. Her aim is to use this form of a speculative scenario to provide space for reflection on how smart city technologies like these might change and determine our everyday lives.

With her project “ambienttv.net” she has created an active interface between art, technology and social criticism. The purpose of Luksch’s work is to uncover the processes and effects of surveillance technologies on people’s daily lives and to present them as a subject for discussion.

---

Photo 1 • Elevate Festival

Photo 2 • Manu Luksch




---

**MICHA ELIAS PICHLKASTNER  
(MICHAELIAS)**

Artist and filmmaker  
postproduction, (motion-)  
design & compositing, media  
art (audiovisual performanc-  
es and installations)

[www.michaelias.com](http://www.michaelias.com)

---

## Michaelias

### — Media art and the human-machine relationship

**The audiovisual art of Michaelias uses the new media to draw attention to the “mutilation” of our communication and the loss of the importance of the body in our interaction.**

In the Internet age, communication has been disconnected from the body for a long time now. Smartphones, laptops and tablets enable us to communicate with other people regardless of spatial, time and social contexts. While communication between people is increasingly shifting to the virtual space, face-to-face communication is withering away at an ever faster rate. Personal conversations and the personal gestures that go with them are being suppressed in everyday life in favour of the virtual plane: e-mails, video telephony, chats and various social media are replacing direct exchange.

We are increasingly losing our relationship to our bodies. Language is no longer traced back to the body that produces it, but is instead reduced to electrical signals. This loss of the body and the reduction of physical communication, as well as the diversion of

communication via the media, is the focus of the work of the Viennese film and media artist Michaelias, whose real name is Micha Elias Pichlkastner.

His interest in film led Michaelias to study multimedia art in Salzburg, with the aim of starting out on a career in the film industry. During his period of study, he became increasingly interested in the new media. He was attracted to the idea of creating other worlds that burst the 2-dimensional boundaries of film. After finishing college, he moved to Toronto. During his long stay abroad, he worked for the Canadian photographer and director Ryan Enn Hugs, among other things creating music videos for the Canadian indie band The OBGMs.

---

### **In Web 2.0, the body is increasingly losing its importance**

As well as his media art projects, Michaelias, who now lives in Vienna, continues to work in the visual effects area of film post-production. He contributed the visual effects and animations for the experimental film project “Los Feliz” by Austrian artist and filmmaker Edgar Honetschläger.

Michaelias can also be found at festivals every so often. One fixed date in his diary is the Schmiede Festival in Hallein, where the best minds in media and computer art come together every year to exchange ideas and present their projects. Michaelias first showed his work at the festival in 2011 with the installation “Black Box”, in which he already examined the themes of machines, technology and their impact on communication. At the tenth sound:frame festival at the beginning of 2016, Michaelias was one of the speakers in the “departure Creators Lab” on the theme of “How to collaborate”.

### **How virtual communication influences our perception**

Michaelias also makes a critical examination of technologies and media in his latest audiovisual installation, “Replica”. Here, he



focuses on the loss of information through medial communication and the change in perception this entails. On the basis of his experience during a long-distance relationship, in which for months on end, communication took place solely via Skype, he reflected on the issue of the reduction of human interaction through the interposition of a medium. Exchange between people now only occurs virtually, and the laptop itself becomes a “substitute” for one’s partner. Due to the size of the screen, the body of one’s interlocutor is restricted and downsized in the form in which it appears. This aspect is increasingly the focus of the current shift from physical to virtual interaction, namely the battle for the importance of the body. The body retreats behind the virtual appearance, combined with a loss of orientation and of tactile opportunities for exchange.

The reduction of the body through the limitation of the screen is also reflected in the structure of “Replica”. The core piece of this work is a large screen, which is big enough to cover a real-life body

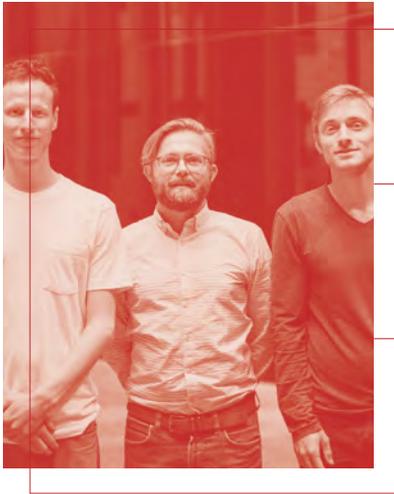
and its movement. The body is additionally emphasised and overstated by the reduced two-dimensionality and by a second screen.

In 2015, the installation was awarded the Salzburg federal state prize for electronic music in the “Interdisciplinary project” category. “Replica” was also nominated for the 2016 Content Award in the “Sound & Vision” category. The sound was provided by Arno Deutschbauer, whom Michaelias already knew before he started studying, and with whom he has repeatedly worked on new projects. Currently, they are putting together a toolkit designed to enable an audiovisual performance based on their interaction.

---

Photo 1 © Gregor Sams

Photo 2 © Michaelias



**JEROME BECKER, FLORIAN  
SAMMER, LUKAS VEJNIK**

Research collective

Bedroom Exodus

[www.bedroomexodus.com](http://www.bedroomexodus.com)

## Bedroom Exodus

— Concepts for a sleep culture revolution  
in public space

**Bedroom Exodus is the name of the manifesto of the young team of architects, Jerome Becker, Florian Sammer and Lukas Vejnik, who are calling for a “sleep culture revolution.” Their studies, which take the form of an architecture project, question the social historical developments and cultural differences when it comes to embedding sleep in our everyday lives.**

Sleeping through the night in the intimate space of one’s private bedroom is a relatively recent European cultural historical development. It was only from the 17th century onwards that it became common practice in the houses of the European nobility to provide separate rooms intended solely for sleeping at night.

The architecture and design project “Bedroom Exodus” calls this culturally determined form of sleep into question. Here, questions about the acceptability and value of sleep in our modern, performance-oriented society. Through design drafts intended to encourage the displacement of sleep to semi-public and public spaces, the purpose is also to make the subject itself a focus for debate. The

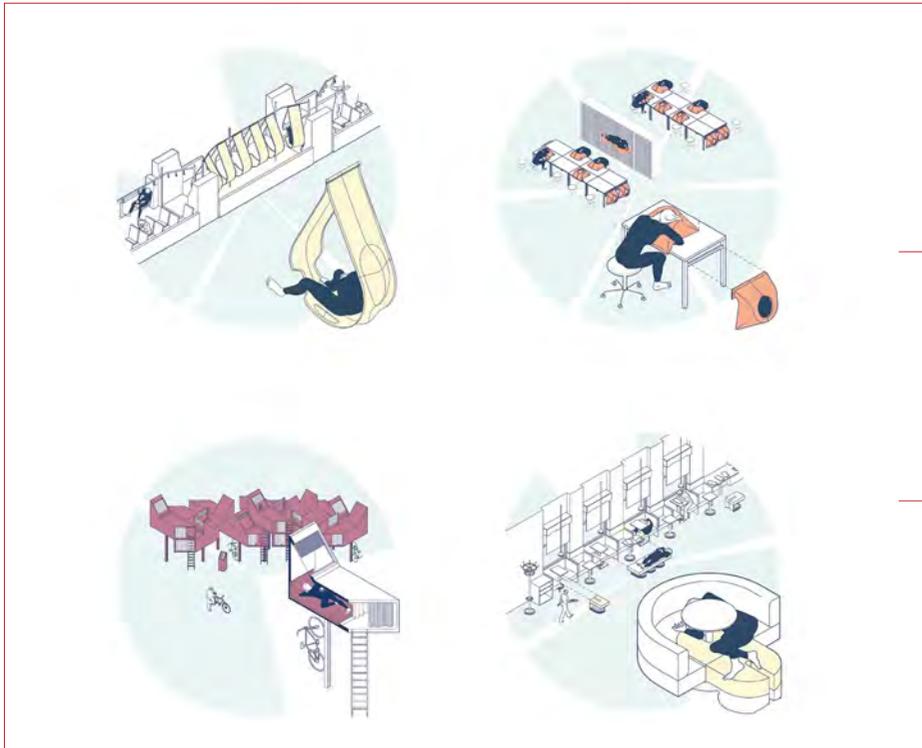
project was initiated by the three Viennese architects Jerome Becker, Florian Sammer and Lukas Vejnik.

We spend a third of our lives asleep. Yet it’s only since the first industrial revolution that it has become an established pattern that a fixed sleep phase is used during the night in parallel to the introduction of set working hours. This has remained true until today. On average the sleeping phase lasts seven to eight hours. Sleep is also closely linked to living. The bedroom is always also a place of retreat.

### Sleep as a collective experience in a public space

In our cultural environment, sleep is only acceptable in a small number of public contexts, such as taking a nap during a train journey. However, in other cultural circles, it is viewed differently, such as the siesta culture in South America and the Mediterranean region, or the “inemuri” in Japan - several short power naps distributed over the day. In order to develop new concepts of sleep, the Bedroom Exodus team analysed the sleeping habits of different cultural spaces, and tried to transfer these insights to their cultural environment in Vienna. Jerome Becker, Florian Sammer and Lukas Vejnik met at the Technical University in Vienna. The first ideas for the Bedroom Exodus emerged in 2013 during a seminar at the Institute for Architecture and Design. Florian Sammer taught at the Technical University in Vienna, while Jerome Becker and Lukas Vejnik were still studying there. They continued to pursue their ideas for a sleep culture revolution as an independent research project.

The research trio delivers designs that show how sleep can be integrated into everyday situations in our public life. Some examples are a kind of hammock in public transport or an extension for seats



in cafés, which provide space for sleeping in public areas. By taking sleep out of a specific location, a polycentric use of urban space emerges, with the aim of rethinking one's sleeping behaviour. This means that in a polycentric city, a wide range of different options for a polyphasic sleep rhythm can be offered. According to this concept, night- and daytime become individual and subjective. The project includes the provision of opportunities to sleep at any place and any time. Then, sleep becomes a phenomenon that not only happens in the private bedroom, but can rather be understood as a collective "activity".

### Can a polyphasic sleep culture counteract sleep disorders?

Today's performance-oriented society often ignores our need for sleep and times when we can rest. The neurobiologist and scientific journalist Peter Spork talks of a "society suffering from a chronic

lack of sleep". Some companies even provide their own sleeping cabins in order to bind their employees even longer to their workplace. The pressure to perform and the fear of losing one's job facilitate one of the major diseases caused by civilisation of our times: a lack of sleep. The pressure to perform in our capitalist world encourages the notion that we must function during the day and use the night to recover. According to medical experts, there is no reason not to have a midday nap. Conversely, it's also not detrimental to health only to sleep at night for a fixed period. The only important thing is to have a regular sleeping pattern. Our accustomed sleep pattern is based on economic and commercial interests. Babies have a polyphasic sleep pattern, which they are forced to abandon as they grow older. This rhythm is in turn better adjusted to the level of performance required by our western working and education practices.

While the Bedroom Exodus team continues its lively exchange of views with "sleep experts" such as Hannah Ahlheim, who has studied the history of sleep from a scientific perspective, or the figurehead of polyphasic sleep, Marie Staver, as a next step, they are planning to concentrate more on the role of rest in different social and spatial situations.

---

Photo 1 • Simon Oberhofer

Photo 2 • Bedroom Exodus




---

**FLORIAN SATZINGER**

 Character designer
 

---

[www.paperwalker.com](http://www.paperwalker.com)


---

## Character design

### – The Paperwalker, or the fantastical journey of „John Starduck“

The fantastical journey into space of the duck “John Starduck” is just one of the cartoon and animation film stories in which the appearance and personality of the figures has been created by Graz-based character designer Florian Satzinger. In his blog, “Paperwalker”, he also divulges the various idiosyncrasies of his loveable characters.

The character designer Florian Satzinger has already worked for Walt Disney and Warner Bros – and with the quacking astronaut John Starduck has created a screen star. Satzinger, who was born in Graz, initially worked as an illustrator. It was during this time that he realised he had a talent for constantly thinking up something new, re-drawing and re-interpreting figures. This is an ideal quality for work in a film studio, which revolves around redeveloping existing figures or creating new ones. Satzinger then completed a cartoon film study programme in Vancouver, Canada, before founding the Satzinger & Hardenberg label with Nils Homann Hardenberg in 1995.

In 2009, Satzinger won the Nemoland Award for Character Design in Florence.

### From Walt Disney to Red Bull

The clients who have faith in Satzinger’s creativity include Walt Disney and Warner Bros (Looney Tunes, Pinky & Brain), Hermann van Veen (“Alfred Jodokus Kwak”), Bahlsen, Telekom Austria, Ankama Group, SAT1 and Red Bull. The character designer also teaches analogue animation, animation history and media analysis at the Salzburg University of Applied Sciences, and was a guest lecturer for character design at VIA University College (Viborg, Denmark). And not without reason: Satzinger’s drawing style has vibrancy and bite, and is reminiscent of the best classic cartoon films from the mid-20th century, as the reviewer Charley Parker put it in “Lines and Colors”, the sector blog.

---

### Film of a fantastical journey

However, Satzinger also fills his own figures with life – such as the adventure-loving New York duck, “John Starduck”. The film of his fantastical journey into space has been in production since the start of 2013, in collaboration with the French cartoon film studio Tigobo. Here, Satzinger works as art director and film director. Another figure from Satzinger’s universe is Toby Skybuckle, whose adventures also illustrate autobiographical episodes from Satzinger’s childhood. You could say that what this figure experiences on his adventures did in some way take place in reality. But of course, as Satzinger puts it, “with a laarge portion of fiction added”.



### Over 28 million content views

According to Satzinger, one of his secrets of success is networking through national and international organisations, and having a strong presence. His weblog, “Paperwalker”, in which he regularly posts reports on his work, has attracted over 28 million content views since October 2012. In this way, Satzinger has succeeded in coming forward out of the shadow of anonymity among drawers and illustrators and building up his own fan base worldwide, who are not only interested in the stories of his virtual characters, but also in the artist behind them.

### An individual style as a trademark

What is the designer’s work style? When Florian Satzinger designs a character, he focuses on creating cartoon film figures in a precisely defined style and function framework. “First, a silhouette appears in my head, which I then follow up on”, he explains. But before he starts drawing, there’s always a large amount of calculation to be done. Even if a figure flows out of his pen as if by itself, he always follows the basic principle of “Think before you draw”. That helps to develop a clearer idea of the new character, who after all will later match the stories that the figure tells. He develops a structural plan for volume, anatomy, colours, movements, and much more. After he has collected his initial ideas, he draws the figure on the computer. The animation of the drawings is then taken over by the 3D artists. Naturally, the client’s specifications must also be taken into account – while at the same time, his own style must also be recognisable. This has become a kind of trademark for Florian Satzinger. And that’s exactly why his clients like giving him work.

## **2.** **Creativity** **& Society**




---

**MARLIES PÖSCHL**

Artist —————  
 Films, installations, photo-  
 graphy, texts & performances  
 between visual art, film & li-  
 terature —————  
[www.marliespoeschl.net](http://www.marliespoeschl.net) —————

## And other Stories

— Cultural investigations at the interface between film, art and society

**The Austrian artist Marlies Pöschl describes her work as being at the interface between film, visual art and literature. With amateur performers, documentary techniques and fictional elements, she examines a wide range of themes centring on education, communication and the construction of identity.**

The artist Marlies Pöschl, who originally comes from Salzburg, moved to Vienna to study at the University of Applied Arts. Since then, she has continued to live in the Austrian capital, where she works on her films, installations, photographs, texts and performances. Her work, at the interface between film, visual art and literature, but also often occupying an intermediate space between documentation and fiction, tackles themes ranging from cultural identity, language, communication, migration and education. A common feature of her filmic work is that the film set is regarded as a social space for

interaction, and that making films in itself is taken into account as an artistic process.

Pöschl has also spent a lot of time living abroad, in France, China and Iran. She is particularly interested in how communities function, and which utopia form their basis.

Marlies Pöschl has an eye for detail, with her outside perspective that has not yet been overlaid with the habitual patterns of everyday life. In this way, she discovers the subjects for her films on site. Her time spent abroad has resulted in several collaborations, such as her current project, “Cinema Cristal”. The idea for the work came to Marlies Pöschl when an architect friend from Teheran took her along the Lalezar street. This street, where there used to be several cinemas, is now filled with illuminations. It is the inspiration for an examination of cinema as a space for remembrance.

---

### How language determines our identity

In one of her first films, “L’Ecole de Simili”, Marlies Pöschl explores the theme of “migration” from two perspectives. First, there are young people from the second generation, who have developed their own slang in order to stand out from the “locals” by means of their language. Secondly, the protagonists of the film are themselves not French by birth, but travel to and fro between various countries. Since dialect reflects one’s membership of a community, the young girls and boys initiate their own language course in order to learn the slang used by the young people in the banlieus. The various dialogues develop a life of their own as the protagonists practice them. While this film is set in Paris and shows young people, who ask themselves what “home” means and who are in search of their identity, the video installation “Practice” looks at another aspect of migration. Here, the action takes place in China, among an ethnic minority, the Uighurs. In this video installation, Marlies Pöschl aims to capture how a “different” culture is represented by the official system, how it is learnt and what roles, what advantages there are or which are borne out. The installation shows rehearsals of a dance troupe in Shanghai practicing a Uighur dance.



### Filmic work with impulses, and playing with fiction and reality

When she spends time abroad, Marlies Pöschl immerses herself in foreign cultures, is a curious observer and explores the people and the conditions in which they live in a playful way, making them the subject of her works. In so doing, she likes to use unconventional dramaturgical methods. She has a keen interest in acting and performance. The interaction between the characters and her work with impulses from dance and group exercises plays an important role in some of her works.

In her scripts, she doesn't give any strict directions, but rather leaves many aspects open. She also likes to work with amateur performers. It is a process of searching that also questions the methods of filmmaking themselves. The results of such research processes are films such as "L'Ecole de Simili", "The Machine Stops", or "Sterheim".

