

CLIMATE BEAUTY

The Art of Reimagining Progress

Essay

by Christoph Thun-Hohenstein, General Director, MAK,
on the occasion of the opening of the MAK CREATIVE CLIMATE CARE GALLERY
Vienna, June 2020

1. Overview

The climate crisis is the tip of the iceberg of a manmade overall ecological crisis. The following thoughts will outline

- how to rid ourselves of the nightmare that global warming represents and realize our dream of climate stabilization and climate beauty instead (section 2);
- why a new mindset is crucial for this task and what it consists of (section 3);
- why digitalization should be primarily directed towards the protection of the climate, species, and ecosystems (section 4);
- which gravely misguided developments of industrial and digital capitalism we must correct and what a new vision of progress for the digital 21st century looks like (section 5);
- why we cannot just make China responsible but are all called upon to act (section 6);
- why art and creativity can play a decisive role in overcoming this overall ecological crisis (section 7);
and, as an outlook,
- why we can look to the EU to provide a compelling eco-social model for the future (section 8).

Merely hoping that the situation will improve on its own is not enough. Let us start telling a new narrative together – the inspiring story of how an ecologically rundown civilization manages to turn around against all odds and sets the perimeters for sustainable harmony with its home planet.

2. From climate stabilization to climate beauty

When those born today look back on the 21st century eighty years from now, what will they think about the 2020s and 2030s? Did we set the right priorities or entangle ourselves in a downwards spiral of ecological destruction that will pull the rug out from under us?

Surveys show that many people across the globe consider the climate crisis a key concern and wish to overcome it. Even if consumerism and CO₂ emissions seem to outweigh that wish, it still signals a turning point. At the same time, Fridays for Future has emerged as a movement championed by today's youth that demands swift and decisive action on the part of politicians. Media outlets have finally followed suit and offer daily reports on rapid climate change, its causes, its already noticeable effects, and catastrophes looming in the future. These images, figures, and scenarios are not missing their mark. Human beings are sociable and crave harmony – rather than the dramatic impact of manmade climate disasters, we yearn for climate stability and harmony.

Already in our present time, the first spurt of rain after a long period of draught feels like a huge relief – we may even find it beautiful. If we hold Earth, its natural beauty and biological diversity close to our hearts, we will also show a stable climate and its advantages the deep appreciation it deserves. The more we learn about this kind of climate – especially about the climate of our home region that shaped our everyday lives throughout the year –, the more attuned we will be to its beauty, both its visible beauty (the kind that is on full display in the spring) and its hidden beauty (its inner rhythm that leads us through the change of seasons despite all challenges). There is a deep satisfaction and inner calm that arises when we can rely on a familiar climate and enjoy its beautiful moments – and also when we can savor its harsher side, as in the midst of a rough winter.

The climate has always been a trusted figure in our lives, which is why we are so rattled when it does not act the way we are used to. Poignant examples include prolonged droughts in Central Europe, confronting us with yellowed lawns instead of luscious meadows, or the grueling heat waves that plague cities so densely built that not even the nighttime can provide respite. The climate we are used to proves most beautiful when we can take it for granted, irrespective of rare exceptions (such as sudden hail) that ultimately confirm the rule. But if human-induced climate change causes the exceptions to become the rule (e.g. “hundred-year storms” that have become a vastly destructive annual recurrence) and attain ever higher extremes (e.g. a new heat record every year), we know that it is time to act.

The beauty of a familiar and stable climate finds its counterpart in the beauty of Earth, its biological diversity, its landscapes, but also in the cultural achievements thereon built. The one sustains the other: We will not think of beauty if we see a ravaged stretch of land or

decrepit industrial city, no matter how stable and mild the climate. Similarly, even the most soothing landscape or breathtaking city will seem harsh and cold if the climate is wild and unforgiving due to unrelenting global warming. If, however, a certain quality of stable climatic conditions aligns itself with the kind of quality provided by sustainable rural or urban settings, then we can speak of climate beauty. Let us be inspired and moved to action by the idea that the climate can be something beautiful...

Climate beauty, however, cannot be fully grasped with conventional notions of beauty. Climate beauty connects climate stability and climate harmony: A gradual change in climate that takes place over a long period of time has always been a fact of life, but only after the intervention of humankind (agriculture and especially industrialization) have climate change and global warming so accelerated that they are endangering organic life. Climate stability is concerned with the attempt to limit human-induced global warming and stabilize the climate before we reach certain tipping points. Since the climate crisis is part of an overall ecological crisis, we can only achieve long-term climate stability if we do so in harmony with overcoming the overall ecological crisis. Striving for climate harmony thus places the stabilization of the climate within a greater ecological framework and emphasizes how important it is to set holistic climate protection measures that take the overall ecological crisis into account. With regard to our role as human beings, we must pay equal attention to the climate crisis on the one hand and the overall ecological crisis on the other in order to achieve climate harmony. Furthermore, we are called upon to envision a lifestyle that thrives on its harmonious relationship towards Earth, its ecosystems, and its biodiversity. Only by enabling climate stability and leading lives in line with climate harmony will we be able to achieve and maintain climate beauty.

