

# **BoS#4**

CREATIVE SUSTAINABILITY SOLUTIONS: CCI INNOVATIONS LEAD SUSTAINABILITY







# SUSTAINABLE GALS DEVELOPMENT GALS





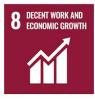
































Source: United Nations SDG Poster

# **Cross Innovation** Leading Sustainability

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## **Abstract**

The Agenda 2030, resolved by all UN member states, encompasses 17 Sustainable Development Goals (SDGs) which altogether envision future economic progress that goes hand in hand with social justice as well as the active acknowledgement of planetary limits and appreciation of the earth system we all live in. However, it is only ten years to achieve these ambitious goals in time and hence, meet the urgent societal challenges. The COVID-19 crisis may be regarded as a burning lens on current wrongs in this regard and optimistically, a chance for an overdue systemic change which the SDGs in all of their complexity and interdependencies proclaim and reflect.

Facing the VUCA (volatility, uncertainty, complexity, ambiguity) world which may also be described by vulnerability considering the current pandemic and need for sustainability, agents of the CCIs are predestined to play key roles in finding appropriate (business and overall societal) solutions. It is, among many other qualities, their creativity and ability for visionary imagination and aspiration - much needed in the current times - which makes them pivotal collaborators. Open Innovation with the CCIs, i.e. Cross Innovation by our definition, is an important instrument in order to meet challenges of the future.

Aims of this paper are to firstly share an understanding of the problems and challenges we are facing within the short time corridor until 2030. In the analysis part, we will then point out and elaborate on the strengths of creatives which allow for new perspectives and creative solutions, and highlight the relevance of Open Innovation, particularly with the CCIs: Cross Innovation. We will then dive deeper into the role of public intermediaries within this context and briefly illustrate it with our project Cross Innovation Hub (CIH), a co-financed learning project supported by the European Regional Development Fund (ERDF). Thereafter, we will share our practical approach to tackle a selection of SDGs by referencing the extended appendix. Eventually, we will point out solutions and share recommendations to promote the strengths and ecosystem/s of CCIs, support Cross Innovation financially and collaboratively by e.g. bringing an Open Innovation platform into being, strengthen the CCI narrative and raise the chances to develop suitable (economic) stimulus programs, taking into account SDGs and the full potential of working with CCIs towards an open, inclusive and sustainable Europe/EU.

#### **Key Words:**

SDGs, sustainability, CCIs, Cross Innovation, Open Innovation, collaboration, Quadruple Helix, interdisciplinarity, transdisciplinarity, multi-stakeholder approach, transformation, systemic change, mobilisation, COVID-19, momentum, crisis, chance

## 1. Problem Definition

In 2015, the international community decided on 17 SDGs with its 169 targets as part of the Agenda 2030. After three years, the heads of state at UN headquarters found consensus on and resolved the document "Transforming Our World: The 2030 Agenda for Sustainable Development" with its goal to face the multiple urgent international societal - economic, political, social, and environmental - challenges in favor of an inclusive and sustainable world. The paper points out the urgent need for transformation in a world in which social cohesion and our environmental basis are (increasingly) at risk.

The 17 SDGs mirror a vision which premises the involvement of everyone and divergent swarms of intelligence and creativity respectively. It calls for systemic understanding and future-proof change in the direction of politics, economy (thus, including CCIs), science and every agent of civic society. This systemic aspiration beyond an anthropocentric state of view presupposes deep understanding and active empathy with the many and not the few and within the limits of our earth system. It banks on the capacities to commonly envision and the courage to commit to and to actively shape societal future carefully - thus, in accordance with the SDGs.

