

# Societal Impact Design

**Inaugural lecture**

**The world tilted**

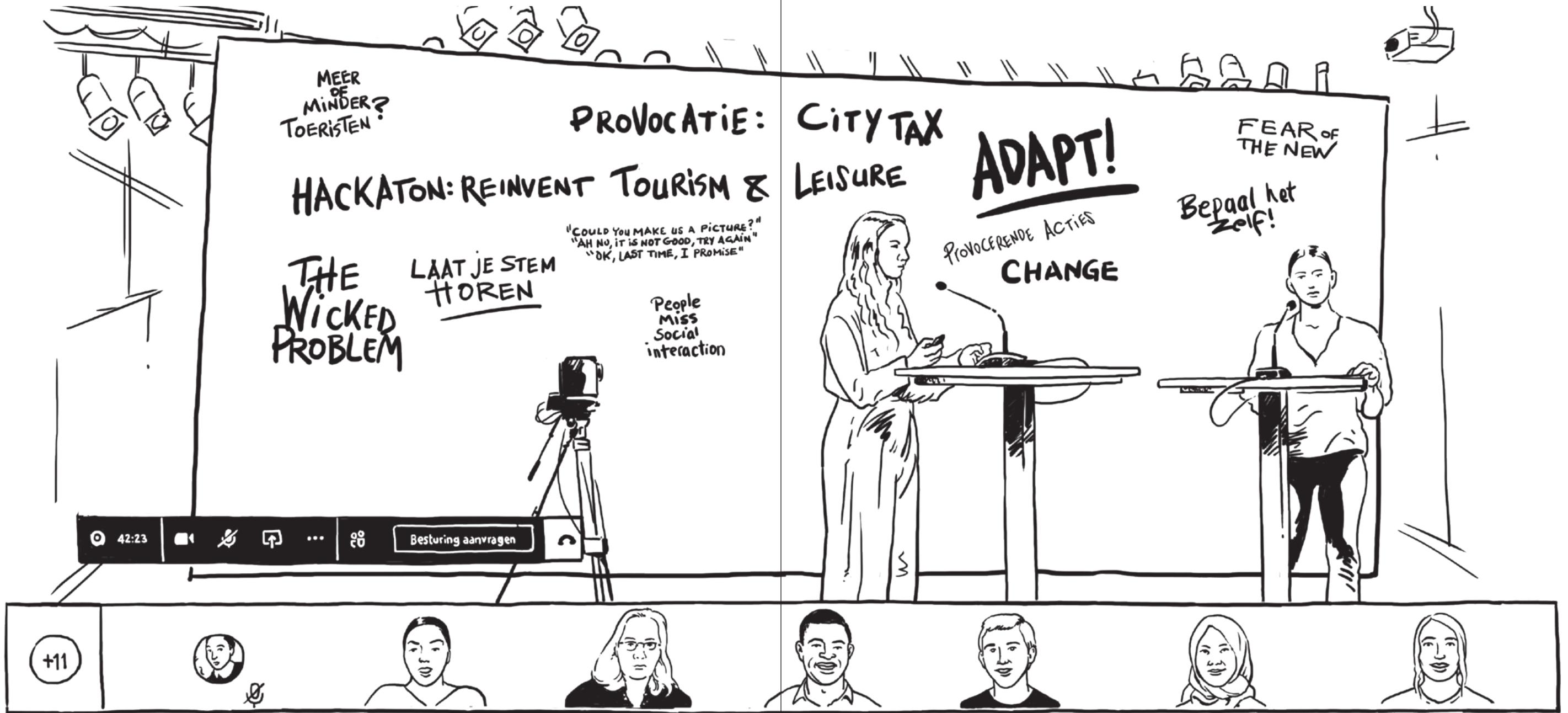
**Dr. ir. Wina Smeenk**

## Societal Impact Design

### The world tilted

Societal impact and the evolving practice of design

Inaugural lecture in shortened form, delivered on 1 December 2021 by Wina Smeenk on the occasion of accepting an appointment as Professor of Societal Impact Design at the domain of Creative Business at Inholland University of Applied Sciences.



# Content

Summary .....	6
Introduction .....	8
<b>1. The urgent challenges facing society.....</b>	<b>10</b>
1.1 Economy .....	11
1.2 Technology .....	18
1.3 Multi-value creation .....	20
1.4 Metamorphosis .....	20
1.5 Collaboration.....	22
1.6 The ever-evolving design practice.....	24
<b>2. Societal Impact Design .....</b>	<b>28</b>
2.1 What is societal impact design research? .....	28
2.2 The culture of Societal Impact Design.....	41
2.3 The working approach of Societal Impact Design .....	46
2.4 The organisational structure of Societal Impact Design .....	56
2.5 Conclusion.....	65
<b>3. Design research agenda of Societal Impact Design .....</b>	<b>66</b>
3.1 Meaningful and relevant research .....	67
3.2 Inspiring education in a joined practice.....	68
Acknowledgements .....	72
References .....	74

## The world

# Societal impact and the evolving practice of design

tilted

# Summary

## The World Tilted Societal impact and the evolving practice of design

Most of us live fairly comfortable lives: we can buy whatever we want, do whatever we feel like, be whoever we want to be and communicate with everyone and everything around us. However, our world has reached a tipping point.

Societal challenges have become increasingly pressing. They affect us all, as people, citizens, residents and city users. Think of topics such as dementia, climate change and COVID-19. Truly understanding and tackling these challenges is difficult, because no single party is responsible for them, and everything is connected, interwoven and in a state of change. It is difficult to obtain a joint overview of these challenges and move forward together. The challenges become orphaned.

Complex challenges have ecological, social, cultural, economic and technological aspects. We must address them in a more integrated fashion and change our way of working together by forming so called multi-stakeholder coalitions, in which each stakeholder (personal, private, public, political) is able to play their part and responsibilities are shared.

Nowadays, design and more specifically co-design, creatively collaborating with others, is increasingly seen as a possible approach to this. Design can deal with uncertainty. It is optimistic and inquisitive in nature. A co-design approach allows us to identify shared ambitions, which creates a bond. Through the subsequent joint search for mechanisms to pursue the desired values, we gain insight into how we can turn a problematic situation around. This makes it possible for us to imagine alternative futures. These will guide us towards a better, greener and more social world and societal change.

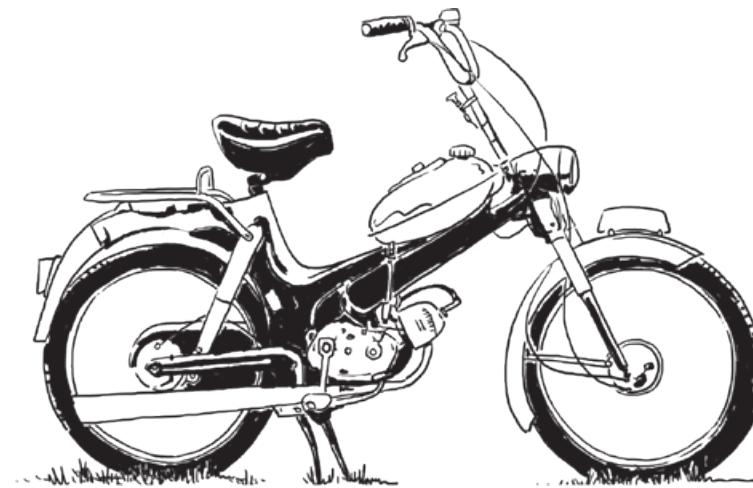
This turn has significantly broadened the design field in the last decade. Whereas their focus used to be on designing aesthetic, functional products and services, designers are now increasingly committed to developing meaningful experiences and work processes with and in between others. By applying design interventions (or 'convivial', lively tools) in generative design research sessions, people become aware of the various perspectives for action in an urgent situation and gain the power to influence that situation. The creative professional is also one of these stakeholders which brings another turn to the design field, and requires new knowledge about Societal Impact Design.

Societal Impact Design needs a culture of co-working based on trust, self-reflexivity, self-awareness and empathic formation. It requires a way of working that connects co-design with a systemic perspective that will allow us to see 'below the surface', so we can learn to understand deep behavioural patterns and structures. Societal Impact Design will need the social sciences for this, as well as the open structure of labs that allows for experimental cooperation between stakeholders.

In doing so, my Societal Impact Design research line will inspire and help the creative industries with models, methodologies, practical methods and case studies.

The Societal Impact Design research line at the Creative Business research group of Inholland University of Applied Sciences will pursue social, ecological and economic values and meaning for individuals, families, teams, neighbourhoods, organisations, networks and our society as a whole.

Life is a  
tumbling fall,  
to which a  
specific  
perspective  
assigns  
direction and  
meaning  
– H. Oosterling,  
2012



# Introduction

**Esteemed members of the Executive Board,  
Most appreciated listeners,  
Dear everyone,**

When I was sixteen, I got a fantastic moped, just like the ones 'greasers' rode. At school, I stole the show and once, I even found a note tucked under the bell asking if I was interested in selling it. The moped wasn't actually my idea. While I quite liked the classic model and design, I had no burning desire or aspirations to own a moped. It was more that my father really wanted to give me one. It had been his dream as a teenager - and a luxury his parents could not afford. And so I must and would have one, whether I wanted it or not.

I did have a tremendous amount of fun with that moped. My father still has it; he's saving it for the grandchildren. But my oldest daughter, who will be sixteen in two weeks, is completely uninterested. And my youngest won't be riding it either, because it stinks and is bad for the environment. She thinks a bicycle or a horse would be a better alternative, nice and green. On top of which, you're not even allowed to bring a two-stroke motor into Amsterdam any more.

Much has changed in three generations. We've become more aware of the consequences - intended or otherwise - of our own behaviour. My father took pleasure in the miracle of tech-

nology and I enjoyed using a means of transportation, but my daughters understand how that individual pleasure can pose a threat to our world and its climate. And so, in a mere three generations, via the pursuit of prosperity and guilt-free consumption, we've gone from postwar shortages and dreams of having more, to the question of what kind of society we want to live in and whether it might be a good idea to do with less in order to improve conditions for the planet and more of our fellow creatures.

My lecture is entitled 'The world tilted' because I, like many others, believe we are now at a tipping point (Gladwell, 2000). In short, we have reached the point at which we can no longer deny the necessity of change. Simply because we can see it with our own eyes and experience it with our bodies. A little less prosperity. Being more considerate to one another, to animals and to our planet - how hard can it be? As individuals, each of us can take small steps, like my daughters are doing. Together, as a society, we still find this to be the most difficult thing imaginable. This is where, as a design-based researcher, I hope to do my part. With optimism, through trial and error and from one experiment to the next, I want to explore ways to collaborate with others in order to give the world that extra boost - to help it over the tipping point and into a drastic shift toward a better world. In this lecture, I will describe how I imagine this scenario.



My father



My daughters



Wina

Nothing rhymed  
Nothing old, nothing new, nothing ventured  
Nothing gained, nothing still-born or lost  
Nothing further than proof,  
nothing wilder than youth  
Nothing older than time,  
nothing sweeter than wine  
Nothing physically recklessly, hopelessly blind  
Nothing I couldn't say  
Nothing why 'cos today  
Nothing rhymed

Gilbert O'Sullivan, 1970

# 1

## The urgent challenges facing society

Climate change calls for more than barring mopeds from entering the city and climate-aware daughters who refuse to ride mopeds. Those are vital yet one-sided solutions, much like asking citizens to collect plastic bottles or pay for plastic bags in shops. All good and important steps, but not enough. The challenge is considerably larger and more complex. Developments are not occurring in isolation.

The whole is much greater than the sum of its parts. Which makes it that much worse that we seem to have forgotten the shared language that allowed us to talk about our common goals, interests and responsibilities - if we ever had such a language to begin with. And if we keep reducing our challenges to individual directives, we will never get there. We need a larger frame of reference. We must re-learn how to see challenges in their respective contexts. To my mind, those are the changing economy (how we earn our money), the changes in technology (the means we make

our money with), the changes in how we live our lives (under which societal conditions) and in the background - because they are outside the scope of my primary field - ecological and cultural changes. Before actually doing anything, a designer tends to first take a good look around. That goes for myself as well. What is going on in the world? What do people aspire or need? What can I do, design and make to help the world become a more beautiful, pleasant and better place? These questions are directly connected to the economy in which we live.

In a moment, therefore, I will begin my narrative by exploring the economy in which we find ourselves, the beliefs that go along with it and how we arrived at those convictions. Next, I will address technology, which is the other defining context for designers. Technology and technical advancements determine the tools that service us, as well as what we are asked to design. Technology is an inextricable part of the fabric of our lives and can feel like second nature to us. Economic and technological developments are similarly intertwined and strongly connected to our perceptions of

growth and progress. And here I am giving only the slightest hint as to what makes today's major challenges so complex. Luckily, our course of action is a bit clearer: given the sad state of the Earth when it comes to an equitable division of wealth and poverty, and with regard to the exhaustion of vital resources, it is time to begin thinking in terms of *values* rather than *value*. My fellow Creative Business researchers and lecturers agree with me that we must begin focusing on multi-value creation when it comes to the real-world practice for which we researchers design interventions and for which we are training new professionals. Multi-value creation is addressed in a separate section of this lecture, as is the metamorphosis it will require: a turnabout in how we think, act and feel to facilitate hands-on cooperation in working for a better world.

In the second part, I will present suggestions for how we can work together and how design can shift along with the changing world, to help it past the current tipping point. That is my vision for societal impact design, which you could also consider a manifesto: the starting point for the Societal Impact Design research line, with which I hope to directly encourage everyone to join in the push for change.

### 1.1 Economy

The world we live in has changed (e.g. The British Design Council, 2021). Many of those

changes pose a threat to our prosperity and well-being. The financial crisis, wildfires, floods, the COVID pandemic, poverty and - closer to home - the tax scandal and the damage caused by natural gas extraction: all of these make it painfully clear that structural changes are needed. We human beings have a hand in all these threats, as users and as polluters; they affect us. And yet we persist in the same old habits. As if we are stuck.

This is despite the fact that people are actually quite good at solving problems and making things. We found ways to safely live in a country below sea level; to eat whatever we want, whenever we want; and - for those of us in the west - to enrich our lives with every kind of convenience. Those who are not among the growing ranks of the poor in the Netherlands are likely to have a car or two parked outside, a washing machine, a dishwasher and the ability to fly off on holiday whenever they like. We owe all of this to what Brand and Rocchi (2011) refer to as the 'industrial economy', see figure 1 page 17. After that, the 'experience economy' enabled us to further develop our identities. We learned to use brands to distinguish ourselves from others and began adopting lifestyles. Today, through our tablets, smartphones and laptops, we are connected to each other and to the rest of the world 24/7 in the 'knowledge economy'. While the aforementioned three economies emerged in succession, they now exist parallel to and in connection with one another. All three are aimed at growth and progress. At the moment, that progress and economic growth seems

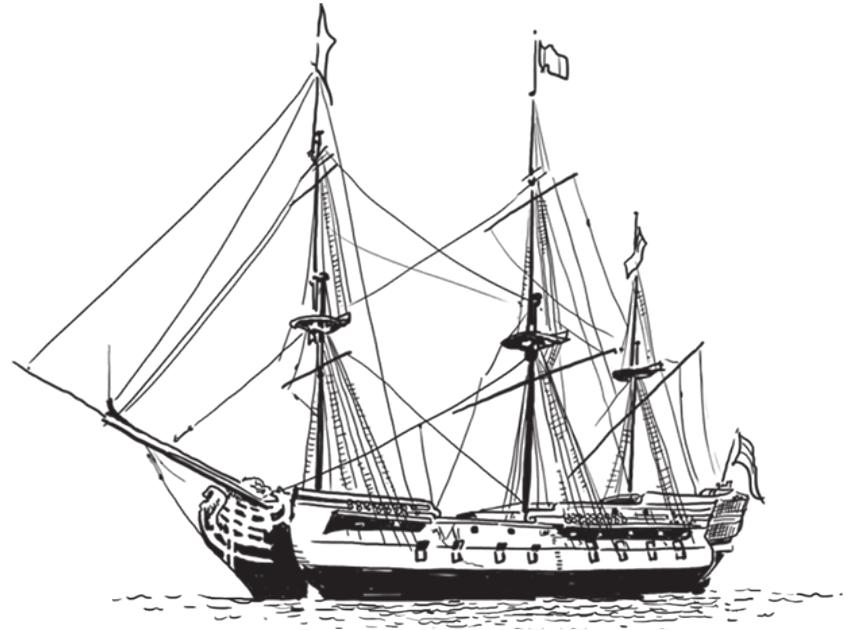
The economy as an expression of our time

more important than preserving our social and natural world and our health. Screen addictions, overconsumption, low wages and exhaustion are examples of this.

The social democracy of the 20th century promised prosperity for all. Yet humanity cannot make things better for *everyone*: that is, if we define 'better' as continuous economic growth and progress, and if solidarity remains beyond our grasp. The planet and our natural resources simply cannot meet the resulting demands - but neither can our society. Viewed through a pessimistic lens, environmental pollution, the rich getting richer and the dismissal of certain groups' pain (such as that to which the Black Lives Matter movement

seeks to draw attention) together paint a picture of an antisocial mob. Before turning my optimistic designer's gaze to smaller and more concrete complex challenges, I therefore want to make a moral appeal to you all. How do we want our great-grandchildren to judge us in future? Will they see us as irresponsible, immoral and selfish criminals who stripped the planet bare? Just as we now look at the colonial trade and slavery under the Dutch East India Company with condemnation? Or will we be brave enough to radically change course and accept responsibility?