At first glance, climate beauty is no question of ideology: Conservatives, liberals, progressives, greens, and supporters of other political parties and worldviews all seem likely to subscribe to the objective of a stable climate with urban and rural areas in full bloom. Ideology interferes when it comes to deciding on measures that make themselves felt. In order to attain climate beauty, it will not suffice to say goodbye to fossil fuels; we will need to protect our planet's biodiversity and ecosystems and save its resources with the same zeal. Climate beauty thus builds on a holistically minded ecological literacy, not just climate change literacy. And it demands honesty: Only when we are prepared to disclose the true costs of economic activity and put our own lifestyles under close scrutiny will we be able to make decisions that impact our future in a positive and sustainable way. With the help of digitalization we have tremendous technologies at our disposal to provide the kind of ecological transparency in the economy and society that is necessary to make such changes.

The ever-growing yearning for stable climatic conditions is the beginning of a – or better **the** – **grand new narrative** of our still young century. The climate is changing all over the world, and yet this is only a small taste of what is heading towards us if we cannot put an end to global warming. A climate marked by constancy, a relatively stable average temperature, and a lack of extreme variations in the weather is not only the most worthy pursuit of our times, but it will also become the embodiment of beauty itself in the digital 21st century. The twin pursuit of climate harmony and climate beauty is a wonderful bridge between global ambition and a felt increase in the quality of life on both a regional and local level. It is so uniquely inspiring because it opens up **new positive dimensions in our imagination**.

3. A new mindset for a society that is fit for the future

The climatic conditions on our planet are fine-tuned. However, humankind has been changing the rules fundamentally since the onset of industrialization, destabilizing Earth's delicate balance. Half of all human-induced CO₂ emissions arose over the last 30 years! We are speeding towards the dreaded tipping points that will unleash further forces of change and thus accelerate climate change. The numerous negative effects of the climate crisis – notably the irreversible rise in sea level, hurricanes, extreme heat, water scarcity, drought, and devastating fires – are decimating the habitable regions of our planet, while in the meantime the world population is booming, possibly reaching 11 billion people by the end of the century. Further effects of global warming will lead to significant decreases in the quality of life that will hit the poor the hardest, but ultimately spare no one. These include the excessive heat waves already plaguing cities in the summertime, the appearance of tropical diseases further north, and the dreaded prospect of past diseases and viruses such as the Spanish Flu spreading for a second time as they “thaw,” a phenomenon to which we have become particularly sensitive in the light of COVID-19. Should global warming continue at its current pace, experts estimate that there will be 200 million climate refugees within the next 30 years.

Since 1900, the global average temperature has risen by nearly 1°C, yet the effects are distributed unevenly. A landlocked country such as Austria has seen a rise in temperature twice as high and is thus more severely affected than other parts of the world. The rise in temperature we are already witnessing cannot be reversed, but we must try our hardest to limit the global average temperature's increase to 1.5°C or max. 2°C – it is important to note that the negative impact of a rise of 2°C is already significantly higher than that of a 1.5°C rise and that an increase above 2°C would have dramatic implications. This demonstrates the urgency of overcoming the climate crisis to avert permanent damage to Earth and human

civilization on our home planet. **CLIMATE CARE, meaning tending to the climate effectively and prudently**, is thus a priority of human civilization in the Digital Age.

The main shortcoming of industrialization was the (unfortunately still widely held) notion that Earth is a treasure chest of unlimited resources that can be pillaged and exploited at will for production at maximum capacity. In truth, Earth is a highly **sensitive organism** that is vulnerable to the wounds that humankind inflicts on it. This organism is still providing us with prime conditions for human, animal, and plant life, but its balance, so conducive to human civilization, is beginning to falter. In the last 25 years alone, we have reaped the same amount of solid raw materials as in the entire history of humankind before then.

Precisely because climate change is so closely intertwined with the expansive use of resources, the destruction of ecosystems, and the loss of biodiversity, the call for a **new relationship between humankind and Earth** and its species is growing ever more urgent. This relationship should be founded not on the exploitation of Earth's resources, but rather on respect, solidarity, humility, and a profound appreciation of its beauty, wealth of resources, and biodiversity. But that will not suffice either – Earth needs genuine affection! If we can show it heartfelt affection, we will also be able to help **cure its wounds and support its self-healing capabilities**. **PLANET HEALING** is the flipside of the new mindset for human progress in the Digital Age. **PLANET HEALING** in a broad sense is not limited to healing extant wounds, but also comprises **far-sighted, holistic caregiving** to strengthen Earth's ecosystems and biodiversity in the long-term. Since such healing and care work helps balance the environment and stabilize the climate, **PLANET HEALING** and **CLIMATE CARE** are linked in manifold ways.