This social contract of the Agenda 2030 can only be accomplished by a diversity of strengths in respect to knowledge, competencies, skills, and experience. To meet the SDGs it needs network-like organisation and collaboration (Open Innovation) which involves interdisciplinary and transdisciplinary perspectives, exchange, and actions to mobilise all stakeholders in the international community, may it be locally, regionally and/or globally. As the United Nations Global Compact and Accenture (2018) stress, "85% of UN leaders see cross-sector partnerships as critical to enabling business to help achieve the SDGs" (p.6). Future development and progress must sincerely be seen in close relation to the climate crisis and the planetary limits. However, the depth of change/s we are facing and the very limited time corridor we act within seems to be broadly underestimated. Just in the face of the climate crisis, it is only two degrees of warming which may cause irreversible tipping points in our all earth system (wpn2030 - Wissenschaftsplattform Nachhaltigkeit 2030, 2019, p.4). From a positive point of view, COVID-19 may be a momentum of global sensitization to pause, consciously consider and reflect the system/s we live within and actively position against how we cannot proceed in future. The COVID-19 pandemic may be a crisis which, from an optimistic perspective, strengthens solidarity and resilience as major catalysts to commonly face the urgent challenges of the presence.

Mega trends, e.g. digitization or connectivity, globalization, neo-ecology, and urbanization, and challenges as low-carbon business premises and green economy must be encountered in ways that work for an internationally viable but at the same time socially and environmentally compatible economy. Growth and prosperity are to build upon, however it needs critical discourses around approaches to a "new economic system" since the last years were based on growth to avoid downward spirals, yet far reaching collateral damages have become obvious.

Doubtlessly, innovation cycles shorten, and markets become more complex boundary conditions of business are changing. New solutions through multiple perspectives are asked for and needed in this sustainability context. New solutions are also needed for companies to survive in the ongoing global competition, being and staying able to compete. Implementation of SDGs-compatible measures have to do with (business) innovation, innovation ecosystems, innovative approaches and the impulses that go along with it. In this respect, it is inevitable to gain clarity on what we understand and define as "innovation" and "desirable/meaningful innovation" respectively, being aware that the quality of any innovation should not counteract but support the SDGs. We all need to become clear about which ones have not been and are not serving the SDGs. It is a key question of how to encourage "meaningful innovation" and discourage the opposite. Clearly, transformation goes hand in hand with non-linear processes in an increasingly complex environment of interdependencies (between the SDGs and beyond) and this makes it a big challenge to economically address. More and more, we all have to think in value networks instead of value chains, embracing complexity to its systemic best. (Zukunftsinstitut 2020, p.10; Trautenberger & Fesel, 2020, p.7)

Furthermore, "[we] are moving too slowly to keep pace with growing societal needs and are in danger of coming up woefully short of those targets" (Woods & Young, 2019) - the SDGs. As Woods and Young assume, "innovation can significantly shift the economics of potential solutions and the timeline for delivering them" (ibid.). It is new technologies and methods they highlight in this regard. Nonetheless, it seems important to not only assess technology's positive disruptive potential but also its potential risks, especially with respect to Internet of Things, Artificial Intelligence, Big Data, and Cyber Security (WGBU, p. 69).

# 2. Analysis

#### 2.1 Agents of the CCIs as Innovation Catalysts

The transition from industrial society to information society and towards an increasingly volatile, uncertain, complex, ambiguous (VUCA) world requires new skills in order to successfully develop and implement innovation. Whereas economic success used to be strongly linked to what is called convergent thinking, marked by linear, strictly rational-logical decision-making, the VUCA world calls for new, divergent modes of thinking in order to solve today's societal and business challenges. It requires open, flexible and unconventional approaches which "focus on co-creative and collaborative learning outside the boundaries of the organization" (Cousins, 2018, p.2). The increasing speed with which companies have to reinvent themselves and find solutions to complex problems adds to this development.

The heterogenous CCIs have been identified as innovation catalysts (Florida, 2002; Lange, Knetsch, & Riesenberg, 2016; Potts, 2007), equipped with skills needed to tackle contemporary and future challenges that companies face in a new, complex economy. Per definition, the CCIs' core business is the development and implementation of new ideas, products or services (Prognos AG & Fraunhofer, 2012). Rarely standardized, these novel products or services are often made upon demand in close collaboration with clients and require external resources. Hence, in order to meet market/customer/client demands, the CCIs are working in short innovation cycles and Open Innovation processes involving diverse stakeholders. The CCIs' innovation capability largely stems from their natural use of technology, their comprehension and awareness of trends as well as their generalist approach which enables creatives to blend knowledge and experience from different fields of

expertise (Müller, Rammer & Trüby, 2009). Creatives are constantly adapting to rapidly changing circumstances and environments which makes them flexible and resilient cooperation partners with a high risk disposition. As such, "creative enterprises turn out to be significantly more innovative than enterprises from other knowledge intensive sectors" (Müller, Rammer & Trüby, 2009, p.15).

