ACTIVE8 PLANET

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CONCEPTUAL FRAMEWORK

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EXECUTIVE SUMMARY

The Conceptual Framework provides a baseline state-of-the-art analysis that feeds the development of the Active8-Planet methodology and learning model.

The Conceptual Framework is divided in the following chapters:

(1) Introduction describing key characteristics of the Active8-Planet project and approach;

(2) Core guiding values that we think should be reflected in everything that we do in our project;

(3) From problem-solving to opening-up possibilities;

(4) The PEOPLE project;

(5) Design studio;

(6) Servant Leadership;

(7) Key concepts related to the Active8-Planet Matrix: the attitudes towards sustainability, the doughnut economy, the flourishing business canvas, and creative commons.

The Table 1 below demonstrates the key ideas and principles behind every concept and recommendations for the integration into the Active8-Planet approach and methodology.

Table 1: Key concepts and recommendations for integration

Approach	Key ideas and principles	Recommended integration in the Active8-Planet Approach & Methodology
Defining core values	(1) Collaboration and team work (instead of ego-centricity and individualism) (2) Transformation Openness for possibilities & Equal opportunities (no matter their prerequisites or backgrounds) (4) Fairness and Humbleness (towards people and planet) (5) Accountability	Integrating the jointly identified core values in the Active8-Planet activities.
Turning uncertainty into focused exploration (Pink 2019)	(1) Uncertainty is constant, ongoing and continual. (2) Moving from making predictions (problem-solution approach) to opening up and creating possibilities.	[1.] Putting uncertainty at the core of our investigatory practice. [2.] Practicing along the boundaries of each discipline by blending, borrowing, hacking and remixing various theories and approaches to activate them in our specific 7+1 case study contexts. [3.] Opening up of many possibilities with people and creating new opportunities in collaboration. [4.] Seeking unconventional ways to collaborate with different stakeholders beyond conventional problem-solution paradigm.

		[5.] A theoretically framed and structured methodology, but still open enough to emerge in different forms when being customized to different contexts. [6.] Producing the methodology which is not only suitable for the development of university-business learning approaches but its principles can equally be applied to a number of collaborative and interdisciplinary change-making processes. [7.] An agenda to critique the (often utopian) assumptions. [8.] Ethics: thinking about responsible and ethical futures.
PEOPLE project	(1) Interdisciplinary and essentially collaborative: bringing together different disciplines and expertise, where engineering works hand in hand with social sciences and humanities. (2) multi-sectoral and multi-stakeholder: involving industry professionals, university teachers and the representatives of civil society and non-governmental organizations. (3) people as co-creators: involved in all stages of product and service development process. (4) rooted in ethnography: as methodology to collect, analyse and understand the data and to generate in-depth insights about peoples' behaviours. (5) in dialogue with theory and bringing up ethical considerations: understanding bigger contexts of emerging futures and world's challenges.	(1) Methodology of PEOPLE learning cycles (Preparation – Research – Analysis – Results);
Design studio	The combination of learning sequences and design studio pedagogy for understanding and addressing complex and wicked problems.	The transformation cycle and the dimensions of complexity outlined below forms the basis of a design-oriented learning cycle framework that gives instructors and industry partners a tool for tweaking the challenge and complexity of the studio project at "run-time", in order to meet the needs and capabilities of the project team.
Servant Leadership	A new model of leadership in which the leader is foremost of service to the entire team and to all individual team members.	(1) To facilitate the collaborative process within these Learning Cycles, each 7+1 project team will be guided by a Servant Leader. This leader is not a project or team manager in the 'classic' sense, but a process manager that helps the team to develop a constructive collaboration towards a successful outcome

		(2) Servant Leadership trainingss
Attitudes Towards Sustainability (Raworth 2017)	Enterprises can adopt different attitudes with respect to acting sustainably. Five attitudes from least to most responsible: (1) Do what is legally mandatory. (2) Do only what provides a financial return. (3) Do your fair share. (4) Cause no harm (mission zero) (5) Create positive impact / generous design	Steering towards adopting the fifth attitude: Create positive impact / generous design. From acting "from a positive attitude" to "acting for positive impact".
The Doughnut Economy	(1) The general model (Swaffield & Egan, 2020): - 2 dimensions: social (inner ring) and environmental (outer ring). The area between the inner and outer ring is the Doughnut representing a safe and just space within which to exist. - Step 1: Exploring domains (and if necessary: sub-domains) - Step 2: Identify one indicator to measure current status of domain (and sub-domain) - Step 3: Thresholds for each domain (and sub-domain) (2) City Portraits (DEAL 2020) A transformative tool for cities to explore and embrace the vision of a thriving city. This vision recognizes what makes a place unique, while also recognizing its global influence and responsibility. - Next to the two dimensions of the Doughnut model -social and environmental/ecological- another two dimensions are added, local and global. The combination of these dimensions generates four lenses. (3) City Portrait Canvas (DEAL 2020) The City Portrait Canvas can be used in workshops to illustrate how a city or organization can apply the Doughnut methodology in practice. A six-step process is suggested.	Within the Active8-Planet Initiative too, the Doughnut model could provide the foundation. As an early starting point for generating such methodology, one could translate the four lenses of the City Portraits methodology to a random project.
The Flourishing Business Canvas	The Flourishing Business Canvas addresses the problems of the OBMC. It does so by employing a different definition of value and by considering not only the financial context, but the social and environmental context too. Main characteristics: - Definition of enterprise success - Definition of value - Domains/questions of the Canvas The canvas with the methods constitute the Flourishing Enterprise	The Flourishing Business Canvas could be a very useful tool for enterprises and institutions to think critically about their position in the economy, society and environment. Through the canvas, their strengths and weaknesses will be highlighted, as well as threats and opportunities. This is similar to a general SWOT-analysis, except for the fact that the Flourishing Business Canvas considers the enterprise/institution's

	Innovation Toolkit (FEIT), a holistic design tool that embeds a common language to enable more effective collaboration among stakeholders.	position more thoroughly within the social and environmental context, besides the economic context.
Creative Commons	Creative Commons is a nonprofit organization that helps overcome legal obstacles to the sharing of knowledge and creativity to address the world's pressing challenges. Their license tool provides creators, be it persons or organizations, with free, simple and standardized licenses that can be used to make their work available to the public.	The models under creative commons do not question the moral IPR of the creator, but allow free access and/or free use of knowledge, mostly with the objective to allow rapid improvements of what is developed.

Conceptual Framework is a "living deliverable" that evolves during the progress of the project, integrating the findings from implementation (WP4) and evaluation (WP5) of the Active8-Planet learning cycles.

1 INTRODUCTION

Recent global movements (e.g. School Strike for Climate, Global Week for Future, Extinction Rebellion) indicate a rapidly growing awareness, frustration, and eagerness of the European youth to actively engage with securing a sustainable future for all. Furthermore, The European Green Deal[1] sets the tackling of climate and environment-related challenges as this generation's defining task, forming ambitious policies to implement the United Nation's 2030 Agenda and the Sustainable Development Goals. Even though the need for a holistic, interdisciplinary and cross-sector approach to sustainability has been increasingly recognised on research and policy levels, the trickle-down to higher education curricula and learning approaches has been slow. The lack of interdisciplinary, applied, action-oriented, and problem-based higher education programmes and mechanisms leaves European graduates insufficiently equipped with the necessary skills and competences for transforming research and knowledge into future-oriented climate and sustainability action.

Higher education institutions (HEIs) have been recognised as having a crucial role and responsibility in the international pursuit of sustainable development (The Nagoya Declaration), as role models and as educators of future professionals and decision makers. However, change has often been easier to implement in terms of managing campuses and operations, rather than in teaching and learning[2]. The systemic and distributed nature of sustainability problems requires working across sectors and disciplines, while existing HEI systems, organisation, and compartmentalisation of disciplines rarely support these. Unconventional approaches, experimentation and reconceptualising of higher education are needed to equip students with the required and radically different understanding of environment, society and socio-economic processes; this entails interdisciplinary learning, as well as cooperation of higher education and research organisations with non-academic entities in dialogue with theory, which would lay the ground in shaping new applied sciences and a planet-centred development approach.

At the same time, businesses are increasingly under pressure to profoundly transform towards carbon-neutral and circular economy. However, innovation and development of sustainability solutions often proceed in silos – in majority dominated by technical engineering and with limited inclusion of societal and cultural factors. Technology in particular is by default always incomplete – it is re-shaped, re-purposed, and given meaning by people using or operating it. Introducing new products or services that have the potential to considerably impact our practices and lifestyles towards carbon neutrality therefore requires a shift from monodisciplinary expert mindset to planet-centred development which combines technical expertise with socio-cultural knowledge, insights, and rigorous ethical considerations. Companies, in particular SMEs, often do not have access to interdisciplinary knowledge and a broader range of tools for a more complex understanding of social change that would increase the relevance and impact of their solutions or interventions.

The key challenge addressed by the Active8-Planet project is the lack of higher education learning models and mechanisms that would support activating (engaging, empowering, mobilising) students in climate and sustainability action. There is a mismatch between skills

[1] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/actions-being-taken-eu_en
[2] https://www.tandfonline.com/doi/abs/10.1080/13504622.2019.1657069

and competences of European graduates and the requirements of the industry and society in the field of sustainability: in addition to short supply of interdisciplinary cadres on the labour market, the students have little opportunity for implementing applied research in sustainability issues and furthermore translating the acquired knowledge into design and development of interventions. This also results in the lack of key transferable skills (teamwork, interdisciplinary research, research design and implementation, project planning and management etc.), which are increasingly needed both in the continuously changing nature of work and for offsetting the way societies use the planet's resources. Furthermore, there is a need to push passive ideas of "acceptance" of emerging technologies that are present in contemporary technological and public discourse into the realm of engagement and participation to create a push towards activating and empowering positions for the public in academic future-making practices.

1.1 The Planet-Centred Development Principles

The Active8-Planet Learning model aims to integrate four planet-centred development principles:

[1.] People-Centred Design;
[2.]Interdisciplinary and Intergenerational Co-creation;
[3.]University-Business Collaboration;
[4.]Environmental Ambition and Action.