The upper limit of our current economic system has been reached. The system is groaning under the strain. Luckily, I am not the



only one taking a critical stance. There are many others who feel that multi-value creation - a combination of ecological, economic, cultural, societal and social value - is important. We are incontrovertibly on the brink of a paradigm shift. And that is what Brand & Rocchi (2011) refer to as the transformation economy, one of the four economies I describe below, see figure 1.

In the **transformation economy**, the emphasis lies on emotional, meaningful, ethical and sustainably-produced and traded products, services and systems for a better world. It also offers future prospects for the Creative Business professionals we are training. These professionals will focus on symbolic value creation in leisure, tourism, media and music and, in their capacity as communication managers, facility managers and business innovators, they will help others to create value as well. To put it in other words: you will need to know where you stand and where you are coming from. In that light, it is important to have a clear picture of Brand and Rocchi's (2011) four economies and the role of creative processes within them. The following is a rough outline.

#### **The industrial economy (focus on products and consumers)**

The industrial economy refers to the mass production of industrial goods, which began after the end of World War II. Western businesses are efficient in the creation of 'commodities': goods that satisfy the functional needs of consumers. The corresponding process of

industrial design - which modernised the way we live - is based on a systematic, problem-solving working method. This approach relies on product-oriented design techniques such as sketching, technical drawings, models and ergonomics (Gardien et al., 2014). The design result and the process are rational and objective. Examples include products with functional value, such as nylon stockings and household appliances like coffee makers and vacuum cleaners.

#### **The experience economy (focus on lifestyle and target groups)**

The experience economy, in turn, focuses on brand experiences. This economy offers lifestyles aimed at specific target groups. Through products, consumers can associate themselves with certain social groups and what were previously known - in the 1980s and '90s - as subcultures. Here, the design processes are people-oriented and reflective. Designers use design research techniques such as ethno-

We buy things we don't need with  
money we don't have to impress  
people we don't like. - Fight Club,  
Chuck Palahniuk, 1996

graphy, touchpoints, personas, 'day in the life' scenarios and customer journeys to better understand the obvious and latent needs and desires of consumers, and to integrate these into value propositions for specific market segments (Gardien et al., 2014). Examples are fashion, shoes and soft drinks, along with other forms of personalized mass production.

### The knowledge economy (focus on networks and stakeholders)

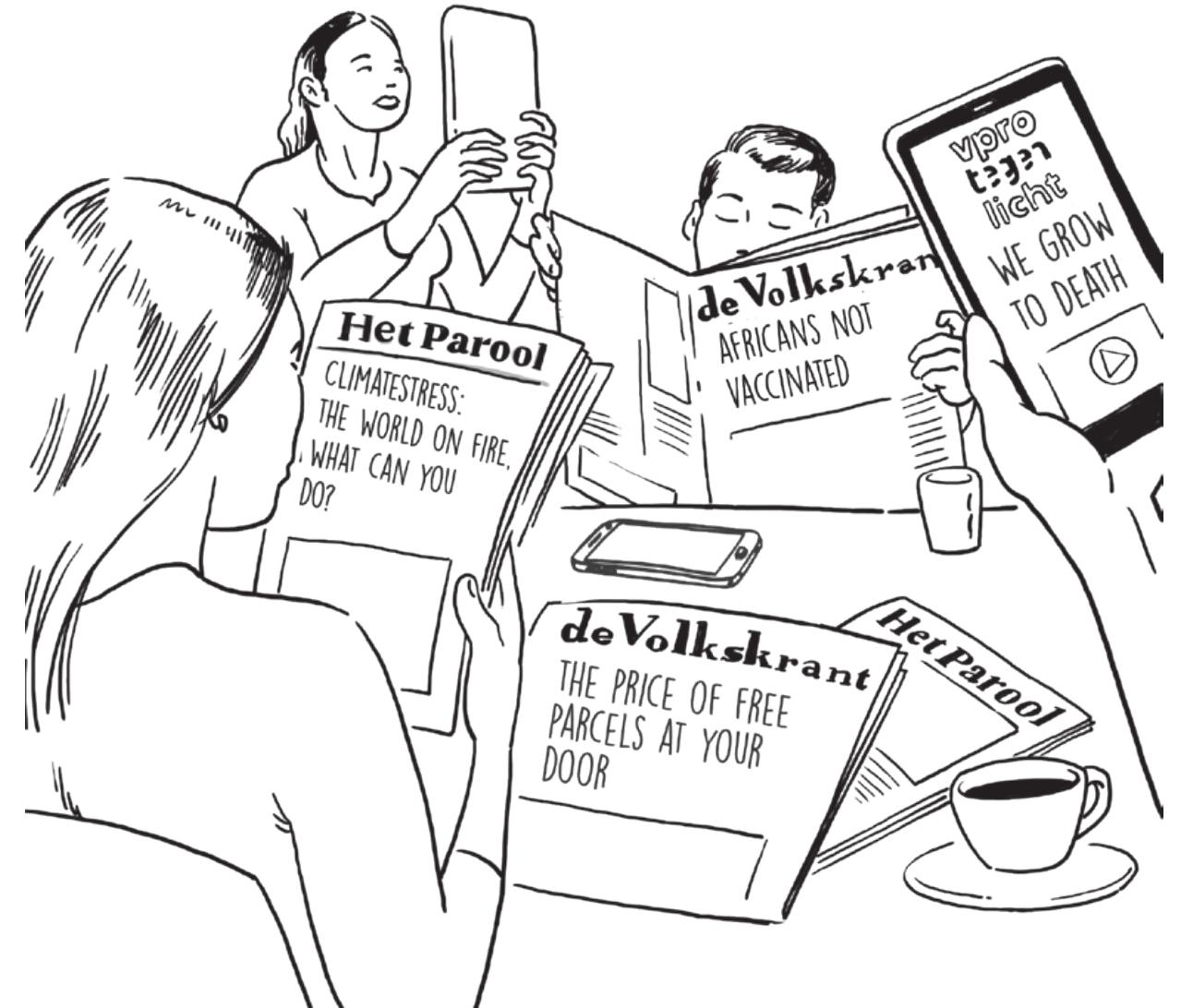
In the knowledge economy that emerged along with the rise of the internet, the focus lies more on networks. Platforms that facilitate participation and entrepreneurship play an important role as well. Thanks to the internet, online 'communities' can become places for people to reaffirm their identities and where like-minded individuals can exchange ideas, knowledge and skills. Businesses create value through open innovation and co-design processes. Design processes build on the knowledge supplied by users, supplemented with knowledge from experts (Gardien et al., 2014). The experience those designers create emerges in tandem with the behaviour of participants on the platform. Designers continuously monitor their behaviour in order to get insights into existing behaviour and gain inspiration for facilitating and encouraging new behaviour via design interventions. This requires designers to have expert knowledge of psychology, anthropology, sociology and communication science. Tools employed by those designers - such as bodystorming, props and Wizard of Oz - support the rapid development of interactive prototypes. Yet,

data-enabled design (Van Kollenburg et al., 2018) and data-driven visualisations constitute new skills for designers, too. They must also be able to adapt research methods to fit what is needed. Examples are websites and apps such as Facebook, Instagram and Etsy.

### The transformation economy (focus on the world and on partnership)

Lastly, in the emerging transformation economy, the emphasis lies on meaningful, ethical and sustainably produced and traded products, services and systems for a better world. The large, interconnected and systemic challenges of our time - such as overtourism, Covid-19, climate change, poverty and digital exclusion - cannot be resolved by a single party working alone. To that end, a wide variety of stakeholders from knowledge institutions, the business community, governments and other involved parties are teaming up at the societal level to arrive at useful avenues of thought and positive changes (den Ouden, 2012). This entails meaningful, context-specific value propositions built on a foundation of honesty, ethics and long-term thinking. In many cases, tackling societal challenges calls for behavioural change at the collective level. Eating less meat is important, for instance, but it is not enough. Much more needs to happen if we are to reduce the environmental impact of the meat industry and improve animal welfare: for that, the agricultural sector must undergo radical change.

In the **transformation economy**, stakeholders have a personal commitment to achieving



societal impact for themselves and society at large. They work together to find empathic ways of working and a radical approach. Designers have a vital role to play in these transformation processes because they are accustomed to empathising with others.

The design and research-based approaches that are (and will be) used in the transformation economy have yet to fully crystallise. They will, in any case, incorporate values such as openness, context, person-dependence and reflection (Hummels & Frens, 2008), along with inclusion, ethics, responsibility, trust, empathy, meaning and embodiment (Hummels et al., 2019). Generative design research (Sanders & Stappers, 2012) and empathic co-design are therefore promising strategies (Smeenk et al., 2019, Battarbee et al., 2014), because they allow for cooperative exploration aimed at finding new and promising avenues of thought and can offer intimate insights into the context, needs, feelings and emotions of the people involved (Mattelmäki, 2014). Examples of this are social initiatives such as 'the ocean cleanup' and 'just diggit'.

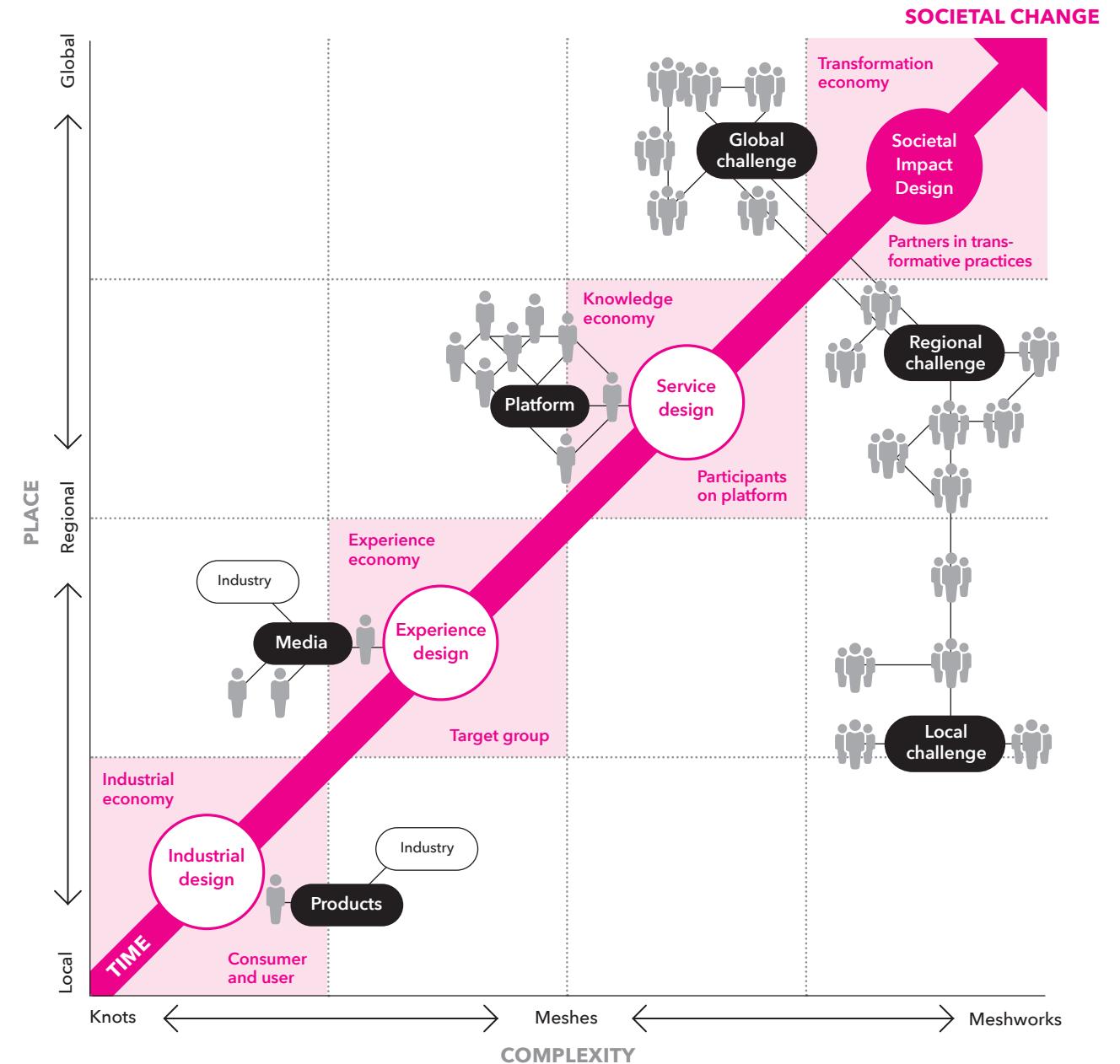
Figure 1 shows the four different economies and their corresponding systems of value creation, as described by Brand en Rocchi,

I want you  
to panic ...  
I want you  
to act if the  
house is on  
fire, because  
it is! – Greta  
Thunberg,  
2019

visualised on the three axes of the 'entanglement model' put forth by Antczak & Beaudry (2020). An 'entanglement' is a mutual dependence and/or influence. In the current era, we are seeing increased entanglements between people, things and technology. The horizontal axis depicts the shifting focus in terms of *place*: from local to regional to global. The vertical axis depicts the shift in *complexity*: from knots to meshes to meshworks in which everything is interconnected and entangled with everything else. The diagonal axis depicts the shift in *time*: from short term on the bottom left to long term at the top right. Subsequently, we plot the industrial economy, the experience economy, the knowledge economy and the emerging transformation economy on these axes.

You can see how these economies progress along the time axis while scaling up in complexity and scope of place. It is clear that for each economy, the relationships between place, complexity and time are different. The role of the people shifts from consumer, to target group, to participant, to partner. What's more, each economy represents a different relationship between people, technology and things. This will be addressed in further detail in the following section.

**FIGURE 1:** Shifts in the economy. Brand & Rocchi's (2011) four economies, plotted according to time, complexity and place in the world, inspired by Antczak & Beaudry (2020).



## 1.2 Technology

This part focuses on technology, which is also a determining factor in how I – as a designer – have learned to think about the world. Everything humans have ever made – axes, clocks, T-shirts, cell phones, magazines – falls into the category of technology. Technology offers concrete solutions to problems and ways to meet our needs. We have always designed, made and deployed technologies to enhance our mental and physical capabilities and for our own enjoyment. For instance, the radios, calculators and bicycles I have designed myself in the past.

It is important to keep sight of the fact that technology is a means to an end, rather than an end into itself, and that technology necessarily entails production processes that can have extremely high social and environmental costs. That might mean labour conditions that could be better or worse depending on the production techniques in question, or it could require the use of ‘conflict materials’ such as tin, tungsten, tantalum and gold.

Then there is also the fact that what technology actually does is always a function of the context in which it is used. Technology becomes active in the hands of people. It can elicit either appropriate or undesirable behaviour. While technology can be a source of support, convenience, pleasure and behavioural change, successful technologies can also exert a negative influence on us or change us.

The addiction and privacy-related challenges surrounding digitalisation are examples of this. While the gun lobby in America can keep insisting that ‘guns don’t kill people, people kill people’, it does seem to make a difference whether you have a firearm readily available when you feel you have a score to settle.

By being more aware of technology and its implications, we will be able to proactively identify new possibilities for the relationships between people, nature and technology. Despite the fact that technology is strongly determinant and we have an intimate relationship with technology – it surrounds us, and some forms of technology have become practically second nature to us, such as apps, clothing, cooking, drawing and writing – we rarely pause to consider how those technologies are introduced, accepted and discarded (Van Mensvoort, 2013). Or how a given technology can become a natural part of our lives. We ourselves hardly influence the process. In that light, it is important to consciously anticipate to emergent technologies, which in turn can and will become a natural part of our lives.

As creative professionals, we must also be critical as to the significance of technology. An app rarely offers a comprehensive solution to a given issue. It is important to consider whether a different, more people-oriented or natural solution is possible. This is self-evident when it comes to major new developments in the areas of artificial intelligence, Big Data, nano and biotechnology, digitalisation and robotisation. But it also applies to the much

smaller projects we do as researchers at the Faculty of Creative Business, and to the projects lecturers and students choose for themselves. It is not some far-off concept. Technology is also increasingly impacting communication and music; the fields of media, leisure, tourism and facility management, and creative business and business innovation. Ideally, we want to stay one step ahead of technology and its implications. But this is no easy thing to do. Especially not with a liberal government that believes in the free market and views any regulatory restraint as bad for the earning capacity of the Dutch economy. As design-based researchers, we are therefore wise to purposefully include reflection in our collaborative design and research projects.