Because of their close collaboration with clients, users and other stakeholders, creatives generally show strong capabilities to empathize with different groups of people but also to experiment with processes in order to achieve their objectives. Due to their readiness to disrupt, their skill to navigate complexity and their acceptance of uncertainty, creatives can be regarded as innovative problem-solvers in fast-paced environments (Lange et al., 2016). Under pressure to reach the SDGs by 2030, we need creative skills in order to develop new solutions in the areas of digitization and sustainability now more than ever. The CCIs perform an important role at the intersection of different sectors: they connect, interact and challenge existing (economic or social) activities. Special submarkets of the CCIs, such as design and software, have the expertise to create new digital solutions. Design, for example, has been discussed to be pioneering in both innovation and sustainability. Human-centered and earth-centered design are two examples of the holistic approach the CCIs take in the development of products, services and processes. Away from a product-, customer- and user-centric focus, design approaches evolved towards focusing on systemic changes "in which sustainability is understood as a socio-technical challenge" (Ceschin and Gaziulusoy, 2016, p.149). The need to further marry sustainability and digitization in order to meet future societal, economic, environmental and technological demands demonstrates the need for visionary pioneers, capable of applying interdisciplinary approaches to problem-solving and innovation. It is, among other qualities, their creativity, ability for visionary imagination and aspiration combined with specific professional strengths in the distinct CCI markets which make them much needed in the sustainability context. Hence, CCI agents can be catalysts for sustainable innovation and are predestined to be protagonists in the race to accomplish the SDGs.

#### 2.2 Cross and Open Innovation Allowing for a Profound Multi-Stakeholder Approach

As explicitly stated before, innovation today cannot be seen in the narrow context of one single company any longer. In contrast, "successful innovation most often requires the combination of a firm's own innovative resources with external inputs", argue Müller, Rammer and Trüby (2009, p.5). In the context of the SDGs, cross-sectoral collaboration is critical from two points of view: One, the public sector needs to collaborate with the social and the private sector in order to mobilize new sources of investment capital whilst working towards the realization of the SDGs, and two, cross-sectoral innovation is the only way to accelerate the speed with which solutions are developed and implemented (Woods and Young, 2019). Hence, innovation is no longer connected to one company or sector alone but has to be seen in a wider context of a Quadruple Helix structure, "where industries, entrepreneurs, citizens, governments and centres of knowledge interact alongside the lines of complexity, cooperation, competence, competition and communication to achieve solutions" (High Level Group, 2014, pp.19-20) - both on EU/European as well as on national and regional level. "On a macro-level, the SDGs can provide a roadmap for organisations and entire industries to undertake the system-wide changes that will help prepare our society for the future" (PricewaterhouseCoopers, 2019, p.4). Multi-stakeholder approaches and Cross Innovation as a specific form of Open Innovation with the CCIs can enable change with creativity and all the strengths that make up the full potential of the CCI agents (Rauter, Globocnik, Perl-Vorbach, and Baumgartner, 2019, pp. 227, 232; Institut für Innovation und Technik, 2014, p.5; Trautenberger & Fesel, 2020, pp. pp.7, 12). Cross Innovation between the CCIs and other economic sectors "take[s] place in open innovation setups, whereby insights are generated through the combination of different perspectives involving multiple partners" (European Commission, 2019, p.20). In Cross Innovation processes, creatives are co-creating ideas and solutions in the early phases of an innovation process and specifically not as service providers who give a product or service the finishing touch before it is introduced to a market. Quite the opposite, creatives as creators of intellectual property, and due to their aforementioned skills, are particularly attractive to be involved in Cross Innovation processes (Müller et al., 2019). The integration of creatives into innovation processes leads not only to transformative but meaningful outcomes, as creatives take into account multiple perspectives and place products and processes in wider contexts of society and the environment (European Commission, 2019). Cross Innovation can therefore be considered a valuable approach to venture into the realization of the SDGs in a meaningful. collaborative and fast way, "taking into account ethical, environmental, social and well-being related concerns to respond to societal challenges in a sustainable and inclusive way" (European Commission, 2019, p.15). Enterprises which participate in Cross Innovation approaches benefit from a mindset sensitization, external inputs from diverse stakeholders, and exchange with experts from different fields, unexpected as well as faster results based on holistic approaches.