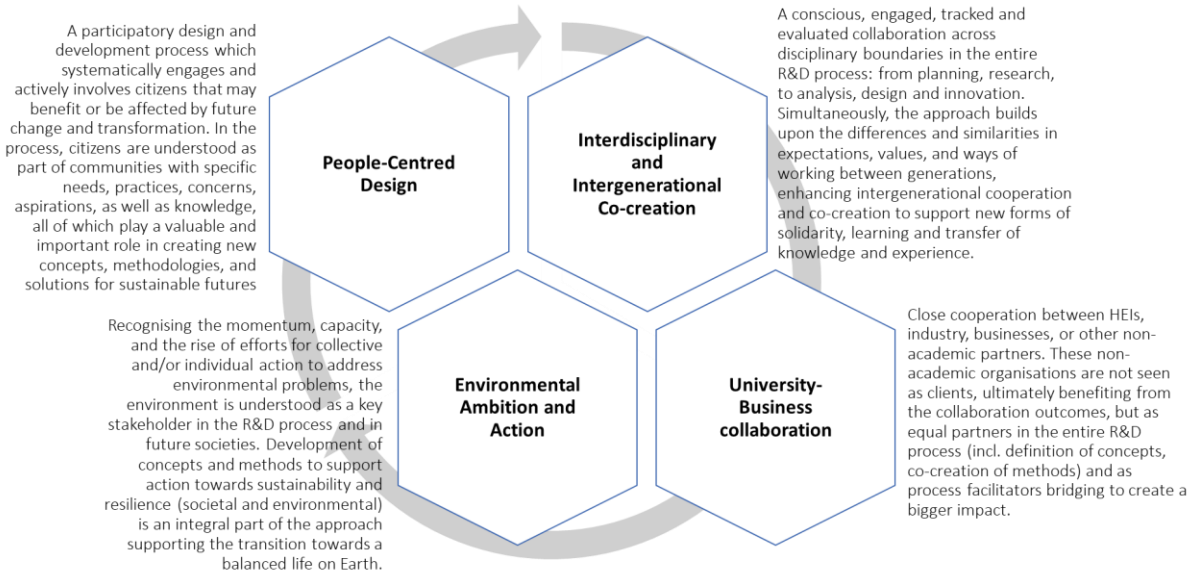


Figure 1: 4 principles of the planet-centred development

While each of the four key principles has a stand-alone capacity, the Active8-Planet approach reaches beyond the state-of-the-art by integrating these 4 principles into a collaborative learning process, which is implemented and tested in two Active8-Planet Learning Cycles and specific 7+1 Team Projects.

1.2 The Core Guiding Agendas

The Active8-Planet follows a set of Core Guiding Agendas that permeate the project approach and activities, serving simultaneously as an inspiration, a guideline and a vision. At the centre of the project's attention is the recognition of the fragile equilibrium and the dynamic interplay between the social foundation and the ecological ceiling that sustains a safe and just life on the planet. The project's ambition and approach are based in the UN Sustainable Development Goals. The project is strategically guided by the European Green Deal, which sets the EU's comprehensive agenda for transforming the economy for a sustainable future. As the Green Deal acknowledges, mobilisation of research in a collaborative and interdisciplinary mode will play an integral part in achieving the ambitious objectives, while (higher) education institutions are particularly well placed for engaging students, securing a societal pull and an involvement of local communities in the transition. Ethics in research and development are therefore the third core principle that will guide the project team in their research, cooperation and action.

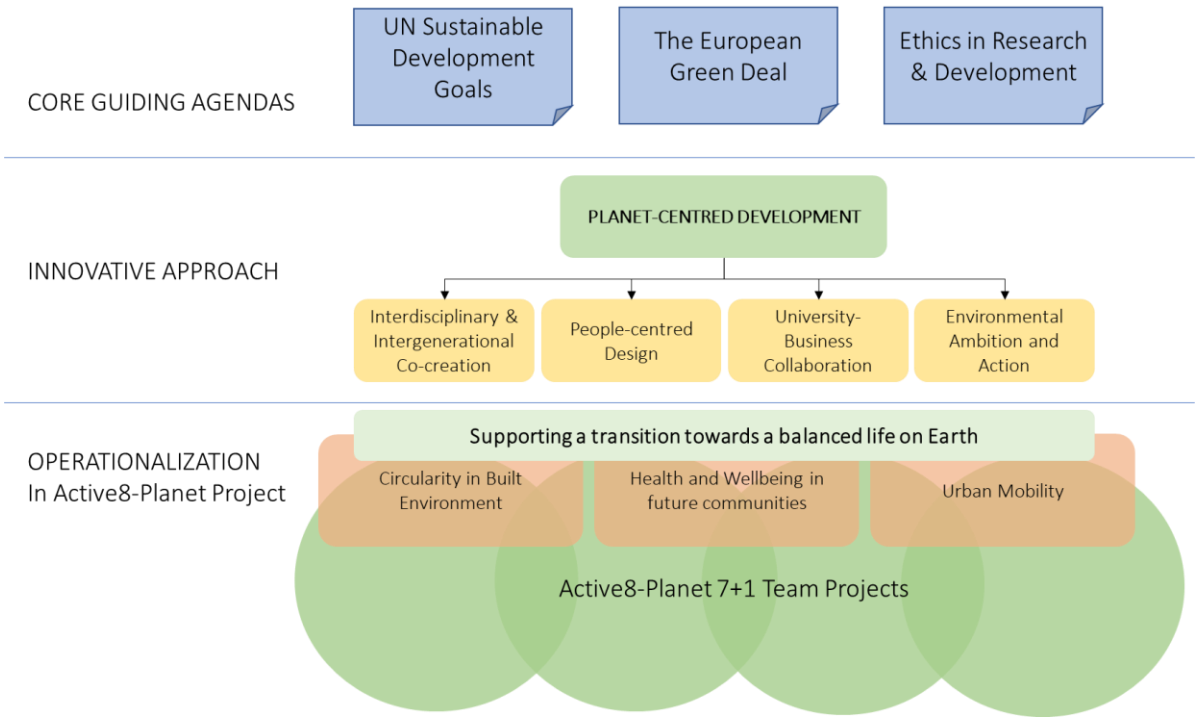


Figure 2: Active8-Planet approach

1.3 The 7+1 Team Projects

The 7+1 Team Projects are the "glue" that bind and activate representatives of all key target groups in joint research, design, development of concepts around a common and concrete sustainability challenge. Representing the number 8 in the project's name, each 7+1 team involves: 4-5 students (enrolled in study programmes at partner HEIs, reached and selected through a recruitment process); 1-2 university teachers (HEI project partners' teaching staff); 1-2 domain experts (representatives of non-academic organisations or intermediary organisations, experts in specific Team Projects' topics); + 1 servant-leader (individuals selected within the team and provided with specialised training).

Each 7+1 Team Project embarks upon an Active8-Planet Research and Development process aimed at the co-creation of a planet-centred, ethical, and socially-embedded innovative concept or intervention in response to the previous identified challenge. Every Active8-Planet Research and Development process is based on the principles of People-centred Design and consists of four phases in which the teams will:

[1.] jointly explore and frame the identified environmental and societal challenge;
[2.] research the meaning and discover the unmet needs of the people relevant to the challenge;
[3.] analyse and interpret all data gathered and;
[4.] co-create a concept fit for presentation to relevant stakeholders.

2 CORE VALUES

As a first step towards developing the conceptual framework the Active8-Planet consortium embarked on a collaborative exercise to define the core guiding values. These will be the values that we think should be reflected in everything that we do in our project, e.g., in our teaching and learning activities, cooperation and co-creation, 7+1 team projects etc.

We started with 2 questions:

1. Which is the value you most relate with? The value that guides everything that you do. The value that you think everything should be concentrated around. The value for which you would like to become an ambassador. You could also think in the opposite way: which value is lacking in today's world and you find this irritating and would like to change that?
2. Could you provide a recent example in which this value became very evident and tangible for you - from your professional/work life, private life, national or broader, international context?

It is worth mentioning that this exercise was initiated in the middle of second wave of the COVID-19 crisis (January 2021); thus several responses reflect the issues and uncertainties of the global pandemic.

The values that we feel mostly define the Active8-Planet mission are:

(1) Collaboration and team work (instead of ego-centricity and individualism)

"Working together towards a common goal."

"In these times of Covid, I find myself working together with many others, many of whom I don't even know."

"Collaboration to me is sometimes challenging but often joyous. It lifts my spirits to experience and it allows me to learn and grow and appreciate life."

"Collaboration is something mostly constructed, created, practiced, by two people. Teamwork, however, yet again, in my mind, is something done by a group. A group of people that trusts and respects each other and feels they are part of a particular team with a particular purpose in which they all individually have their part to play."

"For me 'teamwork', is collaboration in optima forma, for it allows for accomplishing greater things, and while aiming for these greater (and often more complex) things, it allows for more learning, growing, and joy."

"The challenges we face today, in our cities, countries, and or our planet as a whole, are too complex to be solved by one person, perspective, effort alone. These challenges require different views, skills, approaches, different 'lots of everything's' that come together in many different team efforts."

"Team efforts in which we value not only what we as people need and bring to the table, but in which we also value, what other forms of life provide and require."

"Community as a value. We have focused too much on individualism and personal success, with consequences ranging from a worldwide mental health crisis, the destruction of our planet and the loss of resilience."

(2) Transformation

"Advocating the concept of 'transformative learning' within our project."

"When talking about sustainability, it strikes me how much everyone agrees that it is important to live and work in a more sustainable way, but that implementing it is so difficult. … Within higher education, there is a lot of focus on knowledge transfer and problem-based learning, but apparently knowledge on its own is not sufficient to truly change something. Moreover, problem-based learning has been proven to be an effective learning method, though finding solutions is not always guaranteed. I am wondering how we can make sure that values can be transformed into action, while at the same time the focus on 'problems' and negative impact can be changed towards 'solutions or problem-solving' and positive impacts."

(3) Openness for possibilities & Equal opportunities (no matter their prerequisites or backgrounds)

"Equality and equal opportunity both in terms of gender equality, but also giving everyone equal opportunities no matter their prerequisites or backgrounds."

"Important to meet the students on their own terms and also that they can have a say in their own education."

"Involving people to create equal opportunities."

"I think it's important to find a way to include and meet everyone on their own terms in order to give everyone equal opportunities, and there is still a need to find out how to do this in some contexts."

"A commitment to transdisciplinary collaboration, which requires time and willingness to understand the others' language."

"It takes patience and openness to get across what we can each mean for each other."

(4) Fairness and Humbleness (towards people and planet)

"I feel CO2 emissions are just symptoms of much deeper systematic problem; i.e., disharmony, destabilization … We often look too narrowly, isolating one symptom from another. Forgetting to look at the issue holistically and seeing how interconnected all is."

"Instead of blindly going to fix the symptoms, we should systematically look at the conditions that brought us here. My exploration brings me to a point, where we started seeing ourselves superior to nature."

"Oftentimes, we somehow seem to miss the deeper layers, how it works in natural habitat in which all is interconnected, ecology on which we depend as humanity."

"Our internal as external ecosystem where we are not apart from nature; but we are a part of nature."

"We should not devalue natural conditions and stop blindly replacing world of nature with world of technology."

"We should not just mindlessly wrap ourselves with airtight walls with no relation to the outdoors, our natural habitat. Is living in a cocoon fulfilling?"

"I sometimes wonder why nature is so humble in her partnership with us. Because perhaps nature is us?"

"When we all start out with the same circumstances and do good things for others so that society and our planet are respectfully taken care of."

(5) Accountability

"Personal accountability and responsibility for my actions in both professional and personal activities."

"Accountability in terms of transparency of digital services that we design and implement."

"Democratic and sustainable societies cannot work without accountability."

3 FROM PROBLEM-SOLVING TO OPENING UP POSSIBILITIES

3.1 Uncertainty

In a contemporary world *uncertainty* is often perceived as an increasingly prominent feature of existence, combined with imagined possible worlds of horror, fear and despair. In addition to environmental crisis, refugees and terrorism this situation is even more evident in the current COVID-19 pandemics. In such a world we have no basis upon which to be confident about what will happen next in the immediate or far future, or that we can take any measures that could be absolutely guaranteed to determine or change our futures. The future is contingent and unknowable and *uncertainty* – however unwelcome and blamed for crisis, insecurity, vulnerability and indecision – is constant, ongoing and continual. Uncertainty is a way of being (Akama, Sumartojo, and Pink 2019).