CLIMATE CARE and **PLANET HEALING** are thus **two sides of the same mindset**: It is not enough to eagerly “decarbonize” the economy and society if we continue to overexploit our planet (with all its negative effects such as the loss of biodiversity and the destruction of ecosystems), even if we do so with renewables instead of fossil fuels. Nor can the commitment to rescue individual ecosystems (e.g. meadowlands) replace radical climate protection measures in the respective region. **CLIMATE CARE** and **PLANET HEALING** complete one another and have the potential to reinforce each other. In this vein, the quicker and more consistently we abstain from overexploitation and begin to heal violated ecosystems (for instance by engaging in smart reforestation or deploying biochar that binds CO₂ in regenerative agricultural practices), the more likely we are to attain climate neutrality. In general, **PLANET HEALING** as a new kind of relationship to Earth will make it easier to implement far-reaching climate protection measures. Conversely, **CLIMATE CARE** as a new socio-political priority will open gateways for action for other ecological problems and simplify their implementation.

The climate crisis and the other key environmental problems are more than just ecological challenges; they also raise difficult social concerns. This means that effective climate protection, the preservation of biodiversity, the healing and rescue of endangered ecosystems, and a prudent use of Earth's resources can only be successful in the long-term if they make the social issues involved an important part of the solution from the outset. PLANET HEALING touches all species of Earth and thus also promotes a further development of humankind that is prosperous and inclusive. By the same token, CLIMATE CARE depends on the effective collaboration of each and every one of us. **Social sustainability is thus an essential component of ecological sustainability.**

The thoughts outlined above show that protecting the climate, biodiversity, endangered ecosystems, and Earth's resources has become the **main challenge of humankind**. CLIMATE CARE & PLANET HEALING provides a compelling new mindset to overcome this challenge, connecting **universal acceptance** with a high degree of **relevance and agency on all levels**, especially on those **regional and local**: We must realize that we are not only fighting for the abstract future of mankind, but can also bring about positive change that will be felt locally and regionally.

4. Digitalization for CLIMATE CARE and PLANET HEALING

In light of the significance and innovative prowess of digital technologies, it is justified to classify our age as a new modernity – and more specifically as a **Digital Modernity**. For a poignant example of the ubiquity of digital tools, one must merely look to the smartphone, which has become an indispensable aid and advisor in all situations of life. Digitalization, however, is still in its infancy: Smart sensors, big data, apps, artificial intelligence/machine learning, robots, blockchain, and many other digital innovations pave the way for barely imaginable opportunities for technological progress and lucrative business models – nearly all with the declared aim to improve lives.

If the effective protection of the climate and of Earth's biodiversity, endangered ecosystems, and resources can be regarded as the most important task of humankind, then the innovative potential of digitalization should be primarily targeted towards this goal. It is thus crucial to establish an **effective link between DIGITALIZATION and CLIMATE CARE and PLANET HEALING**. This means that we should not only examine the ecological footprint of digitalization with a critical eye, but also tap into its concrete potential for CLIMATE CARE and PLANET HEALING.

The effective protection of the climate, species, and ecosystems is not wholly dependent on digital support – the more impactful analog approaches and innovations can be directed towards this task, the better. On the other hand, the innovative prowess of digital technologies cannot be emphasized enough: Digitalization is a wide area of experimentation that can offer exciting, banal, dangerous, but also life-changing uses side by side. The digital tools of today and tomorrow make novel approaches to the effective and long-lasting protection of the climate, species, and ecosystems possible. Let us use and promote digital innovations for this most important of tasks!

As the defining mindset of the 21st century, CLIMATE CARE & PLANET HEALING must act as a **guideline for further digitalization** – for the efforts towards Industry 5.0, the Internet of Things, smart cities, etc., but also for novel digital developments and business methods more generally. In this context, implementing a concrete framework for ecological transparency of companies and other agents that abides by data protection regulation will be a key concern. CLIMATE CARE & PLANET HEALING applies to the business models of profit-oriented companies, the activities of non-profit organizations, and the public sector in equal measure. What is most important is the initial spark to get things going and have them scale quickly. It is thus crucial that funding/subsidies, tax incentives, and other mechanisms are implemented to the benefit of innovations that protect the climate and Earth's biodiversity, endangered ecosystems, and resources. They hold the promise of **meaningful conduct** and legitimate **profits**, but also **the jobs of the future**.

5. A new vision of “progress”

How do we want to define “progress” in the 21st century?

No one wishes to brush aside the successes that humankind has achieved since the Age of Enlightenment, the start of industrialization over 200 years ago, and especially over the last seven decades – let us reflect on the reduction in warfare, the fight against poverty, on the gains in food security, health, jobs, education, tourism, cultural offerings, and much else. The prosperity that capitalism has brought about is, however, stained by an extreme inequality of distribution, not just between the global north and the global south, but also within many nations.