# 2.3 The Role of Public Intermediaries in Cross Innovation Processes: An Example from Hamburg

The implementation of Open and Cross Innovation processes usually requires careful planning. They are most likely to happen in "open, dynamic ecosystems and networks" (European Commission, 2019, p.28). Once partnerships or collaborations between different firms or organizations come into being, transparency in terms of timeline and resources, awareness of constraints and building of trust are the most important factors for Cross Innovation processes to be successful. As Cross Innovation methods are not widely known nor practised, companies often have difficulties grasping the effectiveness and use of Cross Innovation processes. Public institutions can play a central role in the strategic promotion of Cross Innovation by fostering innovation ecosystems where different stakeholders can collaborate on eye level.

Hamburg Kreativ Gesellschaft, a public agency owned by the Free and Hanseatic City of Hamburg, fosters Hamburg's CCIs through access to space and finance as well as capacity building and innovation programs. Since 2016, the Cross Innovation Hub, as part of Hamburg Kreativ Gesellschaft, pioneers in the field of cross-sector collaboration with the CCIs. As a public intermediary between the CCIs and other economic sectors, it is the CIH's role to connect companies and individuals from seemingly unrelated sectors in order to identify and leverage innovation opportunities. The diverse programs, ranging from one-day workshops to think tanks and long-term collaborations, are aimed at inspiring a change of perspective, innovative business practices, new processes, products or business models between different stakeholders, such as scientists, corporates, citizens and creatives. Learning from the visionary creatives in the CCIs, highlighting their innovation capability and making collaboration processes effective is their key mission. All of the programs set a focus

on cross-sectoral challenges and interdisciplinary practice in Open and Cross Innovation processes. Driven by critical optimism, the CIH facilitates processes through a range of methods and theories that enable participants to develop a collaborative mindset and engage in a constructive change of perspective. The iterative processes are designed to alternate between divergent and convergent modes of thinking, similar to the Double Diamond structure proposed by the British Design Council: Increasing complexity through multiperspectivity and reducing complexity in order to find and develop concrete solutions. Next to the (meanwhile) established methods and approaches that originate from the CCIs, the CIH has developed new creative methods which are derived from the processes observed in the CCIs and from in-depth conversations with creatives.

The CIH has recognized the role of creatives in corporate transformation processes. sustainable development being one of them. As Trautenberger (2020) points out in a work-in-progress paper, "all 17 SDGs are to some extent relevant for the Cultural and Creative Industries" (p.4). In an analysis he differentiates among European CCIs between "I. CCIs are directly influenced by SDGs" (SDGs 5, 7, 10, and 15), "II. CCIs are indirectly influenced by SDGs" (SDGs 1, 2, 3, 13, and 14), "III. CCIs directly affecting SDGs" (SDGs 4, 8, 9, 11, 12), and "IV. CCIs indirectly affecting SDGs" (SDGs 3, 16, and 17) (ibid.). As a public institution promoting the CCIs and Cross Innovation the CIH now consciously sets a focus on sustainability. In accordance with this decision, public money is spent under the premise of serving sustainability goals. As agenda setters the CIH is willing to act responsibly. The CIH focuses on the following seven SDGs: SDG 3 (Good Health and Well-Being) SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action). The CIH believes that it is the sum of steps in the right (i.e. SDGs-compatible) direction on a microand meso-level that lead to the much needed SDGs-compatible transformation on a macro-level.