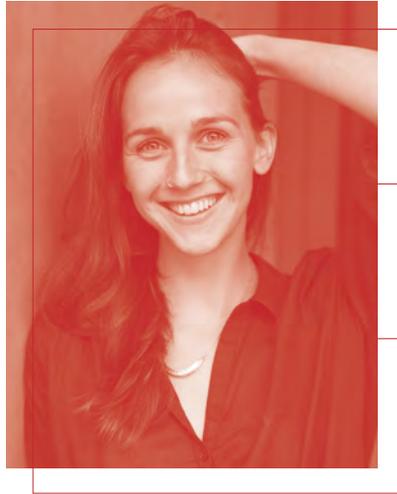
At the same time, the film project can also act as a trigger for more far-reaching social interventions, as was the case with "Sterheim". In an open process, pupils were filmed who were simultaneously thrown into a workshop and casting situation. As a result of this juxtaposition of different tasks and pressure situations, by the end the young performers can no longer recognise the difference between fiction and reality.

"Complex", which was created for the Danube Festival in Krems in 2016, looks at spaces rather than role models or identity constructs of a "foreign" cultural space. How are spaces constructed, and where are their boundaries? Here, half-secret fitness centres from Teheran are shown. Visually, only the rooms are visible, but on the sound level, "field recordings" are played which bring people into the rooms. With this work, Marlies Pöschl aimed to create spaces where it is not clear whether there is a boundary and if so, where. In Teheran, a clear line is drawn between public and private space, and behind this, there are a large number of further, hidden boundaries. This is something that Marlies Pöschl examines in her installation.

In her artistic works, Pöschl takes the viewer on a journey to an unknown world, and shows how communities can function, how identities are put together, and what questions arise during the process. However, language and communication are important themes, which run through several works by the young artist.

Photo 1 • Marlies Pöschl

Photo 2 • Cinema Cristal (filmstill, Marlies Pöschl)




---

**JULIA BACHLER**

 Founder & director
 

---

 Use Potential
 

---

[www.jbachler.wixsite.com](http://www.jbachler.wixsite.com)


---

## Use Potential

### — Social empowerment through a database of refugees' skills

The purpose of the project initiated by social entrepreneur Julia Bachler, "Use Potential", is to collect skills and knowledge of refugees in a database. In this way, they are to be given the opportunity of actively participate in shaping their new environment. And as a result, they are also given back a piece of their independence and dignity.

War and terror have led to the highest volume of refugee movement since the end of the Second World War. A difficult challenge has been created on a global scale. When the refugees do find a safe place of shelter, a period of uncertainty and waiting begins. For many, this insecure situation lasts longer than just a short period of time. It often takes years, even decades, before their legal status has been clarified. In most cases, asylum seekers are not permitted to work during this time, and in general, the opportunities for participating in society are very limited.

With her project, "Use Potential", Julia Bachler is offering one

way of dealing with this problem. Born in Austria, she completed her Master of Medical Science in epidemiology in Sweden. Now, she works as a social entrepreneur and has intensively turned her attention to the refugee crisis. She founded "Use Potential" after a long period of research and periods of time spent in Jordan and Lebanon in order to gain an impression of the situation of the refugees on site. The project, which is funded by the T-Mobile Umwelt- und Nachhaltigkeitsfonds (TUN), the environmental and sustainability fund, won the Social Impact Award in 2015.

She found the inspiration for her creative solution approach in Doris Lessing's novel "The Story of General Dann". In the book, the question asked of each individual when they arrive at the refugee camp is: "What is the most important thing that you can do?".

This is precisely the basic concept of "Use Potential": everyone can contribute something towards the community. One of the questions when registering people at a refugee camp should therefore be: "What can you offer your community?".

---

**"The opportunities are endless.  
Just like people's ideas."**

The skills, knowledge, interests and experience listed during registration will be recorded in a database and later made available to local NGOs and municipal organisations who look after the refugees. They know what is needed in the local area and can then invite the refugees to participate in organising and shaping their new environment. This enables the asylum seekers, who are otherwise condemned to doing nothing, to take part in communal life. They can participate in the community and get involved. As a result, they are given back a part of their independence and dignity, and feel themselves responsible for their environment. Through this inclusive approach, resources that otherwise would go to waste are not only used, but social cohesion is underpinned.



### Participation as a means to self-determination and autonomy

Refugee camps are usually characterised by an extremely high degree of heterogeneity among those living there. They are not necessarily representative of the population. The geographical, social and economic backgrounds of the individuals often differ in the extreme. This is accordingly reflected in their level of education, their knowledge, their skills and experiences. „Use Potential“ sees a major opportunity precisely in this variety, and has a clear procedure for creating a skills database and turning it into a useful tool.

During registration, in the way in which it is already conducted by the UN Refugee Agency, it is planned that the question will also be asked in the future as to what the most important skill or most important knowledge of each individual refugee is. Anyone who is unsure is encouraged to name at least one activity that they enjoy doing. Their mobile phone number will also be taken.

The information collected is sent to NGOs and other institutions responsible for looking after asylum seekers and which are located near a refugee shelter. The skills of the refugees housed there are evaluated and potential groups of volunteers are planned. Those living in the refugee centre who have a suitable profile are then contacted through text messages and voicemail, and are invited to contribute their knowledge, skill or expertise to local projects and to get involved.

The passive role imposed on people who are forced to sit and wait is perceived by them as being demotivating, stressful and dehumanising. If people are given the opportunity to contribute their individual skills, they are acknowledged as being a full-value individual. People who have been forced to flee and leave their homes want to get involved in their new environment, to help shape it. That leads to better, more peaceful and cooperative cohabitation.

The empowering approach taken by „Use Potential“ enables self-determination and autonomy, increases a sense of responsibility and ultimately also increases security. It also offers training and further education for anyone wanting to return in the future and rebuild their homeland.

The social and integration sector could also make better use of its finances if use is made of those skills among the refugees which are already available.

Here, empathy for people who have been forced to leave their home and their homeland is always the focus of awareness. For „Use Potential“, treating these people with the utmost respect and empathy is a fundamental human responsibility.

---

Photo 1 © Iconoclash Photography

Photo 2 © Julia Bachler

---




---

**ASTRID HAINZL**

University assistant at the WU (Vienna University of Economics and Business)  
 "Die Reproduktion des männlichen Aufsichtsrates - Homosoziale Praktiken in der Evaluierung von Kandidatinnen und Kandidaten"  
[www.wu.ac.at](http://www.wu.ac.at)

---

## Too few women in supervisory bodies

- What are the mechanisms that lead to such a low proportion of women in supervisory bodies?

The Viennese gender researcher Astrid Hainzl has examined the reasons why women are so poorly represented in the supervisory bodies of Austrian companies. Here, the focus of her work was above all the social patterns of activity that make it so difficult for women to enter such bodies, or which prevent them from doing so entirely.

Women are still drastically underrepresented in the supervisory bodies of large companies. In numerous countries, a debate has been conducted over the introduction of women's quotas in such bodies in recent years. In some, statutory quotas have even been introduced, at least for companies registered on the stock exchange. One example is Germany, where in 2016, quotas were set for the 30

largest companies listed on the DAX, the German stock exchange. However, such measures neither tackle nor remove the reasons for the fundamental gender imbalance in supervisory bodies. And legal quota regulations are also rejected by many women, who do not wish to be seen simply as a "quota woman". Although it has been proven in numerous studies that a higher proportion of women in supervisory bodies has contributed to the long-term development of these companies, the selection mechanisms for appointing people to this elite circle, which fundamentally favour men, have changed little in recent years.

The Viennese gender researcher Astrid Hainzl has now made an innovative study of the underrepresentation of women in Austrian management bodies the subject of a research project entitled "The reproduction of the male supervisory body – homosocial practices in the evaluation of female and male candidates". Her work has provided the groundwork for further insights into the complex links between gender ratios and work processes.

---

### The professional advancement of women is being hindered by traditional role concepts

In so doing, she has made a well-founded academic contribution in the effort to understand what mechanisms lead to vertical gender segregation, and how they can be reduced in the future.

Astrid Hainzl's study at the interface between the economy and society illustrates the fact that despite the public discourse regarding the low proportion of women in the supervisory bodies in Austrian companies, this proportion is only increasing on a small scale. Here, Astrid Hainzl focuses on the evaluation of female and male candidates. The issue here is not the differences and commonalities among the candidates, as has been pushed forward by other studies to date. Rather, it is shown how largely unreflected and unconscious homosocial practices lead to preferential treatment for men.



### A study of homosocial practices during application procedures for supervisory board positions

On the basis of a qualitative, exploratory study using a series of interviews with selected experts, supervisory board members and executive bodies as well as personnel consultants responsible for appointments, typical characteristics of the selection process are defined. Here, a pattern of behaviour emerges that favours men, because, for example, trust is formed in typical male groups and male networks (in the homosocial context), and this trust is the decisive factor when appointing members of supervisory bodies. Neither specialist qualifications nor the necessity of appointing different kinds of people for the individual positions are able to beat this criterion. Hainzl's work shows that the bond of personal acquaintance is one of the key factors when deciding who should be appointed. Her work stands out in particular for its current relevance.

The subject of appointments to supervisory bodies and their composition is not only a frequent subject of discussion in the media, but also in politics. Currently, a draft for an EU-wide standardisation of selection criteria is being developed, in which a stipulation will be made that selection may not be “subjective”. Not least for these reasons, well-founded academic arguments such as those presented in Hainzl's work are helpful for laying the groundwork for the political debate.

A look at the figures for the largest companies listed on the stock exchange in Austria shows how far behind Austria is in this area. In the supervisory bodies of the top 200 companies in Austria, the proportion of women appointees was 17.7% in 2016. While the share of women rose compared to 2015 (16.2%), it is still very low. In the boards of management, the share of women is even lower, at 7.2% in 2016, 1.3% higher than the previous year. This leaves Austria trailing far behind the EU average of 21% when it comes to women in management positions.

Astrid Hainzl, who was awarded the Gabriele Possanner Prize for her work, uncovers the hidden social patterns behind these figures with her study. From her work, we can draw the following conclusion: primarily, the process of appointment to management positions must be critically questioned – particularly with regard to qualification requirements and assessments. According to Astrid Hainzl, a clear profile must be created in agreement with the characteristics and qualifications of the existing supervisory body members, in order to be able to break the standard patterns that are followed during evaluation processes.

---

Photo 1 • Gloria Warmuth

Photo 2 • Michael Dully




---

**ELISABETH MAREK**

Founder and head of —————

the creative fillip —————

Creative workshops —————

www.creative-fillip.com —————

## The creative fillip

### – Creative workshops for socially disadvantaged people

In her creative workshops, “the creative fillip”, graphic designer Elisabeth Marek offers people in difficult life situations a safe space for artistic development. By experimenting with different materials and techniques, they can discover their artistic potential here and take a “mental break” from their everyday worries.

There are many barriers that disadvantage people socially, economically or culturally. Perhaps they can’t cope with the institutional education system, or can hardly afford their lives, are unemployed or have had to flee from terror, violence and war. Unemployment, poverty and flight have become global problems on an unprecedented scale.

Often, people in such difficult situations have no “time out”. They have almost no opportunity to break out of their everyday lives, which are often dominated by problems. The social project “the creative fillip” set up by Elisabeth Marek has developed a very special solution approach to this problem: it is based entirely on the power of creativity, and provides an artistic “time out”. In this way, people

in problematic life situations are given the chance to leave their troubles behind, at least for a short while. At the same time, they can find out about and use their creative potential in a safe environment.

“The creative fillip” was founded in 2013 by the graphic designer Elisabeth Marek. Since she didn’t enjoy working alone at the computer, she decided to set up a project that challenged her. Her aim was to enable other people to develop their creative manual skills. People in difficult situations in particular need such spaces to be able to develop their creativity freely.

---

### A creative break to foster courage and self-belief

In a range of different creative workshops and workshop programmes, people at “the creative fillip” are given the chance to work creatively entirely without the pressure of being judged for their output. The participants in the groups differ widely. The project is directed at refugees, the unemployed, and children and young people from difficult backgrounds.

A protected, free space is created in which they can live out their creative impulses and experiment in a supportive environment. Participants can give artistic expression to their dreams, thoughts and feelings. At the same time, a bridge is built between different cultures and groups.

Different materials and work techniques are explored together. A new learning space is provided in which participants’ own creative skills can be explored and expanded. They work together, get to know each other and in so doing, discover that good cooperation and a good way of interacting with each other are possible.

The creative workshops in “the creative fillip” are not just places for creative expression, learning and meeting other people, however. They are also a kind of “mental short break”. The participants can briefly remove themselves from the otherwise often problematic conditions in their everyday lives and “free their minds”.

Recently, the works created were presented to the general public in exhibitions. These exhibition openings mean that those involved are the subject of positive attention and acknowledgement – something that they often don’t experience elsewhere.



### Material as the starting point for a creative journey

It's not just the composition of the groups that is a colourful mixture, but also the materials and techniques used. Each of "the creative fillip" workshops focuses on one material or one specific technique. However, from a general starting point, anyone can set out on their own "creative journey". There are no rules or limitations as to how the material or technique should be used. The focus is on the creative process and shared experimentation. Whether participants work alone or in a team on a piece or entire series of works is entirely up to the individual creative minds. In a process of exchange in the group, independent projects emerge which usually deal with very personal themes.

In the "paper" workshop, for example, a group of young people from the Ute Bock refugee project work with colours and paper for a week. After fleeing to Europe, in many cases with the journey

lasting several months, this was the first opportunity for many to give artistic expression to their experiences. When trying out their skills and experimenting with the materials, independent works were created, which were then shown at an exhibition opening. In turn, for the "León - Telica" project, "the creative fillip" was a guest for three months in the two towns in Nicaragua of the same name. For around 80 young people whose everyday lives are otherwise dominated by crime, drugs and violence, a place of retreat and discovery was created. In the daily workshops, they learned different creative techniques and worked with materials such as wood, cardboard, shells, seeds or plastic bottles. In "Bock 'n' Roll", eight asylum seekers designed and produced skateboards in a creative workshop lasting for two weeks. With the basic module, "one board, two axes, four wheels" as a starting point, the participants developed their own very individual forms and built one-off pieces. During the process, they learned basic woodworking techniques, could give free range to their creativity with their designs, and at the same time learned how to behave within a heterogeneous group in an informal way.

"The creative fillip" has been a registered association since March 2016. As a non-profit organisation, "the creative fillip" is funded solely through donations and the sale of the items produced in the workshops.

Through cooperation with existing organisations from the social sector, interested parties were identified and informed about the creative workshops. All the work is organised and managed by Elisabeth Marek together with a team of volunteers.

---

Photo 1 • Markus Neubauer

Photo 2 • the creative fillip

---




---

**MARTIN HOLLINETZ**

Initiator Otelo - Offenes  
 Technologielabor & Otelo oeGen  
[www.otelo.or.at](http://www.otelo.or.at)  
[www.oteloegen.at](http://www.oteloegen.at)

## Otelo

### – Open technology laboratories as future hubs in rural areas

**In order to halt the flight of young creatives from rural regions, Martin Hollinetz came up with the idea of founding an open technology laboratory, which is accessible to everyone, and which invites people to share their experiences, ideas and knowledge.**

While cities continue to register a huge growth in population, rural regions are faced with the opposite situation. Young people are drawn to the urban centres, and the local population is becoming older. As a result, innovation is difficult to push through in these areas, and structures that are usually outdated are maintained. Migration away from these regions and a lack of prospects are the problems to which rural areas are trying to find a solution. Creative and innovative minds lack the incentive to remain in their place of origin. In the cities, better networks are available in order to develop and implement new ideas.

Martin Hollinetz himself moved away from his home community to live in the city. When he returned to the country as the head of regional management for the Vöcklabruck/Gmunden region, he re-

alised in 2008 that the regional development and creative industries in rural areas needed to be strengthened. His purpose was to create spaces in which creatives can develop and generate networks that are otherwise only to be found in cities.

Otelo was born. “Otelo” stands for “open technology laboratory”. The local authorities provide disused, empty rooms where so-called “nodes” can meet and exchange ideas. A node is a small group of at least five people, who work together on a project in an area of activity.

---

### Otelo embodies an experimental culture of innovation

With his project, Hollinetz has created a new, local culture of innovation. On the basis of his work in Gmunden and Vöcklabruck, he built up a network that extends far beyond Upper Austria and even Austria itself. Overall, there are now 22 projects in Upper Austria, Lower Austria, Carinthia, Germany, Italy and Spain. This cooperation between the local authorities and civic society groups also serves as a model for other regions in Europe. Even in Detroit in the US, there are plans to create an Otelo. The individual Otelos are self-organised, independent and run by volunteers. The association management committee, in other words, the local team, is responsible for hosting an Otelo overall, both in terms of organisation and atmosphere. Here, everything is possible as long as it is in line with the values set out in the charter – an agreed canon – which put simply calls on those involved to share and actively contribute.

The added value of Otelo is that it provides easy access to a wide range of different application fields, such as the natural sciences, technology, the media, art or agriculture, and that here, the individual members are supported in developing their ideas, as well as planning and implementing their projects. As a result, unusual projects are created such as the “Mobile Human Powerstation” (Mohups): here, the energy generated when people really go full power ahead in the fitness studio is put to practical use. Generators are mounted onto bikes, and only when enough people really pedal hard is sufficient electricity produced to enable host a concert, for example.

Education projects such as “KET - kids experience technology” in turn attempt to promote an interest in technical professions among primary school children. Various cooperations with social



systems such as education, politics or the economic sector mean that the innovations created in the Otelos are used for the benefit of the population at large. One example of this are the 3D printing laboratories which are installed in schools in Upper Austria, and which can be used by everyone – not just the pupils.

The Otelos network creates the ideal humus for forging new contacts, which can in turn lead to the formation of successful business relationships. One example are two 3D printing start-ups, Evo-tech, founded by Markus Kaltenbrunner, and RepRap Austria, founded by Benjamin Krux. Markus Kaltenbrunner from Evo-tech built his first 3D printer in the Otelos in Vöcklabruck, and also met his later business partner via the Otelos network.

Access is open to anyone, and without being restricted by institutional rules, interesting activities can be pursued here, from cooking to bicycle repairs and tinkering with electronic appliances through to 3D printing or a Virtual Reality Lab. Here, inclusion is put

into practice and taken one step further, since marginal groups in society also find a place here in which they can get involved and pursue their interests.