Besides the unequal distribution of wealth, globalized capitalism has caused two further **gravely misguided developments**:

1) **Industrialization** and today's **mass consumption society** it has prompted are based primarily on **fossil fuels and a vast overexploitation of the planet**. They aggravate

global warming and drive Earth to its ecological limits. This misguided development does not only pose a threat to biological diversity and the unique qualities of our planet, but also sabotages its ability to provide a home for human civilization in the future. Thus, it risks putting an end to human evolution.

2) **Digitalization** carries the market economy's tendency to evoke new desires and commercialize all aspects of life to extremes. The **digital quantification, commercial exploitation, and acceleration** of the world and the lives of its inhabitants ultimately function to the detriment of those aspects of human life that are not readily susceptible to such quantification and acceleration – and are thus harder to commercialize (for instance real interpersonal relationships or the appreciation of untouched nature). At the same time, developments in **artificial intelligence** seem especially perilous: They are not limited to specialized tasks (known as weak or narrow AI), but also aim to create an Artificial General Intelligence (AGI, also known as strong AI), which could become a superintelligence surpassing humankind. Furthermore, digitalization promises heretofore unheard-of possibilities for the genetic programming of humans (**human engineering**) that someday may spawn generations of “designer babies”. These prospects increasingly blur the boundaries between human being and digital machine. They too risk putting an end to our evolution as human beings – by optimizing, overcoming, and ultimately replacing us by a new species of digital superintelligences that will take over as the actors that determine the shape of the world.

Both of these misguided developments lead to a **dead-end** that endangers the survival of humankind. What is more, they are mutually reinforcing: Digital quantification and acceleration lead to the decay of empathy and resonance, meaning the capability of human beings to establish resonant – sounding, vibrating, often deeply satisfying – relationships to their peers, animals, plants, and all of nature (cf. the theory of resonance by Hartmut Rosa). And they stimulate the urge to dull this alienation by maximizing consumption. But if people continue to expand their reach of consumption, they are not only exacerbating their carbon footprint, but also the exploitation of Earth. This applies similarly to the genetic “perfecting” of people via human engineering. Conversely, an in-existent relationship to Earth and its beauty will make digital quantification and acceleration seem more attractive, ultimately suppressing the ability to experience true leisure and slowness.

The path of an unleashed exploitation of Earth, insufficient climate protection, and nonreflective technological progress offers the tempting comforts of fossil-based growth, digitalization, “smartification”, gene manipulation, and finally the triumph over humankind through digital immortality. The other path takes us back to the qualities of our Mother Earth, her diversity of species, and to a new definition of our place on this planet that aims at

permanently ensuring the fundamental conditions that make it habitable for human civilization. The first path is based on the exploitation of resources and will increase the profits of today's and tomorrow's monopolies in the digital sector and in gene manipulation. It will not offer long-term surplus value for what it means to be a human being, but rather cause permanent damage to the conditions sustaining human civilization and biodiversity on this planet. The other path may seem like abstinence for the sake of future generations at first glance, but in truth it unfolds manifold prospects for an alternative, higher quality of our own lives. We have two options. We can blindly trust that never-ending economic growth is possible and that technological progress will solve climate change and other ecological problems automatically, in the end surpassing the limits of humanity and becoming digital zombies. Or we can acknowledge that the time has come **to take definite action to correct** the gravely misguided developments of globalized capitalism, thus creating a **new vision of progress**.

The good news is that it is not too late to turn around and leave the dead-ends behind us. But we must act swiftly. The **climate crisis** is offering us the **chance of the century** to walk along a new path and **redefine progress in our Digital Age**.

Can we perceive the **COVID-19 pandemic** – the first global pandemic since the Spanish Flu – as a turning point and use it to steer towards a better future? COVID-19 has prompted many to reflect on the things that truly matter in life. Do we really want to reactivate the dynamics of the pre-COVID-19 era – BIGGER, FURTHER, FASTER, CHEAPER, without taking nature, the environment, the climate, and immense social problems into account – just as they were? Wouldn't it be more prudent to desire LESS, but in HIGHER QUALITY and MORE SUSTAINABLE? The technophile utopias of Silicon Valley and dystopias in China (digital control, the social credit system, etc.) have been sobering, while the regulations concerning social distancing have spurred the yearning for meaningful human contact and an unharmed environment. The pandemic has also painfully shown us how fragile the global economy is, how dependent we are on the production of regions far away for our supply of goods, and how decisive they are for the gains of our businesses. We are starting to realize that we must conceive more robust, resilient models for the economy and for society, and that geographic proximity will play an important part in this: AS REGIONAL AS POSSIBLE, AS GLOBAL AS SENSIBLE!