In the appendix, more details about the CIH's fields of action and exemplary formats serving the SDGs in focus are shared. Three formats described here (Emergency Lab - SDG 8; Cross Innovation Class - SDG 11; Cross Innovation Lab - SDG 12, 13) follow a similar structure: Creative professionals or students from diverse disciplines collaborate with non-creative businesses to develop (innovative or hands-on) solutions to business challenges. During this process, diverse stakeholders' perspectives, such as scientists', employees' and users', inform the exploration, problem definition and formulation of challenges, ideation and realization/prototyping. The CIH ensures collaboration on eye-level, incl. e.g. legal arrangements and an atmosphere of trustful, creative, and effective collaboration. Another format (Pop-up Office - SDG 9) explores and is concerned with skills and mindsets around (cross) collaboration, a mutual learning mindset, and decision-making based on an iterative learning mode.

## **Conclusion**

This paper has examined the urgency to create new innovation approaches that speed up transformation and demonstrated how Cross Innovation can help build ecosystems that produce meaningful innovation directed towards meeting the SDGs in time. Particularly relevant in this regard seems to be the sourcing of and collaboration with external inputs and diverse stakeholders outside the boundaries of one firm or organisation. Additionally, creative skills promise inspiring new ways of thinking and have the potential to unite multiple disciplines and interests under the shared vision of the SDGs.

However, Cross Innovation - Open Innovation with the CCIs - is barely practiced, as companies lack access to the CCIs, do not have experience with creatives, and because internal approaches are often easier to argue for as well as to facilitate. In a highly competitive performance society, in which people are used to rationalization, efficiency and quantifiability, companies often fear outcome uncertainty which is naturally inherent and essential for a Cross Innovation process to effectively work.

Sustainability is too often seen in the narrow context of one organisation rather than a systemic change which involves multiple actors. In order to create frameworks and networks for collaboration and Cross Innovation, to communicate between different sectors and identify innovation potential, and to set the agenda for sustainable innovation, it urgently needs public intermediaries who can coordinate, cross-sectorally translate and further develop Cross Innovation processes. This crisis presents a chance for an overdue systemic shift towards sustainability (subsumed in the SDGs with their targets to achieve), which public institutions should leverage and act upon. For this we may need Open Innovation platforms - among the distinct fields of the CCIs and for Cross Innovation in particular - that may help to (glocally) create solutions at the intersection between technological, social, institutional and cultural innovation, capable of addressing the systemic changes we are experiencing. These Open Innovation platforms should follow an (extended) understanding of the Quadruple Helix approach with involvement of policy, science, industry, and society, naturally including the CCIs.

<u>European level - which facilitate and promote sustainable business development through networked innovation with the CCIs and help realize concrete measures to achieve the SDGs.</u> In addition to the before-mentioned Open Innovation platforms, it is also crucial to better connect intermediaries so that they can share knowledge and experience with each other and push Cross Innovation. The legitimacy of public institutions to spend public money on innovation should largely depend on the prosperity that will result from their work - for both the planet and people. Now is the time to set the agenda for sustainable development and social impact with the CCIs. Potential economic stimulus packages should be directed towards the re-imagination of a common future and a green economy through new innovation approaches. We urge to recognize and leverage the potential of Cross Innovation in future public funding opportunities, both on regional, national and European level, and call for more open, collaborative governance systems that are better suited to navigate complexity.

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## **Appendix**

To shortly illustrate how the Cross Innovation Hub as a public intermediary supports each SDG and CCIs are leading sustainability respectively, the following overview gives concrete examples how Cross Innovation and SDG-specific formats can successfully be connected:

#### SDG 3 GOOD HEALTH AND WELL-BEING

"[W]ell-being at all ages is essential to sustainable development", as the UN stresses (United Nations, n.d, *Goal 3*). We believe that the subject of (mental) health may be suitable for Cross Innovation as e.g. well-being and creativity are strongly interlinked. Application areas may be beyond the impact CCIs and creative works, e.g. music plays, movies, games, and literature, generally have against mental health burden, and which has also become strongly obvious within the COVID-19 crisis (Organisation for Economic Co-operation and Development, 2020): E.g. designers as a CCIs task force could help, for instance, to deeply understand with active empathy, turn inside out and illustrate concrete and urgent challenges and interdependencies for stakeholders within the health context so that meaningful ideation becomes possible. Another field of action could be for games designers and software developers to support with their professional work skills in therapies against delirium or even prevent the symptoms of a delirium. Surely, the health industry and the CCIs will be strongly interlinked in future.