### Innovation requires the adaptation of existing structures

The Otelos adapt the concept and way of working of the creative industries in order to exploit the potential within a region and work together to create something new. In the interim, they have also spawned the Otelos eGen, the first employment cooperative in Austria. The people and associations involved have been experimenting with new forms of work and commercial activity since the start of 2014, and within the collective, they are attempting to make their living through the exchange of knowledge and resources in the fields of regional development, consultancy, media work, new technologies and education. All members are employees, as a result of which no-one bears the risk alone, while at the same time being able to act independently. Each member receives a fixed salary; those who earn more are given more time off instead of more money. One of the current Otelos eGen projects is “Erkenntnispiel” (“the realisation game”), which moves in the realm of “mixed reality”. Here, through the use of virtual reality glasses, the boundary between reality and fiction is lifted and a reflex process is triggered in the wearers that causes them to question their own media behaviour. This project is being run as part of the “Innovative OÖ 2020” scheme, and will be implemented in cooperation with Ars Electronica and the federal state of Upper Austria/health department.

The different Otelos and their projects generate new impulses for the regions, which act as levers for processes of social change. The rural areas become more attractive for young people, who do not only have to take their innovative ideas to the urban centres, but can also find opportunities for development and places to go where they can experiment in their region, too.

Photo 1 • Robert Maibach

Photo 2 • Otelos Offenes TechnologieLabor

# **3. Creativity & Responsibility**




---

**DAVID GROSS**

Filmmaker, activist

wastecooking & refugee.tv

www.wastecooking.com

www.refugee.tv

---

## Wastecooking

— Fighting food waste and xenophobia with “artivism”

The documentary art film project “wastecooking” by trained chef, filmmaker and “artist” David Groß focuses and, in an ironic and effective way, shifts our view of global food waste. A change of perspective is also the focus of another project of David Groß: [refugee.tv](#) is an online TV channel created by refugees, telling stories from the world from which they have come from their perspective.

Currently, food is being wasted on a vast scale, with one-third of food being thrown away worldwide. In Austria alone, over 150,000 tonnes of edible food lands in the dustbin every year.

If you include the figures and definitions of the United Nations World Food Programme, 11% of the world’s population is suffering from chronic hunger. In this light, food waste in the industrial countries is more than just an ethical problem caused by the global trade system. A third of all waste gases that are damaging to the environment are caused by food production.

With “wastecooking”, David Groß, who is based in Salzburg, is

helping to create awareness of this problem. In his reportage films, documentaries and campaigns in public spaces, the trained chef prepares dishes from thrown-away food and develops his own recipes for ingredients taken from the rubbish bin. In this way, he is communicating the problem of food waste to the general public in a highly effective way. At the same time, “wastecooking” has three demands: that over-production of food be stopped, that rampant consumerism be stopped, and that leftover food is sensibly distributed and cooked in a creative way. For this reason, urban protest practices such as “containering”, “dumpstering” and “wastediving” should be decriminalised and passing on unsellable food to the civil society should become a mandatory obligation, stipulated by the law.

“Wastecooking” gives back wasted food its value as a cultural asset, and through its artistic approach shows how to treat such food in a more creative, respectful way.

---

### Food is culture... don’t waste it, cook it!

In 2012, David Groß initiated the actionist art project “wastecooking”, with a team of seven people. The campaigns were run under the name “artivism”, in other words, the boundary area between art, politics and activism. First, a web video series was produced and cookery performances critical of consumerism were held in public areas. Here, the aim was also to internationalise the idea under the motto: “Waste cooks of the world, unite!”.

In Vienna, in September 2013, “wastecooking” opened the first free supermarket in Europe as part of the “Wienwoche” art festival. As well as discarded food, “rubbish diving tours” were offered and free cookery classes were given.

From the summer of 2014 to the spring of 2015, David Groß initiated another culinary experiment, in order to highlight food waste at an international level, too. He travelled through five European countries in the space of five weeks, with the aim of cooking only with food that others had thrown away during the journey. During the trip, he was supported by activist groups, chefs and scientists who are also looking for ways to tackle the global problem of food waste. The journey was documented in a five-part TV series and a full-length film.



### A tv channel run by refugees as a means of self-empowerment

Food waste, climate warming, starvation and refugee flows are interconnected global problems whose original contexts and impacts only become visible and understandable when they are seen from a different perspective. And in the same way as David Groß memorably illustrated the theme of food waste in a saturated, well-off society in a subversive, ironic way, so another project initiated by the young man from Salzburg is also designed to make the local effects of a global problem easier to comprehend through a deliberate change of perspective. “refugee.tv” is an online TV project, in which people who have fled to Europe create their own TV programmes under the motto “the other perspective”. To date, the project is unique in Europe.

Filmmakers, journalists and camera operators, some of whom made the problems in their homeland public, which is why they had to flee, work together with film teams from Austria. This enables them to continue doing the work they love in their new situation as people who have been forced to leave their country.

Here, the goal is a change of perspective. By reporting on their own experiences and current situation, refugees are transformed from objects of media interest to active creators. Bringing their perspective to the social discourse through journalistic activity therefore becomes an act of self-empowerment. Instead of reporting on crises, the focus here is on opportunities, so that those perceived as “other” are regarded as a positive addition, rather than a risk. The reports and documentaries relate not only to subjects that affect the refugees directly, but also offer loving, ironic takes from the outside of the habits and customs of the Alpine region, which can appear extremely strange to people from elsewhere in the world.

Media makers from six different countries work together, supported by a four-person team from Austria. In this way, “refugee.tv” is a good example of trans-cultural teamwork and dialogue. Its reports and magazine programmes, as well as an appearance at the media art festival “Digital Spring” have already attracted a broad range of media interest in the project. Since a large number of media professionals who were forced to flee their homes due to their critical reporting have now joined “refugee.tv”, a “MEDIA SUMMIT” was organised for the first time in April 2016. At this first media meeting in Austria for film- and TV programm-makers who have arrived in Europe as refugees, networking and exchange was made possible, and a film workshop was given for young refugees. Through its films and film art, TV formats and performances, “refugee.tv” shows what an important contribution refugees can make to the European media landscape if they are given the opportunity to do so.

---

Photo 1 • Daniel Samer

Photo 2 • Daniel Samer

---




---

**ANDREA LUNZER**

 Founder and owner
 

---

 Lunzers Maß-Greißlerei
 

---

[www.mass-greisslerei.at](http://www.mass-greisslerei.at)


---

## Lunzers grocery by weight

### — Shopping without packaging waste

With her grocery by weight, Andrea Lunzer has created an organic food shop where customers can buy goods by weight, without generating packaging waste. The regional products from organic sources are all unpackaged. Customers bring their own pots, or take the re-usable glass containers provided in the shop, and buy the exact quantity that they need. This reduces not only packaging waste, but also food waste.

The world's population produces 3.5 million tonnes of rubbish every day. This figure is forecast to double by 2025. People who live in cities are responsible for producing double to four times the amount of rubbish as those who live in the country. On a global level, however, an increasing number of people are living in cities.

The western industrial nations in Europe and North America produce the largest quantity of waste. In Germany alone, the amount of packaging waste created rose from 15.5 million tonnes to 17.1 million tonnes per year in the space of just ten years. This has a devas-

tating impact on the ecological system, as the huge rubbish eddies in the oceans are already demonstrating in a dramatic way. Andrea Lunzer, who was born in the federal state of Burgenland, has long been working to reduce packaging waste. After working in different capacities as a corporate consultant on sustainability issues, she opened "Lunzers Maß-Greißlerei" ("Lunzer's grocery by weight") in January 2014. This is an organic food shop that does away with packaging entirely and which is pursuing a radically different concept.

Since nothing has been pre-portioned, customers can buy exactly the quantity that they need. The shop's structure is reminiscent of the old, traditional groceries. There are no professional shelving systems. Everything is furnished with old, restored furniture designed to remind customers of a time when loose, unpackaged groceries were the norm.

---

### Packaging-free shopping according to weight and need

Here, the customers can either bring along their own containers or use the "Lunzer's glass" available in the shop. All the food offered comes from organic sources. It is also not purchased in an organic wholesale market, but directly from the regional farmers and small producers, with whom the Maß-Greißlerei purchasers are in direct contact.

Andrea Lunzer already became interested in renewable resources and sustainability during her time as a student. She gained her first professional experience in organic food at the Hofer-KG organic brand, "Zurück zum Ursprung" ("Back to the origins"), where she was responsible for marketing, communication and packaging.



### Re-usable packaging and „coffee to stay“ to combat emission levels

Lunzer's work with packaging led her to ask questions about sustainable packaging options. This interest finally resulted in the foundation of „UNFOLD“, an initiative for promoting sustainable packaging solutions. Ultimately, however, she wanted to enable consumers to buy goods without packaging entirely, and this resulted in the establishment of Lunzers Maß-Greißlerei.

This revitalisation of the earlier grocery model enables zero waste shopping. The Lunzers Maß-Greißlerei organic shop in the Leopoldstadt district of Vienna is now offering a broad range of products, all of which are organic and most of which come from regional producers. From fruit and vegetables, vinegar and oil, pasta, rice and Reinigungsmittel pulses to body care and cleaning products, 600 organic items can now be bought here entirely without packaging,

and weighed down to the last gram. As a result, less unused food is thrown away.

The concept is also based on a re-usable glass bottle system. These bottles can be filled 40 to 50 times, saving on raw materials and energy compared to disposable items, and even up to 95% waste. The re-use system also has advantages over the recycling process. On the one hand, only a small amount of the disposable items really are recycled, while on the other, emissions are produced during recycling that do not occur when they are re-used.

In addition to the grocery, there's also a café/bistro, which is attempting to extend the concept of sustainability to this business area, too. Here, the basic idea promoted is „coffee to stay“. The University of Stuttgart-Hohenheim has calculated that around 58 billion disposable cups are used worldwide every year as a result of the „coffee to go“ culture. From an ecological point of view, this is an extremely worrying trend. For this reason, the café area in Lunzers Maß-Greißlerei is trying to create an atmosphere that encourages customers to stay - and in so doing to save resources.

There are similar zero-waste sales models in Graz and Linz. In Linz, Franz Seher and his team opened the holis market in September 2015, an all-encompassing holistic shopping concept that not only promotes sustainability and „zero waste“, but also offers nutritional advice. The market's own food blog also offers healthy recipes.

In Graz, „Das Gramm“ was opened in the spring of 2016. In the shop run by Verena Kassar and Sarah Reindl, customers shop sustainably and entirely without packaging, with food available by weight, and enjoy seasonal lunch menus in the shop's café.

---

Photo 1 © Julia Fuchs

Photo 2 © Markus Krottendorfer

---




---

**MARKUS ENENKEL**

Doctor of natural sciences  
TU Wien; Columbia University

SATIDA

[www.satida.net](http://www.satida.net)

---

## SATIDA

— A drought app that acts as an early warning system for drought and famine

**A research team at the Technical University, Vienna has developed a mobile app that provides warning of drought and famine. By linking satellite data with local socio-economic data recorded by app users, comprehensive analyses and prognoses are possible for at-risk areas.**

Periods of drought occur regularly throughout the world, and become a trigger for life-threatening starvation. If there is no rain for a longer period of time, the entire food chain from maize to cattle is threatened. As a result of drought, people not only suffer directly from a lack of water, but also from a dangerous lack of food. Hot periods and the food scarcity that results also facilitate the spread of disease. The ability to plan the provision of aid in good time is essential in such situations if human lives are to be saved.

The forecast models used to date to predict famine are primarily based on satellite data, but do not yet make systematic use of socio-economic factors such as war or unstable food prices, which

have a global influence on food allocation and which can also put food supplies at risk in individual regions of the world. Also, these forecast models only in effect provide a warning when the problem has already been virulent for a long time.

---

### Detecting crises early on with “SATIDA Collect”

It is these weaknesses that are the focus of the “drought app”, which has been developed by the Department for Geodesy and Geoinformation at the Vienna University of Technology by a team led by Markus Enenkel, the purpose of which is to provide warning of drought and famine at an early stage.

As well as access to satellite data such as vegetation, soil fertility and precipitation levels, the researchers also use a crowdsourcing approach for the “drought app” in order to be able to collect socio-economic data on site. The different data is in turn interconnected and compared with past data from the same region. With the aid of smartphones, which have now also become common in less developed countries, these different factors are collected and evaluated by the scientists.

In the interim, the “drought app” has been tested for the first time in several African regions. Under the project name “SATIDA”, five organisations are involved in its implementation. While the project was managed by the Vienna Technical University, the University of Natural Resources and Life Sciences in Vienna, the International Institute for Applied Systems and Analysis in Laxenburg, Doctors Without Borders and the “Zentralanstalt für Meteorologie und Geodynamik” were also involved in the project, which was funded by the Austrian Research Promotion Agency.

In 2015, SATIDA was tested for the first time in the province of Kabo in the Central African Republic. In cooperation with Doctors Without Borders, local assistants were trained to conduct souseveys on site. The questions relating to the food situation among the population were answered by 100 households with a total of approximately 900 family members in the region. This data was then recorded on



smartphones using the app and loaded onto a server, where it was made available to researchers for analysis, together with satellite data. Due to the compilation of the information from these different data areas, a far more accurate prognosis is possible as to where food shortages can be expected, and where starvation may occur as a result.

The app is currently being further developed in order to enable aid organisations and NGOs to identify patterns and critical threshold values in the data records themselves in the future, so that they can take the appropriate measures in their respective field of activity in good time.

The fact that starvation is not only a result of climate disasters is unequivocally proven by the evaluations of the field tests in Kabo. The researchers concluded that the primary triggers for food shortages in this region were not low precipitation levels or desiccated soil, but the presence of military troops, who prevented farmers from working in their fields.

### NGOs are better able to coordinate their aid activities

The aid organisation Doctors Without Borders was involved in the development of this early warning system from the start. The aim of the NGO was to close a gap in the decision-making process. By using current data and comparing the current situation with data from the same season in the previous year, for example, a forecast can be made and the NGOs can already analyse before a potential catastrophe occurs which materials and staff must be provided as a precaution in order to bring the situation better under control.

Another major advantage of this system is that it can be adapted to a wide range of forecast themes. Whether you are interested in monitoring the health of cattle herds in the Sahel or the efficiency of inoculation programmes, or whether you need information to provide early warning of epidemics, SATIDA collects and provides data that can be adapted to very different problem areas.

SATIDA is more than just an app. It is a flexible framework that creates a link between science and application, in the specific case illustrated here, for making forecasts relating to drought and food supplies. However, according to project manager Markus Enenkel, the aim is to adapt and further develop STAIDA to make it suitable for numerous other areas. For Enenkel, the transfer of knowledge from research to practical application is of particular importance. He sees numerous other highly effective areas of prognosis that can be used to plan crisis management measures in advance on an international scale. These can be achieved by combining satellite data, which in his view should be available for use by everyone, and the structured procurement of information through crowd-supported data surveys.

Photo 1 © Francesco Fiondella

Photo 2 © TU Wien/Tomaso Castalazo




---

**GERHARD FRAUNDORFER**

 Director LITHOS
 

---

 Industrial Minerals GmbH
 

---

 CornProtect
 

---

[www.lithos-minerals.at](http://www.lithos-minerals.at)


---

## CornProtect

— Protecting maize crops through pest control with sex pheromones

The Lower Austrian company “LITHOS Industrial Minerals GmbH”, run by Gerhard Fraundorfer, has developed CornProtect, an environmentally safe means of pest control. By using sex pheromones, the corn rootworm, which presents an increasing threat to maize crops, is prevented from reproducing.

The corn rootworm, a five millimetre-long, yellow-and-black beetle, is becoming an increasing danger for maize crops. In the US, it is already one of the most widespread pests. The severe reduction in harvest levels that it has caused have earned it the nickname “billion dollar beetle”. In some cases, the harvest was reduced by 80%. In the interim, losses of up to 50% have also been reported in Europe, while in Austria, the presence of the corn rootworm has been identified in the most important maize-growing regions in Lower Austria, Styria, Carinthia and Burgenland.

The Lower Austrian company “LITHOS Industrial Minerals GmbH” has taken on the problem, which is now of global importance, of combating this pest. The company, which is run by Gerhard Fraundorfer, provides a creative solution. With CornProtect, an innovative form of pest control has been developed and patented – and it is environmentally friendly, sustainable and a far cry from harmful insecticides or genetic manipulations.

Sex pheromones of female beetles are used in a systematic way in order to confuse the males and prevent reproduction. Since only the corn rootworm males react to the scents that are applied, CornProtect is entirely safe for other animals, plants or humans. To date, it has not been possible to use pheromones efficiently in agriculture, since their period of effectiveness was too short. Through the use of extremely finely ground zeolite (volcanic rock) as a carrier for the scents, “LITHOS Industrial Minerals GmbH” has succeeded in overcoming this problem in an effective way for the first time. As a result, Lithos was presented with the innovation prize of the federal state of Lower Austria in 2014.

---

### Mating behaviour of the beetles as a model for pest control

Originally, the corn rootworm comes from Central America, and has now spread to North America and Europe. Its larvae feed almost exclusively on maize. Since the eggs are laid between five and twenty centimetres deep in the earth, it is mainly the roots that are affected. The young larvae eat the hair roots, while in later stages, the outer layers of larger roots serve as a food source for the young adults.

Here, the beetle does full justice to its name and bores its way through the root system. This reduces the vertical stability of the maize plant, and leads to the typical “gooseneck symptom”: the plant hangs its head and becomes more vulnerable to fungal diseases, frequently breaking off during harvesting. However, the fully-formed beetle is also a threat to the crop. It causes feeding damage to leaves,



cobs, ears and silk hairs. The latter in particular leads to fertilisation problems. Almost no maize kernels are formed on the cob. This defective overall situation leads in some cases to huge reductions in harvest levels.

### **An innovative method for more effective use of pheromones in agriculture**

In order to bring this pest under control, “LITHOS Industrial Minerals GmbH” has based its solution on the mating behaviour of the beetle. The female only mates during a short period of time: at an age of 14 days, once to three times per week – and after that, never again. The sperm collected during this period is stored by the female in a type of reserve storage sac, the sperm sac. Over eight weeks, 50 to 60 eggs, which she lays week after week, are fertilised from this sac. In order to attract the male beetles, the female sprays special

scents, or sex pheromones. It is precisely during this “flirt phase” that CornProtect intervenes with a somewhat different kind of pest control method.