3.2 Problem-Solution Approach

Still, within the so-called problem-solution approach – which is still predominant in the conventional industrial research and development process – we try to make predictions about our future. What happens very frequently is that the products and services are developed in isolation and in rather monodisciplinary settings in which development teams aim to predict the future, especially by assuming what are the requirements and needs of potential "users". When put on the market we assume that people will passively consume and use these solutions. What we only have to do is to convince them to use our products and services, therefore investing in sales and marketing. In other words, we try to impose behavioural change.

The problem-solution is very much in line with the utopian paradigm which considers people as passive consumers of technology which will save our world, because it was developed by the brilliant minds. The problem, however, is that this model would work in a simple, predictive society.

However, the problem-solution model is not able to answer on the majority of our contemporary, wicked problems and does not work in the real world of *uncertainty*. Key challenge is that the technology is still unfinished and incomplete when it reaches the market – it is completed by people who do not behave as passive consumers. When products reach market, they frequently do not provide the solutions as envisioned by the developers. In reality people resist, manipulate with technology, use it in a different way etc.; thus, improvise with it to fulfil their everyday life needs (also considering social acceptance, power and pressure).

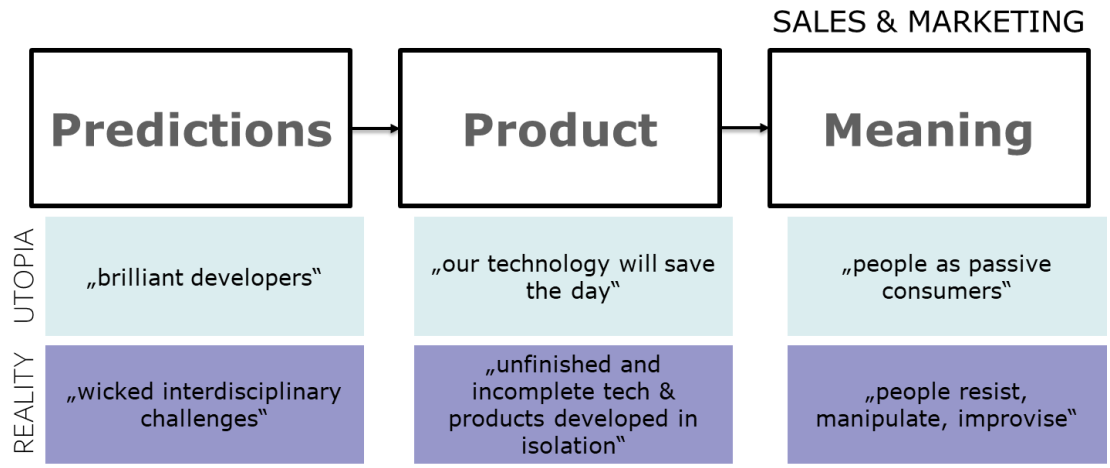


Figure 3: Problem-solution approach

This new model of understanding requires a paradigmatical shift, asking ourselves:

"What people do with the technology and not what technology does to people".

It is not about helping policy makers or industry to find ways to make (or to force) people accept and use new technology properly (technology which is developed in isolation). In contrast to problem-solution paradigm the model is not about enforcing behavioural change. As expressed by Pink (2019)

"Don't try to change the behaviour but think how the behaviour could be that change".

3.3 Turning uncertainty into focused exploration

The Active8-Planet paradigm acknowledges that *uncertainty* plays a disruptive and generative role in our work. Our understanding of uncertainty draws from anthropological renderings which are themselves derived from the practice in anthropological ethnography of immersing oneself in worlds where we do not know what will happen next (Akama, Sumartojo, and Pink 2019; Pink 2019). Instead of staying with its often-negative associations, we try to come at the uncertainty with a different attitude; i.e., *uncertainty brings and opens up for possibilities*. It does not close down what might happen yet into predictive untruths, but rather opens up pathways of what might be next and enables us to creatively and imaginatively inhabit such worlds with possibilities.

As noted by (Akama, Sumartojo, and Pink 2019, 1–18) the key for success is the *possibility of moving beyond*; which does not seek to predict futures but creates many possibilities. Moving beyond refers to a willingness to fall into and engage with a possibility beyond our scope of tangible knowing and feeling. Possibilities are not closed products or even templates – they are instead open concepts and lead to many starting points. Such emergent phenomena cannot be analysed or predicted, because they are not objects, but they can be attuned to and even welcomed.

Our central task is to explore how uncertainty can be transformative, how we attune to and engage with it more attentively as part of our practice in change-making processes, and how

uncertainty might be harnessed for producing new and open ways of understanding, making and imagining in the world.

Based on respective conceptual explorations the methodological recommendations are:

[1.] Putting uncertainty at the core of our investigatory and change-making practice (uncertainty as a tool for the making of possibilities).
[2.]Interdisciplinary and essentially collaborative: with other disciplines (social sciences and humanities hand in hand with engineering and technical sciences) and with other sectors (university-business). Dare to see things from other perspectives than your own (enhance transdisciplinary). Practicing along the boundaries of each discipline by blending, borrowing, hacking and remixing various theories and approaches to activate them in our specific 7+1 case study contexts.
[3.]Opening up of many possibilities with people and creating new opportunities in collaboration (exploring ways of using, making sense of mundane activities, emerging technologies or engaging with urban, social, spatial and environmental changes). Involve people from the start, they might want to contribute.
[4.]Seeking unconventional ways to collaborate with different stakeholders beyond conventional problem-solution paradigm (solution-based approach or formulating cause-and-effect).
[5.]A theoretically framed and structured methodology, but still open enough to emerge in different forms when being customized to different (institutional, collaborative, cultural) contexts and requirements. It does not cede dominance to the theory or practice of any one discipline.
[6.]Producing the methodology which is not only suitable for the development of university-business learning approaches but its principles can equally be applied to a number of collaborative and interdisciplinary change-making processes.
[7.]An agenda to critique the (often utopian) assumptions.
[8.]Ethics: thinking about responsible and ethical futures.

4 THE PEOPLE PROJECT

Project Reference: 574832-EPP-1-2016-1-SI-EPPKA2-KA

Start date: 01. 11. 2016 / End date: 31. 10. 2019

⇒ PEOPLE on Erasmus+ Project Results Platform

PEOPLE (People-Centred Development Approaches in Practical and Learning Environments) was an international project co-funded by the by the European Union under the Erasmus+ Programme (Cooperation for innovation and the exchange of good practices, Knowledge Alliances for higher education 2016).

A short project overview (PEOPLE in a nutshell) is also available at:
https://www.youtube.com/watch?v=zNa8CsrpmKY&feature=emb_logo

A podcast where PEOPLE project team members speak about our approach, experiences, learning outcomes and impact of PEOPLE project is available at:
https://worldpodcasts.com/the-people-project-a-learning-experiment-that-helps-redefine-roles-within-academia-and-industry-discovering-new-perspectives-on-how-to-embrace-the-world-of-anthropology-the-human-show-podcast-70/

4.1 Background

In many sectors – and in the energy sector specifically – businesses are operating in increasingly complex and constantly changing environments. They are facing "wicked" problems that are difficult to solve because they usually involve contrasting interests. In these sectors, product and service design and innovation are still mainly dominated by technical engineering, from which graduates in social sciences and humanities are thus largely excluded. As a result, solutions "designed in isolation" or with only a superficial consideration of "user needs and expectations" are often over-reliant on technological innovation and ignore the particular lifestyles and socio-cultural specifics of the intended users. This also comes with a risk of reduced or undesired impact, and – ultimately – giving innovations a reduced chance of seeing a return on investment. Hand in hand, the PEOPLE project also addresses the skills mismatches and underemployment of European graduates in social sciences and humanities and the need for a better-engaged social science learning in higher education.

As a novel pedagogical approach, People-centred Learning Cycles bring together interdisciplinary groups of students, faculty educators, industry professionals, as well as target end-users and other external stakeholders. These teams jointly examine and explore real-life industry and societal challenges and aim to discover and analyse the "unmet needs" of people as potential end-users of products and services. Furthermore, they apply and test different people-centred development and design approaches, analyse the results, and convey the work by providing industry-relevant recommendations. Eight different university-business cooperation case studies in the field of energy efficiency and sustainability have been implemented to assess the impacts on all key stakeholders involved.

The most relevant topics that PEOPLE is addressing:

— developing and integrating people-centred development approaches into research, teaching and learning;
— enhancing interdisciplinary cooperation between students, faculty educators and industry professionals to solve real-life business challenges;
— enabling students to gain valuable practical and transversal skills to complement their theoretical education;
— demonstrating the added & applied value of social science education for industry.

In summary, the PEOPLE education model is based on the following principles:

— interdisciplinary and essentially collaborative: bringing together different disciplines and expertise, where engineering works hand in hand with social sciences and humanities. Key guiding principle is “dare to see things from other perspectives than your own”.
— multi-sectoral and multi-stakeholder: involving industry professionals, university teachers and the representatives of civil society and non-governmental organizations.
— people as co-creators: involved in all stages of product and service development process. Key guiding principle is “create with the people and not for them”.
— rooted in ethnography: as methodology to collect, analyse and understand the data and to generate in-depth insights about peoples’ behaviours.
— in dialogue with theory and bringing up ethical considerations: understanding bigger contexts of emerging futures and world’s challenges.

The evaluation results demonstrate that:

(1) social science and humanities students have applied the knowledge acquired through their education to real-life and work situations, as well as gained a unique research experience and acquired new skills. More specifically, students have adopted an applied perspective on social science theory and methodology, especially by incorporating industry requirements in their research design. They have learnt about the amount of effort and time that is taken up in research projects by identifying third parties (e.g. research participants, other relevant stakeholders) whose input is essential to conducting the research, as well as managing relationships with them.

(2) Teachers and researchers have become aware of the different perspectives and contexts in which industry operates and have been challenged to modify their way of teaching to these new circumstances. New learning modules have been embedded in degree programmes, enabling students to gain valuable practical skills to complement their theoretical education, while demonstrating the value of that education for industry.

(3) Industry has benefited through acquiring fresh perspectives in relation to their existing processes and understanding of markets. They became aware of the importance of understanding the complexity of human dynamics and involving social science expertise in interdisciplinary co-creation. Activities have contributed towards changing the mindset of engineers, technicians and company senior management who have started to question the “taken for granted”, uncovering the surprising and complex ways in which people make decisions.

4.2 PEOPLE Learning Cycle in a nutshell

The main contribution of the PEOPLE project is the development and implementation of the learning cycles as a novel pedagogical approach in which teams of students, academic and industry mentors jointly examine actual challenges and aim to match the proposed solutions with the needs of people. Figure 4 presents the PEOPLE learning cycle with four corresponding phases: from planning, through launch, to the implementation of case studies, and their finalisation.