## Science finds, Industry applies, Men conforms

These words – the  
festive motto of  
the 1933 World’s  
Fair in Chicago –  
express a  
revealing truth  
that is rather  
shocking by  
today’s standards

An obsession with  
profit, growth and  
efficiency due to  
technology has  
weakened our  
foundations –  
Nasr, 2021

### TEXT BOX 1: ENVIRONMENTAL AND PLANNING ACT

Technology is not always an object or thing; it can also be a process or way of doing something. Although the new Environmental and Planning Act, which will enter into force in 2022, would seem to be a positive development, it may lead to more of the same rather than a true shift in how we think, act and organise. I once took part in an area development project that was set up based on the methods of participation and co-design. Yet in the end, the organisational structure and culture were too traditional and unable to cope with the new, more bottom-up processes. The result was a collision of worlds and conflict. This was quite disappointing for both the co-designing individual stakeholders and the remaining stakeholders from the private and public sectors. •

### 1.3

#### Multi-value creation

What the preceding examples clearly demonstrate is that efforts to tackle urgent challenges from an economic and technological perspective – as if we still live for the most part in an industrial economy – are ill-advised. I am committed to seeing that we, as creative and design-based professionals, learn to cope with difficult situations and let go of things, techniques, ideas and procedures that do not work, and instead go in search of new promising idea directions. As citizens, we also need to take a more critical view with regard to producing, buying, selling and using goods, services and processes, as well as in our systems of control. What do I need and what does someone else need? At whose expense am I enjoying myself? Who will ultimately pay the price? In the end, happiness at the expense of another is no happiness at all, if you ask me. We need to open a dialogue on this subject, without wagging the finger. A creative approach could prove useful in that regard.

Be a critical friend of  
growth rather than a  
follower – Elske  
Doets, 2021

But how will we do it? Will we let go of the current economic reasoning, with its insistence on progress and perpetual growth, and develop alternatives? Will we consume less and break free of our ritual of addiction? Pursue slower, more steady and cautious growth? Or redefine 'growth' in terms of quality of life? I think it is vital that creative professionals become aware of the choices that lie ahead when it comes to satisfying our needs. The challenge is to work with our partners in the creative industry (and beyond) and with our Creative Business colleagues and students to envision a new, more social and green economy. We are not alone in these efforts. Luckily, many others are focusing on this challenge as well, as was evident at Dutch Design Week 2021. Many young and creative people are already sinking their teeth into the issue. I am eager to join them. In the following part, I will explain the metamorphosis that must occur in order to arrive at a new economic system.

### 1.4

#### Metamorphosis

If we are to achieve a different type of growth and optimise multi-value creation, we must drastically change the way we live and work in Western society. How can we realise that metamorphosis? With all the intractable challenges around us, it is vital to take a new approach. A working method that brings energy and excitement, that connects people and organisations,

Utopia: Island where all becomes clear. Solid ground beneath your feet. The only roads are those that offer access. Bushes bend beneath the weight of proofs. The Tree of Valid Supposition grows here with branches disentangled since time immemorial. The Tree of Understanding, dazzling straight and simple. sprouts by the spring called Now I Get It. The thicker the woods, the vaster the vista: the Valley of Obviously. If any doubts arise, the wind dispels them instantly. Echoes stir unsummoned and eagerly explain all the secrets of the worlds. On the right a cave where Meaning lies. On the left the Lake of Deep Conviction. Truth breaks from the bottom and bobs to the surface. Unshakable Confidence towers over the valley. Its peak offers an excellent view of the Essence of Things. For all its charms, the island is uninhabited, and the faint footprints scattered on its beaches turn without exception to the sea. As if all you can do here is leave and plunge, never to return, into the depths. Into unfathomable life.

Utopia  
by Wisława  
Szymborska,  
1999

fosters cross-pollination and leads to social, cultural, technological, ecological and economic change. Our current way of working is geared to predictability and to the prospect of being held accountable. But 'SMART' – as in, Specific, Measurable, Acceptable, Realistic and Time-bound – is not always the wise choice. It can tempt us to go for the quick fix, the ready solution. In light of the tremendous ecological and societal challenges before us, this kind of solutionism is insufficient (Morozov, 2013). Linear process thinking, working from problem to solution, is not enough either. It does not allow us to truly explore a challenge in depth, to form coalitions and work with others toward potential shared avenues of thought. It leaves us no opportunity to learn from others. It provides us with no intrinsic motivation and offers no room for creativity and flexibility.

Because the world is dynamic, we must begin thinking in terms of movement. No one knows exactly how to do this. We only know that we must and will do it together. It is a joint exploration of the thicket of knots, cobweb-like meshes and complex networks (see figure 1).

We can bring naturalness back to our society. For example, we can limit our trade and production to what our country and households need. Producing and consuming more is unnatural, not organic and dishonest – Aristotle

Truly understanding and addressing major challenges is difficult because there is no single owner, because all aspects are not only interrelated but subject to change as well. A good example is overtourism: municipal officials, Airbnb, budget airlines, local business owners, residents and visitors are all part of the issue (Gerritsma et al, 2019; 2020). And then came the coronavirus – and goodbye, overtourism. Well, for a while, anyway. In short: there is a dynamic at play; there are unconscious, invisible and unspoken connections, mechanisms and forces at work. Because major challenges are complex and entangled, they are by definition difficult to oversee. This lack of oversight for us as individuals means we are unable to see possible course of action; it paralyzes us.

### 1.5 Collaboration

The four economies of Brand & Rocchi (2011) have shown that the world and collaborations are becoming increasingly complex and that the urgent challenges of this time have landed us squarely in the transformation economy. Brand & Rocchi's (2011) four economies model gives us an indication as to which business mindset and which people mindset can inform the direction of our actions in transformative times, see table 1. It is clear that we must tackle the challenges together, and that we must be aware of contexts in terms of time and place and how these contexts can disperse, entangle and enlarge. This in itself provides a bit of oversight.

### Meaningful living

People-oriented mindset  
Personal and public spheres

View:	Systemic
Quest:	Address collective challenges
Effect:	Meaningful contributions
Skills:	Transformative thinking
Approach:	Empathy and cooperation

### Value networks as economic value

Business mindset  
Private and political spheres

Focus:	Enhance meaning
Qualities:	Inclusive value networks
Value proposition:	Ethical value exchange
Approach:	Leverage cooperation
The goal:	Transformation



**TABLE 1:** The qualities and elements of the transformation economy according to Brand & Rocchi, 2011. The transformation economy has two kinds of values. The first focuses on a meaningful living and is expressed by a people-oriented mindset. The second focuses on value networks and is expressed by a business mindset.

**TABLE 2:** The four spheres of life with their mechanisms, values and habits (Gudde, 2016).

Brand and Rocchi, see table 1, think there should be more cooperation in quadruple helix value networks for the purpose of addressing collective challenges. I prefer to think of this quadruple helix collaboration between citizens, commercial and non-profit organisations, knowledge institutions and government as a collaboration between four spheres of life (Gudde, 2016): the personal, public, private



Spheres of life Spheres of social interaction Gudde (2016)		Mechanisms Habits Behaviour
Individual Personal	Personal	Selfless Love Friendship
	Private	Contract Achievement Reward
Collective Society	Political	Regulations Language Public interest
	Public	Freedom Spontaneous Shared

'Achieve society's goals through the value chain - where money is made while supporting society's aims' - Mariana Mazzucato, European Union, 2019

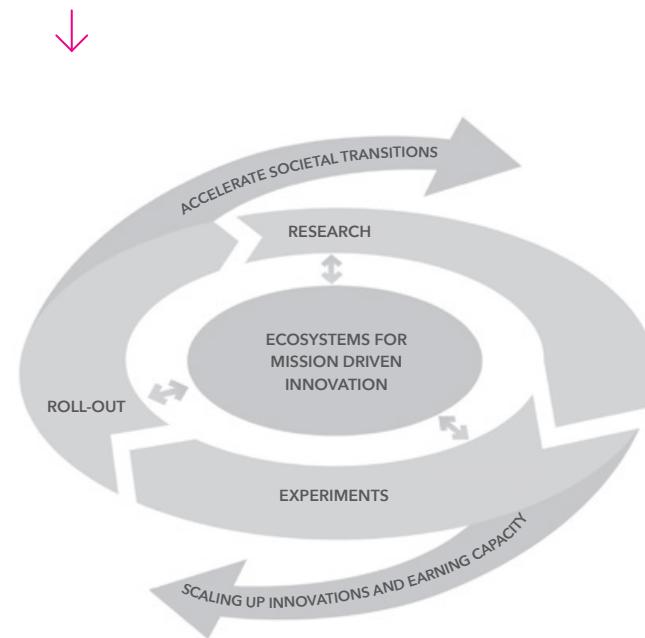
and political spheres, see table 2. These spheres of life - or contexts - influence the various roles people can play in a socially minded society. By day, I work in a private setting, then do volunteer work in a public setting in the evenings before returning to my personal environment to relax. In each of those contexts, I can act in a responsible and environmentally friendly way. Every sphere has its own mechanisms, patterns of behaviour and habits; as we change spheres, our roles and perspectives change with us. Core values, on the other hand, remain in place across all four. The economies exist within all four spheres of life. They are most entangled, and most dependent on one another, in the transformation economy. In between the spheres of life, there are complex challenges. Each of us has a role, responsibility and influence in the four spheres of life. Moreover, we can deploy the corresponding mechanisms, see table 2.

Together with others, it is possible to put change in motion within a system, to cause a shift. If we work together based on the four spheres of life as the transformation economy suggests - that is, in a systematic, meaningful, ethical, empathic and inclusive way (see table 1), we will have in our hands a concrete set of guiding elements of the transformation economy, which can help us take action and get things in motion. Designers and those training to become creative professionals must learn to deal with those elements, even though they will in many cases be unclear or less than explicit. As professionals, we must therefore learn how to facilitate partners and consortia to join us in reflecting on shared ways of working and even, perhaps, find a way to inspire and direct consortia of various partners to those shared working methods.

### 1.6 The ever-evolving design practice

The designer who comes up with a great bicycle may seem far removed from the professional who focuses on the value orientation of all stakeholders in a challenge that is being jointly explored. Yet, this is not the case. For me, a clear and reasonably straight line can be drawn from thinking like a functional industrial designer to thinking, acting and feeling like a socially conscious designer: the people *with* and *among* whom you are designing. Actually, the major difference with working from a single orientation - such as

FIGURE 2: Societal Earning Capacity, (www.CLICKNL.nl, 2021)



when designing a bike - is that you can easily design a bike for people within a given sector. But tackling large and complex challenges in the transformation economy, on the other hand, calls for collaboration between various stakeholders and involved parties from different disciplines and spheres of life who have an interest in the challenge.

There is value in diversity

### TEXT BOX 2: SOCIETAL EARNING CAPACITY

In the Knowledge and Innovation Agenda for societal earning capacity (KIA MV), created via the Netherlands Organisation for Scientific Research (NWO, www.nwo.nl) and CLICKNL (knowledge institution for the creative industry top sector, www.clicknl.nl), the Dutch government calls on knowledge institutions to supply key methodologies to accelerate transitions (see figure 2).

The transitions referred to here include for instance the energy transition: what can we do to greatly reduce and ultimately eliminate our dependence on fossil fuels? The government's chief concern is the societal earning capacity that entails the combination of social, economic and technical innovation, area-specific innovation, coordinating collaboration in the ecosystem, developing in a problem-oriented rather than solution-oriented way and exploring new kinds of leadership and organisation. By doing so, the government hopes to encourage citizens to become more involved in developing and implementing innovation.

The goal is to erase the boundaries between disciplines and domains - between silos - and allow other domain-transcending partnerships to emerge, with other business models and decision-making structures. Parties will be encouraged to think in terms of opportunities. The idea is that the role of the government and technology should not (or no longer) be the strongest leading factor (Knowledge and Innovation Agenda, 2018-2021). •

Designers work within the creative industry. The 'creative industry' is a catch-all term for economic activities that centre on knowledge, information, innovation and symbolic value. This can range from visual arts and design to gaming and entertainment. Creative industry professionals work in a variety of sectors such as creative business services, residential construction, consumer goods, media, fashion, the leisure industry and so on. The creative industry is a growth industry and accounts for 4% of all jobs in the Netherlands (creative industry monitor, 2019). The design profession is part of this and is the fastest growing area, expanding at the impressive rate of 16% per year (on average) between 2015 and 2018. The actual value of the creative industry extends beyond mere economic significance. This will come as no surprise to those who produce symbolic meaning.

The creative industry also recognises that creativity and cooperation are increasing in importance within our society and economy. Thanks to its design mindset and methodology, the creative industry is often mentioned as a possible means of guiding people and organisations toward change and transformation (Irwin, 2015; Manzini, 2015; Papanek, 1972; Sangiorgi, 2011). This is reflected in the Dutch government's innovation policy as well. See text box 2: Societal earning capacity.

Because design can cope with uncertainty, is optimistic, curious and inquisitive by nature, design can - through experimentation and interventions - contribute to creating meaningful and viable alternative scenarios for the future. Design has the ability to look around in amazement, to listen and collaborate, but also to frame challenges in the proper context and make decisions.

The power of design lies in its focus on people and the ability to influence and bridge the gaps between different spheres of life, disciplines and domains. Design can imagine what does not yet exist and can visualise the unknown (Stompff, 2020). And as a result, designers are particularly well-suited as specialists in fundamental change (Alkemade, 2021); they can play a vital role in **shaping** the world if their profession tilts as well.

A physical  
design is not  
always the  
solution



# 2

## Societal Impact Design

If the priority is not more stuff, more growth and more prosperity, but rather to address societal, cultural and ecological challenges together, we will need a guiding principle, a mission and a vision. To my mind, Societal Impact Design offers all three. In this second part of my lecture, I will explain my vision of this emerging field of study: what it is and how we can apply it in order to achieve the best outcomes.

Besides a definition, I will also set out the basics of what I call the culture and structure of societal impact design research. We will touch on the approach as well. Culture, structure and working method are all interconnected. Whereas the *culture* of societal impact design research deals with understanding the imperfect insight into and oversight of our own actions and agency as humans, the *structure* pertains to the organisational forms that enable us to cope with uncertainty and work together with mutual trust. The *approach* has to do with convivial and appropriate methods and processes that are simultaneously sensi-

tive and radical. The point is joint investigation, exploring opportunities and reaching a shared understanding of why change is necessary and how we can overcome the difficulties in question. To do this, we must have inclusive environments, a shared language and cross-connections between roles and spheres of life. Societal impact design research is built on appreciation for other ways of knowing, acting and feeling - on generosity and giving each other 'credits'.

### 2.1 What is societal impact design research?

The emerging field of societal impact design research offers a means of understanding the transformation economy that is unfolding right now. It focuses on the urgent societal challenges that often find themselves stranded between spheres of life, domains and disciplines because they are multi-layered and wicked. The mission of societal impact design research is to critically examine, explore and make designs based on and for a changing world. It is also a vision that holds that the most important questions are often hidden away. The art is to expose 'the question behind

the question'. When we work according to the vision of societal impact design research, we do this through creative collaboration with stakeholders or involved parties and by sharing results and 'credits'.

What do we mean when we say 'societal impact design research', the basis for my research line? I see it more or less as follows: societal impact design research wants to offer help and generate knowledge with regard to the design and organisation of collaborative creative processes for the purpose of addressing societal challenges. In doing so, societal impact design research attempts to combine ecological, social, cultural, economic and technological values: we interweave symbolic and material forms of multi-value creation. Because even if we do not especially need more things, neither can we do without. We simply must ensure our basic needs are met.

In addition, we have a moral obligation to think of the planet and its future, and to consider how some of us lead privileged lives while others' are anything but. The societal challenges with which societal impact design research concerns itself can come from any corner, provided the design-research process and the outcomes strengthen social innovation and the societal earning capacity while respecting the principles of creativity, equality and sustainability. Societal impact design

research is always about finding the best way to make strategic choices and the most conscious way to take design decisions. It is a well-considered, ethical and critical method of designing for a human future. This is fundamentally different than designing in the industrial, experience and knowledge economies and calls for a different design culture, approach and structure.

That's a bit of a mouthful, so allow me to explain further.

The goal of research itself is to gain knowledge, whether that is new, practically applicable knowledge or knowledge of a more generic and/or theoretical nature. In societal impact design research, the goal is to arrive at a new kind of knowledge that brings together intuition, experiential knowledge, empirical knowledge and theory development. It is not a question of 'just' designing, but of a much less concrete and functionally oriented process.

Societal impact design research has a certain intangible quality because we play with challenges for which we are unable to formulate design requirements for the results. We know that something needs to happen but have virtually no picture of the 'what' and 'how' (Dorst, 2011). With that in mind, we are also prepared for the fact that the societal impact we wish to achieve may only emerge over the long term.

## Come, let's take a look at my own professional practice

Over more than a decade ago, I founded my co-design firm *Wien's ontwerperschap?* - which translates as *Whose designership?* The question mark in the name of my one-woman business was a conscious decision. Challenges that call for a co-design approach always have more than one 'problem' owner. By definition, there are multiple stakeholders who are working together to affect change. So that design-oriented professional expertise or 'designership' needn't come only from me.

Soon after the start, I was invited to deliver a pitch. Pitches are a very common way to acquire a project in the creative industry. You don't get paid for them, though: it's no cure, no pay. I received the request via another design firm. They were in the final round of consideration for a project involving a 'dementia simulator'. I got a call on a Friday afternoon, while I was standing by the side of the road with car trouble - I remember it quite clearly. They asked if I could weigh in on the pitch, which was going to be delivered right after the weekend. The competition was stiff and this was their last chance to impress. Although the coalition of stakeholders (two care institutions, two knowledge institutions, a consultancy and a training agency) were confident that the design firm could make the simulator, there was doubt as to whether the firm could envision the entire collaborative design process needed to arrive at suitable content and the desired emotional impact for the simulator.