Following a complex procedure, extremely finely ground zeolite is infused with the artificially created pheromones of the female corn rootworm. Then, the powder is distributed five to eight meters outside the treated field and throughout the entire productive flight period of the beetle (eight to ten weeks). The high concentration of sex pheromones confuses the males. They no longer find their way to the female beetles, or lose interest in mating altogether. This reduces the reproduction rate and therefore the larvae formation in the following year. The population level decreases.

The zeolite, the carrier substance for the pheromones, has a negative electrostatic charge. It remains easily visible, and is stuck to the maize leaves from the time it is applied through to harvesting. It also cannot be washed away by strong and frequent rain.

The use of pheromones in the field of pest control offers a large number of benefits. Toxic insecticides or genetic modification measures are no longer required. At the same time, every animal and insect has very specific pheromones, which is why the application of CornProtect affects only the corn rootworm. Also, the beetle is not killed, but instead, the number of fertilised eggs is decimated as a result of gentle “birth control”. This makes CornProtect environmentally safe and conformant with all bee, animal and environmental protection standards.

---

Photo 1 • LITHOS Industrial Minerals GmbH

Photo 2 • LK/Klug

---

# 4. Creativity & the Economy




---

**ANDREAS WEINGARTNER**

Managing director & founder —

s::can Messtechnik GmbH —

s::can spectrometer probes —

www.s-can.at —

---

## s::can

### — Clean drinking water from an innovative light measurement technique

**Andreas Weingartner, managing director of s::can Messtechnik GmbH, specialises in measuring water quality using light. s::can sells spectrometer probes and software solutions for keeping drinking water clean worldwide.**

Water is our most important basic resource, which is why water safety and quality is such a big issue worldwide. In many countries, the water is not safe to drink, and can even be harmful to health. Thanks to a visual technique in which the absorption of a ray of light in water is measured, the various systems offered by s::can Messtechnik GmbH, from small clarification plants through to networks for entire cities, the water quality can be monitored on a continuous basis. The purpose of monitoring the water is to check whether certain threshold values have been exceeded. If this occurs, the software triggers an alarm in good time, and countermeasures can be introduced without a time delay. According to Andreas Weingartner, the founder of Austrian company s::can, the drinking water network is like a factory that is operated blind. The UV/VIS spectrometer probes

from s::can act as eyes in the water network, which trigger an alarm in real time when threshold values are exceeded.

---

### Water quality measurement in real time

Andreas Weingartner set up the company in 1999. Before that, he worked as a scientific assistant at the University of Natural Resources and Life Sciences in Vienna. The test facilities that he worked on there gave him the idea to develop probes himself which would include the technology already developed for measuring water using light on a small scale. Weingartner succeeded in providing a low-cost, and above all, non-chemical solution for monitoring the quality of drinking water, wastewater and water bodies. As a result water checks are no longer conducted in the laboratory, but in real time using technical devices such as mobile phones or PCs. The advantage of this measuring method is also that sampling errors can be avoided. Globally, 7,000 s::can systems are already in use in 35 countries, providing information about the quality of water or water bodies.

Developing countries such as India are also convinced of the benefits of this light measurement method. As part of a World Bank project, started in 2012, s::can systems were installed along all major Indian river drainage basins in order to identify the largest industrial polluters and monitor the impact of measures already introduced. Rivers in India are terribly polluted from unfiltered wastewater, as a result of ongoing industrialisation and urbanisation. The installed measuring stations can be used to continuously monitor the water quality. As part of these measures, ten water quality parameters such as clouding, organic carbon and biological oxygen requirements are measured. The s::can method helps to detect pollutants in the water immediately and to react quickly to potential impurities.



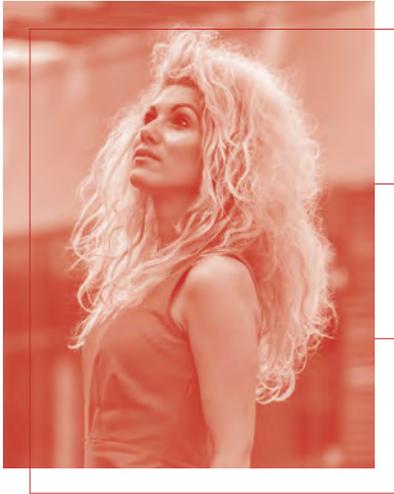
### s::can provides clean drinking water worldwide

The Indian government aims to improve the water quality of all seven holy rivers in the country. In order to be able to effectively tackle the problem with wastewater, India is therefore currently planning to use the s::can measuring technology in 3,000 major industrial operations. The first one hundred companies have already been equipped with s::can devices.

Meanwhile, in America, Weingartner's company is already the market leader when it comes to water safety. The main purpose here is to quickly detect potential impurities in the drinking water. The fear of terrorist attacks is further increasing the demand for comprehensive water quality measurement – not just in America, but also in Europe. In general, it should be noted that food monitoring functions better than monitoring water quality. Our drinking water is only checked when it first enters the network; the quality of the water

by the time it reaches the end user is usually unknown. Weingartner promotes a completely new approach, with projects such as “Building Protection” in America targeting specifically the quality of the water consumed by the end users. To this aim, public buildings are fitted with a kind of water alarm system, so that problems such as broken pipes, through which water can penetrate the water network from outside, are immediately evident.

However, for s::can, the future lies above all in software development. Another important goal is to reduce the cost of their probes. Weingartner hopes that as a result, his measuring instruments will not just be affordable to large waterworks companies. With the i::scan, a miniature spectrometer probe is already available which uses a module made up of several LEDs as a light source, and which is considerably cheaper than its big sister, the spektro::lyser. Even so, the research department is working to create even cheaper solutions, so that water monitoring can continue to be improved, and particularly to make it available for use over larger areas.




---

**KRISTINA TSVETANOVA**

CEO &amp; co-founder

BLITAB Technology

Braille-Tablet

www.blitab.com

## Blitab

– A tactile computer tablet for blind people

The Viennese start-up, “Blitab Technology GmbH” founded by Kristina Tsvetanova and Slavi Slavev has developed the first tactile tablet PC. The idea behind the innovation is to enable blind and sight-impaired people to integrate better into digital everyday life.

There are 39.8 million blind people worldwide, and 285.3 million with a severe visual impairment, of whom around 300,000 live in Austria. To date, their only support for participation in our current digital environment is through single-line braille displays, which read off electronic text information, if it is available in a linear format.

With the increase in the use of smartphones, tablet PCs and other applications with touchscreen technology, the way of preparing and presenting digital context has changed dramatically. A large amount of digital content and services are now no longer published on websites for standard PC applications, making them inaccessible for blind people and the visually impaired.

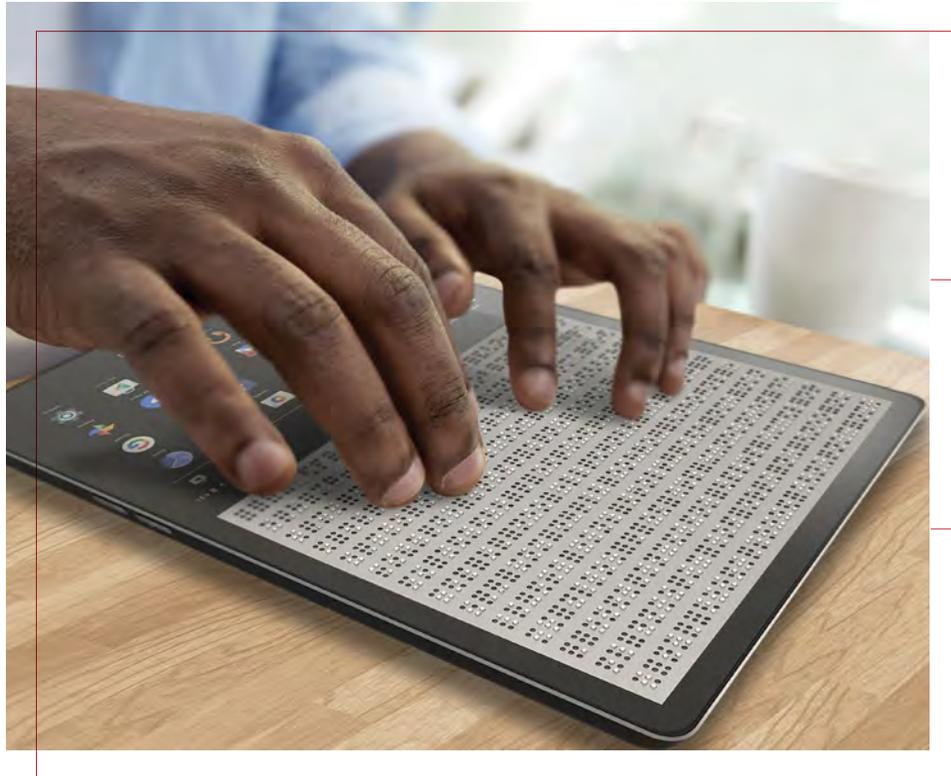
This is where the Blitab created by the Viennese start-up company run by Kristina Tsvetanova and Slavi Slavev comes in. Blitab is

a tactile tablet surface which can issue both braille signs and tactile graphic information, and which makes information accessible that cannot be read by standard braille displays for blind people. Blitab is a tactile tablet surface which can issue both braille signs and tactile graphic information, and which makes information accessible that cannot be read by standard braille displays for blind people. Tsvetanova developed the Blitab together with Slavi Slavev and his brother, Stanislav Slavev, both of whom are experts in the field of software and 3D design. The idea for the product came to the young entrepreneur while she was a student. During this time, she met a blind student who needed help registering online for a course.

---

### The Blitab issues not only text, but also graphics and images in braille characters

Together with Slavi Slavev, Kristina Tsvetanova founded the company “Green Vision” in order to develop the first prototype for the Blitab after qualifying as an industrial engineer. Prize money and state funds such as the AWS Impulse XS programme were used as initial funding for the innovative project. An attempt was made to finance the construction of the first prototype through crowdfunding. The combination of technology and added value to society was one of the reasons why the idea won numerous awards, including the Creative Business Cup in 2015 in Copenhagen and the Austrian Social Impact Award in 2014. The product is due for market launch in October 2016.



### How the first tactile tablet for blind people works

Among other things, the Blitab is the first product to be able to display an entire page in braille characters – entirely without mechanical elements. In a similar way to an e-book, the Blitab reproduces texts, except it does so in braille. Instead of a screen display, a smooth surface is used which produces bubbles that can be felt. These bubbles take over the function of the mechanical pins in standard braille characters. This makes it possible to transfer text files from USB sticks, memory cards or web browsers in braille. The Blitab is designed as a technical platform for all standard and future software applications.

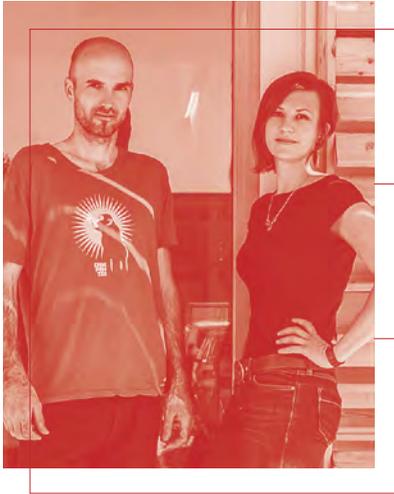
While one half of the braille tablet is used to represent text in braille and graphic elements using physical bubbles, the second half

is a touchscreen like the one used in standard tablets and smartphones, which is also fitted with text-to-speech navigation. In this way, the tactile text reproduction is linked to acoustic speech output. Among other things, icons and menus from standard apps are shown on the LCD screen in this section of the Blitab, and the integrated voice output verbalises the meaning of the normally visual icons, or gives information as to which menu the user is currently in.

According to Tsvetanova, Blitab differs from other solutions due to the invention of the patented „smart liquid technology“, which provides new opportunities for representation. In this way, not only text, but also images and graphics can be reproduced. For the first time, images can be converted to a low-pixel resolution and issued on the Blitab.

When, for example, an image is shown on a standard touchscreen, it is represented in the top half of the Blitab through conversion into physical bubbles, and in this way, can be „felt“ by the blind user.

As a result, the Blitab opens up access for blind people to digital content that they had not been able to use before, during their free time, in many service areas, which are increasingly being made available only online, and not least in schools. When designing the Blitab, particular attention was therefore paid to making it easy and fast to use for all age groups. To ensure optimum implementation of the concept, the Blitab is currently being tested worldwide by 2,500 pupils in 300 schools.



**MICHAELA MARESCH &  
GERALD BRENCIC**

Founder of COMMOD House

COMMOD-Haus GmbH

[www.commod-house.com](http://www.commod-house.com)

## COMMOD house

### — A sustainable modular house to take away

**A Graz-based architect duo are not only using ecological, re-usable building materials to build houses, but also a flexible modular system.**

The desire for home ownership among the 30-plus generation is still high. Often, however, their plans are hindered by high-interest loans, the large amount of time and effort involved and the fact that they are then tied to one location. In a society in which the world of work is going through a period of upheaval, and the possibility of holding down the same job over decades is fading, flexibility is also important when it comes to where you live. If building an ecological and sustainable home is also a priority, then the costs can spiral out of control.

Another problem faced by young home builders is the issue of the size of the house, since as soon as children leave home, having a house that is too large can be a burden for parents. Also, the older generation often find keeping a house clean and in good repair too

much hard work.

The Graz-based entrepreneur duo Michaela Maresch and Gerald Brencic have come up with a simple solution to all these problems: the “COMMOD house”, a modular house made of 99% wood, which conforms to low-energy standards and which is nearly 50% cheaper than other ecological homes. Also, the modules can be combined as required, depending on the needs and size of the family. The modular house can be reduced, enlarged, or rebuilt elsewhere at any time.

### The use of natural materials to protect the environment

The two directors, Michaela Maresch and Gerald Brencic, began their collaboration in January 2012 in the Graz Science Park, which as an academic centre for new entrepreneurs funds innovative business ideas and provides support in their implementation, with an effective network.

Primary target groups for the COMMOD houses are young families, who lease a plot of land instead of buying it, making them flexible in terms of their location, and who only buy the family home, with which they can move around whenever needed.

In the spirit of the cradle-to-cradle principle, all components of the COMMOD house are re-usable. When building the individual modules, only ecological materials such as wood, cellulose, loam or straw are used. The cradle-to-cradle principle is oriented to natural cycles and waste-free management. This means that the materials can be used again after their working life comes to an end. Natural wood is used for the floors in the module house, while the walls are coated with loam and insulated with cellulose, straw or wood soft fibre. As a result, Maresch and Brencic guarantee a healthy living environment and the exclusive use of sustainable materials.



### Containers as the basic framework for the healthy, environmentally friendly modular house

A further advantage of the COMMOD house is its modular structure, which meets the requirement for flexibility in a society in which “temporary life companions”, sandwich families and phases living without a partner are increasingly taking over from the traditional concept of partnerships for life as a core family unit. The house can simply be taken along when the owners move, and is ready for habitation in the new location within just a few days. Containers such as the ones used on freight ships and in international rail and lorry logistics systems are used as the basic framework. This has the advantage that the modules are easy to stack, making transportation flexible and low-cost. The individual modules are therefore restricted to the two standard container sizes. An individual modular house can be completed in the factory within just three months and assembled

on site in a matter of hours.

Another opportunity that this type of construction offers is that individual modules, such as those used by children, can simply be handed over to them as soon as they move out, solving the problem of size at a single stroke. Conversely, a house built for a single person can quickly be turned into a family home.

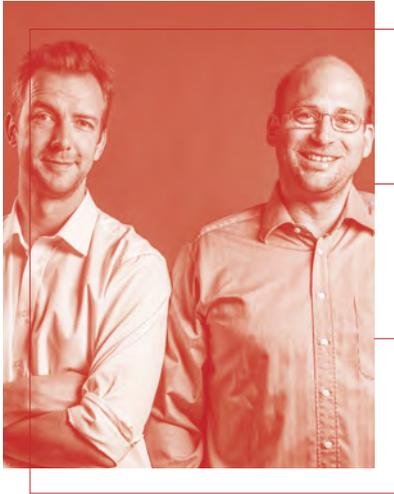
The COMMOD house is a way of enabling flexibility in the modern world, and offers not just ecological living, but above all tailor-made homes that are also aesthetically pleasing and affordable at the same time. The house builders of today will become nomads who can take their homes with them at all times, wherever they go. The latest product in the COMMOD house series is the *Beach Box*. This small, compact structure can be set up on any beach in the world, enabling everyone to fulfil their personal holiday dream alongside the dream of home ownership.

---

Photo 1 • Tamara Frisch

Photo 2 • COMMOD-Haus GmbH

---




---

**SIMON NIEDERKIRCHER UND  
MICHAEL GALHAUP**

Developers —————  
 simon - the mini powersta-  
 tion —————  
<http://simon.energy> —————

## simon

### – A mini power station for all

Using photovoltaics to generate power is nothing new. However, many people do not have the option of generating their own electricity. The standard system and feed-in models make this form of energy production inaccessible to normal home owners or tenants. With this target group in mind, Simon Niederkircher and Michael Galhaup have created the first full plug-in photovoltaic system.

Climate change is one of the greatest challenges of our times, and it is a scientific fact that humans are one main cause. According to the agreement drafted at the UN Climate Change Conference in Paris in 2015, global warming may not exceed the level of 1.5 degrees Celsius in place before the start of industrialisation. In order to achieve this goal, by 2050, greenhouse gas emissions in the industrial nations must be reduced by up to 95% compared to 1990. An essential element if this is to succeed is the energy transition, in other words, the transfer from the use of fossil energy sources and nuclear energy

to sustainable, renewable energy supplies.

In urban areas in particular, many people who may wish to make a contribution of their own are prevented from producing energy themselves. With the simon mini power station, sustainable electricity can be produced at home and fed into people's own networks, thereby enabling them to make their own personal contribution to the energy transition. At the same time, simon is a step towards self-determination in terms of energy supply and the democratisation of the energy system.