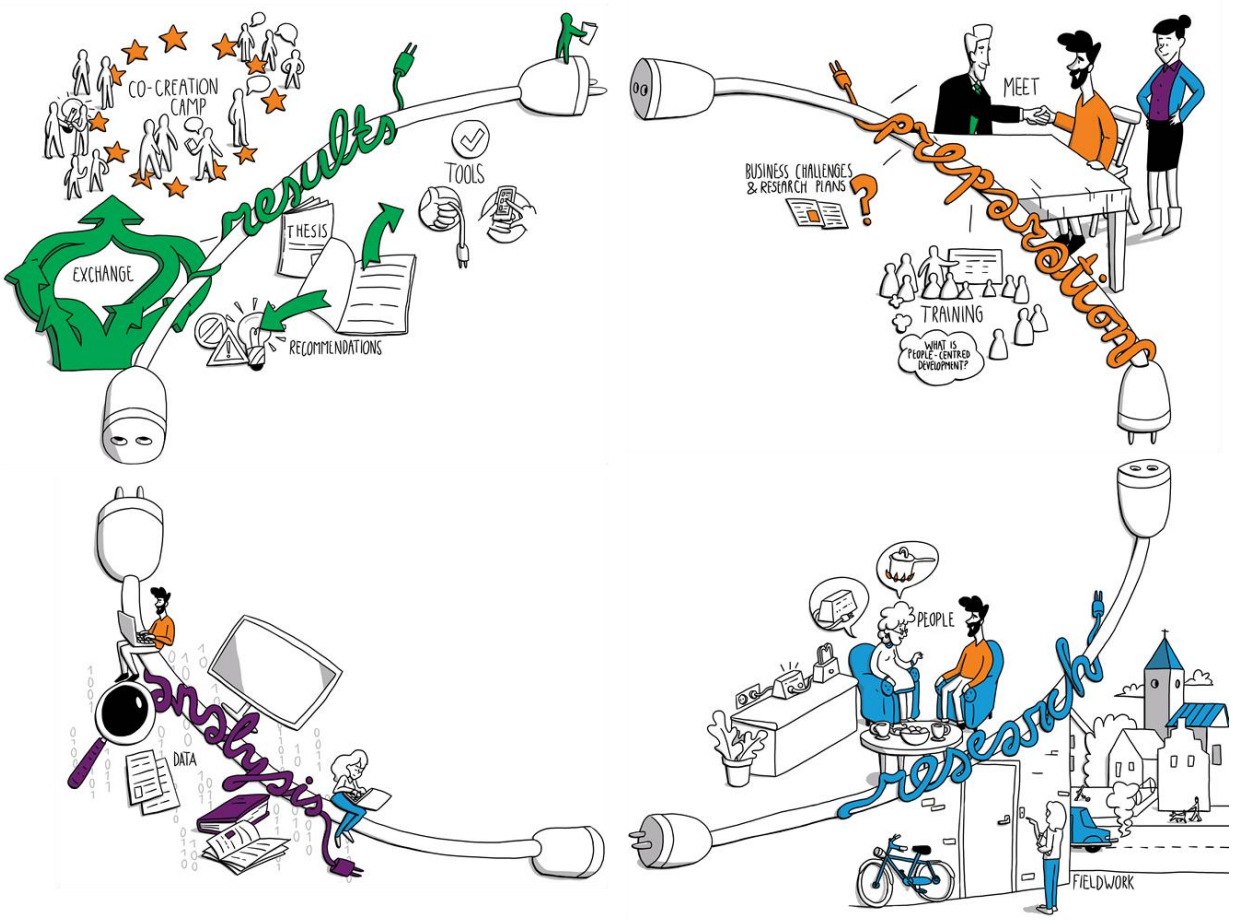


Figure 4: PEOPLE Learning Cycle

The PEOPLE learning cycle spans over two consecutive semesters. At a preliminary stage – before the start of the study year and first semester – an analysis of the local curriculum and the learning environment ensures that the new module is integrated within existing learning structures and is compatible with each participating university. Industry mentors and academic instructors jointly identify preliminary challenges that can be explored through a people-centred development approach. While the PEOPLE approach builds on a similar strategy as problem-based learning (Savin-Baden and Major 2004), the "ill-structured problems" in learning cycles are not only simulations; instead, by building and actively

managing the university-industry partnership, the loosely formed challenges are identified between the university partner and the industry partner to reflect the common project goals and particular goals of each party (i.e., an existing business challenge and learning goals). A call for anthropology students is released in the higher education institution before the start of the learning cycle in order to identify appropriate candidates. At the very beginning of the learning cycle and study semester, an exchange session is delivered to students for the purpose of community building. The introductory PEOPLE training includes an exploration of applied research methodology and people-centred development approaches.

Students then begin engaging with the local partner company. This may include gathering information about products and services or usability testing of products and other activities (e.g., ethnographic inquiry with staff). Target groups outside the company are identified and initially contacted through the participating company and/or through academic partner. Students' work is jointly monitored by the university and industry mentors, who provide guidance and feedback through regular joint meetings. Research project development is furthermore enhanced by student participation in research methods modules taught in each existing study programme. Students keep an ethnographic journal documenting meetings and activities, but also as a reflexive record of project activities, research methods, and reading

At the end of the learning cycle, the final fit-for-industry reports are submitted by students and a presentation for the company management is organized. An evaluation meeting of the students, faculty, and industry mentors takes place in each country to explore emerging findings, potential new ideas, and/or ways to improve existing processes based on the research.

4.3 PEOPLE Methodology

The PEOPLE learning cycle is integrated into a typical European higher education study cycle; divided into 2 study semesters and lasting most commonly from September/October to the June/July next year. Learning cycle is divided into 4 steps:

1. **PREPARATION:** What challenge/problem are we trying to solve?

2. **RESEARCH:** What are the different possibilities and opportunities? What are our unique insights into the challenge? Understanding people, their lives and behaviours through ethnographic research.

3. **ANALYSIS:** What the data tell us? Making sense of everything that has been collected.

4. **RESULTS:** What are the ways in which we can communicate and convey the meaning? How to introduce and bring the idea into market/society and how to maximize the impact in the world?

People-centred development approach is creative, collaborative and iterative in its nature. Team members (i.e. students and their academic and industry mentors) find themselves very frequently shifting gears through the process, moving from concrete observations to highly abstract thinking, and then right back again into the nuts and bolts of the prototype. In reality, the process is shifting between RESEARCH and ANALYSIS steps which are in

constant iterative relationship. It is a continuous discussion, exchange and negotiation between “exploring choices” and “making choices”; continuous exchange between diverging and converging. By going really big and broad during the ethnographic research phase, teams co-cerate all kinds of possible opportunities, possibilities and solutions. However, since the goal is to achieve a broader impact in the society and in the environment, teams have to further identify what, among that constellation of ideas, has the best potential in terms of feasibility, viability, desirability and, overall, long-term sustainability. Teams diverge and converge several times, and with each new iteration they come closer and closer to a fit-for-industry solution.