They asked me because of my experience as a co-designer, but also because I was an informal caregiver for my mother-in-law with dementia. The deal was that if I helped their pitch succeed, earning them the project, I would be hired to do the design research process. I spent the weekend thinking of personal memories and then re-enacted one of those memories in the design firm's kitchen on Monday morning. One by one, I escorted the delegates from the coalition, three consultants and care professionals, into the kitchen where there were only lower cabinets. I asked them to have an open mind about what was going to happen.

They were then given a shopping bag and a set of keys. 'Imagine', I said, 'that you are arriving home. You have just done the grocery shopping. You walk into the kitchen and put the groceries away in the refrigerator.' After that, they could take a seat at the kitchen table. I also asked them to think about how they felt when completing the assignment, and to hang on to that feeling. One by one, the men went into the kitchen and tried to find the refrigerator. After opening a few wrong doors, each of them was able to find it. Inside the refrigerator, there was lots of milk and sausage. Their shopping bag was full of the same. Each participant obediently put the milk and sausage in the fridge and sat down at the table. Then I walked in and said: 'Hi Dad, how are you doing? Would you like something to drink?' I found the refrigerator on the first try. When I opened the door, I said: 'Did you buy more sausage and milk?' See [www.intodementia.nl](http://www.intodementia.nl) •



Outside



Inside



**FIGURE 3:** The 'dementia simulator' constructed inside a shipping container. (photo by Jacqueline Gielen)

### And now back to the present day

My example from professional practice is actually societal impact design in a nutshell. I want to use that example to explain why societal impact design research has a very unique approach and a dynamic on its own. This is aligned to the transformation economy, which calls not only for a business-minded perspective, but a people-oriented perspective as well.

The crux of the matter is that we humans are limited in terms of our worldview. If we want to understand and effectively tackle grand societal challenges, we will need to expand this worldview. This is difficult, because our limited worldview is not an individual shortcoming but a social-cultural characteristic - one we all have. For each of us, it is shaped by our specific background and mental models. In the literature, an iceberg is often used to visualise these hidden layers; more on that in a moment. The question, then, is how to deal with our own 'icebergs' and those of others. Design research offers a number of tools and methods for this, which I will address after discussing the icebergs.

### People-oriented perspective

More than 90% of what we do, we do without thinking. This makes it difficult when we need to change, as those habits present all kinds of obstacles. According to sociology of knowledge researchers Berger and Luckmann (1966), the 'social construction of reality' is determined by habits. Systems thinking describes our notions of reality - which are shaped by habit - as underlying structures that

are hidden in day-to-day life. This is precisely what has enabled major societal challenges to become so enormous: we have virtually no idea or oversight of how our individual and collective habits result in exclusion or environmental damage.

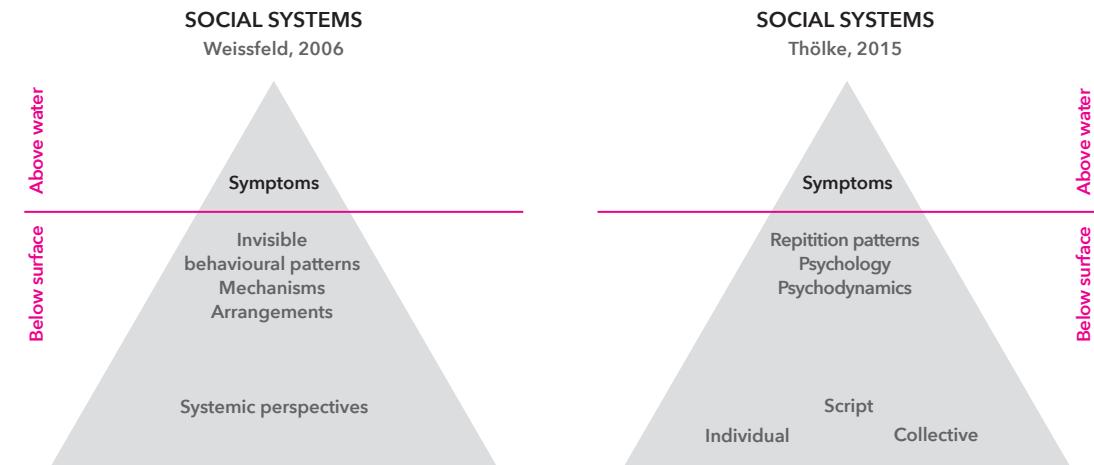
This carries over into our rational explanations and behavioural choices. Which means we cannot resolve the climate crisis as individual people or organisations or on the basis of separate roles. It is not a matter for the personal or private sphere alone. Neither is it enough for us to realise that political action is needed if we are to take on the major polluters or to make the transition to other types of energy. The goal is also to help individuals, the organisations, the politicians and the companies - in short, all spheres of life - to see the bigger picture. Not only in moral terms, but in terms of habits and the conventions that ensure we are unwilling or unable to make all kinds of choices. We simply cannot see the playing field.

It is ironic that social scientists use icebergs (which are melting away at the moment) to demonstrate that we ourselves (both individually and collectively) are only aware of a small fraction of our assumptions, beliefs and views. According to various authors, what we consider to be individual characteristics are in fact part of a greater whole; see figure 5-ABCD (includes McLelland (1987), Weissfeld (2006), Thölke (2015), Bateson (1973) and Dilts (1980, 1990). An iceberg is a powerful metaphor for this.

The part we see is only ten percent of the whole. All the iceberg models emphasise that the phenomena 'above water' are those we can perceive: actual behaviour, symptoms and structures. In the case of societal impact designers, that means societal challenges. The elements 'below the surface' are the invisible mechanisms that determine social systems: patterns of behaviour, power relationships and institutional structures. In the deepest depths, we look for the values that shape our perspectives. Weissfeld (2006) refers to this as 'systemic perspective', while my colleague Thölke (2015) calls it 'the script'. On the underside of the iceberg is where we find the 'template', i.e. the mental model. This template explains social life and can be used to effect change in a problematic situation (Senge, 1990).

If we, as societal impact designers, can gain a clear picture of how our habits and behaviours are organised into structures, systems, silos, institutionalised roles and other relational contexts, we will be able to effectively intervene. We did not design our own habits. Rather, we have grown up with them and accept them as reality. We must and can break these habits. To do so, however, we will need the right tools.

**FIGURE 5-B AND 5-C:** The iceberg models of the social sciences by Weissfeld (2006) and Thölke (2015), see also figure 5 at page 36

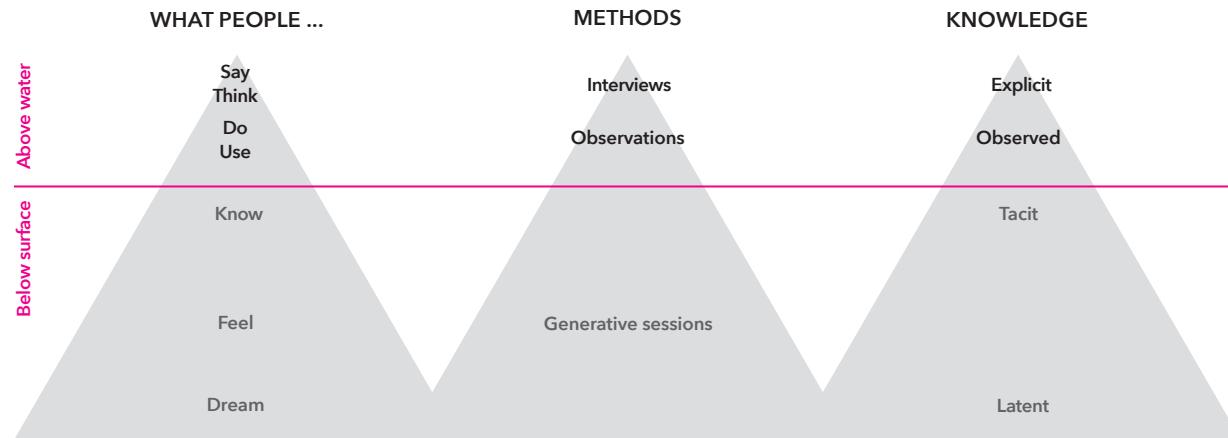


**TEXT BOX 3: ICEBERGS**

Icebergs are used in both the social sciences and in design studies. In this box, we will explore what they have in common. Stakeholders will differ in their observations and perceptions of a societal challenge, just as they differ from one another in terms of language, the interpretation of framing a challenge and their 'blur on the horizon': the potential routes out of problematic situations. While we may not need to bridge the gap with respect to every difference, we do need to gain a clear picture of the differences and cultivate familiarity and empathy with them. The art is to map out the 'everyday capacity, the knowing, acting and feeling' in an appreciative and experience-oriented fashion, with attention paid to

the past, present and future. Iceberg models can help us do this; see figure 5. If we look closely at the say-do-make model of Sanders & Stappers (2012), we can see that what people say, think, do and use are 'above water'. For design researchers, this is about gathering factual and explicit knowledge. Take, for instance, the act of using interviews and surveys to compile information on 'what people say and think' about a certain situation. And with regard to 'what people do and use', you might think of observing people who are carrying out a task in a specific context. These research methods are clearly oriented towards the cognitive. 'Below the surface', then, we see 'what people know, feel and dream'. Here, research methods must have a more affective orientation. This area deals with implicit (tacit and latent) knowledge. 'What people know' pertains to revealing habits and patterns of behaviour (working mechanisms). And 'what

**FIGUUR 5-GHI:** The say-do-make iceberg model by Sanders and Stappers (2012), see also figure 5 at page 37

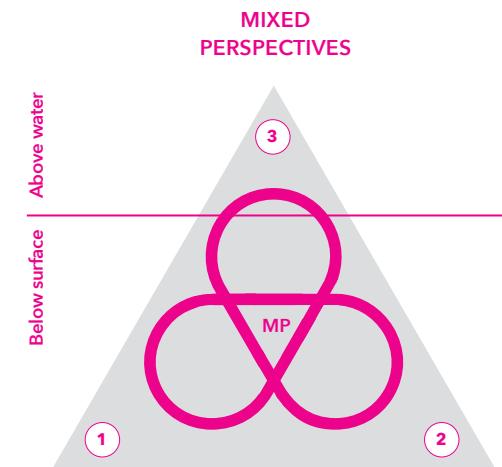


people feel and what they dream about' relates to values, emotions and aspirations. More effort is needed to reveal the latter; to extend the current metaphor, it requires a 'deep dive'. This is where 'convivial' tools, used in generative co-design sessions, can prove useful.

**Mixing perspectives**

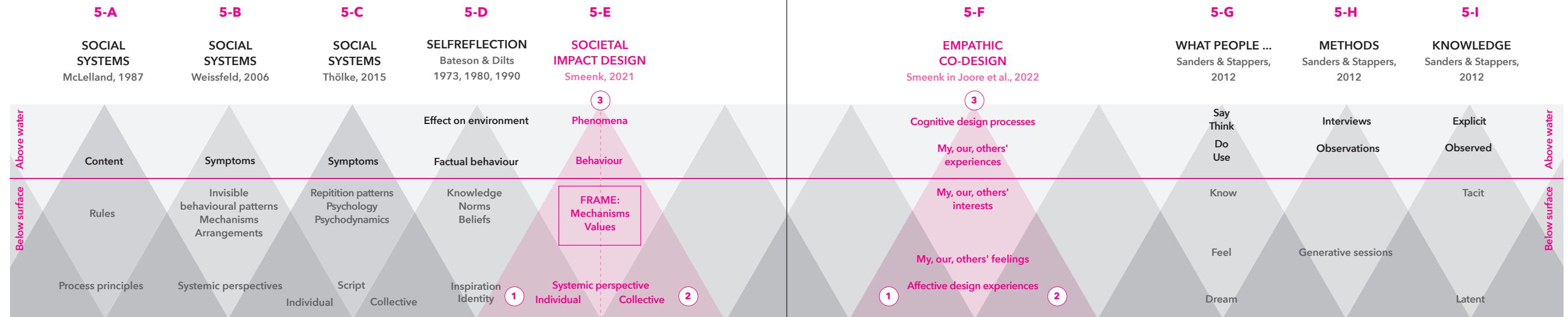
There is naturally interaction between the 'upper and undercurrents' in icebergs as well. Understanding how the layers of the iceberg interact is vital in order to gain oversight of and insight into a given challenge. We should not view the 'upper and undercurrents' as separate phenomena. A design researcher needs three basic perspectives to ensure a successful co-design process: the first-, second- and third-person perspectives (Smeenk et al., 2016). It is important to combine the three in every stage of an iterative design process (Smeenk &

Willenborg, 2022). In other words, during the exploration, creation and evaluation stages, see also figure 8. Our own 'first-person perspective' (1) involves our individual experiences and emotions, in addition to our assumptions and prejudices: what we feel and what we dream about. In addition, it is crucial that we show genuine willingness to hear, see and understand the perspectives, experiences and feelings of others. We figure out 'what people do and use' and what their patterns of behaviour are. Next, we take on the 'second-person perspective' (2) in our contact with others. Empathy and sensitivity is important here. The 'third-person perspective', (3) is more distant. Here, we explore other people's work (their expert knowledge, expressed in theory, data, designs and/or documentaries) or we make our own work (such as, hypotheses, visions, ideas, prototypes). We attempt to understand what the phenomena are, i.e., 'what people say and think'. We are self-aware, prevent bias and prejudices by mixing the iceberg layers and the three perspectives and by, in each stage, continuously comparing and identifying relationships between our own relevant experiences (1) and the work (3) and the experiences (2) of others (Smeenk et al., 2016). •



**FIGUUR 4:** The iceberg model based on the mixed perspectives, Smeenk et al. (2016)

TEXT BOX 3 CONTINUATION:



SOCIAL SCIENCES

SOCIETAL IMPACT DESIGN

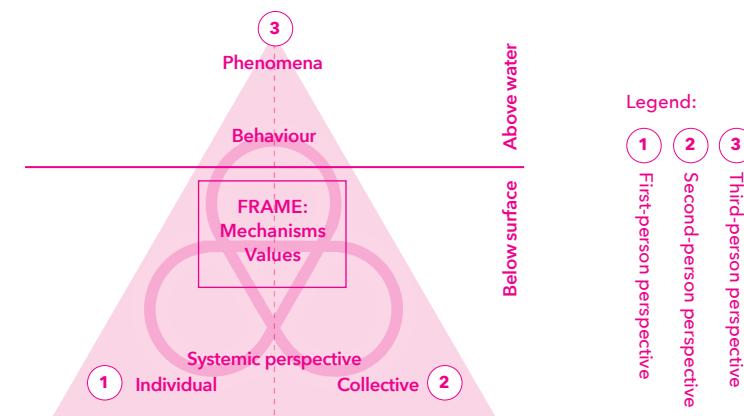
DESIGN STUDIES



**FIGURE 5:** The iceberg models. Various forms of iceberg models as found in the social sciences and design studies.

**5-A:** McLelland's iceberg model (1987), **5-B:** Weissfeld's systemic model (2006), **5-C:** Thölke's iceberg model (2015, 2021),

**5-D:** The self-reflection model by Bateson and Dilts (1973, 1980, 1990), **5-E:** Societal Impact Design concept of Smeenk (2021), **5-F:** The empathic formation compass including the mixed-perspectives methodology of Smeenk (2019), **5-GHI:** The say-do-make model from Sanders and Stappers (2012)



### Design tilts

Design shifts right along with our transforming world and is therefore in a state of flux itself. Rothmans and Loorbach (2009) define a transition as: a fundamental change in the dominant structure, culture and approach. By 'structure', they mean infrastructure: the institutional, economic and physical arrangement of our society. Their idea of 'working method' includes daily routines, rules and behaviour. With 'cultural change', they refer to changes in shared views, values and paradigms. With regard to societal impact design research, this means that you must first have a clear idea of what exactly is 'below the surface' for yourself as a researcher and for the people with and among whom you are working (stakeholders and co-researchers). It also means that you must work on empathic ability with them and regarding them: you must be prepared to handle the reasons why it can be painful to look below the surface. This pain and its dilemmas can also be a source of inspiration.

My pitch is an example of how I started from the assumption that visitors to a dementia simulator (and maybe the men themselves) would not have a clear idea of what dementia is and how it feels. I wanted them to prepare themselves for a form of research that deals with precisely those things of which we are unaware. The pitch (the enactment) was actually a generative design-research session. In other words, it was the kind of research that facilitates a better understanding of both the problematic situation and the relevant stakeholders, as well as a better grasp of the chal-

lenge through experience. See text box 4. Like 'Research through Design' (RtD) and 'convivial' tools, generative design sessions are a useful instrument (Godin & Zahedi, 2014; Sanders & Stappers, 2012). While I cannot address them all here, the names speak for themselves to some extent: in all cases, these are not conventional research studies with a question, a method and results but rather ways to encourage stakeholders to come together and think, feel and experiment in connection with a given challenge. Every stakeholder will be 'stuck' in their own ideas, perspectives and views in a different way. Therefore, in addition to the lively and creative methods, there is also a designer-researcher facilitator who helps kick off the process and ensures its progression, as well as helping the coalition take design decisions based on what is happening. See text box 5.