Simon Niederkircher and Michael Galhaup from "homemade. energy GmbH" have taken a creative approach to solving this problem. Together, they have developed simon: the first plug-in photovoltaic system. This mini power station converts sunlight into electricity, with a peak capacity of 150 watts. simon weighs 14 kilogrammes and with its dimensions of 138 x 69 centimetres is easy to handle. This makes it suitable for installation in urban and rural areas, on balconies or terraces, in the garden or on a window. Users can then generate their own power at home, and direct it straight from the plug into their own power network.

---

### **Unpack. Mount. Plug in. A power station can be so easy.**

The power station for home use, which has been financed through crowdfunding, provides a piece of independence on an electricity market dominated by large energy providers. Niederkirchner and Galhaup are therefore also aiming to contribute towards creating a more democratic, self-determining energy system.

At the same time, the product with its high-capacity solar cells, which is produced in Austria almost exclusively from recyclable materials, leaves the smallest possible carbon footprint. simon therefore gives users the chance of making their personal contribution to the energy transition.



### The first ever plug-in photovoltaic system

For apartments, traditional photovoltaic systems are not usually feasible. Their large size and bulk means that they are not suitable for mounting onto roofs or larger green areas.

This is precisely what simon hopes to change, making solar energy user-friendly, even for apartment tenants. It achieves this through its size and structure. The successful crowdfunding project run by oekostrom AG, which financed the project implementation via the “1000x1000” platform in the summer of 2015, has demonstrated that there is a high level of interest in new forms of autonomous energy production of this kind.

In order to be able to connect this miniature photovoltaic system directly into the socket, an inverter has been integrated, since photovoltaic cells generally produce direct current. This direct current is converted into high-quality alternating current by means

of the integrated converter. At the same time, the alternating current ensures that the power can be emitted directly to the plug socket at a voltage and frequency suitable for household appliances.

Since electric power always seeks out the shortest path, the self-generated power flows through the plug via the in-house power lines to the electrical appliances plugged in there. With a peak capacity of 150 watts, simon generates enough power to cook lunch for two people, for example, or brew 35 cups of coffee. The 32 monocrystalline solar cells used for simon, each with a size of 156 x 156 millimetres, are all produced locally using recyclable materials. This means that the home photovoltaic system saves on 63 kilograms of carbon dioxide emissions every year, and leaves no radioactive waste

This makes simon a building block in the much-needed energy transition process, which can be used by anyone, and which involves just three steps: unpack, mount, and plug in.

---

Photo 1 • oekostrom AG

Photo 2 • oekostrom AG

---

**Services**

# Funding programmes, creative industries

## AUSTRIA

### AUSTRIA WIRTSCHAFTSSERVICE GMBH (AWS)

The aws is the Austrian federal development bank. It issues interest loans and subsidies, and supports companies in realising innovative projects by providing information and a wide range of services.  
[www.awsg.at](http://www.awsg.at)

#### — AWS IMPULSE XS

A grant for the early phase of innovative projects related to the creative industries

#### — AWS IMPULSE XL

A grant for the development and realisation phase of innovative projects related to the creative industries

#### — AWS PRESEED

A grant for the pre-foundation phase of technologically sophisticated hi-tech companies

#### — AWS GRÜNDERFONDS

Start-up capital for young companies with high growth potential

#### — AWS SEEDFINANCING

A grant for the foundation of hi-tech companies and for spin-offs of university/non-university research institutions

#### — AWS START-UP-GARANTIE

Assumption of guarantee for the funding of commercial, small newly-founded or taken over companies up to 5 years old

### EVOLVE KREATIVWIRTSCHAFT IN ÖSTERREICH

evolve is a platform for supporting creative industry-based innovations. The offers range from financial support, training and further education, service and advice and networking. These services and offers are all designed to meet the specific needs of the creative industries sector.  
[www.evolve.at](http://www.evolve.at)

### APLUSB

The funding programme AplusB is financed by the Austrian Research Promotion Agency and the Federal Ministry of Transport, Innovation and Technology. AplusB supports academic company founders and as the representative of the regional incubator centres in the federal states, it forms a bridge between academia and business.  
[www.aplusb.biz](http://www.aplusb.biz)

### FILM

#### FILM FEDERAL CHANCELLERY, DEPT. II/3

The area of responsibility of Dept. II/3 includes the funding of innovative projects in the field of drama, documentary, animation and experimental films, the targeted funding of talented, young (in terms of age and experience) filmmakers, the affairs of the Austrian Film Institute, the representation of Austria on international film funding committees (such as Creative Europe/EU and EURIMAGES/Europarat), involvement in film industry agreements, audiovisual matters in connection with the WTO and GATS, and the maintenance of audiovisual heritage.  
[www.kunstkultur.bka.gv.at](http://www.kunstkultur.bka.gv.at)

### FILMFÖRDERUNG ÖSTERREICHI- SCHES FILMINSTITUT

Funding for material development, project development, the creation and use of Austrian cinema films and international co-productions - here, only the Austrian part is eligible for funding, however.  
[www.filminstitut.at](http://www.filminstitut.at)

### FERNSEHFONDS ÖSTERREICH

The funding is designed to increase the quality of television productions and contribute to the performance quality of the Austrian film industry, to strengthen Austria as a media location and to guarantee a diverse cultural landscape.  
[www.rtr.at](http://www.rtr.at)

### FISA – FILMSTANDORT ÖSTERREICH

FISA – Filmstandort Austria – is the funding programme of the Federal Ministry of Science, Research and Economy (BMWFW) for the promotion of cinema films. National productions, Austrian-foreign co-productions and service productions are supported during the filmmaking process.  
[www.filmstandort-austria.at](http://www.filmstandort-austria.at)

### MUSIC

#### ÖSTERREICHISCHER MUSIKFONDS

The Musikfonds, or music fund, is an initiative to promote professional Austrian music productions, in order to increase sales and dissemination, and to strengthen Austria as a creative location. In-country live tours are also funded, as are export activities.  
[www.musikfonds.at](http://www.musikfonds.at)

### SKE

According to their legal remit, the SKE issue funds to people entitled to receive royalties who are members of the austro mechana. All funds must therefore be paid directly or indirectly to the composers who receive copyright fees via austro mechana.  
[www.ske-fonds.at](http://www.ske-fonds.at)

### MUSIK, ACTING, DANCE, GEN. ARTISTIC ACTIVITIES, FEDERAL CHANCELLERY, DEPT. II/2

The area of responsibility of Dept. II/2 includes subsidies and advice for larger stages, small stages and freelance theatre professionals, orchestras and music ensembles, concert organisers and festivals, support and advice for individuals in their area of specialism, including work stipends for creative activity and further training abroad, production subsidies, state stipends, material cost subsidies, and much more.  
[www.kunstkultur.bka.gv.at](http://www.kunstkultur.bka.gv.at)

### FASHION

#### AFA SUPPORT | COLLECTION

With this funding programme, the Austrian Fashion Association supports the development of creative collection concepts and their realisation in market-ready sample collections and prototypes in the field of fashion and accessories.  
[www.austrianfashionassociation.at](http://www.austrianfashionassociation.at)

#### AFA SUPPORT | FOCUS

Supports promotional activities for fashion and accessory collections, particularly sales and marketing measures and strategic cooperations that serve the sustainable

positioning and consolidation of the supported label on the national and international order market.  
[www.austrianfashionassociation.at](http://www.austrianfashionassociation.at)

### GO-INTERNATIONAL – SHOWROOM SUPPORT, PARIS FASHION WEEK

„Aussenwirtschaft Austria“ provides subsidies for collection presentations by Austrian fashion designers during Paris Fashion Week. The funds are intended to co-finance event and rental costs, marketing costs for the target market, costs for sales staff, transport and travel costs. The application submission process is coordinated by the Austrian Fashion Association.  
[www.austrianfashionassociation.at](http://www.austrianfashionassociation.at)

### VISUAL ARTS, ARCHITECTURE, DESIGN, FASHION, PHOTOGRAPHY AND MEDIA ART, FEDERAL CHAN- CELLERY, DEPT. II/1

Department II/1 supports artists, artist groups, associations and other institutions in the following areas: visual arts, architecture and design, fashion, photography, video and media art.  
[www.kunstkultur.bka.gv.at](http://www.kunstkultur.bka.gv.at)

### MISCELLANEOUS

#### LITERATURE AND PUBLISHING, LIBRARIES, FEDERAL CHANCELLERY, DEPT. II/5

The area of responsibility of Department II/5 includes the promotion of literature, including children's and young adult literature, associations and events, literature and cultural journals, literature stipends, publishing and support for small publishers, support for translation work, children and young adult book promotion institutions, the commission for children's and

young adult literature and editing the arts report.  
[www.kunstkultur.bka.gv.at](http://www.kunstkultur.bka.gv.at)

### AWARDS, SPECIAL PROJECTS, EVENT MANAGEMENT, DIGITALI- SATION, FEDERAL CHANCELLERY, DEPT. II/6

The agenda for this department cover honorary awards and prizes in the field of the arts, event management for events in the areas covered by the section, realisation of special projects, realisation of artist-in-residence programmes and support for bilateral artistic exchange.  
[www.kunstkultur.bka.gv.at](http://www.kunstkultur.bka.gv.at)

### CULTURE INITIATIVES, FOLK CULTURE, FEDERAL CHANCELLERY, DEPT. II/7

The area of responsibility of Department II/7 covers: the promotion of cultural development and culture initiatives, the promotion of cross-sector and interdisciplinary art and culture projects, the promotion of art and culture projects in the socio-cultural field, applied culture research, documentation and evaluation, measures in the field of culture management and the coordination of parliamentary requests for the section.  
[www.kunstkultur.bka.gv.at](http://www.kunstkultur.bka.gv.at)

### NETIDEE

With this funding programme, the Internet Foundation Austria (IPA) supports projects and activities that promote the expansion, further dissemination and multifaceted use of the Internet in Austria.  
[www.netidee.at](http://www.netidee.at)

# Funding programmes, academic study

## FOR ALL FEDERAL STATES

### FWF DER WISSENSCHAFTSFONDS

The "Wissenschaftsfonds FWF" (a fund for promoting academic research) is Austria's central institution for funding basic research. The different FWF programmes support individual projects and specialist research areas which provide new insights in research. They support young academics, e.g. through doctorate programmes or application-oriented basic research or artistic research ("PEEK").

[www.fwf.ac.at](http://www.fwf.ac.at)

### BASIC RESEARCH, CHRISTIAN DOPPLER FORSCHUNGSGESELLSCHAFT

The Christian Doppler Forschungsgesellschaft supports basic research at universities and universities of applied sciences.

[www.cdg.ac.at](http://www.cdg.ac.at)

### ÖSTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN (ÖAW)

The Austrian Academy of Sciences is Austria's central non-university institution for knowledge and research. It is responsible for promoting knowledge, and does so through various funding programmes.

[www.oeaw.ac.at](http://www.oeaw.ac.at)

### DIGITAL CULTURAL HERITAGE

With the Digital Humanities: Long-term Projects on Cultural Heritage programme, the Austrian Academy of Sciences aims to build up infrastructures and develop methods for linking humanities, social and cultural research and to make available the new knowledge gained as a result for academic work, in terms of content and methodology.

### GO!DIGITAL

The "go!digital" programme promotes the development of the humanities by improving conditions for data-supported and data-driven research in the long term.

### INNOVATION FUND "FORSCHUNG, WISSENSCHAFT UND GESELLSCHAFT"

The "Research, Science and Society" innovation fund supports innovative projects in the key areas of activity of the Austrian Academy of Sciences.

### NEW FRONTIERS PROGRAMMES

The New Frontiers programmes run by the Austrian Academy of Sciences are aimed at outstanding academics in Austria and abroad, and at Austrian Academy of Sciences institutes which independently realise specific projects in terms of the scientific content and funding, or which wish to set up the research infrastructures they need to do so.

### CITY OF VIENNA SUPPORT FUND

The City of Vienna supports relevant research projects for the city, which are selected annually, and in so doing makes a key contribution to the realisation of long-term projects, publications and events that are also of importance to the Austrian Academy of Sciences.

### THE AUSTRIAN RESEARCH PROMOTION AGENCY FFG

The FFG is the national funding body for economic-related research, development and innovation in Austria. It supports Austrian companies, higher education institutions, research establishments and researchers with a wide range of funds and services, and represents Austria's interests at a European and international level.

[www.ffg.at](http://www.ffg.at)

### RSA (RESEARCH STUDIOS AUSTRIA)

RSA supports the application and implementation of research results from basic research prior to business research in Austria.

### RESEARCH FUNDING BY THE ÖSTERREICHISCHEN NATIONALBANK

The Österreichische Nationalbank (OeNB), or Austrian National Bank, has a tradition of being involved in research support. As part of the Anniversary Fund, academic work of high quality from the field of economic science and medical science is funded, as are projects

from the field of social sciences and humanities.

[www.oenb.at](http://www.oenb.at)

### WIENER WISSENSCHAFTS-, FORSCHUNGS-, UND TECHNOLOGIEFONDS (WWTF)

The Vienna science, research and technology fund is a private, non-profit organisation for science and research in Vienna. Individual tenders are also explicitly dedicated to research by outstanding young academics.

[www.wwtf.at](http://www.wwtf.at)

### ZENTRUM FÜR ANGEWANDTE TECHNOLOGIE FOR GRADUATES OF TECHNICAL AND NATURAL SCIENCES UNIVERSITIES

The Centre for Applied Technology was founded in 1999 as the first university spin-off centre in Austria. Based directly near the Montanuniversität Leoben, its main focus is on researchers and innovative personalities from the university environment.

[www.zat.co.at](http://www.zat.co.at)

# Funding programmes in the federal states

## BURGENLAND

"IMPLEMENTATION OF INNOVATIVE PROJECTS" WIBAG – BUSINESS BURGENLAND FUNDING

Wirtschaft Burgenland GmbH is the central body for business funding in Burgenland. Companies based in Burgenland are supported in developing innovative ideas, with research and development projects, and in the implementation of innovative projects. Areas: energy management, food sciences, humanities, genetic research and biotechnology, health/human medicine, information society/microtechnology, air and space travel, sustainable management, natural sciences, social and business sciences, technology, environment and transport, veterinary medicine, agriculture and forestry, molecular biology, chemistry, physics.  
[www.wirtschaft-burgenland.at](http://www.wirtschaft-burgenland.at)

CULTURE PROMOTION-OFFICE OF THE BURGENLAND FEDERAL STATE GOVERNMENT

The areas supported with these funds range from the classic arts segments, the visual and performing arts, music and literature to folk art, monument preservation, adult education and scientific research and the promotion of theatre festivals and exhibitions.  
[www.burgenland.at](http://www.burgenland.at)

## CARINTHIA

PROMOTION OF ART AND CULTURE OFFICE OF THE CARINTHIAN FEDERAL STATE GOVERNMENT

Support for free culture initiatives, film, the creative industries, culture associations, artists and creatives, event organisers, individuals, folk culture (choirs, music bands, traditional customs groups, etc.) located in Carinthia.  
[www.kulturchannel.at](http://www.kulturchannel.at)

FILM - CARINTHIAN FILM COMMISSION

Support for film and TV projects for international sale and of tourist value.  
[www.filmcommission.at](http://www.filmcommission.at)

SUPPORT FOR CREATIVE INDUSTRY COMPANIES IN KLAGENFURT IN WÖRTHERSEE-STADT KLAGENFURT

The purpose of this support is to promote the new settlement of creative industry companies in a specially built shared office building in Klagenfurt by offering rent subsidies.  
[www.kreativwirtschaft-klagenfurt.at](http://www.kreativwirtschaft-klagenfurt.at)

BUILD! BUSINESS INCUBATOR CARINTHIA

The business incubator build! Kärnten helps creative minds in Carinthia in realising their innovative business ideas for the long term. The centre offers advice, start-up support in

the form of loans and subsidies, further training measures and a large network.  
[www.build.or.at](http://www.build.or.at)

## LOWER AUSTRIA

PROMOTION OF CULTURE OFFICE OF THE LOWER AUSTRIAN FEDERAL STATE GOVERNMENT, ART AND CULTURE DEPARTMENT

The fields of architecture, archaeology, exhibitions, cinema culture, art in public spaces, literature, music, regional culture and associations, societies, individuals, culture events, theatre and folk culture are supported.  
[www.noegv.at](http://www.noegv.at)

OFFICE OF THE LOWER AUSTRIAN FEDERAL STATE GOVERNMENT - BUSINESS, TOURISM AND TECHNOLOGY DEPARTMENT

The business, tourism and technology department controls and supports the development of the Lower Austrian economy.  
[www.noegv.at](http://www.noegv.at)

RIZ THE BUSINESS START-UP AGENCY FOR LOWER AUSTRIA

The RIZ ("Regionales Innovationszentrum"), the business startup agency for Lower Austria, supports people from and in Lower Austria in making entrepreneurial decisions. Already before a company is founded, during the founding itself and with the many business decisions that must be made during their

ongoing entrepreneurial activity.  
[www.riz.at](http://www.riz.at)

ACCENT BUSINESS START-UP SERVICE LOWER AUSTRIA

accent supports technology-intensive and innovative ideas among young start-ups in Lower Austria. Experienced business start-up specialists also help with planning through to implementation and the follow-up support phase.  
[www.accent.at](http://www.accent.at)

## UPPER AUSTRIA

CULTURE PROMOTION - OFFICE OF THE UPPER AUSTRIAN FEDERAL STATE GOVERNMENT

Support is given to the visual arts, music, choir music, performing arts, literature, films, video, new media, cinema, contemporary culture, culture centres, museums, science/research, cultural affairs, the preservation of historic monuments and sites, folk culture and customs, brass band music, amateur theatre, photography and film clubs and youth culture.  
[www.land.oberoesterreich.gv.at](http://www.land.oberoesterreich.gv.at)

CULTURE PROMOTION – LINZ CULTURE

Support is given to architecture, the visual arts, the preservation of customs/ homeland, the performing arts, theatre and dance, film, artistic photography, video and media art, culture associations/ city district

revitalisation, literature promotion, music promotion, schools and education, and cultural studies with relevance to Linz.  
[www.linz.at](http://www.linz.at)

BUSINESS PROMOTION - OFFICE OF THE UPPER AUSTRIAN FEDERAL STATE GOVERNMENT

A well-functioning economy is a prerequisite for wealth and stability. The business department of the Federal State of Upper Austria makes a significant contribution here, such as through a comprehensive system of funding, the creation of a network of technology and business incubator centres and sector networks.  
[www.land-oberoesterreich.gv.at](http://www.land-oberoesterreich.gv.at)

BUSINESS START-UP SERVICE TECH2B

Tech2b is a contact partner for technology-oriented new businesses, acting as a broker between start-ups and established companies, supporters in the field of funds and financing, supporters of start-ups in communicating their ideas, and coaches and advisors on the path to self-employment.  
[www.tech2b.at](http://www.tech2b.at)

BUSINESS UPPER AUSTRIA

Business Upper Austria, the business agency of the Federal State of Upper Austria, is an engine for innovation and a partner for location

development, cooperation and funding advice.  
[www.biz-up.at](http://www.biz-up.at)

## SALZBURG

CULTURE PROMOTION – OFFICE OF THE FEDERAL STATE GOVERNMENT OF SALZBURG

Support is given to architecture, the visual arts, the performing arts, film, media art, cultural heritage, literature, music, folk culture, culture initiatives, culture centres, and culture education in schools with relevance to Salzburg.  
[www.salzburg.gv.at](http://www.salzburg.gv.at)

BCCS – BUSINESS CREATION CENTER SALZBURG

The services offered by the BCCS range from the provision of offices and infrastructure to specialist advice, coaching and qualification, financial support and access to markets and capital and networking with partners at a regional, national and international level.  
[www.bccs.at](http://www.bccs.at)

BUSINESS SUPPORT, FEDERAL STATE OF SALZBURG

The Federal State of Salzburg offers various types of business support, such as the promotion of young companies, innovation support or tourism support funds.  
[www.salzburg.gv.at](http://www.salzburg.gv.at)

# Funding programmes in the federal states

## STYRIA

CULTURE PROMOTION – OFFICE OF THE FEDERAL STATE GOVERNMENT OF STYRIA

Support for architecture, art, customs, monument preservation, adult education, film, basic research, literature, music, new media with relevance to Styria.  
[www.verwaltung.steiermark.at](http://www.verwaltung.steiermark.at)

### STYRIAN BUSINESS SUPPORT SFG

The SFG is the service agency of the Federal State of Styria for businesses. Various funding programmes are designed to strengthen Styria as a business location.  
[www.sfg.at](http://www.sfg.at)

### GROSSITAT – SFG

Support for innovative investments by large companies, production operations and production-related services operations in Styria.