For the first time, a **change in values** seems feasible – away from the (bleak) ambitions of the transhumanists to transform humankind into immortal digital beings and away from the notion that the climax of human civilization lies in mass data generation, and turning instead to a heartfelt appreciation of resonant interpersonal relationships, of active communities, of an improvement in the quality of the environment and thus life in both urban and rural

areas, of the beauty of nature and its biodiversity. When nations implement economic stimulus packages to assuage the worst of the damage of the corona crisis, we cannot further postpone implementing the highly necessary policy measures for CLIMATE CARE and PLANET HEALING. On the contrary: The investments and funding provided in the coming months must be directed towards the creation of a **resilient eco-social Digital Modernity**.

Progress in the 21st century will be shaped by the developments of digitalization (including human engineering) on the one hand and the multilayered crisis of the climate, biodiversity, and ecosystems on the other hand. It is up to us to **create a new holistic vision of “progress” together** – a vision in which digitalization with its wide-reaching potential is used congenially for CLIMATE CARE and PLANET HEALING. The kind of progress that attempts to soothe the damages and heal the wounds inflicted on Earth. The kind of progress that liberates us from mass consumerism and a throw-away mentality and allows us to **mature into a sustainable quality society** instead.

Especially now, after the havoc wreaked by COVID-19, the chance for a **collective new departure** is within reach – a once-in-a-lifetime chance to abandon the dead-ends of what was previously considered progress and build the foundations for sustainable human civilization on Earth. Our inner voice is telling us that the time has come. Let us heed it!

6. Do not just make China responsible! Why we are all called upon to act

It is true that the CO₂ emissions caused by a small nation such as Austria are significantly lower in absolute figures than those of China, the USA, India, or Russia (if you turn to the per-capita figures, however, the ranking is far different). It is true that between 2011 and 2013 alone, China used more concrete (a material that is immensely harmful to the climate due to its cement content) for building than the USA did in the entire 20th century. Does this give Europe a *carte blanche* to proceed as usual while we demand that China and the USA commit to radical change?

We will only be able to permanently limit global warming to well below 2°C if we **utilize all leverage points** – big and small, from global to regional, in our own hometowns, with respect to our own mobility and to our own homes – in order to become climate neutral as quickly as possible and decarbonize the economy and society: CLIMATE CARE, always and everywhere! The overuse of our planet and the loss of biodiversity will only come to an end if we begin to treat the planet’s wounds and support its ability to self-heal: meaningful joint action for PLANET HEALING! Whoever is left cold by annually updated heat records, droughts that deplete crops, enormous forest fires, devastating storms, pillaged ecosystems,

and the dramatic extinction of species is denying the reality of the situation and cannot face the climate crisis and the destruction of the basic conditions sustaining life. But we need everyone to participate in this new departure, for **just as each and every one of us is a part of the problem, we are all part of the solution.**

Let us always be aware that **environmental policy cannot be reduced to climate protection.** If we examine the three grand areas of action for decarbonization more closely, it becomes apparent that CLIMATE CARE and PLANET HEALING reinforce each other. These three areas of action – the trio underlying a decarbonized economy and society that is well-equipped for the future – are **efficiency** through the decrease in resource-intensiveness, **consistency** when it comes to deploying regenerative technologies (renewable energies), and **sufficiency**, meaning a positive adaptation of our lifestyles, especially our everyday routines. CLIMATE CARE without PLANET HEALING will not suffice to achieve the turnaround, and may even lead to new dead-ends (highly dangerous geo-engineering, for instance); PLANET HEALING without CLIMATE CARE will not be able to permanently cap global warming. Both are closely linked, which is why they can indeed be considered two sides of the same mindset.

Efficiency means that the same result can be achieved with less energy or fewer resources, or that the same input of energy or resources can achieve a greater result. The new relationship to Earth that forms the foundation of PLANET HEALING can help curb the so-called **rebound effect** (e.g. using an efficient car more frequently than necessary because of energy savings). An especially significant leverage point for resource efficiency is the model of the **circular economy**, where resources are kept in **technical cycles** for as long as possible, thereby reducing the waste of resources in accordance with the concept of PLANET HEALING.

Consistency is the term used when energy is generated from renewable natural sources (such as the sun, wind, water, and biomass) or when resources are kept in **biological cycles** (e.g. compostable underwear). Renewables are fundamental to CLIMATE CARE strategies, while biological cycles are inspired in particular by PLANET HEALING.

Sufficiency (finding the right balance, derived from the French word *suffire* / to suffice) is the heart of the contribution that every individual can make by changing his or her lifestyle and routines (!) in order to protect the climate, biodiversity, and ecosystems. Sufficiency thus touches on both CLIMATE CARE and PLANET HEALING in equal measure. The impact of a positive change in lifestyle habits is starkly underestimated. In fact, **sufficiency has priority over efficiency**, meaning that voluntarily renouncing a product or an activity is usually preferable to increases in efficiency.