### Back in time, again

The coalition received subsidy funding to make the simulator and I established agreements regarding the co-design process with the design firm. To use jargon, that means I gathered experiences through generative design-research sessions in which I spoke to people with dementia and then with their partners. Using a photo series I compiled myself, I was able to trigger people to share their stories about living with dementia. I could not have done this using language alone.

The series consisted of photos of people showing emotion - individuals, married couples and families who were concerned, weeping or laughing - along with pictures of everyday objects like an alarm clock, coffee maker, newspaper and pills, and photos of places. This enabled me to visualise a portion of the dementia patients' interpersonal 'home system'. Although I was admittedly taking a risk by eliciting emotions that could be very intense and maybe unwelcome for the people in question. Just as I took a risk when I introduced the grocery shopping enactment. The sessions yielded stories about the dilemmas and tensions between (in)formal caregivers, people with dementia and those around them. These can now be experienced in the simulator. As a result, dementia is no longer terra incognita. The simulator enables visitors to feel the confusion, fear and anger, as well as the shame and inclination to invent excuses. The physical simulator built inside a shipping container has now been converted into a virtual reality version as well. The point of this example from my own professional practice is not that we built something fantastic, but that we did it together with stakeholders. The simulator is now promoting behavioural change and we continue to learn: new knowledge through Societal Impact Design.

We can differ  
in our  
perspectives  
yet still be  
useful to one  
another  
– Van Gogh

### TEXT BOX 4: RESEARCH CHARACTERISTICS SOCIETAL IMPACT DESIGN PRACTICES

A generative session is one component of multiple activities in an iterative societal impact design-research process. It consists of multiple practical, successive, short-cyclical 'Research through Design' (RtD) interventions. In those iterations, we attempt to continually expand our understanding of the underlying emotions, values, behavioural patterns, habits and mechanisms that are relevant to a given challenge. Only when we feel we have a solid grasp on that understanding will we move on to creating a definitive outline and organisational structure for the design project. Knowledge is gained by means of design interventions in the real world. This yields (inter)action and mutual exchange with the environment and, as a result, insight and ultimately knowledge (Godin & Zahedi, 2014). The art is to distil that knowledge, to render it abstract and generic so that it can be applied in a different situation or sector as well. In the simulator case, the brief enactment was an intervention technique intended to get to the core of the challenge. Forms like this are also known as 'convivial tools' (Sanders & Stappers 2012, p.7). They tools are instruments that prompt a response from people. You can design or deploy them so that stakeholders can get to work in a free, improvisational way, without limitations. This might involve all manner of materials, such as LEGO, photos, dolls, symbols, wooden skewers, feathers, balls, etc. We use these to build something that expresses what we want or to show how we experience the →

**TEXT BOX 4 CONTINUATION:**

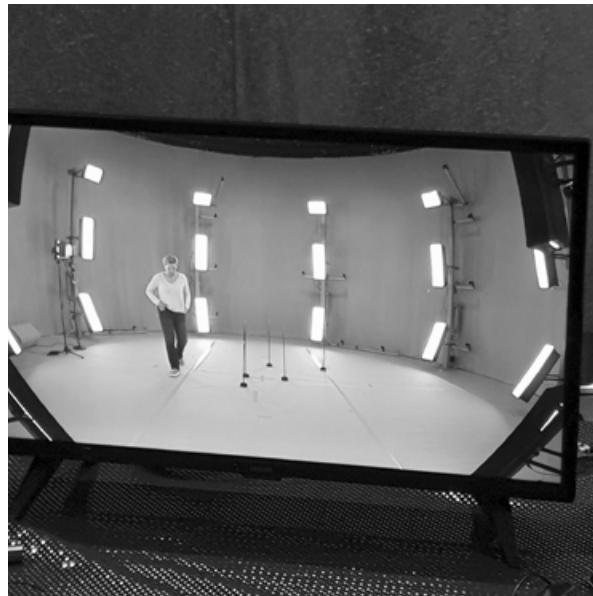
problematic situation and illustrate the opportunities we perceive. At that point, an embodied understanding emerges for pieces of the complex challenge - as does compassion for each other and for the people involved. Improvisational theatre and stakeholder role-play are convivial tools as well. There are also tools that provide more guidance and come pre-prepared, such as our empathic co-design canvas (Smeenk, Bertrand, Köppchen, 2021), card deck games like discussed in the book Design, Play, Change (Smeenk & van Willenborg, 2022) and empathic discussions and role-play (Smeenk et al., 2017). •

Innovative technological opportunities



In the virtual reality experience

Intake of the virtual reality experience



**2.2**  
**The culture of Societal Impact Design**

The mission of societal impact design research is to help us drastically revise our view of the world and the way we live. This gives rise to much uncertainty and calls for enduring curiosity, openness, amazement, optimism and courage. It also requires extra sensitivity from researchers, designers and stakeholders; it means they must accept their responsibilities and take pride in working with others to restore a form of naturalness and social-mindedness to the world. You have to believe that the great plan will succeed, no matter how many small setbacks you encounter.

Culture is defined in a myriad of ways. Sometimes it refers to habits, rituals and customs, while for others it means values and standards. I feel that societal impact design has its own distinct culture, a specific manner in which we work together to attribute meaning to phenomena in the world and how we wish to respond to such phenomena. We are aware that much of what we are accustomed to thinking, doing and feeling is entirely outside the scope of our awareness. Societal impact design must therefore be based on self-reflection, self-awareness and empathic ability. These are essential competencies. They are necessary preconditions for securing and

maintaining the true involvement of all stakeholders - including ourselves - in collaboration, behavioural change and opportunity design. When I say 'opportunity design', I mean that instead of looking for solutions (solutionism), we will seek out opportunities for change (Hummels et al., 2019; van Turnhout et al., 2013). That touches on two other qualities that are highly valued in societal impact design: 'trial and error' and patience. If, when we go in search of underlying and hidden mechanisms that can hinder or support change, we practice self-reflection and self-awareness and are empathic, patient and willing to experiment, I am certain that we will find suitable starting points from which to envision alternative futures.

It is imperative that societal impact designers, researchers and stakeholders work in a reflective, self-aware and empathic way, and encourage others to do so as well - because if we do not, we will not have the means to cope with conflicting interests and/or emotions (Irwin, 2015). As a result, we will be unable to adopt a joint approach to complex challenges. We need to practice what we preach in terms of the participative 'be the change' culture we advocate (Hummels et al., 2019; Xue & Desmet, 2019). Let us discuss this now in greater detail.

← **FIGURE 6:** The virtual reality version of the dementia simulator (IJsfontein and www.intodementia.nl)

We are all  
stake-holders,  
not share-holders  
- Nasr, 2021

### TEXT BOX 5:

#### SOCIETAL IMPACT DESIGN ROLES

Societal impact designers are not in charge of a research and design process. Instead, they can serve as initiator, process facilitator or adviser. What matters is that connections are formed that were not there before. The point is to get others on board in order to collaborate at the largest scale possible. In doing so, societal design researchers take risks. It is a matter of trial and error and learning from your mistakes.

Whereas the development of the first, physical simulator involved subsidy funding and cautious cooperation from partners in a newly established foundation, we now - years later and having recovered from bankruptcy - worked with multiple care institutions to pool innovation funding from a variety of sources. The idea now was to make the same experience accessible to more people via a shift in technology, from the physical simulator to a virtual reality version (VR1). There is also a new VR2 version in the works, which will allow visitors to experience the dementia stage of 'the lost self'. In the beginning, I took a risk by participating in the no cure, no pay pitch; now, I am affiliated with the foundation as an adviser.

It is challenging to take on multiple roles: am I the expert, facilitator or stakeholder?

The societal impact designer or researcher as...

... *an initiator* is a pioneer, stakeholder and activist. They are the one who shakes things up and keeps everyone on their toes. This designer or researcher has a clear personal stake in the challenge at hand and their desire to change things is motivated in part by personal experience. They are someone who is able to motivate others and who understands the art of storytelling. Someone who can collaborate with others by outlining optimistic alternative futures and visions that stimulate people's desire to get involved. Someone whose charisma makes others want to join them.

... *a facilitator* is the driving force behind the process. This designer or researcher is more neutral and works to get people on board with the change. They are someone who builds trust, facilitates the collaborative process and shows flexibility when new insights result in a course correction.

... *an adviser* is more analytical and interprets in order to make recommendations. This designer or researcher maintains a bit more distance. They are someone who knows the processes, joins in critical thinking and is paid for their services. •

#### Self-reflection and self-awareness

In the projects I have done over the years, I have learned how important it is that we - stakeholders, researchers and designers - reflect on who we are and what we do, feel and think (Irwin, 2015; Scharmer, 2016; Schön, 1987). Personal experiences and emotions influence our interactions with each other and our intrinsic motivation for taking action or not (Akama & Light, 2018; Takanen, 2013; Xue & Desmet, 2019, Hakio & Mattelmäki, 2019; Scharmer, 2016). Those who read the text - rather than listening to me now - will see by the references cited that these are not unique observations. There is a wealth of literature on the subject. The conclusion I draw from this is that a coalition of stakeholders will benefit from sharing their interests, values, aspirations, experiences and expertise in a timely manner. No matter how intimidating we might find that exchange at first (Lee et al, 2018).

We also know it is important to share feelings of vulnerability. Sharing vulnerability establishes a foundation for trust. When we dare to truly trust one another and be ourselves within the collaboration, we can learn together what is going on and what is needed in a given situation. This leads to an awareness of the relevant intentions, values and emotions. That awareness, in turn, offers insight into how we respond as individuals and as a collective, and to how we might respond differently in the future. To me, this process of 'becoming self-reflective and self-aware' is part of the first step in individual and collective behavioural change

on the way to a better, greener and more social future.

Through my business *Wien's ontwerperschap?*, I learned that self-reflection and self-awareness also mean realising that, as a designer and researcher, you are also a stakeholder in the societal challenges you are exploring. Like I was, as an informal caregiver with the dementia simulator, for example. In that specific case, realising this helped me dare to take a chance. I wanted to make the guys feel the process and outcome I had in mind in developing the simulator. They were moved by the experience and we were hired for the project. I know from past experience that I could not have explained the process to them using language alone. So, I took a risk, but my intuition said that it was the way to go: let them experience for themselves what it is like to be embarrassed about sausage and milk. Since then, I have relied on the power of experiential expertise and the 'first-person perspective' in design. And on reflection and empathy. To me, these are at the heart of the quite unique culture of societal impact design research.

Using your experiential expertise - your own relevant experiences and feelings - is a powerful tool for envisioning alternative futures (Smeenk, 2019; Xue & Desmet, 2019). It is the value of what we call the first-person perspective. But without self-reflection, it can also be a pitfall: for instance, if you are unaware of the extent to which you are influenced by how you view, define and approach a problematic situation and which opportunities you

are willing and able to see (Smeenk et al., 2016). The second and third-person perspectives, along with the first-person perspective, were discussed in greater detail in text box 3 on icebergs.

The first-person perspective should therefore not prevail, as this will lead to a lack of objective distance and potentially bias (Smeenk et al., 2016; Xue & Desmet, 2019). After all, our personal experiences – as societal impact designers and researchers – are also coloured. We too interpret the world and make judgements; we also have our own agendas. It is important to recognise, through self-reflection, what your implicit assumptions are, what forms of privilege you have in the world and which expectations are informing your interpretations. The idea is to be self-reflective, honest and critical, so that we can enhance our self-knowledge and self-awareness. In this regard, societal impact designers can learn a great deal from the human sciences. Auto-ethnographical techniques carried out alone or together (Xue & Desmet, 2019; Chang et al., 2013) can help bring one's past experiences to the surface (Gardien et al., 2014).

Sometimes taking a risk pays off, as with the pitch for the dementia simulator. Luckily, the consultants and care professionals were happy to participate in the role play and were not taken back by the theatricality that their minds were no longer open to the process as I intended it. Thinking back on the refrigerator scene, I am satisfied that I followed my intuition – but I also know that I took a gamble. If I

had had more time, I could have given more consideration to the ethical aspect (Ideo, 2016), i.e., the issues of consent and trigger warnings. It was entirely possible that one of the men might have been too strongly affected and become deeply upset because my theatrical performance confronted him with the onset of dementia in a partner or parent. Luckily, that did not happen.

### Empathic ability

Empathy is the ability to understand and feel compassion for the thoughts, experiences and emotions of others. Developing empathy is an individual process and it grows in the course of a design research or collaborative process (Kouprie & Sleeswijk Visser, 2009; Smeenk et al., 2019). While psychologists hold different opinions as to an exact definition, they agree that empathy increases when we consciously alternate between directing our attention to ourselves and to others, thereby consciously alternating between affective experiences and cognitive processes as well (Hess & Fila, 2016). See text box 6.

In earlier research work, I learned that empathy is a crucial precondition for the societal impact design process because empathy elicits our genuine emotional interest, sensitivity and self-awareness with regard to other stakeholders (Smeenk et al., 2018). In such cases, empathy informs and inspires us. This does not mean, by the way, that you must always act in a loving, kind or careful way. Sometimes people need a little nudge in order to develop their empathic ability for a specific problem-

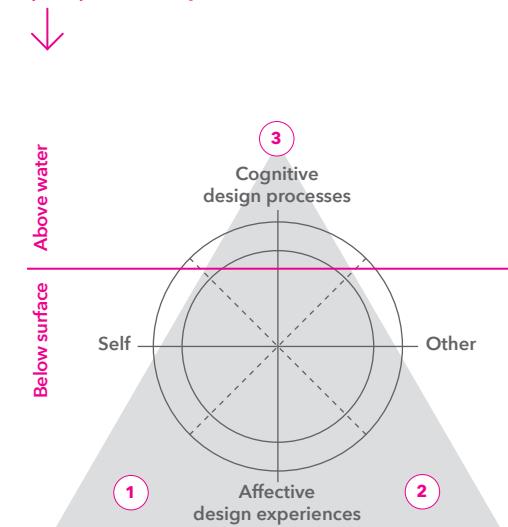
atic situation. Like we saw in the example with the dementia simulator. The experience in the simulator can prompt an informal caregiver or care professional to critically examine – and perhaps change – their own behaviour. The thereby encouraged empathic ability is valuable when it comes to understanding, working together on and resolving problematic situations. Empathic working means cultivating a mental habit of being aware of and reflecting on how you and others are behaving and being affected, in order to work out what is going on below the surface (Brown, 2009).

### TEXT BOX 6: EMPATHIC FORMATION COMPASS

The empathic formation compass (see figure 7) shows that the formation of empathy moves through the various layers of the iceberg (see also text box 3 on icebergs). 'Above water' we see the cognitive, conscious, visible (to us) design activities carried out by the design researcher as an individual and by design researchers and stakeholders together as a collective. What I, we and others consciously know and think: my, our and others' knowledge. There is more 'below the surface'. This is where our (respective) individual affective experiences are found, along with those we share together and those of others: my, our and others' conscious and unconscious experiences and emotions. The first-person perspective, second-person perspective and third-person perspective can be found in the iceberg model as well. •

Whether that is in connection with a problematic situation or the collaboration between partners in a coalition. Without empathic ability, it is impossible to understand what inspires people to change or prevents them from doing so, or to grasp why and how they are attached to ways of acting and to choices that demonstrably contribute to the destruction of the world. Empathy gives us the ability to come to terms with the needs, perspectives and actions of other people and nature (who, without empathy, we will view as opponents) and to understand and respect them.

FIGURE 7: The iceberg model of the Empathic Formation (EF-)compass including the first-person, second-person and third-person perspectives by Smeenk (2019)



In fact: as societal impact design researchers, we feel that empathy is also the best way to reveal and discuss the unspoken, unfulfilled and latent needs, habits and behaviour of others and to use these things to envision new alternative futures (Leonard and Rayport, 1997) without putting ourselves in the psychologist's chair. In the following part, I will discuss the approach of societal impact design in greater detail.

**In the dementia simulator, I gave the men a taste of what people with dementia can experience. Without having to articulate it, we all recognised that they were not eager to be called to account for the redundant grocery shopping. By consciously speaking to them as an insensitive caregiver might, I gave them an idea of how the situation could be much better. This could be considered reasonably disruptive. The shame they felt on behalf of the person with dementia, whose role they were playing, could have been prevented. The personal dignity of the confused shopper could have been left intact if the caregiver had made an effort to formulate their comment a little differently. In relatively direct fashion (it was, after all, part of a pitch), I gave the consortium guys a short, sharp experience to demonstrate the importance of empathy. By doing so, I wanted to gain their support for the design of the research process and the content of the simulator that I had in mind: seeking out dilemmas in the context of people living with dementia and creating a disruptive, immersive experience for visitors to the simulator.**

## 2.3 The working approach of Societal Impact Design

We will all need to act if we are to effectively prepare for a more honest and more sustainable future. Individuals cannot manage these large-scale changes on their own. There are also individuals who hinder such changes. So, how can we motivate each other to joint action? How can you take constructive action when you want to tackle abstract challenges in a pragmatic way, together? And: do we even have a clear picture of what we want to achieve? How can we create a broadly supported vision of what we need?

Societal challenges are difficult to oversee and societal impact design processes hard to plan. Especially, non-designers and/or stakeholders from other domains are struggling with this. Multi-stakeholder coalitions often run into trouble due to the complexity of the challenges they are trying to address. Where should they begin their shared journey, and how? Who should they involve in that journey? How can they create an environment in which they can make effective use of all available experience, knowledge and creativity?