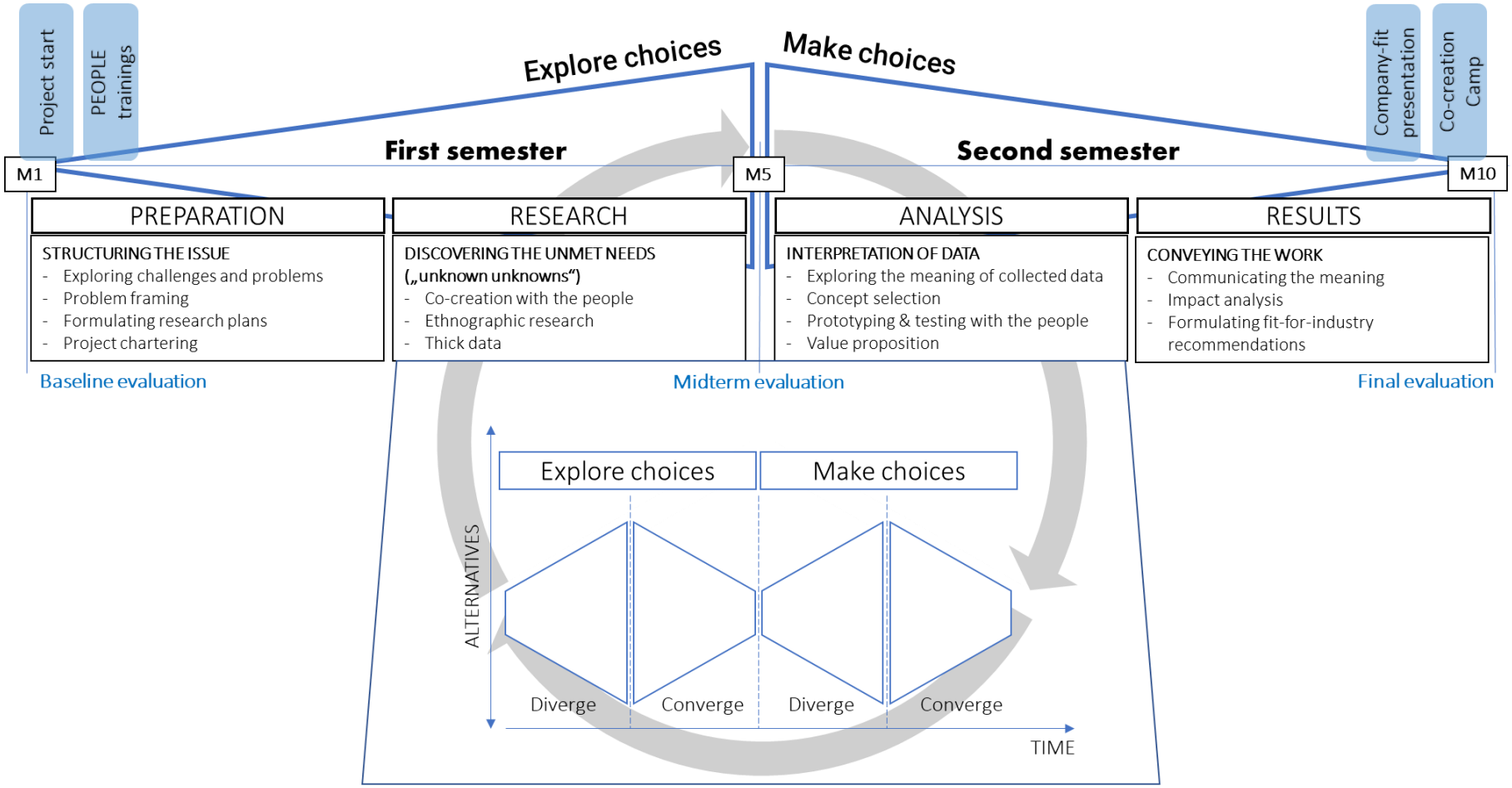


Figure 5: PEOPLE Learning Cycle – the Process

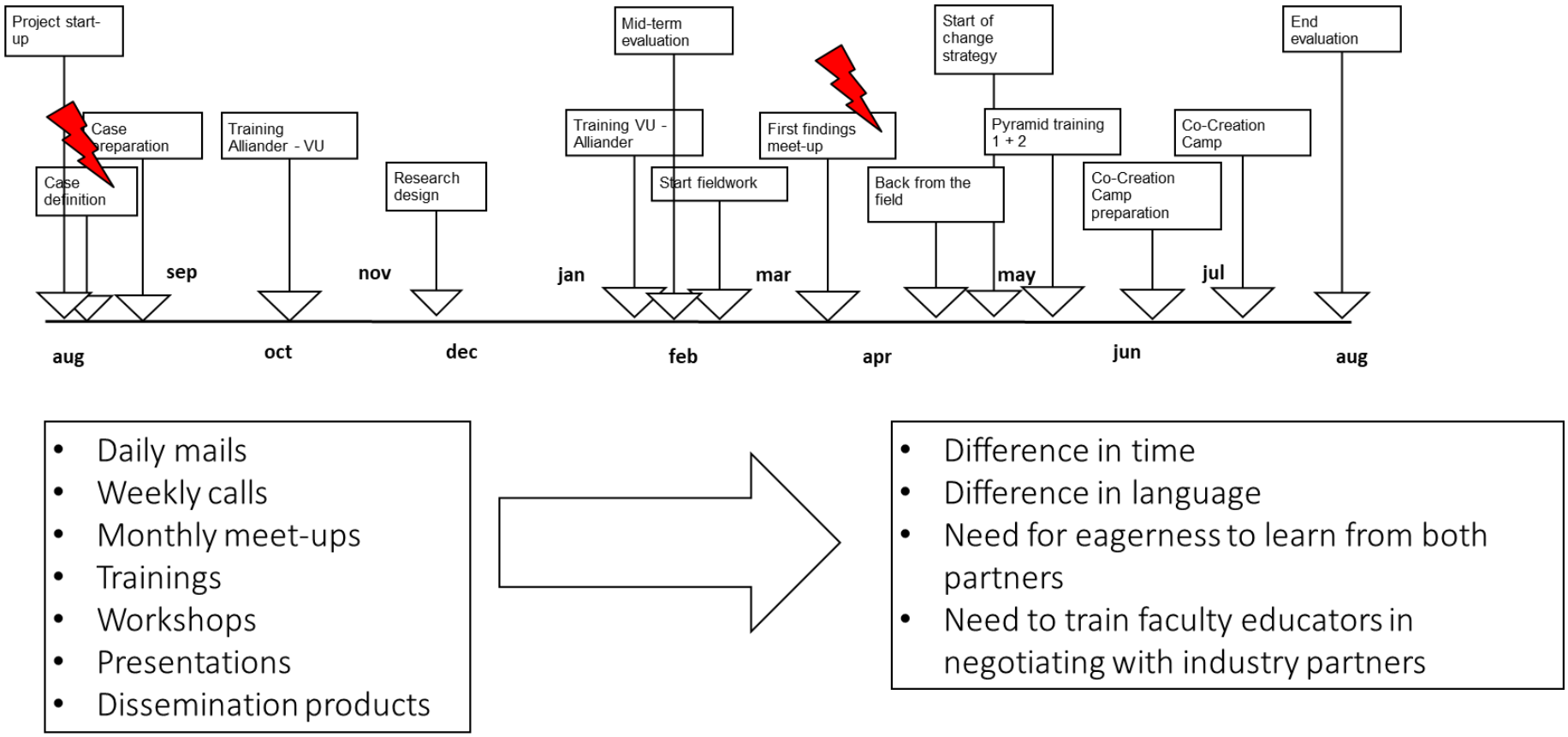


Figure 6: PEOPLE Learning Cycle (university-business collaboration) – specific case of Vrije University Amsterdam and Alliander

4.4 Knowledge and skills

Through the learning cycles, the PEOPLE project has begun enabling students to gain valuable practical and transversal skills that complement their theoretical education in the social sciences and humanities. Table 2 demonstrates the subject and social science specific knowledge together with key transversal skills as outcomes of learning cycles. More specifically, students adopt an applied perspective on social science theory and methods, especially by incorporating business and/or non-academic requirements in research design. Students are taught to carry out experiments by working alongside company employees and gaining qualitative insight in their daily work and business processes. Moreover, students do participant observations and ethnographic field research in user and/or customer contexts (e.g. households, SMEs, larger industries, etc.). Learning cycles offer them opportunities to contribute and expand user and/or customer-led tools that are already used and /or introduce new tools or methods.

Table 2: Subject and social science specific knowledge together with key transversal skills

Subject Specific Knowledge:
By the end of the learning cycles participating students possess: — an advanced understanding of the practical issues and effects of industrial and commercial enterprise; — an advanced understanding of and capacity to deal with the ethical issues entailed in research and problem solving; — an understanding of how the taught elements of their degree modules are operationally applicable in real life contexts; — an understanding of the methodologies used to study the design and delivery of products and services; — an understanding of the impact of selecting certain methodologies and conceptual frameworks on research outcomes.
Social Science Specific Skills:
By the end of the learning cycles participating students are able: — to employ a range of social science perspectives to analyse practical contemporary issues of sustainability; — to assess ethical issues and act in accordance with professional ethical standards; — to illustrate social analysis of technologies (in this instance energy technologies) with regard to specific cases; — to engage in socio-technical research projects; — to solve problems co-operatively through teamwork; — to identify and critically analyse social scientific evidence; — to communicate and work collaboratively in commercial and industrial environments.
Transversal skill
By the end of the learning cycles participating students are able: — to demonstrate an ability to construct argument critically for both oral and written presentation from different sources of material, including material delivered orally and in an article, report or policy document; — to demonstrate an independent approach to learning, critical thinking and creative problem-solving; — to use sophisticated techniques of information retrieval and management using an array of print and digital resources;

- to formulate complex arguments in articulate and clear language (both English and native), within the discursive conventions and genres of academic writing and to translate them for use by a wider audience;
- to effectively communicate complex ideas within an interdisciplinary and non-academic context
- to demonstrate effective time management;
- to work in a team.

5 DESIGN STUDIO

Over the last few decades, digital technologies have driven deep and profound changes in our relationships to communication, culture, and society at large. This has caused Informat-ics, Human-Computer Interaction (HCI), Computer Science, and Digital Design to undergo a silent revolution the past two decades: human-centric innovation, user experience, and strategic device-agnostic service design do not only complement the traditional product-centric perspective – it has even been claimed to dominate it (Kolko, 2010b; Norman, 2007).

Digital design in the 2010s thus rapidly and continuously puts new requirements on theory and practice. Educational initiatives aiming to teach digital design need to evolve with the field and resonate with not only declarative academic requirements, but also the procedural craftsmanship and reflective qualities of design practice (Kolko, 2011; Schön, 1983; Selander, 2008; Wärnestål & Lindqvist, 2013). As theory and design practice are being revitalized in this context, there is room for improvement in how we prepare students to deal with these sorts of problems professionally. To this end, several suggestions have been voiced, such as arts-based learning (Snyder, Heckman, & Scialdone, 2009), studio-based and apprenticeship courses (e.g. Sas, 2006; Wang, 2010), and learning in authentic, off-campus contexts (Wärnestål & Lindqvist, 2012). Despite that some criticisms have been voiced regarding studio pedagogy, some scholars have recommended that the studio should be the default learning environment for design-oriented education (cf. Cho & Cho, 2014; Wang, 2010) since it is suitable for creative work and for addressing wicked problems and challenges (Rittel & Webber, 1973).

5.1 Design-Based Learning Sequences

Design-based learning is characterized by open-ended, hands-on, authentic, and multi-disciplinary design tasks resembling professional communities of practice (Puente, van Eijck, & Jochems, 2013; Sas, 2006). The design-based learning environment stresses the notion of students “making meaning” through design, and having teachers that facilitate such a process through formative and summative assessment of both individuals and teams. Communication and peer-to-peer interaction are critical aspects of a design-based learning environment. Indeed, communication as “making meaning” is conceptually close to design, which is seen as a way to configure social interaction and communicative resources (Selander, 2008). In this light, a user-centered design process – where emphasis is put on transparency, communication, user control, and participation (Löwgren & Stolterman, 2004) – is a promising candidate for not only a rigorous design process (Garrett, 2010), but also a highly suitable process for learning and making meaning (Selander, 2008).

Selander (2008) presents a theoretical map that formalizes stages of a creative learning process. In short, the model describes a learning process starting with the teacher “staging” the course, including setting a theme for the course, making an inventory of available resources, and considering the curriculum of both the course and the program. As depicted in Figure 2, there are two transformational cycles following the staging. The primary cycle is focused on transforming and forming of knowledge where available media and modes are utilized. By the end of the primary cycle, students have formed a representation that mediates the transfer to the secondary transformational cycle, where reflection and meta-

reflection comes into focus. The teacher's role in the primary cycle is mainly formative and facilitating (along the lines of design studio practice), whereas the role changes to summative assessment of the work. By setting up the learning sequence in this manner, both teachers and students can use the model as an evaluation and reflection tool at the end of the course.

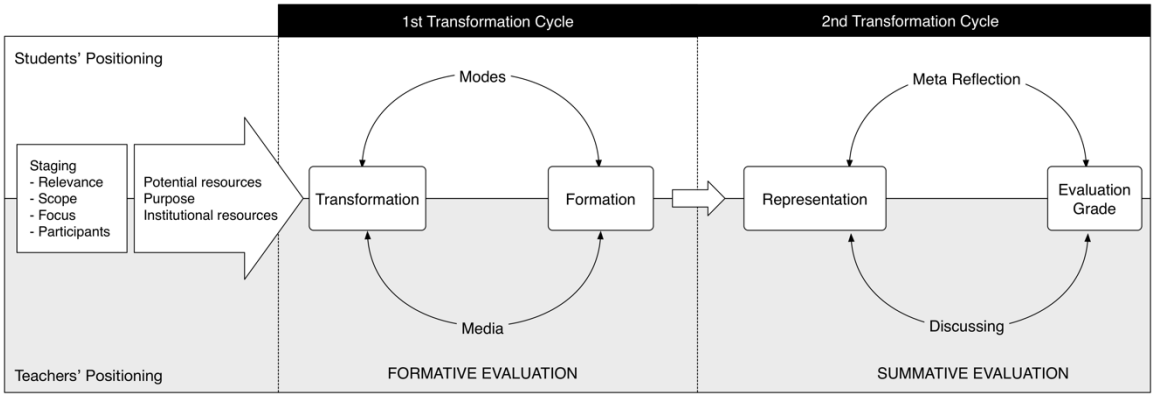


Figure 2. Transformation cycles in a formal learning sequence. After Selander (2008).

Selander's theoretical lens coupled with a user-centered, creative design process implemented in a design studio environment are the fundamental building blocks for the design studio learning framework.

5.2 Design-Specific Dimensions for Progression

Based on the theoretical concepts presented above regarding aspects of design, creativity, and learning, we have identified seven dimensions relevant to design-oriented studio-based learning that characterize aspects of digital design practice. Table 1 presents the dimensions and associated scales used to characterize the studio course challenges.

Table 1. Design space dimensions D1-D7 characterizing challenges in design studio courses.