The future lies in **combining these three areas of action**. This means that each of the three areas must contribute to solutions as best they can, especially since there are many points of overlap between them. In this sense, great progress in increasing efficiency will not spare us the effort of pursuing renewables and biological cycles as ambitiously as possible, nor of refraining from needless activities and products. Not even a substantial increase in the implementation of renewables and biological cycles can justify postponing positive change in our own lifestyles. Similarly, not even a radical reorientation of our lifestyle habits will excuse us from making considerable improvements in the areas of efficiency and consistency.

The thoughts outlined in section 4 argued that as the dominant technological power of our age, digitalization should be directed congenially towards the protection of the climate, biodiversity, and ecosystems. With regard to the trio of areas of action, this means that we urgently need **digital innovations for better efficiency, consistency, and sufficiency** – and for capturing the effects that arise from their interactions. Therefore, systems of funding/subsidies, tax incentives, and other steering mechanisms should be developed in such a way that they lead to an explosive growth in innovations in these areas. At the same time, the new mindset CLIMATE CARE & PLANET HEALING should create the conditions in the economy and society that allow novel business models to thrive, stimulated by corresponding demand.

The trio of areas of action demonstrates that our individual actions also play a key role in determining whether we will achieve the grand eco-social transformation. There are at least **three roles in which we have individual – and thus potentially collective – agency**:

As **educated consumers** we can align our consumption behavior with ecological convictions.

As **literate citizens** we can vote in accordance with our ecological convictions, but beyond that we can also collaborate with like-minded people and take initiative for what we believe in on a regional and local level.

As passionate “**citizen future designers**” we can educate ourselves about the fundamentals of the climate crisis and other ecological questions of the future and use this knowledge to develop strategies to contribute meaningfully to the three areas of action: efficiency, consistency, and sufficiency. Hopefully as many people as possible will deem the future so important that they will match their concerns with action, alone or with others. This would open novel opportunities that exceed their involvement as citizens and offer the chance to express their convictions through concrete measures. They could, for instance, initiate digitally supported swap meets, start urban projects based on small-scale

regenerative agriculture, or promote the installation of solar panels on rooftops. By being active in a visible way, citizen future designers can become influential catalysts locally or even regionally and become role models for many others.

Working people can also participate on a professional level. The more they concern themselves with the design of the future, the more motivated they will be to apply their convictions in a professional context.

In all these roles, the main flow of action moves from the *bottom up*, which is equally important for CLIMATE CARE and PLANET HEALING as the one from the *top down*. Ideally, they will both meet and reinforce each other. Fortunately, there are already multiple **bottom-up pioneers** who form an **avant-garde of the citizen-driven design of the future** and have achieved noteworthy results with their projects, but we need many more!

Our actions and involvement in these roles do not undermine the significance of **professional future designers**. On the contrary: The more people want to help shape the future, the more widely perceived and discussed the work of the professionals will be. Professional future designers include designers, architects, and visual artists. The most important asset of future design is something they hold in their professional DNA: holistic human **creativity!**

7. Creative progress in the 21st century

The past three decades – interestingly enough, the decades that have exponentially accelerated climate change – were marked by disruptive innovations and a renaissance of the classic concept of creative destruction. **However, we do not need creative destruction, but rather creative progress.** Many disruptive innovations have boosted mass consumption. Artificial intelligence, for instance, knows customers better than they know themselves and is thus the greatest salesman that has ever existed. It comes as no surprise that experts estimate we will have more plastic by weight than fish in the oceans by the year 2050 if this development continues. Most “recipes for success” of the past few decades (the few exceptions confirm the rule) have neither led to a radical abnegation of fossil fuels nor the preservation of biodiversity and the nurture of ecosystems. They have failed and must be replaced.

Of course, in the future we will continue to rely on technical progress. However, we cannot blindly trust that it will always keep the big picture in mind. Digital innovations such as the smartphone have uncovered new dimensions of communication, entertainment, knowledge creation, and ways to organize our everyday lives that we are loath to renounce; yet they have

created as many problems. They have changed our ways of being – gradually, but fundamentally, in both positive and negative ways. Technical progress has yet to offer what we really need: the right answers to human-induced climate change, the destruction of ecosystems and biodiversity, and the disfigurement of many parts of our planet.

We should therefore set a higher bar for technological innovations in the future: Their worth – in a literal and figurative sense – should be measured by what they can do for the protection of the climate, biodiversity, and the conservation of violated ecosystems. We thus need less disruptive and more **protective** and **healing innovation**. For start-ups, this means that the main goal should not be a quick exit, but rather a form of innovation that improves the environment and thus the world. To remunerate this appropriately is a question of the right mindset.

Without governments and their effective collaboration across all levels, the climate crisis and overall ecological crisis cannot be overcome. Nor can it be mastered without dynamic research and development and the proactive participation of companies. And much less without civil society and the personal involvement of as many individuals as possible! We are all depending on one another to rise above ourselves and fulfill this most important task of the 21st century. We need integrity, ingenuity, zeal, humor, and – especially – creativity. We are thus well-advised to heed those who are most intimately familiar with creativity: artists and creatives!