All these questions have to do with the approach that is best suited for societal impact design research. In many cases, we see miscommunication and linguistic confusion, or a failure to build on one another's input, or that the work does not delve deep enough (The British Design Council, 2021). This needn't be

the case; I will now describe another way.

In societal impact design practices, we need an approach that does not define the solution in advance – in fact, we want to avoid prior definition of the task at hand as well. We prefer to begin by imagining the desired outcome, i.e., the final situation. This picture is emphatically a rough idea: a blur rather than a dot on the horizon, which must be developed together with the relevant people in a way that transcends all four spheres of life. As I said, in societal impact design, we encourage self-reflection and self-awareness among stakeholders and we underscore the importance of empathy. See text box 3: icebergs.

We also need vision, imagination and creativity. This is where the designer finally comes into play as a creative maker. We promote disruption when the vision is being shaped and suggest radical creative ideas to inspire each other to collective action. We make our own tools. Which makes me think of my grandfather, who had to learn to make his own carpentry tools before he could call himself a master carpenter. Luckily for us, the design and human sciences fields have all kinds of things we can use and re-purpose.

### Creativity and abduction

In part 1, I touched on the power of design in relation to the transformation economy. The transformation economy presents numerous open-ended and complex challenges. There is no clearly defined task. Going in, we do not know exactly what the question is, nor do we know precisely where to find the avenues of

thought that are most promising for change. We do not know which path will lead us to an alternative future. To avoid remaining frozen in place, we use creativity as a means of generating momentum for change.

According to Dorst (2011), creativity is the ability to take desired values in a specific context – such as a safe street – and connect them to potentially workable mechanisms. That might be ways of acting, behavioural patterns, habits or rituals, such as streetlights or more people on the street. Kees Dorst (2011) and my colleague Guido Stompff (2020) refer to this combination of values and mechanisms as 'frames'. Frames are extremely effective in design-based research that is abductive in nature. See text box 7: abduction.

Inductive research should precede design research with an abductive structure. In an inductive research dialogue or generative session, we go in search of the shared and desired values of a stakeholder coalition within a specific problematic context (the safety on the street or social cohesion). Once we have figured that out, we can use abduction to envision new frames, which we can then test, evaluate and improve. See also table 3.

A small ego  
is helpful in  
this world

Abduction formula: What + How = Value

3. What? ←	2. How? ←		1. Value? ←
What will we develop: thing, technic, process, experience?	In which sphere of life?	Using which mechanism?	Which aspirations were found?
Parents help and pay for home insulation	Personal	Love	A warm house this winter without paying more
Offer a rental boiler that is more economical	Private	Contract	
Retirees come to give advice on energy saving	Public	Spontanity	
Tax reduction	Politic	Rules	

Abduction formula: What + How = Value

3. What? ←	2. How? ←		1. Value? ←
What will we develop: thing, technic, process, experience?	In which sphere of life?	Using which mechanism?	Which aspirations were found?
Free shelter by neighbours	Personal	Selfless	Feel safe in own house whilst flooding
An emergency service offered by companies for a fee	Private	Earning	
The Scouts are coming to pick you up	Public	Spontanity	
Reinforcing dikes with sandbags by soldiers	Politic	Rules	

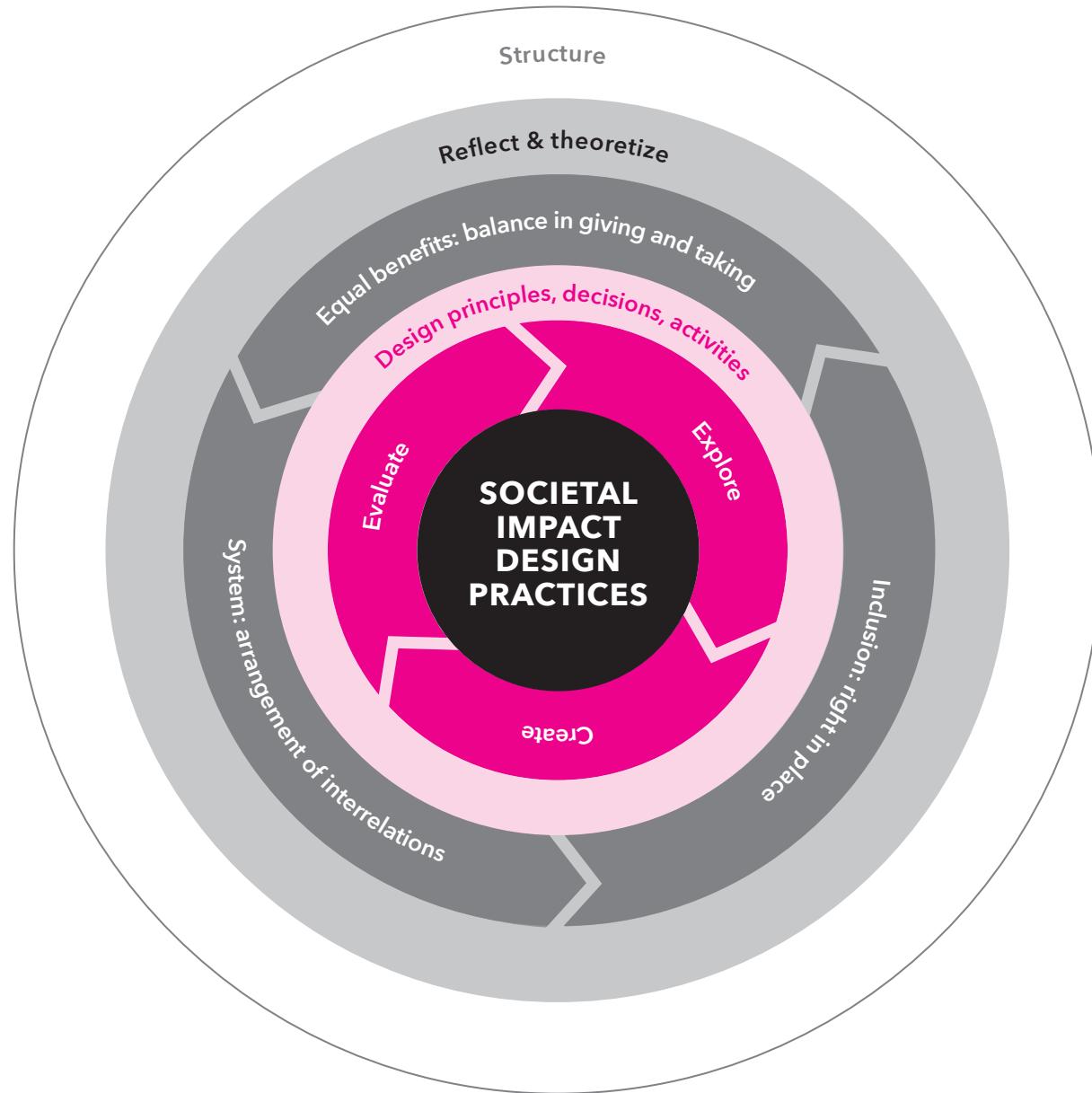
**TEXT BOX 7: ABDUCTION**

Abduction is called abduction to distinguish it from induction and deduction. All three pertain to the logic of scientific thinking. Deductive research is the most well-known of the three. It is the logic used in comparative research. First, a researcher or research team use a literature survey to form a picture of a given challenge, on the basis of which they formulate and test hypotheses. Survey research is a familiar example: you ask a large number of people to complete a questionnaire so that you can confirm or reject a hypothesis. For example: you might have the hypothesis that Dutch people are willing to wear an extra pullover in the winter in order to help reduce global warming. Based on the survey answers, you can confirm or reject that hypothesis. Inductive research works very differently. This is the kind of research conducted by anthropologists, among others. It is bottom-up research. Exploring and asking questions, they investigate why, even in the

winter, people prefer to walk around in just a T-shirt when they're at home. Based on what they observe, they then formulate a theory - for example, that the idea of being 'at home' relates to the safety, cosiness and warmth people like to feel in their homes. With abduction, researchers alternate between theorising about what is going on and testing whether their assumptions are correct. Generating possible explanations and coming up with workable mechanisms is important here. Creativity plays a central role as well. It is an iterative process of creating, testing and adjusting possibilities. The idea is that, provided a sufficient number of explanations and mechanisms are considered, identified and weighed against one another (in frames), the most likely explanation or the most desirable and realistic future will inevitably emerge.

Kees Dorst (2011) formulated the concept of abduction for design in connection with open-ended challenge as follows: the sum of 'what' and 'how' is 'value'. It is exciting that with societal impact design, neither the 'what', the 'how' nor the resulting 'value' are established in advance. By consciously avoiding definition of the 'what' and 'how' beforehand, you are postponing judgement. This creates freedom to reinterpret or frame a challenge in a creative way. Viewing the act of creation as part of an abductive approach offers a vital basis for understanding how societal impact design deals with open-ended and complex challenges. See table 3 for a fictive climate change example. •

← **TABLE 3: Two examples of abduction in Societal Impact Design. In this table, spheres of life (Gudde 2016) are combined with the abduction formula (Dorst, 2011) for the purpose of arriving at a variety of (potentially unexpected) frames. For example 'love' is a mechanism in the personal sphere. In this fictional example of abduction, one can see how each value leads to plural (unexpected) opportunities to deal with a problematic situation.**



This iterative process continues as long as needed, i.e., until it is clear what we need to design how to arrive at the desired values and the desired future (street furniture that incorporates lighting, for instance). Then the design project and development process can begin.

**Co-design**

Societal impact design researchers work in a self-aware, self-reflective and empathic way. They conduct extensive experimentation by taking the experiences, knowledge, interests, effectiveness, power and creativity of stakeholders and translating it into innovative frames, images and things. It is therefore a form of co-design. Co-design means making use of collective creativity throughout the entire collaborative process (Sanders & Stappers, 2008). It is a process in which actors from various disciplines share their knowledge of both the design process and the design content (Kleinsmann & Valkenburg, 2008). The combination of generative co-design sessions and convivial tools aimed at collaboration helps to visualise past, present and future. See also text box 4 at page 39 for more Societal Impact Design research methods. They spark dialogue concerning the experiences, emotions and behaviours that correspond with the problematic situation we want to change. During these sessions, stakeholders make a conscious cooperative effort to uncover implicit knowledge (values, habits, patterns

**TEXT BOX 8: SOCIETAL IMPACT DESIGN PRACTICES**

Societal impact design is about finding the right balance between design process stages, design decisions and design activities. It requires conscious reflection on the process, its principles and preconditions. These aspects must be grounded in theory, both during and after the work (Schön, 1987; Thölke, 2021). The system and structure of the process - the arrangements and interrelations - must be appropriate for researchers, designers and all other stakeholders. The benefits must be equitably distributed and all parties must be comfortable in their roles. In other words, everyone should be satisfied with the balance between give and take and the process should be inclusive. Figure 8 shows an initial sketch of the societal impact design practices. •

and mechanisms). They do so based on creative activities, in the broadest sense of the word. Generative co-design sessions generate new insights, frames, ideas and concepts. They require an open mindset and attitude. The idea is to let go of your judgement and your beliefs. Such sessions can be deployed as a method for coalitions to develop a shared language for expressing and sharing their thoughts and feelings. It can sometimes be helpful to try out, role-play or imagine yourself in a given situation.

← **FIGURE 8: Societal Impact Design practices**

**TEXT BOX 9:**  
**POSITIVE PROVOCATIONS**

My colleagues in the Inholland SLUISlab and the Urban Leisure & Tourism lab Amsterdam and I use the methodology of critical design (Dune, 2008). We ask students to create what are known as positive provocative prototypes to serve as convivial tools. These tools can consist of a provocative statement on a poster or an intervention in a public space. They prompt discussion or a debate on the challenge at hand: 'design for debate'.

With their well-considered provocation, the students help stakeholders in a problematic situation look at the challenge, the context and the people in it in a new way. For example, stakeholders may suddenly become aware of behaviour they had previously thought of as inevitable. The experiment is a vehicle for providing commentary on the world today and exploring future worlds. This has the potential to go wrong, of course: people can also become angry when provoked. It is therefore important to protect students from unsafe situations that may result from overly naive experiments.

It is equally important that we ourselves avoid being naive about what we are trying to achieve with the experiment: we must reflect on what we are learning from it and record this accurately. •

Catalyst  
versus  
activist

**Systemic perspective**

Taking a 'systemic perspective' generally means that we strive to understand how people think, feel and react as part of systems and not as isolated phenomena. That system might be the family in which a person grew up, or it could be their relationships with friends, neighbours, teammates, colleagues or even the world at large. The great thing about a systemic perspective is that it invites us to continually alternate between various 'iceberg layers' and contexts, and to recognise where these overlap and differ from one stakeholder to another.

In societal impact design, we want people to work together to decide what their shared journey will be. The basis for this will be the shared values and desires that they must first identify. We are, after all, focusing on areas that involve major societal challenges. There are no clear tasks and clients in connection with those challenges - or to the extent there are, we are all the client. If the challenge is to make as many people as possible understand something needs to happen and they can and should contribute equitably, then a systemic perspective is quite simply a necessity.

Adopting a systemic perspective in co-design processes offers starting points and tools. We gained a glimpse of this in discussing the design studies about generative co-design sessions and the convivial tools, and when talking about the icebergs in the social sciences. The generative co-design sessions and convivial tools from design researchers

Stappers and Sanders (2012) like the systemic perspective of the social scientist Weissfeld (2006) both take place 'below the surface'. See figure 5. In figure 5-E, we used the icebergs from the social sciences and design studies as a basis for creating an initial sketch of a co-design iceberg including a systemic perspective.

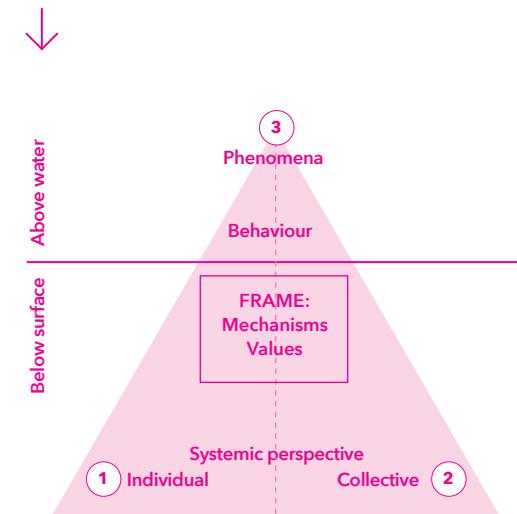
tilting

By identifying patterns together and mapping out the bottommost layers of the iceberg, we gain more shared grip of the problematic situation in question. We discover flaws, weaknesses and undesirable behaviour or habits. We seek out tipping points to change our behaviour and our habits without compromising our basic sense of safety. We create multiple frames with the help of abduction and evaluate and test which of these will bring about the most realistic and substantively desirable  $\mathfrak{H}$ , so that a better situation can emerge.

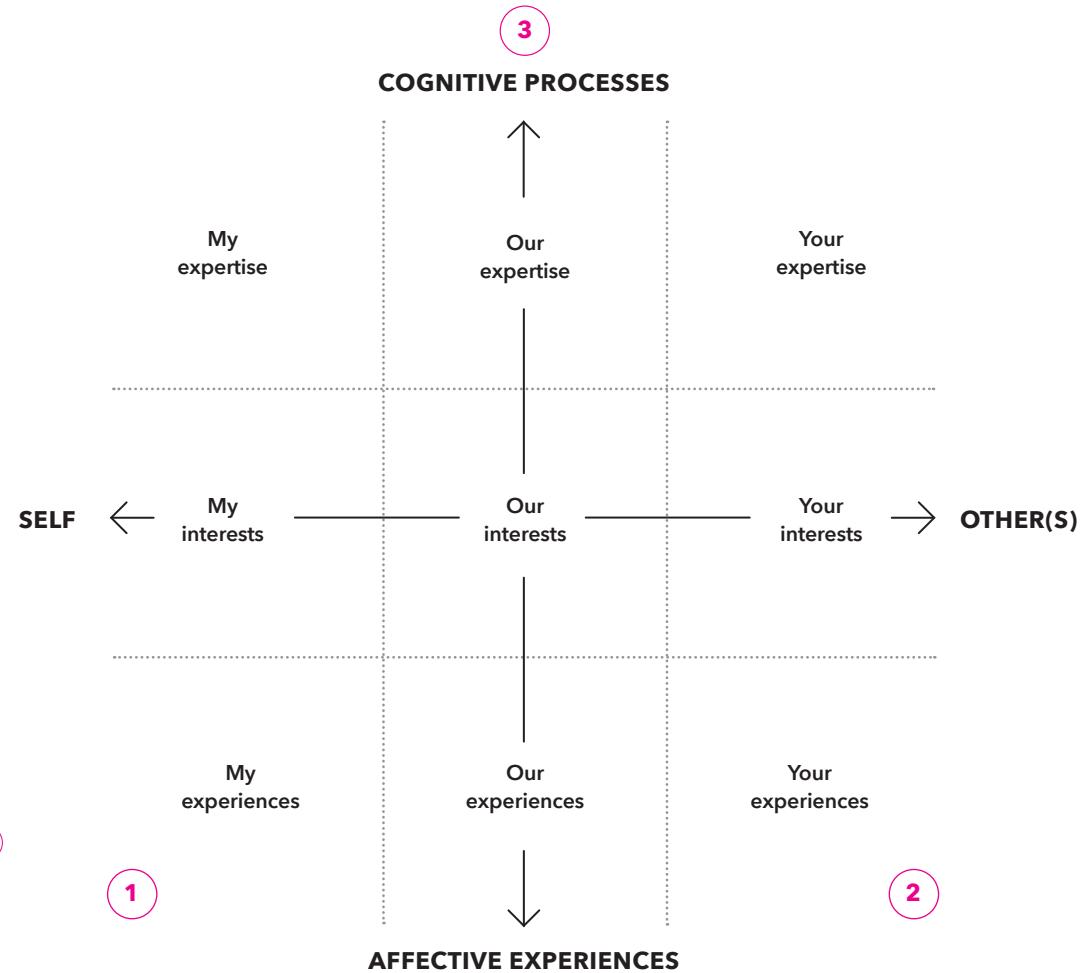
It might sound a bit naive, that aforementioned blur on the horizon. But it would be equally naive to think that you cannot change anything until you know exactly what the end result should look like. That will result in greater paralysis than making an optimistic start together. Honesty compels me to mention here that very few designers are currently being trained to be societal impact

designers. Today's designers know a great deal about *Gesellschaft* (society), but are not yet well-versed in working in *Gemeinschaft*: within communities, networks and ecologies (Tönnies, 1887). This, too, requires collaboration with people-oriented fields of study such as sociology, psychology and anthropology. Systems thinking and the systemic perspective are already being cautiously applied in co-design practice. Sub-aspects are emerging. These are the first models, methodologies and methods, such as the empathic formation compass including mixed-perspectives methodology (Smeenk et al., 2019) and the empathic co-design canvas (Smeenk et al., 2021) that I mentioned earlier. See figure 9.