### IDEENREICH – SFG

Styrian SMEs receive up to 50% subsidies for the development and realisation of new ideas and innovative measures.

### LEBENSINAH – SFG

Styrian micro and small businesses, including business founders, in the fields of trade, commerce and manual trades/

crafts receive support for investment costs and marketing initiatives via the new media.

### STARTIKLAR- SFG

With the Start!Klar support campaign, the SFG supports Styrians who want to become self-employed.

### WACHSTUMSISCHRITT - SFG

This support campaign is designed to help create an investmentfriendly climate for SMEs in the state, to bring forward planned projects or to implement them on a larger scale. Construction projects are supported, as are the purchase of machines, operational and business equipment or patents.

### FILM PROMOTION CINE STYRIA

Films and TV projects are supported for international sale and of tourist value in the funding areas of production support, additional funding areas and festival support.  
[www.cinestyria.com](http://www.cinestyria.com)

CITY OF GRAZ – DEPARTMENT FOR BUSINESS AND TOURISM DEVELOPMENT

The main purpose of the Department for Business and Tourism Development is to create the best possible framework conditions for new entrepreneurs in the city.

Various funds are offered, including rental support, crowdfunding support and a newcomer bonus.  
[www.wirtschaft.graz.at](http://www.wirtschaft.graz.at)

BUSINESS INCUBATOR FOR ACADEMICS, SCIENCE PARK GRAZ STYRIA

The wide range of services offered by the Science Park Graz (SPG) is directed to new Styrian entrepreneurs and experienced managers who want to pass on their experience to start-ups.  
[www.sciencepark.at](http://www.sciencepark.at)

## TYROL

CULTURE PROMOTION – OFFICE OF THE FEDERAL STATE GOVERNMENT OF TIROL

Support is given to music, the performing arts, the visual arts, photography, architecture, film, video, media art, culture initiatives, museums, archives, science, literature, writing, homeland, and the preservation of customs of relevance to Tyrol.  
[www.tirol.gv.at](http://www.tirol.gv.at)

CULTURE SUBSIDIES, INNSBRUCK

The city of Innsbruck supports both individuals and associations etc. to the best of its capacity which are involved in culture-related projects, primarily with reference to Innsbruck, and supports initiatives and cultural institutions by cofunding

infrastructure costs.  
[www.innsbruck.gv.at](http://www.innsbruck.gv.at)

BUSINESS PROMOTION - OFFICE OF THE FEDERAL STATE GOVERNMENT OF TIROL

Support is offered in the form of different programmes (business promotion funds, innovation funds, etc.) depending on the type of company.  
[www.tirol.gv.at](http://www.tirol.gv.at)

CAST BUSINESS INCUBATOR, TIROL

Advice, development of a business model, initial funding, networks, acquisition and office space are offered by the business incubator for Tirol.  
[www.cast-tyrol.com](http://www.cast-tyrol.com)

## VORARLBERG

CULTURE PROMOTION – OFFICE OF THE FEDERAL STATE GOVERNMENT OF VORARLBERG

Projects are supported which are of relevance to Vorarlberg from the fields of music, museums, art, film, cinema, video, culture initiatives, photography and construction.  
[www.vorarlberg.at](http://www.vorarlberg.at)

WISTO BUSINESS LOCATION VORARLBERG

Wisto offers residents of Vorarlberg information, advice and orientation with regard to support programmes, funding, business foundation, site

development, protection of innovations, technology transfer and company settlement.  
[www.wisto.at](http://www.wisto.at)

## VIENNA

CULTURE DEPARTMENT OF THE CITY OF VIENNA

The following areas with a relevance to Vienna are supported: the visual arts, performing arts, film, literature, music, new media, city district culture and interculturality, Vienna old town preservation funds, academic and research funding.  
[www.wien.gv.at](http://www.wien.gv.at)

WIRTSCHAFTSAGENTUR WIEN

The Wirtschaftsagentur Wien, the Vienna business agency, is the first port of call for national and international businesses. It provides monetary support, property and urban development impulses, as well as free service and advice, designed to strengthen Vienna as a business location.  
[www.wirtschaftsagentur.at](http://www.wirtschaftsagentur.at)

### CREATIVE\_PROJECT

creative\_project supports companies in the creative industries in Vienna in their development of creative products, services and processes.

### CREATIVE\_PIONEER

New companies in the creative industries in Vienna are supported in their development of creative products, services and processes and their initial positioning on the market.

### CREATIVE\_TO

Support is given to the realisation of new marketing and sales strategies by Viennese creative industry companies with an existing product portfolio.

INITS UNIVERSITY BUSINESS INCUBATOR

INITS is an established and recognised partner for the realisation of innovative new business ideas in Vienna, and offers support, advice, training, a network, a community, and offices.  
[www.inits.at](http://www.inits.at)

FILMFONDS WIEN

The Vienna Film Fund issues successrelated, repayable subsidies and – under certain conditions – non-repayable subsidies for project development, the production and promotion of films. The projects submitted are assessed according to their cultural and artistic importance for Vienna, and for their contribution to the Viennese film industry.  
[www.filmfonds-wien.at](http://www.filmfonds-wien.at)

# Creative studies

## DESIGN

### NEW DESIGN UNIVERSITY

Manual and Material Culture (BA)  
Graphic and Information Design (BA)  
Information and Spatial Design (MA)  
[www.ndu.ac.at](http://www.ndu.ac.at)

### UNIVERSITY OF ART AND DESIGN, LINZ

Graphic Design and Photography  
(BA)  
Visual Communication (MA)  
[www.ufg.ac.at](http://www.ufg.ac.at)

### SALZBURG UNIVERSITY OF APPLIED SCIENCES

Design & Product Management  
(BA, MA)  
[www.fh-salzburg.ac.at](http://www.fh-salzburg.ac.at)

### VORARLBERG UNIVERSITY OF AP- PLIED SCIENCES

Intermedia (BA, MA)  
[www.fhv.at](http://www.fhv.at)

### ACADEMY OF FINE ARTS

Graphic Design (Mag.art.)  
Graphics and Advertising (Mag.art.)  
Industrial Design (Mag.des.ind.)  
Landscape Design (Mag.art.)  
Social Design (MA)  
PhD in practice  
[www.akbild.ac.at](http://www.akbild.ac.at)

### UNIVERSITY OF APPLIED SCIENCES, UPPER AUSTRIA

Digital Arts (MA)  
Hardware-Software Design (BSc)  
Media Technology and Design (BSc)  
[www.fh-ooe.at](http://www.fh-ooe.at)

### JOANNEUM UNIVERSITY OF AP- PLIED SCIENCES

Exhibition Design (MA)

Communication, Media, Sound and  
Interaction Design (MA)  
(advance course in "Sound Design"  
in cooperation with the University  
of Music and Performing Arts, Graz)  
Industrial Design (BA, MA)  
Information Design (BA)  
[www.fh-joanneum.at](http://www.fh-joanneum.at)

## FILM

### FILMAKADEMIE WIEN

Camera Technology and Cine-  
matography (BA, MA)  
Screenwriting and Dramaturgy  
(BA, MA)  
Digital Art – Compositing (MA)  
Film and Media Studies (Dr.)  
Producing (BA, MA)  
Directing (BA, MA)  
Editing (BA, MA)  
[www.filmakademie.wien](http://www.filmakademie.wien)

## MEDIA & COMMUNICATION

### SALZBURG UNIVERSITY OF APPLIED SCIENCES

MultiMediaArt (BA, MA)  
[www.fh-salzburg.ac.at](http://www.fh-salzburg.ac.at)

### UNIVERSITY OF ART AND DESIGN, LINZ

Time-Based and Interactive Media  
(BA)  
Time-Based Media (MA)  
[www.ufg.ac.at](http://www.ufg.ac.at)

### ACADEMY OF FINE ARTS, VIENNA

Art & Science (MA)  
Critical Studies (MA)  
PhD in practice  
[www.akbild.ac.at](http://www.akbild.ac.at)

### DANUBE UNIVERSITY KREMS

Image Science (MA)

Crossmedia Design & Development  
(MSc)  
Data Studies (MSc)  
Digital Media Publishing – In-  
novative and Media-Convergent  
Publishing (MA)  
Educational Technology (MSc)  
Game Studies (MA)  
Action-Oriented Media Pedagogy –  
Playful Approaches in Youth Media  
Work (MA)  
Interactive Media Management  
(MSc)  
Media Arts Cultures (MA)  
MediaArHistories (MA)  
Media Game Pedagogy (MA)  
Transmedia Design &  
Gamification (MA)  
[www.donau-uni.ac.at](http://www.donau-uni.ac.at)

### ACADEMY OF FINE ARTS

Digital Art (Mag.art.)  
Transmedial Art (Mag.art.)  
PhD in practice  
[www.akbild.ac.at](http://www.akbild.ac.at)

### ALPEN-ADRIA-UNIVERSITÄT

Media, Communication and Culture  
(MA, Dr.phil.)  
[www.aau.at](http://www.aau.at)

### UNIVERSITY OF APPLIED SCIENCES, UPPER AUSTRIA

Communication, Knowledge, Media  
(BA)  
Mobile Computing (BSc)  
[www.fh-ooe.at](http://www.fh-ooe.at)

## FASHION

### UNIVERSITY OF ART AND DESIGN, LINZ

Fashion & Technology (BA)  
Textile Art Design (BA, MA)  
[www.ufg.ac.at](http://www.ufg.ac.at)

### ACADEMY OF FINE ARTS, VIENNA

Fashion (Mag.art.)  
PhD in practice  
[www.akbild.ac.at](http://www.akbild.ac.at)

## ARTS STUDIES

### UNIVERSITY OF MUSIC AND PER- FORMING ARTS, VIENNA

Performing Arts - Acting (Mag.art.)  
Stage Performance (Musical Drama)  
(MA)  
Doctoral studies (PhD.)  
[www.mdw.ac.at](http://www.mdw.ac.at)

### UNIVERSITY OF MUSIC AND PER- FORMING ARTS, GRAZ

Stage Design (Mag.art.)  
Performing Arts / Acting (Mag.art.)  
[www.kug.ac.at](http://www.kug.ac.at)

### UNIVERSITY OF ART AND DESIGN, LINZ

Performing Arts – Diploma Studies  
(Mag.)  
with a focus on sculpture – trans-  
medial space, experimental design,  
painting and graphics, sculptural  
conceptions/ceramics (BA, MA)  
[www.ufg.ac.at](http://www.ufg.ac.at)

### ACADEMY OF FINE ARTS, VIENNA

Fine Art (Mag.art.)  
Stage Design/Scenography (Mag.  
art.)  
Conservation and Restoration (Mag.  
art.)  
Education in the Arts – artistic  
education, technical crafts, textile  
crafts/designing textiles (BAEd,  
MAEd)  
PhD in practice  
[www.akbild.ac.at](http://www.akbild.ac.at)

### ACADEMY OF FINE ARTS, VIENNA

Fine Arts (Mag.art., PhD in Practice  
for research-based fine arts)  
Stage Design (Mag.art.)  
Conservation and Restoration (Mag.  
art.)  
Education in the Arts (BA und MA)  
Photography (Mag.art.)  
Graphics (Mag.art.)  
Landscape Art (Mag.art.)  
Painting (Mag.art.)  
Painting & Animated Film (Mag.art.)  
Sculpture and Space (Mag.art.)  
Stage Design (Mag.art.)  
Applied Photography and Time-  
Based Media (Mag.art.)  
Language Art (BA)  
TransArts – Transdisciplinary Art  
(BA, MA)  
Art and Communicative Practice (art  
education) Education (BA)  
Textiles - free and contextual  
artistic practice and material culture  
(textile design), Education (BA)  
Design, Architecture and Environ-  
ment (technical crafts) Education  
(BA)  
Doctor of Philosophy (Dr.phil.)  
PhD in practice (PhD)  
[www.akbild.ac.at](http://www.akbild.ac.at)

### ANTON BRUCKNER PRIVATE UNI- VERSITY

Acting (BA)  
Dance (BA)  
Dance Pedagogy (MA)  
Contemporary Stage Dance (MA)  
[www.bruckneruni.at](http://www.bruckneruni.at)

### MOZARTEUM SALZBURG

Acting and Directing (Mag.art.)  
Art Education (BA, MA from WS  
2017/18)  
Textile Design (BA, MA from WS

2017/18)

Arts and Crafts Education (BA, MA  
from WS 2017/18)  
[www.uni-mozarteum.at](http://www.uni-mozarteum.at)

## MEDIA TECHNOLOGY

### NEW DESIGN UNIVERSITY

Event Engineering (BEng)  
[www.ndu.ac.at](http://www.ndu.ac.at)

### UNIVERSITY OF ART AND DESIGN, LINZ

Interface Cultures (MA)  
[www.ufg.ac.at](http://www.ufg.ac.at)

### TU GRAZ AND THE UNIVERSITY OF MUSIC AND PERFORMING ARTS, GRAZ

Electrotechnology Sound Engineer  
(BSc, DI)  
[www.tugraz.at](http://www.tugraz.at)  
[www.kug.ac.at](http://www.kug.ac.at)

### SALZBURG UNIVERSITY OF APPLIED SCIENCES

MultiMediaTechnology (BSc, MSc)  
[www.fh-salzburg.ac.at](http://www.fh-salzburg.ac.at)

### UNIVERSITY OF MUSIC AND PER- FORMING ARTS, VIENNA

Sound Engineering Studies (Mag.  
art.)  
[www.mdw.ac.at](http://www.mdw.ac.at)

### UNIVERSITY OF APPLIED SCIENCES, UPPER AUSTRIA

Interactive Media (MSc)  
[www.fh-ooe.at](http://www.fh-ooe.at)

### ST.PÖLTEN UNIVERSITY OF APPLIED SCIENCES

Media Technology (BSc)  
Digital Media Technologies (DI)  
[www.fhstp.ac.at](http://www.fhstp.ac.at)

# Creative studies

## ARCHITECTURE

### ACADEMY OF FINE ARTS, VIENNA

Architecture (BArch, March, Dr. techn.)  
[www.akbild.ac.at](http://www.akbild.ac.at)

### NEW DESIGN UNIVERSITY

Interior Architecture & 3D design (BA)  
[www.ndu.ac.at](http://www.ndu.ac.at)

### TU GRAZ

Architecture (BSc, DI, Dr.techn.)  
[www.tugraz.at](http://www.tugraz.at)

### TU VIENNA

Architecture (BSc, MA, Dr.techn.)  
[www.tuwien.ac.at](http://www.tuwien.ac.at)

### UNIVERSITY OF INNSBRUCK

Architecture (BSc, DI, Dr.techn.)  
[www.uibk.ac.at](http://www.uibk.ac.at)

### UNIVERSITY OF ART AND DESIGN, LINZ

space&design strategies (BA, MA)  
[www.ufg.ac.at](http://www.ufg.ac.at)

### UNIVERSITY OF APPLIED SCIENCES, CARINTHIA

Architecture (BSc, DI)  
[www.architekturfhkaernten.at](http://www.architekturfhkaernten.at)

### UNIVERSITY OF APPLIED ARTS, VIENNA

Architecture (March.)  
[www.dieangewandte.at](http://www.dieangewandte.at)

### JOANNEUM UNIVERSITY OF APPLIED SCIENCES

Architecture (DI)  
[www.fh-joanneum.at](http://www.fh-joanneum.at)

### UNIVERSITY OF NATURAL RESOURCES AND LIFE SCIENCES, VIENNA

Landscape Planning and Landscape Architecture (BSc)  
[www.boku.ac.at](http://www.boku.ac.at)