#### Exemplary Format: Content Foresight

To find answers to the questions of the future of content and media companies, we have established the Content Foresight series together with nextmedia Hamburg, another initiative under the umbrella of Hamburg Kreativ Gesellschaft. This year, we set the focus on the intersection of content and health. How will content be consumed in the future and which role can it play for health care? How will mental health evolve in an ever-changing media landscape, continuous availability and pressures of self-optimization? Which role does gaming play in e-health and therapy? This year, six different companies from the CCIs and the health care sector developed future scenarios and opportunity spaces using foresight methodology.

#### **SDG 4 QUALITY EDUCATION**

"Education enables upward socioeconomic mobility and is a key to escaping poverty. [...] In 2020, as the COVID-19 pandemic spread across the globe, a majority of countries announced the temporary closure of schools, impacting more than 91 per cent of students worldwide." (United Nations, n.d, *Goal 4*) As the UN describes, the current crisis implies an "unprecedented educational disruption" (ibid.) which the Global Education Coalition is facing by "mobilizing resources and implementing

innovative and context-appropriate solutions to provide education remotely, leveraging hi-tech, low-tech and no-tech approaches" (ibid.) among other means. The SDG 4 seems to be a suitable Cross Innovation action field, as it apparently requires collaboration of multiple stakeholders from early periods on. We assume it implies collaboration of agents from the public and private sector as well as the CCIs with creatives whose capabilities touch upon education, edutainment, digitalisation, and content production, e.g. media and content specialists, games designers, software developers, and writers. Creatives may help develop suitable "context-appropriate solutions" (ibid.) by collaborating with UNESCO, the proper European or other national / local authorities.

#### SDG 8 DECENT WORK AND GROWTH

"Sustained and inclusive economic growth can drive progress, create decent jobs for all and improve living standards. [...] COVID-19 has disrupted billions of lives and endangered the global economy." (United Nations, n.d, *Goal 8*) In the face of the recession we decided to help small and medium-sized enterprises (SMEs).

#### Exemplary Format: Emergency Lab

Freelancers working in the CCIs as well as SMEs of all economic sectors were hit especially hard by the crisis. In order to protect freelancers from the CCIs whose order situations dramatically changed and to support SMEs to sustain their businesses, we created the *Emergency Lab* as an un-bureaucratic response to financial hardship and stagnation. In two and a half days, carefully selected creatives developed solutions to the acute challenges of affected businesses. Here, once again, the strengths of creatives, particularly to develop solutions under pressure, to be visionary in times of uncertainty, and to be a challenging, innovative sparring partner for businesses, became apparent in the context of urgent challenges, where solutions are anything but self-evident. Creatives turned businesses' blind spots into new opportunities by challenging the status quo. The Emergency Lab is an example of pragmatic transformation in times of crisis.

#### SDG 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

"Inclusive and sustainable industrialization, together with innovation and infrastructure, can unleash dynamic and competitive economic forces [...]. Innovation and technological progress are key to finding lasting solutions to both economic and environmental challenges, such as increased resource and energy-efficiency." (United Nations, n.d, *Goal 11*) This SDG corresponds to our field of action, approach and aspiration of fostering Cross Innovation as an effective and meaningful form of Open Innovation, innovation culture, i.e. the transformational part of collaboration and multi-perspective exchanges, and appropriate innovation ecosystems which are always including agents of CCIs. We target SDGs 4, 8 and 9 also with our academy approach within the Cross Innovation Hub which allows for training in what we

learned throughout our journey as Hamburg Kreativ Gesellschaft and within our learning project of the Cross Innovation Hub for interested ones.