**FIGURE 5-E: An initial sketch of a societal impact design iceberg model that includes the systemic perspective**



**FIGURE 9:** Stakeholders' experiences, interests and expertise (Smeenk in Joore et al., 2022)



Legend:

- ① First-person perspective
- ② Second-person perspective
- ③ Third-person perspective

**TEXT BOX 10:  
THE SYSTEMIC PERSPECTIVE MEETS  
SYSTEMS THINKING**

In figure 1, we saw that in the transformation economy, there is mutual interaction and entanglement between people, things and technology. Through our actions, we initiate changes and then experience the consequences of those changes. Systems based on the relationships, interactions and experiences between people and their environments are dynamic. They evolve. In reality, there is no such thing as 'the system'. That which we call the system depends entirely on the time, context and perspective.

Systems thinking involves analysing, understanding and describing the functioning (or disfunction) of social systems, such as within an organisation (Parsons, 2013). Often, technology and things are not viewed as active players in social systems. While the systemic perspective does see them as active players, it also assumes there is no point in considering social, living systems as a whole or thinking they can be manipulated as desired. What we can do, however, is experience, visualise and begin to work with pieces of them. The point of a systemic perspective is to gain a temporary picture of how the individual elements relate to one another in patterns and how those patterns change over time, resulting in changes to the roles of individual elements and peoples' experiences, and to identify the broader context in which that occurs. The systemic perspective aims to consider these questions in context. That means the systemic

perspective cuts across all layers, spheres of life in society and silos within organisations. Systemic working and systemic cooperation therefore entail recognising and making connections between separate interactions, experiences, contexts and people, as well as with those people's environments. In this context, things are also actors (Latour, 1996). The challenge is to explore both the *systemic perspective* as a tool for co-design processes and *systems thinking* as a means of understanding the outcomes. •

Convivial tool example



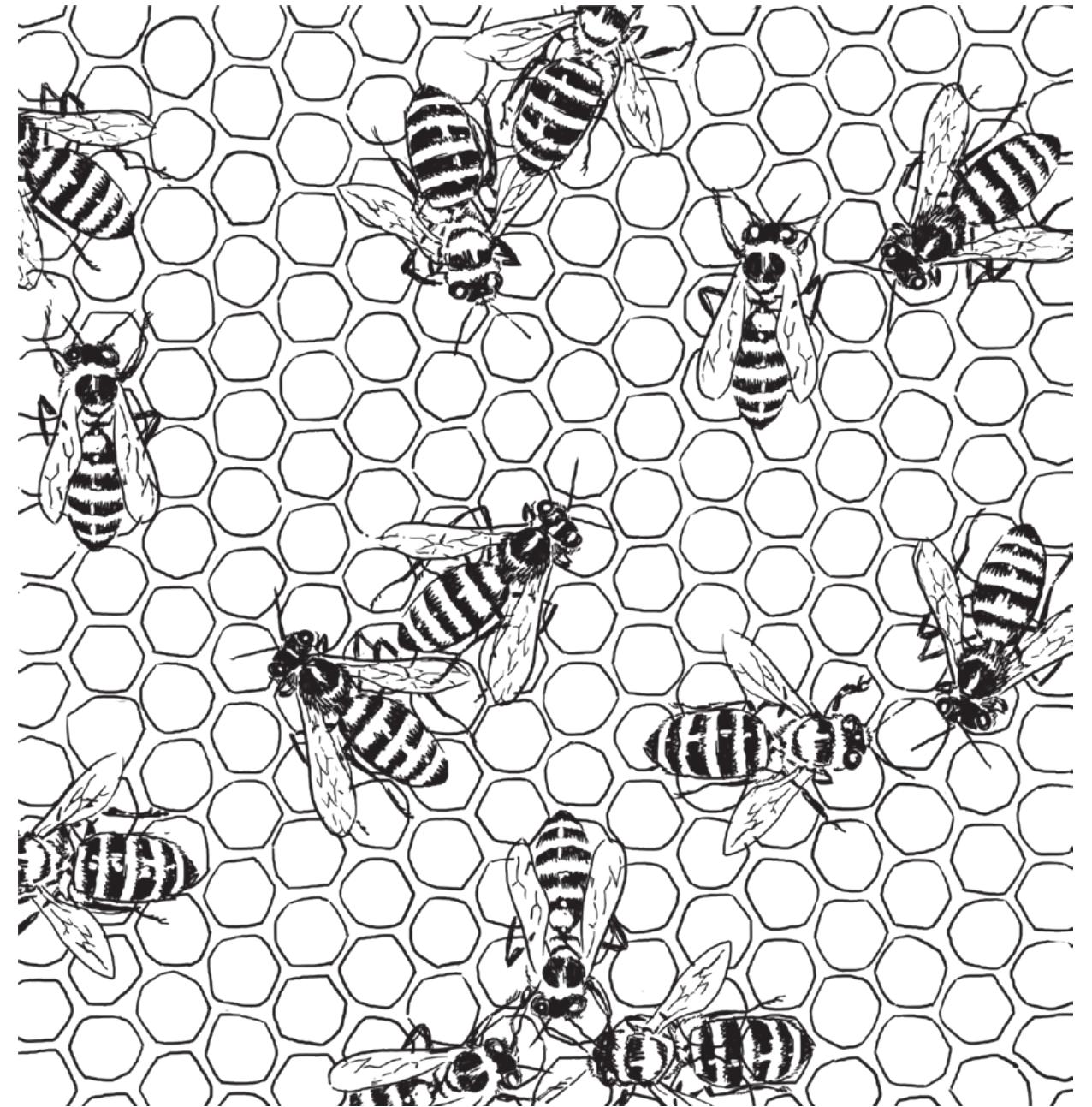
## 2.4 The organisational structure of Societal Impact Design

Tackling complex societal challenges calls for a manner of organisation that is different than the usual. It requires more than just a different attitude and culture, or simply new approaches. We also need a societal impact design structure that is in line with the inquisitive and reflective aspect of the transformation economy. Structure refers to how the research and design processes are organised. The structure advocated by societal impact design is intended to safeguard the culture and approach that go along with societal impact design. Maintaining inclusive and equitable partnerships in value networks and facilitating ethical value exchange call for a process that is organised in a safe and equitable way. The need to work in a manner that transcends the spheres of life means that all roles must consistently be open to all stakeholders. It means that profit and credit must actually be shared and that final results must be made widely available (creative commons). The definition of stakeholders here is not limited to people or organisations. It also extends to natural systems, which can be equal stakeholders, too – no matter how difficult it may be to make the planet's voice heard.

Coalitions and partnerships, as we have seen, use societal impact design research to transcend the compartments around spheres of life, disciplines and organisational silos. Coalitions are looking for a fundamentally different way of organising how they think, act and feel

(Rotmans & Loorbach, 2009). This will entail a structurally different way of organising collaborations and letting go of various dilemmas (real and imagined). Citizens will be rewarded for their efforts and partnership. They will not participate 'for free'. Coalitions must be aware that small businesses have the ability to experiment but have no resources, meaning a coalition cannot ask too much of them. While large companies may have the resources (money, workforce, space), they are often constrained by bureaucratic regulations and the idea that there must always be a return on investment (The British Design Council, 2021). In projects, it is equally difficult for stakeholders to find an effective balance between putting forth effort versus having power and being exposed to unequal risks (Smeenk & Astola, in proceedings). I picture residents who design their own neighbourhood and spend a lot of time on the project but are not in charge of the zoning plan. Societal impact designers, researchers and stakeholders in coalitions are incredibly keen to find innovative, more agile, adaptive, flexible and creative organisational structures that focus on 'we' rather than 'I'. The challenge is to approach and establish collectives in an integral way, with a straightforward design and transparent leadership, in such a way as to facilitate acceleration and scaling-up in the long term.

Societal  
impact  
designers  
organise  
change  
in labs



### Value networks: labs

Collaborations between stakeholders from the four different spheres of life often take the form of temporary partnerships. These can be called living labs or hubs, collaborative workshops, learning communities, communities of practice or learning networks. For the sake of convenience, I will refer to them all here as 'labs'. In some instances, they lead to collaborations in the personal sphere, the private sphere, the public sphere and/or the political one, as expressed in coalitions, cooperatives or foundations, with or without a legal structure.

There is no single definition of what constitutes a lab (Van de Broek et al., 2020). Yet there are two broadly shared, typical characteristics: a lab has spaces for real-life experimentation, and a lab involves co-design. We can also distinguish between various types of labs: field labs in certain sectors, test labs for specific technologies and the living labs initiated by (applied) universities, which focus on learning and research (Overdiek & Geerts, 2021). The first two are building-specific and involve a degree of co-design, while in the latter, co-design is a primary concern. They are found in everyday reality, in situ, in the wild. Such living labs are a key priority of societal impact design

research and for our Faculty of Creative Business at Inholland and its knowledge centre. We view labs as pragmatically structured collective networks centred around abstract themes. Examples of those themes are issues related to energy, digitalisation and overtourism (Gerritsma, 2019; 2020). A lab is an energetic mini-society in which stakeholders, researchers and designers form a coalition with each other and move back and forth between their own respective fields and the outside world. Virtually all the principles I so strongly emphasise are in effect here: the focus must be on multi-value creation; the structure must promote inclusive and equal partnerships in value networks while facilitating ethical value exchange (Brand & Rocchi, 2011).

Labs are more than networks, because they involve agreements between stakeholders to achieve concrete shared outcomes through experimentation and co-design within a certain time frame. Yet, labs are less than an organisation because they typically have no permanent structure, in any case not in the same form (Overdiek & Geerts, 2021). By connecting local labs with one another, we can adequately respond to the regional, national and occasionally global scope of challenges. This results in a system of networks that can be managed in a decentralised way.

Take, for instance, our two Urban Leisure and Tourism (ULT) labs in Amsterdam and Rotterdam, which operate independently of one another yet share common themes, challenges and outcomes (Koens, 2021). Another

example is our SLUISlab, which is connected to our ULT-lab in Amsterdam via the city and the IJ, and also linked to the Centre of Expertise for Creative Innovation ([www.coeci.nl](http://www.coeci.nl)), which we share with the other universities of applied sciences in Amsterdam. This enables us to respond quickly to local needs and share our lessons learned with a much broader audience in the context of cross-over effects and impact (Overdiek & Geerts, 2021).

Researchers of (applied) universities and public organisations have an ideal starting point for taking a more neutral position in labs, as opposed to the more private, political and personal interests of other spheres of life. We see that in many (experimentation-oriented) labs, there are often no direct lines of authority and preferably no hierarchy at all. The latter is important in co-design. Every voice should be heard and ideally given the same weight in decision-making. The aim is to uncover which elements are meaningful and what is important in an exploratory dialogue. Only then will small and subtle insights and values have a chance to emerge.

### Teetering and tilting

When it comes to structures in labs, nothing is written in stone; the organisation is reasonably amorphous. The shared practices and the degree of organisation in societal impact design processes often emerges only in the course of the process, i.e., during the collaboration. Based on new insights gained along the way, ideas about the organisational structure can change in the course of the societal

### TEXT BOX 11: POWER

Entirely equitable collaboration is impossible because power is ubiquitous and unevenly distributed (Chen et al., 2016). Underlying power relationships are often invisible at first. They emerge in collaborative processes over time and can lead to social contingencies. In societal impact design, we attempt to avert that situations by, at the start of the co-design process, sharing or revealing everyone's individual personal influence – based on their individual involvement (personal) and on their role (private, public, political) and the influence of organisation and collectives, and by discussing these influences with one another in an open and transparent manner (Lee et al., 2018; Smeenk et al., 2021). Without this, an organisational structure and culture aimed at multi-value creation and societal earning capacity will not be possible. •

impact design process as well. Design decisions play an important role in this. After all, the central challenge will determine both the partners with whom we work and the form of collaboration in which we attempt to gain experiences and learn. Next, those partners will determine which shared desire and which 'blur on the horizon' they agree is most important and which sub-activities, joint responsibilities and roles are appropriate to that end.

When establishing, implementing and 'managing' value networks, a coalition will continuously and critically work together to decide who will or will not participate (and how) in a specific sub-activity, and why. Stakeholders in coalitions will ask each other questions such as who wants to and will be in the 'front line' or the 'second line', and why. They will also consider which *Umfeld* the network has. In this way, coalitions remain aware of the importance of asking people other than 'the usual suspects' - the ones who always seem to participate - to be involved in the front line or second line. They, too, have insights, ideas and experiences. They, too, can have the desire to take on a role. They, too, have opportunities for exerting influence on the communities in which they live and work.

When setting up labs as collaborative practices, the most important element is ensuring that the societal impact design process is dynamic rather than rigid. This means that stakeholders (in the form of individuals and organisations) can come and go. They stand to offer and receive valuable contributions and will depart once they have supplied that input or their role is complete. Not only do labs focus on dynamic issues, they make forward progress themselves as well. Depending on the precise questions or sub-questions and the avenues of thought that emerge, and on the concrete means that must be tested, there is a constant need for new contexts and stakeholders. This is where the movement across the four spheres of life is most obvious. Complex challenges cannot

find a direction until it has been informed by the conditions established by governments, citizens, families or economic principles such as profit and ROI. Perhaps it is even so that the opportunities do not become avenues of thought until they have sparked desired changes in all those spheres of life. In short, this means that there is nothing wrong with 'refreshing partners'. It actually strengthens innovation, provided we are transparent about it and avoid disappointing or offending stakeholders (Oerlemans, 2007).

When it comes to designing a lab, this simply means that the structure, form and content of labs must **!** along with the challenges being addressed, with the process of unravelling an issue, with attempts to identify potential idea directions and with reflection on the insights that emerge along the way. The work practice of labs is characterised by a shifting effort to maintain alignment with the moment and the context (Alkemade, 2021). That shape-shifting, amorphous nature does not prevent us from focusing on the organisational elements needed to set up labs, turn them into a workshop for coalitions, 'manage' or better navigate them and ultimately scale them up. On the contrary. The book *Innovating in labs* (2021), offers some great tips for doing so. It talks about support in the form of specific learning events, learning environments, learning activities, creative commons, infrastructure, resources, a strong visual identity and so on. While there are too many for me to list here, these are elements that offer the conditions stakeholders need to transform: as

A word on statistics: Out of every hundred people, those who always know better: fifty-two. Unsure of every step: almost all the rest. Ready to help, if it doesn't take long: forty-nine. Always good, because they cannot be otherwise: four - well, maybe five. Able to admire without envy: eighteen. Led to error by youth (which passes): sixty, plus or minus. Those not to be messed with: four-and-forty. Living in constant fear of someone or something: seventy-seven. Capable of happiness: twenty-some-odd at most. Harmless alone, turning savage in crowds: more than half, for sure. Cruel when forced by circumstances: it's better not to know, not even approximately. Wise in hindsight: not many more than wise in foresight. Getting nothing out of life except things: thirty (though I would like to be wrong). Balled up in pain and without a flashlight in the dark: eighty-three, sooner or later. Those who are just: quite a few, thirty-five. But if it takes effort to understand: three. Worthy of empathy: ninety-nine. Mortal: one hundred out of one hundred - a figure that has never varied yet.