Art and creativity have a key role to play for CLIMATE CARE and PLANET HEALING and thus for reimagining progress in the sense of climate stability, climate harmony, and climate beauty. To avoid misunderstandings: Neither fine art nor the applied arts such as design and architecture can be reduced to aesthetics, and aesthetics is distinct from beauty. Many artists and creatives distance themselves from beauty or at least avoid the term. Still, not only has beauty played an important role throughout the history of art, but it is also a term that is widely discussed today. As every artist and creative knows: Beauty can make us better people – and we cannot spare the ideals of harmony and beauty in the midst of an overall ecological crisis. But climate beauty cannot be grasped solely with conventional notions of beauty in the first place. What really matters when faced with such a complex crisis is climate beauty's potential to inspire in our imagination something that is completely new and has positive connotations – a potential that will hopefully intrigue artists and creatives as well.

While applied arts such as design and architecture are expected to aim for concrete utility, fine art is free. Yet in light of the immense ecological challenges, the call for fine art to become equally solution-oriented is growing louder. We need the whole range of fine art's capabilities, such as engaging in a profound scientific-artistic examination of the overall

ecological crisis and producing contemplative works on our relationship to Earth, but also concrete suggestions for CLIMATE CARE and PLANET HEALING.

In the light of the thoughts outlined above, we hope that as many designers, architects, and fine artists as possible summon the courage to help shape CLIMATE CARE and PLANET HEALING with true commitment, and thereby contribute to the stabilization of the climate, climate harmony, and climate beauty. Especially since art and creativity offer a defining advantage over – often disruption-crazed and profit-obsessed – innovations of technology: Artists and creatives have a talent for keeping the big picture in mind and are used to thinking and working holistically. If ideas and suggestions for concrete measures are always judged based on their effects on the entire system, it will be easier to set the right priorities. While drawing on a **holistic approach**, artists and creatives can utilize and combine their strengths:

- high aesthetic standards,
- critical reflection,
- taking pleasure in experimentation,
- identifying (hidden) links,
- radical changes in perspective and new outlooks,
- pairing unusual concepts with perfect implementation (or vice versa),
- a strong and radiant sense of communication,
- the potential to surprise,
- the ability to engage in a constructive dialog with differently minded people,
- all the while showing the courage to offend or irritate...
- and everything else that makes art and creativity unique.

Art and creativity have a wide repertoire of opportunities to get involved, ranging from utopias to visionary strategies ready for implementation all the way over to tactical interventions that prove that small steps can have a strong impact.

As **examples**, let us examine two principles of sustainable civilization:

AS LOCAL AND REGIONAL AS POSSIBLE, AS GLOBAL AS SENSIBLE

If true environmental costs were taken into account, long-distance air transport would become more expensive and supply chains across the globe would become less profitable. At the same time, we as consumers search for the unique and authentic rather than a mishmash that looks the same all around the world. Design, architecture, and fine art could test the stability of systems at the tension points between local/regional and global and put forward

creative ideas to strengthen local and regional resilience. They could confront the practice of externalizing ecological costs and thereby gaining unfair competitive advantages with a countermodel where these costs are taken into full account, giving significant price advantages to local and regional products. They could refer to local and regional traditions, reevaluate and revive them under the aegis of CLIMATE CARE & PLANET HEALING, offer radical new perspectives, and compare them with the traditions of other regions. They can experiment with overarching regional and local qualities and use them to create holistically minded utopias. Using the frame of mind “as global as sensible”, designers, architects, and fine artists can conceive new models for more sustainable global economic activity and global lifestyle concepts that are fit for the future. In their work they can examine the interactions between what is local and what is regional and develop wide-reaching concepts regarding “local/regional sustainability with global responsibility”.

RURALIZE! URBANIZE!

Which former and present-day characteristics of rural areas can be pursued in cities? *Ruralize!* (or *Deurbanize!*) is a strategy that engages non-urban, rural ideas to create a sustainable quality of life in cities – for its residents and visitors alike. Many potential uses of such a change in perspective are self-evident. They do not focus on dreary aspects of rural areas such as urban sprawl, the sealing of the soil surface, monotonous housing developments, abandoned town centers, and commuter traffic, but rather on the ideals of rural life: functioning small-town communities, neighborliness, stronger resonance in our interactions, less loneliness, deceleration, more greenery, better infrastructure for sports, an intimate relationship with nature, gardening and small-scale regenerative agriculture, locally-inspired food and drink, etc. The advantages of rural areas versus (large) cities are often summed up in three words: social, clean, and safe – advantages that value solidarity, sustainability, hygiene, and the protection of public health, now considered especially desirable in light of COVID-19. The other direction is exciting as well: *Urbanize!* Which urban ideals can be pursued in rural areas? And how can digitalization be implemented in rural areas so that it brings urban value?