## CREATIVE MANAGEMENT

### NEW DESIGN UNIVERSITY

Management by Design (BSc)  
Electromobility & Energy Management (MSc)  
Entrepreneurship & Innovation (MSc)  
[www.ndu.ac.at](http://www.ndu.ac.at)

### KUFSTEIN UNIVERSITY OF APPLIED SCIENCES

Sport, Culture & Event Management (BA, MA)  
[www.fh-kufstein.ac.at](http://www.fh-kufstein.ac.at)

## ART AND CULTURAL STUDIES

### ALPE-ADRIA-UNIVERSITY, KLAGENFURT

Applied Cultural Studies (BA, MA, Dr.phil.)  
[www.aau.at](http://www.aau.at)

## MUSIC

### ANTON BRUCKNER PRIVATE UNIVERSITY

Jazz – artistic Bachelor studies (BA)  
Jazz – educational Bachelor studies (BA, MA)  
Jazz Composition – artistic Bachelor studies (BA, MA)  
Jazz – artistic Master studies (MA)  
Elementary Music Education (BA, MA)  
[www.bruckneruni.at](http://www.bruckneruni.at)

### UNIVERSITY OF MUSIC AND PERFORMING ARTS, GRAZ

Computer Music (BA, MA)  
Conducting – Choir Conducting (BA, MA)  
Singing (BA, MA)  
Instrumental (voice) Education: classical, jazz, (BA, MA)  
Instrumental (voice) Education: folk music (BA)  
Jazz (BA, MA)  
Catholic and Protestant Church Music (BA, MA)  
Composition & Music Theory (BA, MA)  
Education: Music Education – Instruments (BA, MA)  
Education: Music Education (BA, MA)  
Artistic doctoral studies (Dr.art.)  
Academic doctoral studies (PhD.)  
[www.kug.ac.at](http://www.kug.ac.at)

### JOANNEUM UNIVERSITY OF APPLIED SCIENCES

Communication, Media, Sound and Interaction Design - Sound Design (MA)  
(in cooperation with the University of Music and Performing Arts Graz)  
[www.fh-joanneum.at](http://www.fh-joanneum.at)  
[www.kug.ac.at](http://www.kug.ac.at)

### UNIVERSITY OF MUSIC AND PERFORMING ARTS, VIENNA

Conducting (in the 2nd phase, there is the option of specialising in orchestral conducting, choir conducting or accompaniment) (Mag.art.)  
Electroacoustic Composition (Mag.art.)  
Singing (BA)  
Instrumental and Voice Education (BA, MA)  
Instrumental Music Education (BA, MA)  
Composition (Mag.art.)  
Song and Oratorio (MA)

Media Composition and Applied Music (Mag.art.)  
Music and Movement Education (BA, MA)  
Music Education (BA, MA)  
Musical Directing (Mag.art.)  
Music Theory (Mag.art.)  
Music Therapy (Mag.art.)  
Doctoral studies (PhD)  
[www.mdw.ac.at](http://www.mdw.ac.at)

### DANUBE UNIVERSITY, KREMS

Music Management (MA)  
Music for Film & Media (MA)  
[www.donau-uni.ac.at](http://www.donau-uni.ac.at)

### ANTON BRUCKNER PRIVATE UNIVERSITY

Conducting, classical - educational choir conducting (MA)  
Conducting, classical - educational orchestra (MA)  
Conducting, classical - artistic (BA, MA)  
Singing, ancient music - artistic (BA, MA)  
Singing, classic, jazz - artistic or educational (BA, MA)  
Jazz Composition / Media Composition and Computer Music (BA)  
Composition, classical - artistic (BA)  
Orchestra academy, classical - artistic (MA)  
[www.bruckneruni.at](http://www.bruckneruni.at)

### JOSEPH HAYDN CONSERVATOIRE OF THE FEDERAL STATE OF BURGENLAND

Texture and Composition (Mag.art.)  
[www.haydnkons.at](http://www.haydnkons.at)

### MUSIC AND ART PRIVATE UNIVERSITY OF THE CITY OF VIENNA

Conducting (BA, MA)  
Conducting (BA, MA)  
Instrumental Accompaniment (MA)

Jazz Singing (BA)  
Jazz Composition and Arrangement (BA, MA)  
Composition (BA, MA)  
Song and Oratorio (MA)  
Opera (MA)  
Solo Singing (BA, MA)  
Vocal Accompaniment, Song and Oratorio (MA)  
Vocal Accompaniment, Opera (MA)  
[www.muk.ac.at](http://www.muk.ac.at)

### MOZARTEUM SALZBURG

Baroque Singing (MA)  
Wind Orchestra Conducting (MA)  
Stage Design (Mag.art.)  
Conducting (Mag.art.)  
Singing (BA, MA)  
Historical Performance Practice (MA)  
Catholic and Protestant Church Music (Mag.art.)  
Composition (BA, MA)  
Song and Oratorio (MA)  
Music and Movement Education (BA, MA)  
Music Education (Education) (BA, MA)  
Music Theory (BA, MA)  
Opera and Musical (MA)  
Doctoral studies (PhD)  
[www.uni-mozarteum.at](http://www.uni-mozarteum.at)

### KREMS UNIVERSITY OF APPLIED SCIENCES

Music Therapy (BSc., MSc)  
[www.fh-krems.at](http://www.fh-krems.at)

## INSTRUMENTAL MUSIC STUDIES

### UNIVERSITY OF MUSIC AND PERFORMING ARTS, GRAZ

Classical:  
Accordion (BA, MA)  
Bass Tuba (BA, MA)  
Bassoon (BA, MA)  
Flute (BA, MA)  
Guitar (BA, MA)  
Harp (BA, MA)  
Horn (BA, MA)  
Clarinet (BA, MA)  
Piano (BA, MA)  
Piano-Duo (BA, MA)  
Double Bass (BA, MA)  
Oboe (BA, MA)  
Organ (BA, MA)  
Trombone (BA, MA)  
Trumpet (BA, MA)  
Saxophone (BA, MA)  
Percussion (BA, MA)  
Viola (BA, MA)  
Violin (BA, MA)  
Cello (BA, MA)  
Chamber Music for Woodwind Instruments (MA)  
String Instrument and Piano Song Accompaniment (MA)  
Performance Practice in Contemporary Music (MA)  
Doctoral studies (Dr.art.)

Ancient Music:  
Baroque Violin (BA, MA)  
Recorder (BA, MA)  
Harpsichord (BA, MA)  
Historic Oboe Instruments (BA, MA)  
Doctoral studies (Dr.art.)  
[www.kug.ac.at](http://www.kug.ac.at)

# Creative studies

## UNIVERSITY OF MUSIC AND PERFORMING ARTS, VIENNA

Bass Tuba (Mag.art.)  
Recorder (Mag.art.)  
Harpsichord (BA, MA)  
Evangelical Church Music (BA, MA)  
Organ Improvisation (MA)  
Bassoon (Mag.art.)  
Flute (Mag.art.)  
Guitar (Mag.art.)  
Harp (Mag.art.)  
Horn (Mag.art.)  
Chamber Music (MA)  
Catholic Church Music (BA, MA)  
Clarinet (Mag.art.)  
Piano (BA, MA)  
Piano and New Music (MA) Piano  
Vocal Accompaniment (BA, MA)  
Piano Chamber Music (BA) Double  
Bass (Mag.art.)  
New Music Ensemble (MA)  
Oboe (Mag.art.)  
Organ (BA, MA)  
Trombone (Mag.art.)  
Saxophone (Mag.art.)  
Percussion (Mag.art.)  
Trumpet (Mag.art.)  
Viola (Mag.art.)  
Violin (Mag.art.)  
Cello (Mag.art.)  
Doctoral studies (PhD.)  
[www.mdw.ac.at](http://www.mdw.ac.at)

## JOSEPH HAYDN CONSERVATOIRE OF THE FEDERAL STATE OF BURGENLAND

Recorder (Mag.art.)  
E-Bass (Mag.art.)  
Bassoon (Mag.art.)  
Flute (Mag.art.)  
Singing (Mag.art.)

Guitar (Mag.art.)  
Guitar Jazz (Mag.art.)  
Double Bass (Mag.art.)  
Oboe (Mag.art.)  
Organ (Mag.art.)  
Trombone (Mag.art.)  
Saxophone (Mag.art.)  
Saxophone Jazz (Mag.art.)  
Percussion (Mag.art.)  
Drums Jazz (Mag.art.)  
Trumpet (Mag.art.)  
Tuba (Mag.art.)  
Viola (Mag.art.)  
Violin (Mag.art.)  
Cello (Mag.art.)  
[www.haydnkons.at](http://www.haydnkons.at)

## MUSIC AND ART PRIVATE UNIVERSITY OF THE CITY OF VIENNA

Accordion (BA, MA)  
Baroque Cello (BA, MA)  
Baroque Violin (BA, MA)  
Recorder (Ancient Music) (BA, MA)  
Recorder (BA, MA)  
Harpsichord (BA, MA)  
Bassoon (BA, MA)  
Flauto traverso (BA, MA)  
Flute (BA, MA)  
Guitar (BA, MA)  
Harp (BA, MA)  
Historical Bassoon Instruments (BA, MA)  
Historical Oboe Instruments (BA, MA)  
Clarinet (BA, MA)  
Historical Keyboard Instruments (BA, MA)  
Horn (BA, MA)  
Jazz Bass (BA, MA)  
Jazz Guitar (BA, MA)  
Jazz Piano (BA, MA)

Jazz Trombone (BA, MA)  
Jazz Saxophone (BA, MA)  
Jazz Drums (BA, MA)  
Jazz Trumpet (BA, MA)  
Piano (BA, MA)  
Double Bass (BA, MA)  
Lute (BA, MA)  
Oboe (BA, MA)  
Organ (BA, MA)  
Trombone (BA, MA)  
Saxophone (BA, MA)  
Percussion (BA, MA)  
Trumpet (BA, MA)  
Tuba (BA, MA)  
Viola (BA, MA)  
Viola da gamba (BA, MA)  
Violin (BA, MA)  
Violin (BA, MA)  
Cello (BA, MA)  
[www.muk.ac.at](http://www.muk.ac.at)

## ANTON BRUCKNER PRIVATE UNIVERSITY

Accordion Classical - artistic or educational (BA, MA)  
Baroque Cello Ancient Music - artistic or educational (BA, MA)  
Baroque Oboe Ancient Music - artistic or educational (BA, MA)  
Baroque Violin Ancient Music - artistic or educational (BA, MA)  
Recorder Ancient Music - artistic or educational (MA)  
Recorder Classical - artistic or educational (BA, MA)  
Harpsichord Classical or Ancient Music artistic or educational (BA, MA)  
Horn (BA, MA)  
E-Bass Jazz - artistic or educational (BA, MA)  
Bassoon Classical - artistic or

educational (BA, MA)  
Flute Classical or Jazz - artistic or educational (BA, MA)  
Guitar Classical or Jazz - artistic or educational (BA, MA)  
Dulcimer Classical - artistic (BA)  
Dulcimer Classical - artistic or educational (MA)  
Pianoforte Classical - artistic or educational (BA, MA)  
Harp Classical - artistic or educational (BA, MA)  
Horn Classical - artistic or educational (BA, MA)  
Clarinet Classical or Jazz - artistic or educational (BA, MA)  
Piano Chamber Music, Classical (MA)  
Double Bass Classical or Jazz - artistic or educational (BA, MA)  
Piano Classical or Jazz - artistic or educational (BA, MA)  
Oboe Classical - artistic or educational (BA, MA)  
Organ Classical - artistic or educational (BA, MA)  
Percussion Jazz - artistic or educational (BA, MA)  
Trombone Classical or Jazz - artistic or educational (BA, MA)  
Saxophone Classical or Jazz - artistic or educational (BA, MA)  
Percussion Classical or Jazz - artistic or educational (BA, MA)  
Trumpet Classical or Jazz - artistic or educational (BA, MA)  
Tuba Classical or Jazz - artistic or educational (BA, MA)

Viola Classical or Jazz - artistic or educational (BA, MA)  
Violin Classical or Jazz - artistic or educational (BA, MA)  
Cello Classical or Jazz - artistic or educational (BA, MA)  
Zither Classical - artistic (BA)  
Zither Classical - educational (BA, MA)  
[www.bruckneruni.at](http://www.bruckneruni.at)

## MOZARTEUM SALZBURG

Baroque Cello (MA)  
Baroque Oboe (MA)  
Baroque Violin/Baroque Viola (BA, MA)  
Bass Tuba (BA, MA)  
Recorder (BA, MA)  
Harpsichord (BA, MA)  
Bassoon (BA, MA)  
Guitar (BA, MA)  
Pianoforte (MA)  
Harp (BA, MA)  
Horn (BA, MA)  
Instrumental Music Education (BA, MA)  
Chamber Music for Piano Trio (MA)  
Chamber Music for String Quartet (MA)  
Clarinet (BA, MA)  
Piano (BA, MA)  
Piano Solo Training (MA), Piano  
Duet (MA)  
Piano Music and Song Performance (MA)  
Double Bass (BA, MA)  
Accompaniment for Musicals (MA)  
Oboe (BA, MA)  
Organ (BA, MA)  
Trombone (BA, MA)

Traverse Flute (BA, MA)  
Percussion (BA, MA)  
Traverse Flute (MA)  
Trumpet (BA, MA)  
Viola (BA, MA)  
Viola da Gamba/Violin (BA, MA)  
Violin (BA, MA)  
Cello (BA, MA)  
[www.uni-mozarteum.at](http://www.uni-mozarteum.at)

Accordion (BA)  
Bass Tuba (BA, MA)  
Recorder (BA, MA)  
Harpsichord (BA, MA)  
Diatonic Harmonica (BA, MA)  
Bassoon (BA, MA)  
Guitar (BA, MA)  
Dulcimer (BA, MA)  
Harp (BA, MA)  
Horn (BA, MA)  
Clarinet (BA, MA)  
Piano (BA, MA)  
Double Bass (BA, MA)  
Oboe (BA, MA)  
Organ (BA, MA)  
Trombone (BA, MA)  
Traverse Flute (BA, MA)  
Saxophone (BA, MA)  
Percussion (BA, MA)  
Tyrolean Folk Harp (BA)  
Trumpet (BA, MA)  
Viola (BA, MA)  
Violin (BA, MA)  
Cello (BA, MA)  
Zither (BA, MA)  
[www.uni-mozarteum.at](http://www.uni-mozarteum.at)

# Communities, networks, interest groups

## AUSTRIA

### ADA – AUSTRIAN DIRECTORS' ASSOCIATION

The ADA represents the interests of Austrian film and TV directors. As a member of the FERA (the Federation of European Film Directors), the ADA represents Austrian directors in Brussels in the key committees of the European Union. [www.directors.at](http://www.directors.at)

### AUSTRIAN FASHION.NET

AustrianFashion.net is a platform for Austrian fashion designers and producers, and regards itself as a base for designers open for all who wish to present their widely varying areas of interest for discussion, collect ideas and realise projects. [www.austrianfashion.net](http://www.austrianfashion.net)

### AUSTRIAN FILM COMMISSION

The purpose of the Austrian Film Commission is to promote Austrian films. [www.afc.at](http://www.afc.at)

### AUSTRIAN ILLUSTRATION

Austrian Illustration is an online portfolio of leading Austrian illustrators. [www.austrianillustration.com](http://www.austrianillustration.com)

### AUSTRIAN MUSIC EXPORT

The purpose of Austrian Music Export as a service and resource centre is to promote the export of contemporary Austrian

music of all genres. [www.musicexport.at](http://www.musicexport.at)

### BARCAMP AUSTRIA

So-called "Barcamps" are now held throughout Austria. There are themed camps, such as politcamps, educamps and designcamps. Here, the programme consists of short lectures with a discussion, presentation and above all the interaction between the participants. [www.barcamp.at](http://www.barcamp.at)

### BERUFSFOTOGRAFEN ÖSTERREICH

This portal for professional photographers is the first medium for photography in Austria, and is run by photographers, for photographers. [www.berufsfotografen.at](http://www.berufsfotografen.at)

### C HOCH 3 CREATIVE INDUSTRIES NETWORK

C hoch 3 is an Austria-wide competency programme and cooperation network for creatives from sectors such as design, advertising, film, the music industry, photography, publishers, architecture, etc. Here, creatives can work as part of a network, cooperate professionally and build up their company with the C hoch 3 programme. [www.kreativwirtschaft.at](http://www.kreativwirtschaft.at)

### CREATIVE AUSTRIA

CREATIVE AUSTRIA is a joint communication and promotion platform for Austrian cultural destinations

and federal institutions with the aim of disseminating Austrian culture and creative offers worldwide. [www.creativeaustria.at](http://www.creativeaustria.at)

### CREATIV CLUB AUSTRIA

The Creativ Club Austria (CCA) is Austria's only non-profit institution that judges and presents awards to creative works in the field of advertising, design, photography, illustration and digital media. [www.creativclub.at](http://www.creativclub.at)

### DASAUGE.AT – CREATIVES ON THE WEB

dasauge has put together a network of creatives - both in terms of numbers and quality. Anyone in search of good, longterm contacts in the creative industries will find what they are looking for here. [www.dasauge.at](http://www.dasauge.at)

### DESIGNAUSTRIA

designaustria represents the interests of the local design scene at a national and international level. [www.designaustria.at](http://www.designaustria.at)

### DMVÖ

The Dialog Marketing Verband Österreich, or DMVÖ, is an independent body representing the interests of the dialogue marketing sector. It offers combined knowledge and contacts and provides impulses for dialogue trends. [www.dmvoe.at](http://www.dmvoe.at)

### EMBA – EVENT MARKETING BOARD AUSTRIA

The emba is the sector association of the leading live marketing agencies in Austria. Quality assurance, training and services for members and clients are among its key activities. [www.emba.co.at](http://www.emba.co.at)

### PROFESSIONAL ASSOCIATION OF THE FILM AND MUSIC INDUSTRY

As a non-profit organisation, the professional association of the film and music industry represents all commercial members of the film and music industry. [www.filmandmusicaustria.at](http://www.filmandmusicaustria.at)