#### Exemplary format: Pop-up Office

How can we implement new ways of working? How can we stimulate innovative ideas, collaboration and participation through spatial design? How can we benefit from open innovation and multi-stakeholder collaboration? How can we trigger constant learning? How can we establish a constructive error culture? Within three days and in a psychologically safe realm, the consciously diverse participants from different industries gain insights into new forms of collaboration, innovation culture, agile management approaches, empathy and prototyping, change, decision-making under complexity, digitalisation and spatial design, for instance, through impulse lectures. Experienced coaches guide the interdisciplinary teams through a "culture sprint" - from the definition of relevant topics to the development of concrete questions and potential solutions. In this process, it is crucial that all participants with their different backgrounds are valuable sparring and (co-learning) partners for each other on eye level. Goals are mindset sensitization, change of perspectives as well as (first) concrete minimum viable practices and solution impulses for individual challenges. An iterative learning mode of understanding -deciding-creating-testing-re-understanding- etc. is at its core.

#### **SDG 11 SUSTAINABLE CITIES AND COMMUNITIES**

"The world is becoming increasingly urbanized. [...] Cities and metropolitan areas are powerhouses of economic growth—contributing about 60 percent of global GDP. However, they also account for about 70 per cent of global carbon emissions and over 60 per cent of resource use." (United Nations, n.d, *Goal 11*) We have decided to face this challenge with business partners, universities and young visionaries.

#### Exemplary format: Cross Innovation Class

Over a period of one university term (three to four months), interdisciplinary student teams from five different universities develop solutions to corporate challenges in the field of "Smart City". The Cross Innovation Class is an example of how interdisciplinary approaches can be taught and how first practical solutions related to the SDGs can be realized in a short time frame. Corporates benefit from the opportunity to work with students from various disciplines such as product design, smart technology, sound studies and digital reality. Challenges in the past for example dealt with smart recycling, public participation, traffic safety and district development and have demonstrated the efficacy of integrated thinking at the intersection of sustainability, digitalisation and creativity.

#### SDG 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

"Sustainable consumption and production is about doing more and better with less. It is also about decoupling economic growth from environmental degradation, increasing resource efficiency and promoting sustainable lifestyles. [...] We must try to understand and appreciate the limits to which humans can push nature, before the

impact is negative. Those limits must be reflected in our consumption and production patterns." (United Nations, n.d, *Goal 12*)

#### Exemplary Format: Cross Innovation Roundtables

We are responding to this challenge behind the SDG with planned discussions roundtables in 2021 (as for other SDGs alike) in which distinct and controversial agents from politics, science, business, CCIs, and civic society will be involved. Crucial questions regarding SDG 12 are, for instance: How can sustainable sharing economy and circular economy actually work for all stakeholders involved (Wissenschaftsplattform Nachhaltigkeit 2030, 2020, p.21)? We are facing this SDG also by our format Cross Innovation Lab, among others, which is described below in respect to the SDG 13.

#### **SDG 13 CLIMATE ACTION**

"2019 was the second warmest year on record and the end of the warmest decade (2010- 2019) ever recorded. [...] Once the global economy begins to recover from the pandemic, emissions are expected to return to higher levels. As countries move toward rebuilding their economies after COVID-19, recovery plans can shape the 21st century economy in ways that are clean, green, healthy, safe and more resilient."

(United Nations, n.d, Goal 13) It is "an enhanced capacity building framework" (ibid.) what is needed at this point, as the UN stresses. Creatives could with their qualities and mindset surely support in this respect, may it be artists, designers or filmers.

#### Exemplary Format: Cross Innovation Lab

As a response to the challenge of our time's complexity and (increasingly) high time pressure in business to stay competitive, we open the initial phase of innovation processes for visionary creatives who are concerned with the development of ideas on a daily basis. Bringing together up to six companies with a vetted process lasting three to four months, companies or non-CCIs institutions are developing solutions for the challenges in the field of climate (the diverse challenges around SDG 12 and 13, possibly also SDG 11 and 14) together with creatives and the support of interdisciplinary scientists and facilitators. This lab is about developing economically viable solutions which minimize or avoid the negative impact of the participating businesses or institutions on the climate. As we know, time is a scarce resource and especially with respect to the impact of SDG 13, we have shaped a process which promises concrete results in the minimum of eight days and three evenings. All participants are encouraged to be valuable sparring partners for each other.