	Dimension	**Meaning**
D1	Design Problem	The design problem ranges from well understood and closed (routine) to ambiguous, open, and loaded with internal conflicts in its sub-problems ("wicked").
D2	Theoretical Base	This dimension aims to capture how challenging the theoretical underpinnings are related to the content of the studio course. If the course theme is captured within theory that is established within e.g. HCI or Informatics it is considered less of a challenge, compared to cross-disciplinary themes where current HCI theory is lacking. The latter case may require students to contribute to the theory-building themselves.
D3	Perspective	The design challenge may be tactical or strategic. A tactical design focuses on a specific product or service, and tends to measure objective product attributes, whereas strategic design takes into account long-term use, sustainability and viability, and measures effects on user experience in relation to identity, brand, and business model, etc.
D4	Target Platform	The target platform (or device) can be given as part of the design problem ("Your mission is to build a website and e-shop for product X"), or it can be open-ended ("Your mission is to build a service that increases physical well-being") and leave the choice of target platform open.
D5	Design Tools	This dimension is related to D4, since the choice of platform often dictates the availability of design tools. On the less challenging end are mature and easily

		available tools for e.g. website prototyping. Projects residing on the more challenging end of this dimension require teams to build their own design tools for new interaction modalities.
D6	Service Complexity	Most systems do not exist as isolated islands, but are part of a larger digital (and analogue) user experience context. A product or service is typically experienced through multiple touch points, across several channels, distributed in time and place. To regress the challenge in this dimension the problem can be limited to a single device and a single touch point in the service ecosystem. On the more challenging, and realistic, end of this dimension designers are expected to work on multiple devices and multiple touch points, as well as designing the user journeys between them.
D7	Contractor's Digital Design Literacy	The contractor (or client) who initiates the original theme or design problem can be highly proficient in digital service design, and have a robust understanding of what the service will entail, what a user-centered design process looks like, and how to manage complexity along dimensions D1-D6 above. On the other end of the scale, the contractor can be firmly set in a completely different domain or field, and is neither skilled nor experienced in terms of digital service design and user-centered design processes. In the former case, the design team has a natural ally in the client, who can indeed function as a mentor throughout the process. In the latter case, the responsibility of managing the process and argue for design decisions becomes a heavier load on the designers.

The design process is the structure that these dimensions are anchored to. The design process is, as noted previously, one of the most valuable assets in a designer's toolbox. From a learning point of view, the process also ties together the studio courses, and help students confidently work even if the challenges progress along dimensions D1-D7. Though the content and theme of the courses change, the design process remains basically the same (see Figure 1). It provides a lens of understanding for problem definition, design generation, and synthesis. It is therefore important that the design process is the anchor for all studios, when other variables change in the progression between studio courses.

5.3 Using the framework

The transformation cycle and the dimensions of complexity forms the basis of a design-oriented learning cycle framework that gives instructors and industry partners a tool for tweaking the challenge and complexity of the studio project at "run-time", in order to meet the needs and capabilities of the student group at hand. Should a student (or team of students) need a harder challenge to meet their potential, the instructor can select a dimension and progress it as a form of scaffolding. On the other hand, if the default challenge is too hard for students, or if they have chosen a particularly complex or challenging route on some of the dimensions, the instructor could coach the students to regress other dimensions so the workload can still be manageable and fruitful (Wärnestål, 2016).

6 SERVANT LEADERSHIP

6.1 Interdisciplinary team work towards an innovative concept or intervention

Active8-Planet pivots on interdisciplinary, intergenerational and interorganizational collaboration between students, teachers, researchers and company professionals from diverse disciplines and industries operating in the field of sustainability. This collaboration primarily takes place in what we call Active8-Planet 7+1 project teams who will collectively address cross-cutting challenges in the areas of sustainable mobility, circularity in the built environment, and health & wellbeing. The research and development process takes place within an Active8-Planet Learning Cycle that starts with a kick off in September/October and ends with the Active8-Planet Event in July.

To facilitate the collaborative process within these Learning Cycles, each 7+1 project team will be guided by a Servant Leader. This leader is not a project or team manager in the 'classic' sense, but a process manager that helps the team to develop a constructive collaboration towards a successful outcome.

As such, each 7+1 project team consists of:

— a mix of students, teachers, researchers, industry professionals, practitioners and other relevant stakeholders (e.g. NGOs, governments, public authorities etc.). from various disciplines (such as for example anthropology, design, engineering, architecture) and sectors (such as for example healthcare, mobility, construction, city planning).
— 1 person acting as a Servant leader who facilitates the research and development process of the team and who is recruited based on their ability to guide the interdisciplinary collaborative process.

6.2 Servant Leadership towards interdisciplinary collaboration

Active8-Planet Servant Leadership is based on a new model of leadership in which the so-called leader is foremost of service to the entire team and to all individual team members.

— A servant leader puts each individual in the team at the centre of their thinking and their actions, and allows all team members to grow as a person, become healthier, wiser, freer, more independent. Perhaps, in the long run, team members might even feel inspired to develop in such a way that they also want to become such leaders in the future (Planeteers).
— A servant leader encourages a sense of unity and of a shared responsibility and decision-making. All this within a clear set of values that are collectively gathered and supported by everyone in the team, regardless of hierarchy in terms of age, position, gender, etc.
— A servant leader guards the collaborative process within each team and ensures that members stay focused and connected to each other and the ultimate goal.
— A servant leader creates space for all voices in the team, especially if these represent minority perspectives and/or are embodied by people who are not necessarily trained in voicing their perspective in an interdisciplinary team.

— A servant leader allows room for discontent and conflict and ensures that these will be addressed through frank and open discussions, with the goal of attempting to reach a shared decision.

6.3 The Active8-Planet Servant Leadership trainings

To prepare each servant leader for their crucial role in Active8-Planet, they will take part in a training specially developed to enable them to lead their teams in alignment with the philosophy of Servant Leadership. The Active8-Planet SL-trainings are specifically designed for the purpose of Active8 Planet and consist of two sessions.

Session 1 is organized one month before the start of the Learning Cycles. At the end of this session participants:

— have familiarized themselves with the meaning and relevance of Servant Leadership (SL) in Active8-Planet
— have reflected on their future role as SL
— have gained insights into the Active8-Planet methodology
— have acquainted themselves with the broader contours of the learning cycles
— have prepared an inventory of all information they need to gather in order to plan their guidance/process plan

Session 2 focuses on team building, team collaboration and participants will leave the session with the outlines of a concrete guidance/process plan. At the end of Session 2 SL candidates:

— have familiarized themselves with team building and group dynamics
— have acquainted themselves with a set of tools that will help them during their SL activities
— have prepared a work plan that includes a timeline, set of activities and group interventions
— have formed an intervision group and understand the relevance and process of intervision

All servant leaders will be selected by the consortium partners before the start of each learning cycle on the basis of a specific set of criteria to ensure that all candidates have a certain level of experience, strong sense of commitment and enthusiasm for the SL role. These selection criteria will be shared with all consortium members well in advance.

7 TOWARDS THE ACTIVE8-PLANET MATRIX

7.1 Attitudes Towards Sustainability

Enterprises can adopt different attitudes with respect to acting sustainably. In the table below, five attitudes are listed (from least to most responsible). The purpose is to steer towards adopting the fifth attitude.

Attitudes	
1. Do what is legally mandatory Act sustainable when and only when it is obliged by law.	Acting from a state of guilt, shame, obligation
2. Do only what provides a financial return Only act sustainably when it is financially beneficial.	
3. Do your fair share Contribute (to a certain extent), even if it does not generate financial return.	
4. Cause no harm (mission zero) Reduce the enterprise's negative impact to 0.	Risk for increasing feeling of sacrifice or reduced comfort and pleasure.
	Paradigm shift
5. Create positive impact / generous design	Acting from a positive attitude **Acting for positive impact**

Source (Doughnut Economics - 7 ways to think like a 21st century economist (Kate Raworth, 2017), chapter 6)

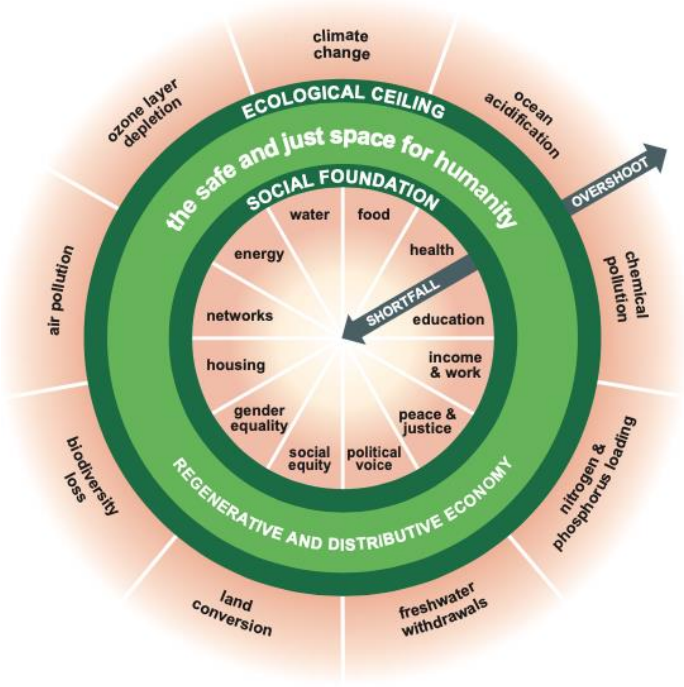
7.2 The Doughnut Economy

7.2.1 The general model (Swaffield & Egan, 2020)

Definition
The world faces twin challenges: delivering a decent standard of living for everyone, while living within our environmental limits. These two interwoven concerns are captured in the Doughnut model. This model offers a framework for creating an (environmentally) safe and (socially) just space -the Doughnut- for humanity to exist.

Composition	
The Doughnut Model consists of 2 dimensions:	
Social dimension	**Environmental dimension**
Step 1: Exploring domains (and if necessary: sub-domains) Step 2: Identify one indicator to measure current status of domain (and sub-domain) Step 3: Thresholds for each domain (and sub-domain)	

→ Adapt domains, indicators and thresholds to the country's local circumstances	
In general: domains related to access to food, income, energy and security	A local adaptation of the 10 planetary boundaries
↓	
SOCIAL FLOOR/FOUNDATION When inhabitants fall below this social floor → SHORTFALL (human deprivation)	**ENVIRONMENTAL CEILING** When transgressed, unacceptable human stress is caused → OVERSHOOTING
Graphically	
Social floor = inner ring	Environmental ceiling = outer ring



Source: (DEAL, 2020)

The area between the inner and outer ring -light green on the figure- is the Doughnut. As mentioned before, it represents a safe and just space within which to exist.

7.2.2 City Portraits (DEAL, 2020)

What and why?

The general Doughnut methodology can be adapted to fit more specific matters. An interest-generating model is that of City Portraits. It is a transformative tool for cities to explore and embrace the vision of a thriving city. This vision recognizes what makes a place unique, while also recognizing its global influence and responsibility.

Currently, humanity is overshooting at least four planetary boundaries, while many people fall short on life's essentials. In other words, humanity is currently far away from the Doughnut. In order to get into the Doughnut, global action is required. Cities are believed to be leaders of driving such change. The City Portraits methodology aims to amplify this potential by downscaling the general Doughnut model into a tool for city-level holistic thinking and decision-making.