### PROFESSIONAL ASSOCIATION OF THE TEXTILE INDUSTRY

The professional association represents the interests of and acts as a service point for Austrian textile industry companies. [www.textilindustrie.at](http://www.textilindustrie.at)

### GAMES AUSTRIA

Games Austria is a platform for several initiatives in order to strengthen the central and eastern European game developer community and provide benefits for the individual developers and smaller games companies. [www.gamesaustria.at](http://www.gamesaustria.at)

### IAA

The IAA is a global organisation which works on behalf of consumers and the advertising industry for

freedom of speech in the field of commercial communication. The common goal of its members is to preserve the "Freedom of Commercial Speech", through the exchange of their combined know-how and through training and further qualification of managers in marketing and communication. [www.iaa-austria.at](http://www.iaa-austria.at)

### IG ARCHITEKTUR

IG Architektur is an Austrian-wide interest group for professionals working in architecture. It is a platform for encouraging the discussion of issues around architecture and architecture policy. [www.ig-architektur.at](http://www.ig-architektur.at)

### IG COMPUTERGRAFIK

The interest group for computer graphics (IG CG) is an independent association representing companies, single entrepreneur businesses, institutions and organisations in the fields of animation, computer film and computer games. [www.igcomputergrafik.at](http://www.igcomputergrafik.at)

### IG KULTUR ÖSTERREICH

IG Kultur Österreich is the umbrella association and representative body for autonomous culture initiatives in Austria. [www.igkultur.at](http://www.igkultur.at)

### IGMA – INTERESSENSGEMEINSCHAFT DER MEDIAAGENTUREN

The goal of the Interessensgemein-

schaft der Media Agenturen (IGMA) association is to represent and promote the shared commercial interests of Austrian advertising companies, particularly media agencies and advertising agencies. [www.igma.at](http://www.igma.at)

### INTERNATIONAL CENTER FOR NEW MEDIA (ICNM)

The ICNM, the International Center for New Media, is a non-profit association which has specialised in networking right across Europe and throughout the world. The focus lies in the use of the new media, e-content and the social development in the new media. [www.icnm.net](http://www.icnm.net)

### INTERNET PROVIDERS AUSTRIA (ISPA)

The ISPA acts as a voluntary representative of the interests of more than 200 members from all areas with regard to all aspects of the Internet. [www.ispa.at/startseite.html](http://www.ispa.at/startseite.html)

### KREATIVWIRTSCHAFT AUSTRIA

Kreativwirtschaft Austria, as a part of the Austrian Economic Chamber, represents the interests of the creative industries in Austria and within the European Union, and works to raise awareness of the creative industry-based services. [www.kreativwirtschaft.at](http://www.kreativwirtschaft.at)

# Communities, networks, interest groups

## KULTURRAT ÖSTERREICH – INTERESSENSVERTRETUNGEN VON KUNST-, KULTUR- UND MEDIENSCHAFFENDEN

Der Kulturrat Österreich, or Austrian cultural council, represents the interests of designers and producers of art, culture and media. It is a platform for shared cultural policy concerns and goals, and represents these in the political field, as well as in the media administrative bodies. The Kulturrat Österreich opens up and encourages cultural, educational, media and social policy debates. [www.kulturrat.at](http://www.kulturrat.at)

## MCÖ - MARKETING CLUB ÖSTERREICH

The Marketing Club Österreich is a club for experts in the field - for executives, managers and specialists. It offers ongoing current information from the sector, presentations by experts and seminars. [www.marketingclub.at](http://www.marketingclub.at)

## MICA – MUSIC INFORMATION CENTER AUSTRIA

mica – music austria is the professional partner for people working in the music industry in Austria, offering advice and information for musicians in Austria, disseminating Austrian music in-country and abroad, and reporting on current music from Austria in its own music magazine. [www.musicaustria.at](http://www.musicaustria.at)

## NEIGUNGSGRUPPE DESIGN

The independent initiative, “Neigungsgruppe Design”, aims to increase awareness of design in Austria, encourage debate and involvement, and present design themes in the field of tension between culture and the economy. It organises the Vienna Design Week. [www.neigungsgruppe-design.org](http://www.neigungsgruppe-design.org)

## OTELO – OPEN TECHNOLOGY LABORATORY

An Otelo is a place where people come together in all their variety in a nonhierarchical way, exchange knowledge and (cultural) techniques and work together to develop something new. [www.otelo.or.at](http://www.otelo.or.at)

## PRVA – PUBLIC RELATIONS VERBAND AUSTRIA

The Public Relations Verband Austria is the independent, volunteer-based association for communications experts in companies, agencies and organisations. [www.prva.at](http://www.prva.at)

## QUARTIER FÜR DIGITALE KULTUR

The QDK, or “Quarter for Digital Culture”, is an open platform for collaborations in the field digital art and culture. Projects are initiated that offer space, opportunity for realisation and awareness for digital culture. [www.qdkwien.blogspot.co.at](http://www.qdkwien.blogspot.co.at)

## STRATEGIE AUSTRIA

Strategie Austria aims to strengthen relevance for brands, products and companies. [www.strategieaustria.at](http://www.strategieaustria.at)

## SUBOTRON

SUBOTRON is a point of contact and meeting place to promote theoretical and practical dialogue on the theme of “digital games”. [www.subotron.at](http://www.subotron.at)

## TYPOGRAPHISCHE GESELLSCHAFT AUSTRIA

The typographische Gesellschaft Austria (tga) represents the interests of designers, who value typography, offering a forum for typographical standards and specialist knowledge in Austria. The purpose of the tga is to promote and uphold the standards of typography, and to provide further training in design and technique. [www.typographischesgesellschaft.at](http://www.typographischesgesellschaft.at)

## VAMP – VERBAND AMBIENT MEDIA UND PROMOTION ÖSTERREICH

VAMP works towards increasing awareness for ambient media and sales promotion on the Austrian market. For this purpose, a competition is held every year, with an award presented in 10 categories. [www.vamp.at](http://www.vamp.at)

## VERBAND DRUCK & MEDIENTECHNIK

The Verband Druck & Medientechnik, the association of printing and media technology, is the only comprehensive, competent, independent and voluntary organisation representing the interests of the print and media sector in Austria. [www.druckmedien.at](http://www.druckmedien.at)

## THE AUSTRIAN ECONOMIC CHAMBER

The Economic Chamber represents the interests of Austrian companies, supporting them with its know-how and offering competent advice on issues ranging from labour law to customs information. [www.wko.at](http://www.wko.at)

## FEDERAL STATES BURGENLAND

### KREATIVWIRTSCHAFT - KREATIVER SEKTOR BURGENLAND

Kreativwirtschaft - Kreativer Sektor Burgenland acts as a contact point for individuals from the creative industries in Burgenland. The areas of competence of the centre include structuring and organising measures for further qualifying companies in the culture sector. [www.kreativwirtschaft.net](http://www.kreativwirtschaft.net)

### FTI BURGENLAND

The FTI Burgenland 2025 strategy aims to establish and further devel-

op the fields of research, technology and innovation. This strategy serves to increase the amount of research and the added value in Burgenland, and promotes the creation of new jobs. The focal areas in terms of content are sustainable energy, sustainable life quality and intelligent processes, technologies and products. [www.fti-burgenland.at](http://www.fti-burgenland.at)

## CARINTHIA

### KREATIVWIRTSCHAFT KLAGENFURT

Kreativwirtschaft Klagenfurt is the service portal for creatives in Klagenfurt. Its goals are to support networking between existing creative companies and the synergies created as a result, the settlement of external, innovative companies, improved collaboration with creatives on a regional and trans-regional basis, and the networking of culture, business and tourism. [www.kreativwirtschaft-klagenfurt.at](http://www.kreativwirtschaft-klagenfurt.at)

## LOWER AUSTRIA

### KULTURVERNETHUNG NIEDERÖSTERREICH

The purpose of the Kulturvernetzung NÖ, or cultural networking in Lower Austria, is to support regional artistic and cultural activity in all its forms. [www.kulturvernetzung.at](http://www.kulturvernetzung.at)

## UPPER AUSTRIA

### AFO ARCHITEKTURFORUM OBERÖSTERREICH

The afo, the architecture forum for Upper Austria, regards itself as part of a network in an open, vibrant scene, in particular in exchange with other cultural and educational institutions, architects, artists and people involved in the cultural field. [www.afo.at](http://www.afo.at)

### AEC LINZ

The Ars Electronica Center is a year-round presentation and interaction platform focussing on science, research, art and technology. The Ars Electronica Festival acts as a test environment for these areas, with the prix competition attracting the best minds, and the FutureLab offering a research and development cell. [www.aec.at](http://www.aec.at)

### AKOSTART OÖ AKADEMISCHES STARTUP NETZWERK

akostart oö, the academic start-up network for Upper Austria, is Austria's first cross-higher education institution network for academic start-ups and spinoffs. Its goal, through the provision of support and its range of services, is to increase the percentage of new businesses founded by academics. [www.akostart.at](http://www.akostart.at)

# Communities, networks, interest groups

## CREATIVE REGION LINZ & UPPER AUSTRIA GMBH

Creative Region is an information and service platform, an ideas and project workshop and a network society for strengthening the creative industries in Upper Austria. [www.creativeregion.org](http://www.creativeregion.org)

## SALZBURG

### ITG INNOVATIONSSERVICE FÜR SALZBURG

The ITG is a non-profit organisation which supports Salzburg-based companies with innovative projects by providing advice and practical help. From the germ of the idea through to the funding strategy, from the information event through to personal support. [www.itg-salzburg.at](http://www.itg-salzburg.at)

### SCHMIEDE HALLEIN

Schmiede Hallein is an association to promote digital culture. Every year, Schmiede Hallein organises a 10-day producers' festival. The creative environment during the festival invites participants to network and exchange ideas. [www.schmiede.ca](http://www.schmiede.ca)

## STEIERMARK

### ASSEMBLY GRAZ

The assembly festival offers fashion industry professionals the opportunity to show their work in front of

large audience. [www.assembly-festival.at](http://www.assembly-festival.at)

### CREATIVE CITY GRAZ

In order to improve the framework conditions for the creative industries, the department for business and tourism development of the City of Graz sets strategic impulses and develops and initiates new projects. As well as the design sector, the purpose is to strengthen other areas such as media and crafts. [www.wirtschaft.graz.at](http://www.wirtschaft.graz.at)

### CREATIVE INDUSTRIES STYRIA

The Creative Industries Styria is a support and network society for developing and strengthening the creative industries in Styria. Its purpose is to coordinate and further build on the broad range of creative services, and to position them in the overall context of the Styrian economy. [www.cis.at](http://www.cis.at)

### DESIGNFORUM STEIERMARK

The designforum Steiermark, which is run as an institution with the name Creative Industries Styria, regards itself as an urban dialogue, competency and mediation centre for design. Designers and design-related projects are given a modern presentation and exhibition space here. [www.designforum.at/st/](http://www.designforum.at/st/)

### ERLEBNISWELT WIRTSCHAFT

Innovative companies open up their doors to visitors, who are offered exciting experience tours behind the scenes during production. These tours are designed and staged by the creative industries. Creatives are involved in the concept and realisation of an experience tour. [www.erlebniswelt-wirtschaft.at](http://www.erlebniswelt-wirtschaft.at)

### HAUS DER ARCHITEKTUR GRAZ

The HDA acts as a platform for all areas of architecture, urban construction and spatial planning, both in the interest of a wide range of different social groups and involving related disciplines, and as a contact partner for all issues relating to building culture. [www.hda-graz.at](http://www.hda-graz.at)

### WIR GESTALTEN ES

"Wir gestalten es" is a network of creative entrepreneurs in east Styria. "Wir gestalten es" is a platform for selfemployed creatives from all sectors (print, design, graphics, web, architecture, programming, photography, music, etc.) with a local reference to east Styria. [www.wir.gestalten.es](http://www.wir.gestalten.es)

### INNOLAB

The innolab is a part of the Innovation Management study facility at the FH CAMPUS 02 in Graz. It is the

contact point for people from Styria and Carinthia who want to pursue their business idea. innolab supports and accompanies innovative individuals in assessing their idea, and planning and realising their business concepts. [www.innolab.at](http://www.innolab.at)

## TYROL

### AUT ARCHITEKTUR UND TIROL

AUT is a non-profit organisation for architects in Tyrol. AUT organises numerous events such as exhibitions on architecture, art and design, lectures by national and international architects, discussions, excursions, symposia, guided tours, themed film series and "onlocation" presentations in new buildings, as well as a special programme offer for children and young people. [www.aut.cc](http://www.aut.cc)

### CREATE TIROL

Create Tirol is a platform for further education and network events for creative entrepreneurs in Tyrol. It offers an overview of contact points and funding for creatives and keeps interested individuals up to date on developments in the creative scene. [www.createtirol.at](http://www.createtirol.at)

### DESIGN IN TIROL

Design in Tirol is a group of designers and craftspeople who strengthen awareness of design in Tyrol, and

which aims to increase people's experience of the added value of design. [www.designintiro.at](http://www.designintiro.at)

### DIE BÄCKEREI

Die Bäckerei is a platform of cultural and social exchange. It is an open house in which events, workshops, lectures and courses can take place. [www.diebaeckerei.at](http://www.diebaeckerei.at)

### STANDORTAGENTUR TIROL

The Standortagentur Tirol is a service provider, impulse-creator and pioneer thinker for business and science in all areas related to growth, research, technology, innovation and cooperation. With its services and networks, it provides assistance in successfully initiating and realising future-oriented projects. [www.standort-tirol.at](http://www.standort-tirol.at)

### TORTENWERKSTATT

The Tortenwerkstatt is a place where knowledge is exchanged, where people can work independently on group or individual projects. The main focal areas are architecture/photography and art. [www.tortenwerkstatt.net](http://www.tortenwerkstatt.net)

### WEI SRAUM DESIGNFORUM TIROL

WEI SRAUM is a link between creativity and business, particularly as an open, interdisciplinary platform for mediation, reflection and communication of creativity-related

themes and processes. [www.weissraum.at](http://www.weissraum.at)

## VORARLBERG

### ARTDESIGN FELDKIRCH

ArtDesign Feldkirch in an interdisciplinary platform, the goal of which is to create an ideal forum for protagonists in different locations for marketing and selling their work and products, and to enable a diverse network of contacts to be established. [www.potentiale.at](http://www.potentiale.at)

### DESIGNFORUM VORARLBERG

As a dialogue, presentation and networking platform, designforum Vorarlberg promotes design and designrelated disciplines in Vorarlberg. [www.designforum.at/v/](http://www.designforum.at/v/)

### FILMWERK VORARLBERG

Filmwerk Vorarlberg is a service point, interest group, future workshop and quality community for film creatives based in Vorarlberg. [www.filmwerk-vorarlberg.at](http://www.filmwerk-vorarlberg.at)

### VAI VORARLBERGER ARCHITEKTUR INSTITUT

The VAI is an interface in the field of building culture, connecting planners, building owners, business entrepreneurs and trades, politics and science. [www.v-a-i.at](http://www.v-a-i.at)

# Communities, networks, interest groups

## VLOW! - FESTIVAL IM ZWISCHEN- RAUM KOMMUNIKATION, DESIGN UND ARCHITEKTUR

The Vlow! Festival is an international platform for education, meeting and networking. It focuses on communication strategies and innovative work and cooperation processes. The participants are graphic designers and architects, scenographers, photographers, audio/video designers and managers from the field of branding, marketing and advertising. [www.vlow.net](http://www.vlow.net)

## WERKRAUM BREGENZERWALD

The Werkraum Bregenzerwald was established in 1999 when master businesses came together to create a platform that has an external impact with exhibitions, competitions and lectures, while focussing internally on development work and support for young talent. [www.werkraum.at](http://www.werkraum.at)

## VIENNA

### CREATIVESPACE – THE CREATIVE PORTAL FOR THE ECONOMIC CHAM- BER OF VIENNA

Creativespace is Austria's largest, free creative platform and an information and networking website

covering all aspects of Vienna's creative industries. Creativespace acts as a contact point and contact partner for the creative scene in Vienna, and for all those who want to benefit from creative services. [www.creativespace.at](http://www.creativespace.at)

## DESIGNFORUM WIEN

The designforum Wien is a competence, service and mediation centre in which aspects of design, its objectives and its value are discussed. [www.designforum.at](http://www.designforum.at)

## DREHBUCHFORUM WIEN

The offers and services provided by the drehbuchFORUM Wien are oriented to experienced scriptwriters and film writerdirectors, who are supported in their work in a number of different ways. Producers looking for authors, coauthors, dramaturgists or material can also contact the drehbuchFORUM. [www.drehbuchforum.at](http://www.drehbuchforum.at)

## VIENNA DESIGN WEEK

The VIENNA DESIGN WEEK is Austria's biggest design festival. Here, the whole of Vienna becomes

a showcase and an exhibition space for design.

[www.viennadesignweek.at](http://www.viennadesignweek.at)

## WIRTSCHAFTSAGENTUR WIEN

The Wirtschaftsagentur Wien is the first port of call for national and international companies. It provides support with monetary funds, property and urban development impulses, as well as free service and advice, and in this way strengthens Vienna as a business location.

[www.wirtschaftsagentur.at](http://www.wirtschaftsagentur.at)

# Impressum

Published by:

Federal Ministry for Europe, Integration and Foreign Affairs –  
International Cultural Policy, Vienna 2018  
Minoritenplatz 8, 1010 Wien

Concept:

Teresa Indjein, Peter Mikl, Hansjürgen Schmölzer

Chief editor:

Hansjürgen Schmölzer

Editors:

Hansjürgen Schmölzer, Lisa Dreier, Jürgen Miedl, Sara Buchbauer

Translation:

Anna Güttel

Managing editors:

Lisa Dreier, Michaela Zingerle

Art direction:

Mathias Kaiser

Graphics:

Barbara Haupt, Sara Buchbauer, Anna Höfler

Production:

Sabine Arenkens

Project organisation:

Peter Mikl, Natascha Grilj

Printing and binding: GRASL Druck & Neue Medien GmbH

ISBN 978-3-9504271-4-1





EUROPE  
INTEGRATION  
FOREIGN AFFAIRS  
FEDERAL MINISTRY  
REPUBLIC OF AUSTRIA

austria kultur<sup>int</sup>