In both constellations, design, architecture, and fine art may just turn the world upside down. In dreaming up the city of the future, they can present compelling new perspectives such as deceleration and an intimate relationship with nature, make the case for demanding an unsealing of surface area as the condition for further building, and illustrate the implementation of these ideas: the nature-capital full of green areas as far as the eye can see; the city where parking spots have been turned into blooming lawns; the metropolis of a million trees and benches for friendly encounters between strangers; the city of passionate

“commoners” who take care of a common good (“commons”) worth protecting (they are “commoning”) and thus raise the urban quality of life. Or new urban shopping centers reimagined as places of deceleration where stores with authentic craftsmanship await and encourage you to explore slowness free of *kitsch*. Examples for rural areas include the adoption of the best of the traditional Viennese coffeehouse culture for a new culture of intellectual exchange; rural urbanity through local digital platforms that are tailored for specific uses; innovative formats that are digitally based for meaningful collaboration between residents of urban and rural areas; rural cultural institutions that act as pragmatic centers of competence informing sustainability (ideally in dialog with city universities) and host volunteer-run future labs to implement concrete suggestions.

When artists and creatives work on CLIMATE CARE and PLANET HEALING, they will strike up a conversation – with those who are affected themselves, but also with especially driven citizen future designers (who may also be directly affected). Ideally, a structured exchange with such bottom-up pioneers will create a new dynamic that will be marked by a high standard of problem solving and benefit both sides, and subsequently multi-stakeholder systems (including NGOs, entrepreneurs, activists, and affected residents) as well.

Every modernity needs and creates its own avant-garde. Art and creativity played a decisive role in the last western modernity 120 years ago, especially in Vienna, which saw epoch-making initiatives such as the establishment of the Vienna Secession and the *Wiener Werkstätte*. The age of Digital Modernity, an era rung in by the advent of the smartphone in 2007, likewise needs a **new avant-garde** formed by fine artists, designers, architects, and other creatives. Our modernity is still young and in dire need of the discerning and foresighted eye of artists and creatives in order to maneuver its way out of the impasse that fossil fuels and uncontrolled digitalization represent; it needs the conceptual and creative powers of artists, designers, and architects in order to grow into a sustainable and resilient Digital Modernity. Progress through beauty was the slogan of many artists and creatives forming the Viennese avant-garde of 1900. **Progress through climate beauty** could be the credo of visionary artists and creatives in the third decade of our digital century.

Let us pave the way for this new avant-garde of our modernity! Let us support it with our networks in politics, the economy, research and technology, media and society! Let us ensure that its leading thinkers unite with start-ups and other innovative forces to reimagine progress with human creativity and technological innovation!

8. Outlook

Only cynics would claim that it makes no difference to Earth whether it lives on with or without humankind. The human-induced loss of biodiversity, the depletion of resources, and the pillaging of entire ecosystems have already inflicted enormous wounds on Earth. A further acceleration of human-induced climate change would not only make it an extremely bare and hostile planet for human beings, but also destroy its beauty and unique properties for biodiversity.

It does not have to be this way.

The American architect and designer, systems theoretician, author, inventor, and futurist Buckminster Fuller rightly recognized, “You never change things by fighting the existing reality. To change something, build a new model that makes the old model obsolete.”

With CLIMATE CARE & PLANET HEALING we now have a coherent mindset for an ecologically and socially sustainable design of Digital Modernity. With this mindset we must now construct a compelling new model that will replace our current model, the one founded on fossil fuels and overuse of Earth; a new model that does not create prosperity at the expense of our home planet and future generations, but rather one that brings our desires and their needs – the needs of Earth and of humankind in the future – together in harmony. Put differently: a model that is ecologically and socially balanced, where the key area of growth is not the mass of cheap goods, but a sustainable quality of life for people.

Among the economic powers of the world, the EU may be best positioned to shape and implement such a model that is fit for the future – a model that is not only distinct from the authoritative Chinese model of Digital Modernity, but also from the one imagined by many digital innovators in the USA: critical of the government and individualist, but ultimately transhuman. If Europe manages to set a compelling example of an ecologically and socially sustainable and resilient model of Digital Modernity while also putting it under close scrutiny, this example could become the role model for Africa, Latin America, and many other parts of the world, and also shape further developments in the USA and China. In this scenario, the EU would have found its calling in the 21st century and could prove what it can achieve, especially after its frustrating performance during the corona crisis. This will not only require the efforts of the European Commission, but also of member states ready to stand up for such a vision with foresight and courage. As an economically successful, dynamic nation with a rich cultural heritage, Austria has ideal conditions at its disposal to use innovation and artistic creativity to help shape progress in the digital century.

If we are to believe the American science fiction writer William Gibson, then the future is already here – it's just not evenly distributed. It is now Europe's chance to apply new creative capacities to begin a joint future – a future that we all really want.