The model

Next to the two dimensions of the Doughnut model -social and environmental/ecological- another two dimensions are added, local and global. The combination of these dimensions generates four lenses. Each lens can be summarized by a key question.

1. **Local-social lens**
   - Step 1: Define a set of dimensions that collectively form the city's social foundation- a basic standard of wellbeing that all city residents have a claim to achieving
   - Step 2: Identify city performance indicators for each dimension to compare the city's targets with its current performance
2. **Local-ecological lens**
   - Step 1: Identify and select key ecosystem services that are specifically relevant to the city's location
   - Step 2: Select City Performance Indicators that can be used to compare the city's targets with its current performance
3. **Global-ecological lens**
   - Step 1: Define dimensions (the nine planetary boundaries that form the environmental ceiling in the general Doughnut model are the starting point)

- Step 2: Downscale the general boundaries to city boundaries (= the city's fair share of resource use) - Step 3: Compare the city boundaries with the city's current environmental pressure (to calculate the 'city overshoot')
4. Global-social lens - Step 1: The dimensions are drawn from the UN SDGs and for each of the SDGs, the agreed international target becomes the target for this lens (unless it is deemed to be insufficient for the city) - Step 2: Select City Performance Indicators to compare the city's targets with its actual performance
➔ **Strategy:** based on the analysis of the social and ecological impacts, the city should design a strategy to address these impacts, both locally and globally (see City Portrait Canvas)

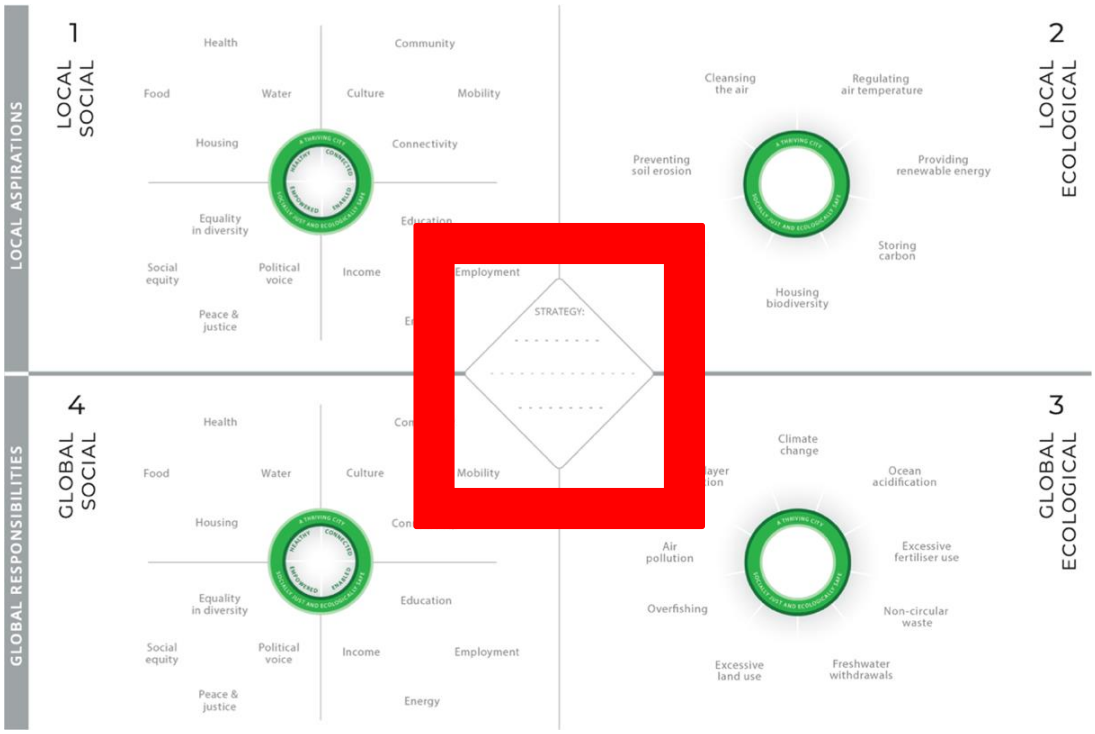
Some more information on Doughnut Economics can be found on the following website: https://doughnuteconomics.org. Additional information on City Portraits and downscaling the Doughnut Model to the city is provided in the following videos:

- https://www.youtube.com/watch?v=74apj3blfKA
- https://www.youtube.com/watch?v=YCqGf7T9ABo

7.2.3 City Portrait Canvas (DEAL 2020)

The City Portrait Canvas can be used in workshops to illustrate how a city or organization can apply the Doughnut methodology in practice. A six-step process is suggested:

1) Familiarize with the City Portrait methodology (previous section)
2) Select a strategy of your city or organization and place it in the scheme below



3) Analyze the specific strategy through the local-social and local-ecological lens
4) Analyze the specific strategy through the global-social and global-ecological lens

5) Try to bring the interconnections between the lenses into account
6) Summarize the key insights

7.2.4 Translation to Active8-Planet Initiative

As mentioned earlier in this document, the City Portraits methodology is an application of the general Doughnut model to a more specific matter: how can cities or organizations be a home to thriving people while respecting the wellbeing of all people and the whole planet? Within the Active8-Planet Initiative too, the Doughnut model could provide the foundation. As an early starting point for generating such methodology, one could translate the four lenses of the City Portraits methodology to a random project.

	Social	**Ecological**
Local	How can the project be socially inclusive on the local level?	How does the project account for the local environment? Local emissions etc.
Global	How does this project socially impact people worldwide? (Link with the SDGs etc.)	What is the global environmental impact of this project? (Construction materials that are sourced from foreign countries, global emissions etc.)

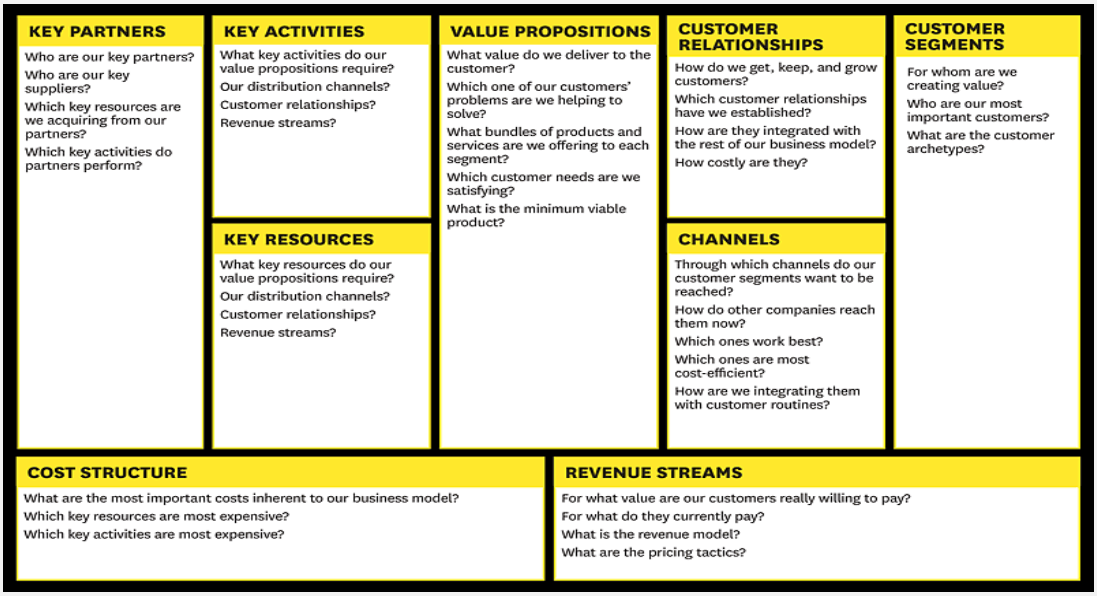
7.3 The Flourishing Business Canvas

7.3.1 The General Model

The Flourishing Business Canvas has been developed in the wake of the shortcomings of its predecessor- the Osterwalder Business Model Canvas (hereafter: OBMC). The table below provides an overview of the OBMC's main characteristics alongside its problems.

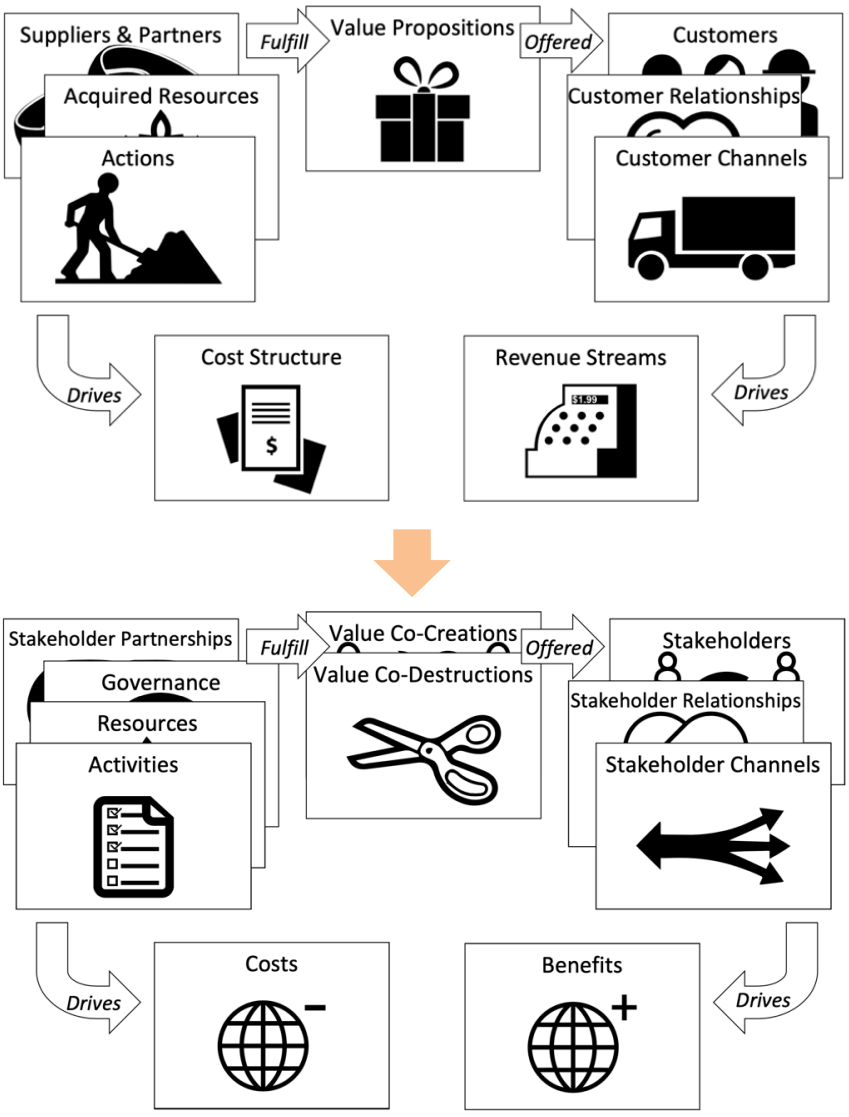
Osterwalder Business Model Canvas		
		Problem
Definition of enterprise success	Solely financial viability Therefore, the alternative name: profit-first canvas	When businesses only account for financial value, the social and environmental conditions for life are being destroyed. This is exactly what the world has been facing.
Definition of value	Value is a gift that businesses deliver to customers, and which is captured financially.	This is only true if businesses have perfect knowledge about their customers and if all their customers have the same worldview as them. In reality, however, customers have different worldviews and there are other stakeholders besides customers only.

Domains/questions of the Canvas	9 domains: - Suppliers and partners - Activities - Resources - Value propositions - Customers - Customer-relationships - Customer channels - Financial revenue streams - Financial cost structure	The domains only focus on historic factors required to create and capture financial value. Due to the omission of the social and environmental context, the OBMC fails to identify sources of material risk (which are increasing), significant innovation opportunities and important motivational factors.

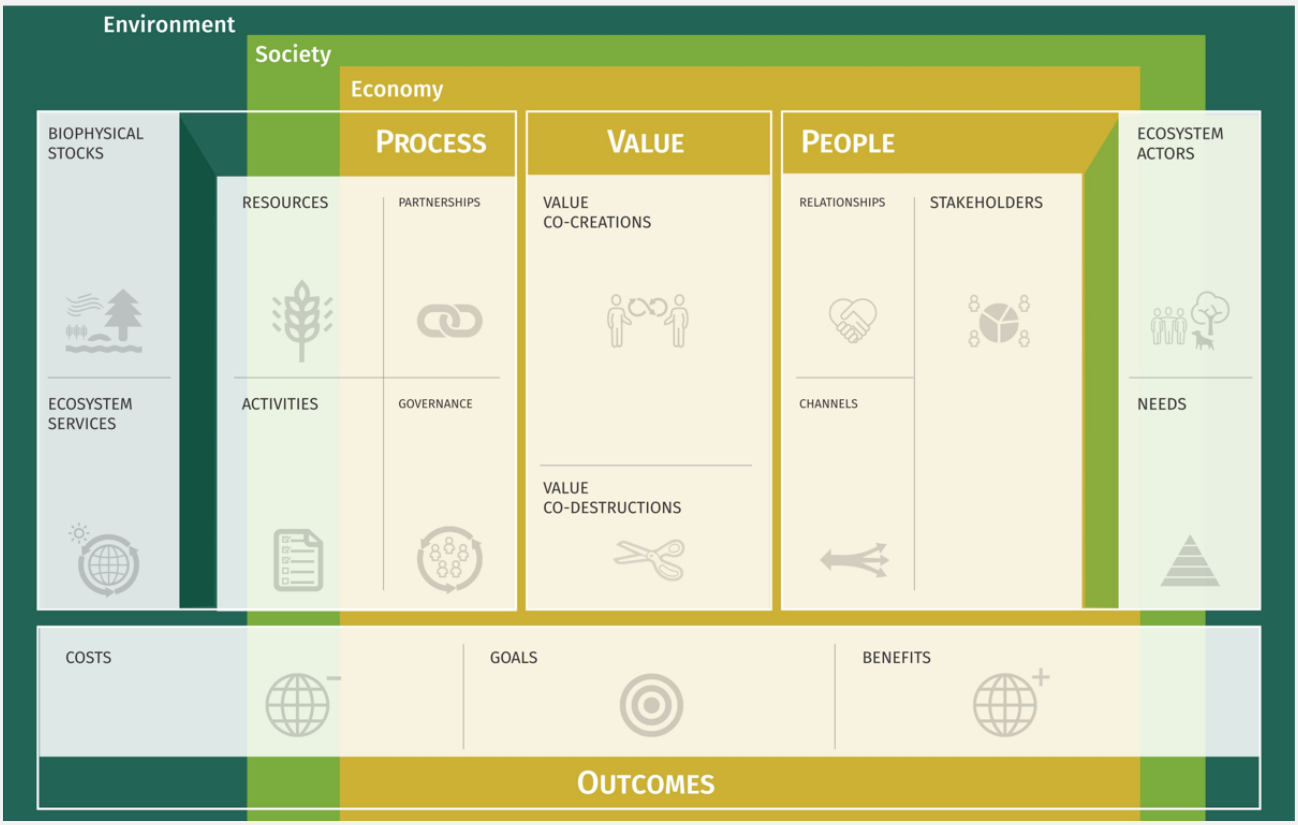


The Flourishing Business Canvas addresses the problems of the OBMC. It does so by employing a different definition of value and by considering not only the financial context, but the social and environmental context too. It however does not reject the OBMC, but rather modifies it and builds upon it. A summary of the main characteristics:

The Flourishing Business Canvas	
Definition of enterprise success	To create tri-profits: financial returns, social benefits and environmental regeneration. Businesses are namely nested in a series of systems (the economy, society and the environment).
Definition of value	Value is the perception by a human or non-human actor of a need being met, measured in aesthetic, psychological, physiological, utilitarian and/or monetary terms. Value is created when needs are met via satisfiers that align with the recipient's worldview and destroyed when they don't. Value co-occurs in all of businesses' interactions and relationships with all of their stakeholders and is co-created with them in many ways.

Domains/questions of the Canvas	The 9 domains/questions of the OBMC are modified:  Source: (Upward, Flourishing Business Canvas: Basic Walk-Through, 2016) Subsequently, another 7 questions/domains are added: - Governance - Value co-destruction - Ecosystem actors - Needs - Biophysical stocks - Ecosystem services - Goals → So, in total there are 16 integrated necessary and sufficient questions to describe any business model financially, socially and environmentally. The 16 questions are broken down into four dimensions:

	- WHO? The people-perspective - WHAT? The value-perspective - HOW AND WHERE? The process-perspective - WHY? The outcomes-perspective Moreover, unlike the OBMC, the Flourishing Business Canvas considers the necessary factors to assess material risks and all sources of innovation opportunity that are relevant in the present and the future.



Source: (Upward, 2016)

For more information on the Flourishing Business Canvas, a webinar can be accessed via the following link: https://www.youtube.com/watch?v=zhYTIZ_5hRg

7.3.2 Application of the Canvas

The Flourishing Business Canvas is recommended to be used within a planning technique called 'back-casting'. More specifically, the ABCD-method is advised. However, specific practical methods have already been developed. It concerns the Flourishing Enterprise Design Method (designed for established businesses) and the Lean for Flourishing Startups Design Method (designed for startups).

Together, the canvas and these methods constitute the Flourishing Enterprise Innovation Toolkit (FEIT), a holistic design tool that embeds a common language to enable more effective collaboration among stakeholders. It is available under a Creative Commons License. Participants become members of the First Explorer Community- a diverse group of businesses, academics etc. who explore using the Canvas and Toolkit in their work. Under the license, First Explorers can use the Canvas and Toolkit freely through an agreement in which they commit to provide feedback. (SSBMG, 2021) More information on the Creative Commons License is provided in subchapter 7.4.

7.3.3 Relevance for the Active-8 Planet Initiative

The Flourishing Business Canvas could be a very useful tool for enterprises and institutions to think critically about their position in the economy, society and environment. Through the canvas, their strengths and weaknesses will be highlighted, as well as threats and opportunities. This is similar to a general SWOT-analysis, except for the fact that the Flourishing Business Canvas considers the enterprise/institution's position more thoroughly within the social and environmental context, besides the economic context.

7.4 Creative Commons

An important aspect in knowledge creation is the way in which is dealt with knowledge protection and exploitation of knowledge or creative work. Knowledge or creative work created by researchers or companies is automatically protected by IPR, but the protection of IP can be extended by means of patents and licenses in order to control and allow the exploitation of the knowledge in a competitive, commercial context. Yet distinctive models are also possible and become more widely applied and could be considered within Active8-Planet. These models, such as open source knowledge sharing; do not question the moral IPR of the creator, but allow free access and/or free use of knowledge, mostly with the objective to allow rapid improvements of what is developed. Creative Commons is a nonprofit organization that helps overcome legal obstacles to the sharing of knowledge and creativity to address the world's pressing challenges. Their license tool provides creators, be it persons or organizations, with free, simple and standardized licenses that can be used to make their work available to the public.

There are six different Creative Commons (CC) license types (listed from most to least permissive), that differ depending on whether credit must be given to the creator (BY), adaptations must be shared under the same terms (SA), only non-commercial uses of the work are permitted (NC) and/or derivatives or adaptation of the work are not allowed (ND):

- CC BY
- CC BY-SA
- CC BY-NC
- CC BY-NC-SA
- CC BY-ND
- CC BY-NC-ND

There is also CCo. This tool allows creators to give up their copyright and put their works into the worldwide public domain. It allows re-users to distribute, remix, adapt and build upon the material in any medium or format, with no conditions.

After choosing the appropriate and desired type of license, the only thing the creator has to do is communicating his/her choice in a way that will be clear to people who come across his/her work. This includes providing a link to the license that he/she has chosen.

Different concepts and tools that are presented in this framework (city portraits, city portrait canvas, flourishing business model) are developed under Creative Commons with the intention to be widely used and further developed.

7.5 Active8-Planet Timeline

In the figure below, the mentioned models are put on a timeline. It provides a suggestion for when which models could prove useful throughout the Active8-Planet Project. At the beginning of the project, the Doughnut Model by means of the four lenses of the City Portrait is envisioned to broaden each participant's perspective. On the other hand, this model could also constitute a useful tool for measuring and comparing intermediate outputs halfway the project. The Flourishing Business Canvas is intended to be used for checking on indicators throughout the Active8-Planet Project. Besides, it could be a useful framework within which the practical application of the project can be executed, together with the Creative Commons.

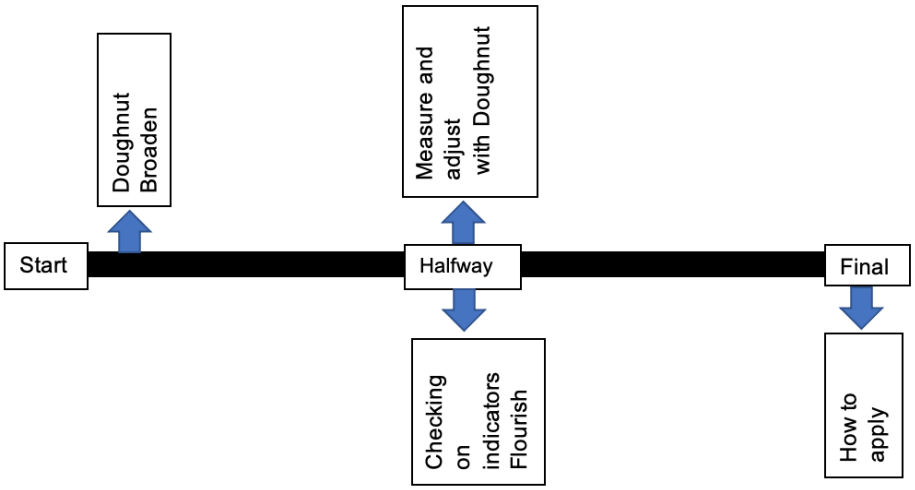


Figure 7: The proposed timeline

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