A word on  
statistics  
by Wisława  
Szymborska,  
1999

Example: Urgenda managed to convince the court to accept our descendants as a legal entity.

individuals and collectively (Overdiek & Geerts, 2021; Hummels et al., 2019; Chen et al., 2016). A visual identity makes the existence of a stakeholder coalition as a collective visible and tangible, in the literal sense. In this way, design serves to connect stakeholders in societal impact design labs (Overdiek & Geerts, 2021). We can also consciously design our own lab system by using our method of generative co-design sessions to give colour, form and energy to collaboration and to improve those partnerships. The only thing we don't do, really, is allow ourselves to be bothered by the typical choices normally made when designing and structuring collaborative projects.

#### Impact and cross-over effects

The societal impact design practices in labs also inevitably change the way we think about success and cross-over effects. Success cannot be evaluated within the time span of a single project. When it comes to individual and collective behavioural change and **ᠨᠠᠭᠢᠨᠠ** the system, any kind of quick fix is completely useless. Better said, there are no quick fixes. Value-driven work takes time and persistence to complete the iterations in which the questions and promising avenues of thought are adjusted, in which new tools are constantly being developed and tested, and where there is an ongoing need for new stakeholders to see whether they are willing and able to take part in changes or supply insights and contributions of their own. We therefore need new

ways to monitor, evaluate and quantify the outcomes of this work.

Without context, it is impossible to assess quality. Quality inevitably depends on a need and a given perspective. This can be tricky when you are looking for ways to determine the quality of interventions and the development of tools that may still need to be adjusted and changed over countless iterations. However, this does not prevent us from evaluating the quality of the concrete outcomes and cross-overs we create. While measurement is important, this is never a dogma or the primary purpose of societal impact design.

As societal impact designers and researchers, the best way for us to evaluate is exactly the same way we conduct our research and design activities: here, too, we use inquisitive and reflexive dialogue to learn whether people have gained a different perspective on a given situation as a result of contact, a design intervention or a co-design process. Bringing together the outcomes of such a discussion offers insight into a change. It is precisely subtleties and nuances that we are seeking rather than quantifiable information, because this is where you will find aspects that are much more meaningful than statistics, and which we could not have predicted. See poem at page 61. Here we can also find support in existing forms of evaluation research, as my colleague Professor Joke Hermes does (Hermes et al., 2015; 2017).



## Societal Impact Design culture, approach and structure

Societal Impact Design is normative: it aims to create a better world

	Value-based living People-oriented mindset	&	Value networks Business mindset
Brand & Rocchi (2011)	Designers, researchers and stakeholders take a systemic perspective; they focus on value, pattern-recognition and apply transformative thinking. They work collaboratively and based on empathy to identify common challenges and, in doing so, contribute meaningfully to multi-value creation.		Designers, researchers and stakeholders recognise that inclusiveness in networks and communities serves to enhance the quality of outcomes. And that exchanging and comparing ethical values will improve the outcomes of the collaboration. They pursue transformation through collaboration.
Culture	<ul style="list-style-type: none"> <li>We</li> <li>Living together</li> <li>Self-reflection, self-awareness</li> <li>Empathy, engagement, compassion</li> <li>Courage, daring, taking risks</li> <li>Respect, honesty, transparency</li> <li>Be the change</li> <li>Passion</li> </ul>		<ul style="list-style-type: none"> <li>Partnership</li> <li>Collaboration</li> <li>Reflection in and on action</li> <li>Socially engaged</li> <li>Trust</li> <li>Ethics</li> <li>Achieve the change</li> <li>Optimism</li> </ul>
Approach	<ul style="list-style-type: none"> <li>Listening, observing, being sensitive</li> <li>Systemic perspective</li> <li>'Empowerment', agency</li> <li>Putting forth effort, stamina</li> <li>Shared intention, challenges</li> <li>Imagination, creativity</li> <li>Joint processes, activities</li> <li>Action-oriented</li> <li>Inquisitive</li> <li>Values influence decision-making</li> <li>Recognising patterns of behaviour, mechanisms</li> </ul>		<ul style="list-style-type: none"> <li>Participatory</li> <li>Systems thinking</li> <li>Inclusive</li> <li>Long-term focus</li> <li>Mutual understanding, insights</li> <li>Shared vision, ideas</li> <li>Shared substance, joint decisions</li> <li>Entrepreneurial</li> <li>Experimental</li> <li>Ethical principles influence decision-making</li> <li>Opportunity design</li> </ul>
Structure	<ul style="list-style-type: none"> <li>Shared desires</li> <li>Common interest</li> <li>Shared credits, appreciation</li> <li>Open, transparent</li> <li>Ecologies, communities, networks</li> <li>People, nature and technology in balance</li> <li>Inclusive environment</li> <li>Joint practice</li> <li>Evaluation based on experiences</li> <li>Behavioural change</li> </ul>		<ul style="list-style-type: none"> <li>Shared language</li> <li>Equitable distribution of value</li> <li>Shared outcomes, benefits</li> <li>Creative Commons licences</li> <li>Labs, foundations, cooperatives</li> <li>Social enterprises</li> <li>Shared identity and communication</li> <li>Shared responsibility: joint leadership and shared roles</li> <li>Evaluation based on long-term results</li> <li>Transformation</li> </ul>
Outcome:	Multi-Value Creation	&	Societal Earning Capacity

## 2.5 Conclusion

Based on Brand and Rocchi's (2011) overview of the different economies we deal with and the preceding insights from colleagues, I have created a summary in table 4. This is an initial list of components for a societal impact design culture, approach and structure. They describe the various mindsets that stakeholders, designers and researchers can combine in order to arrive at multi-value creation and societal earning capacity. Each of the four spheres of life falls into one of two characteristic mindsets: people-oriented or business-minded.

Anyone (designers, researchers, stakeholders, organisations, coalitions, students and lecturers) who embraces the relatively new societal impact design culture, approach and organisational structure, and wants to know more about it or to purposefully deploy it in the emerging transformation economy is sincerely welcome to join our research team. In the following and final part, I will address our agenda and where you are invited to take part.



**TABLE 4:** A first impression of potential societal impact design culture, approach and structure components. This table is intended for illustrative purposes and is far from exhaustive

# 3 Design research agenda of Societal Impact Design

As the newest branch on the design tree, the still-to-be-established Societal Impact Design research team will conduct research aimed at the societal impact design culture, approach and structure. All topics and questions addressed in this speech could potentially be part of the agenda in development of this practice-driven design research line - the first of its kind at a Dutch university of applied sciences. We want to inspire and support the creative industry and the Faculty of Creative Business with societal impact design models, methodologies, practical methods and concrete case studies from real-world practice. The strength of our research lies in the close cooperation with others from all four spheres of life in the quadruple helix: personal, public, private and political. The mission of societal impact design researchers is to conduct meaningful and relevant practice-driven design research, to promote inspiring education and to involve those in professional practice as partners in a relevant way.

The societal impact design research agenda is emphatically a work in progress. This agenda is being developed within the framework of the Creative Future vision of Inholland University of Applied Sciences and as a part of the strategic research agenda of the Creative Business research group. Through our research line, we hope to contribute to the Knowledge & Innovation Agenda (KIA) for Societal learning capacity and the Knowledge & Innovation Agenda (KIA). This will include the Key Enabling Methodologies (KEM) formulated by CLICKNL. That agenda for the development of Key Enabling Methodologies relates to the

further development of the toolbox for the creative industry, with methods aimed at establishing a vision and mission, collaboration and the monitoring and testing of design and innovation processes. Design research into Key Enabling Methodologies strengthens the creative industry by continuously adding methodologically reviewed and tested tools to that toolbox. Creative professionals will be able to use these tools in the domains where they work: from social design to life centered design, from product design to media, and from architecture to communication, music and other art forms. The tools will also have

applications in many other domains, where the methods and techniques of the creative professional can contribute to scaling up or improving ways of coping with challenges in the tourism, chemical, healthcare or other industries. The ambition is to develop and test these tools in such a way that they and the corresponding knowledge can be applied by researchers and creative professionals as well as students and young professionals.

## 3.1 Meaningful and relevant research

As practice-driven design researchers, societal impact design researchers are tasked with creating new knowledge for the benefit of the creative industry and the professional fields for which the degree programmes at the Faculty of Creative Business are preparing students. Because we are collaborating across the borders of faculties and spheres of life, the knowledge we develop can benefit others as well. We are also working on projects for a chemical consortium, for the healthcare industry, and so on. But we societal impact design researchers need other Creative Business professionals in order to do this. We are drivers and change-makers, and we can do our jobs better when we have support from professionals in the areas of storytelling, business design and management. This helps put forward our message and our identity in a powerful way. As I said, our research focuses on the societal impact design culture, approach and structure. We are only willing

and able to conduct this research based on the aspirations and needs of partners who see potential for contributing - through this research - to idea directions for challenges with which they feel involvement. In that light, we researchers and our partners, along with Inholland University of Applied Sciences, share a common goal: social innovation in the city, aimed at promoting sustainability, health, inclusiveness and resilience. We are curious about the positions, potential for action, behaviour and perceptions of all stakeholders in these collaborations. These are professional partners from all spheres of life - which means citizens, researchers, lecturers and students as well. We view labs as relevant learning communities and spaces in which to conduct our research.

Together with various internal and external colleagues, I have for some time been pioneering with work that combines co-design with a systemic perspective. 'Systemic Co-Design' is the term that we have coined, together with a group of like-minded others, to refer to an integral approach to societal challenges. We view this new methodology as a multi-stakeholder approach that brings together the fields of co-design, the systemic perspective, systems thinking and insights from the human sciences for the purpose of tackling wicked societal challenges and thereby accelerating transitions in networks. This is why I am extremely pleased to have the opportunity to serve as the chair of the centre of expertise: the Expertise Network for Systemic Co-Design (ENSCD), a research group existing across

multiple universities of applied sciences, see figure 10. With the help of an allocated SIA SPRONG subsidy and together with colleagues including Inholland professors Guido Stompff and Jürg Thölke, professors Christine De Lille from the Hague University of Applied Sciences, and Remko van der Lugt from Utrecht University of Applied Sciences, along with Rotterdam University of Applied Sciences. This cross-institutional network will boost collaboration and connection within Inholland and beyond. Not to mention that such an organisational structure, which transcends individual universities of applied sciences, is itself an innovative societal impact design structure. Within the ENSCD, we intend to further elaborate our vision on and new approach of Systemic Co-design together with our partners from the four spheres of life (personal, public, private and political) in regional and nationwide learning network sessions. This new key enabling methodology promotes multi-value creation and contributes to the KIA for Societal earning capacity. The collaboration between the professors and our research groups also stimulates connections that are both substantive – in connection with systemic co-design – and thematic – in connection with the transition themes of a sustainable, healthy and safe world. Major ambitions – in addition to encouraging and defining high-quality practice-driven systemic co-design research with partners, increasing visibility and producing joint publications – also include network-based action, research programming and internationalisation. In time, the ENSCD will also be able to deploy its knowledge, position, influence and

experiments to help put societal impact design on the map. Through our Expertise Network, we will achieve social innovation – with a broad base of support and ownership – over the long term to benefit society, networks, organisations, neighbourhoods, teams, families and the individual.

### 3.2 Inspiring education in a joined practice

Societal impact design adds value to education that prepares students for and makes them aware of a changing economy, shifts in technology and changes in how we live our lives – all set against the backdrop of large and urgent ecological and cultural changes. As a professor, I strive to promote teaching that focuses on real societal challenges in actual practice, and together with my colleagues, to learn how we can implement such teaching in an effective way. I enjoy critically examining the existing borders between curricula and how they do or do not reflect professional practice and foster the kind of culture, approach and structures with which I am so comfortable. In doing so, I also hope to challenge my colleagues and promote a **didactic shift**. Being an optimist, I want to share the culture of societal impact design with them, and extend to them the future-proof and relevant skills of systemic co-design that are in line with the emerging transformation economy. In fact: I see that some students can hardly wait to do their part as inquisitive and critical world-builders and explorers.

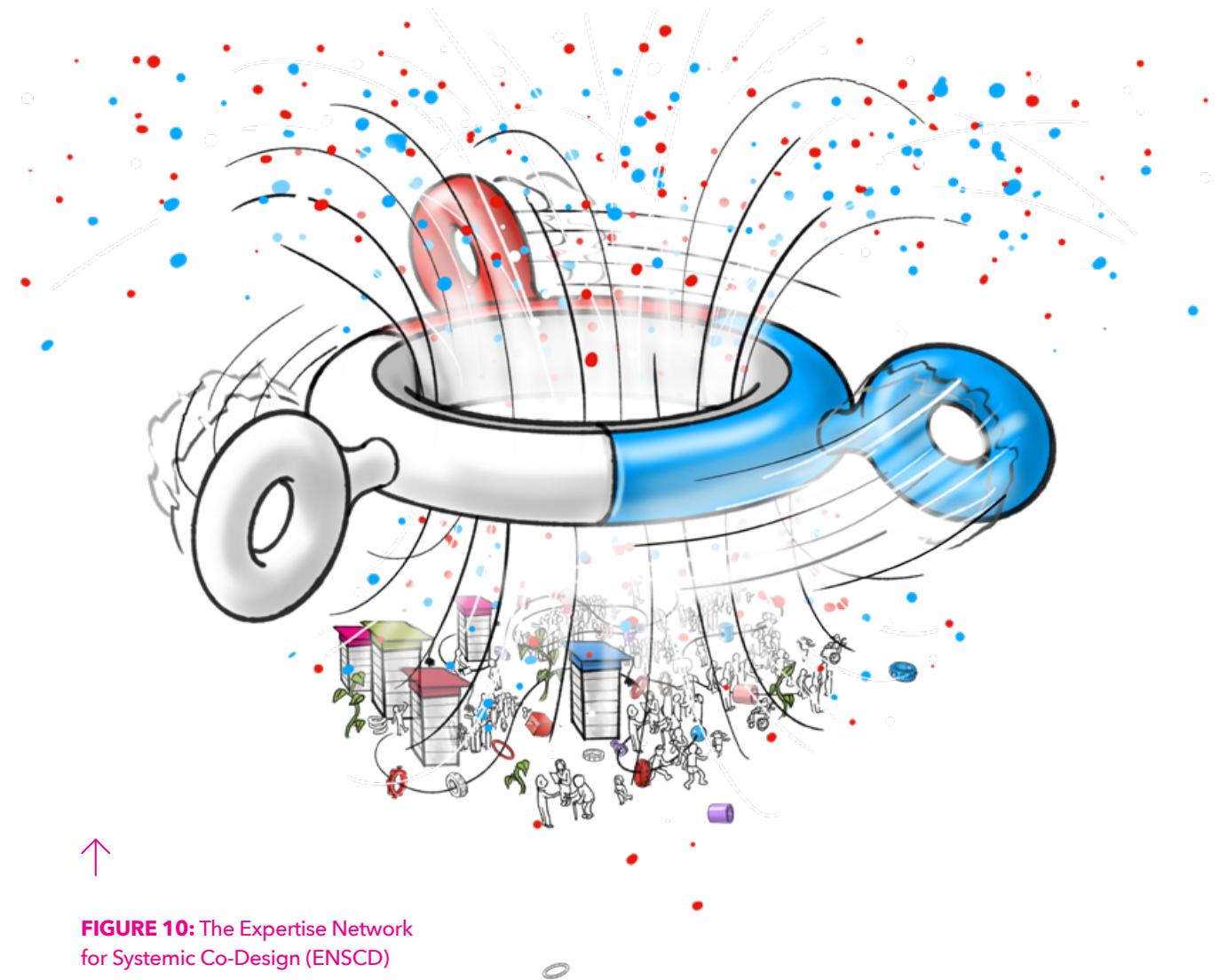


FIGURE 10: The Expertise Network for Systemic Co-Design (ENSCD)

The Faculty of Creative Business at Inholland University of Applied Sciences wishes to train professionals who are ready to face the challenges of our time. In that way, today's societal challenges also result in a duty of education. For Creative Business professionals, the challenge is to put people, society and societal challenges first. In doing so, we want to preserve the idea of 'prosperity' in combination with well-being, health, sustainability, quality of life and justice. The goal is to facilitate the integration of multi-value creation and societal earning capacity. We are working together to draft an ambitious development agenda for education and research under the 'Creative Future' banner, to which the Societal Impact Design research team is eager to contribute. A portion of this education is taking shape in living labs.

#### **Creative Future teaching activities in living labs**

In living labs in urban environments, we offer students conscious learning experiences in the context of challenging learning situations in local practice. We create context-aware education by viewing students as genuine partners and allowing them to collaborate with the professional field, their coaches and our researchers in addressing real-life societal challenges with a variety of stakeholders. 'School' is not found in a brick-and-mortar edifice or the university of applied sciences as an institution alone, but also in clicking away on your laptop or phone, in talking and working with other people in the outside world, in cafés, community centre, parks and

metro stations, and in our imaginations. It is, in other words, everywhere. Students from different study programmes work together in interdisciplinary teams. We are expanding to a growing number of study programmes and, in the future, we will hopefully be in a position to have our students collaborate with students from programmes at other universities of applied sciences and at other educational levels. The more integrated our approach to the challenges, the more we can do justice to the idea of societal impact design practice. Teaching in living labs is not about 'learning to jump through hoops' or working your way through a checklist of tasks and learning objectives. That much is clear. It is why my colleagues and I do not offer a simple prescribed collaborative process, because students should be free to discover, design and test that process themselves, adapting it through trial and error. We naturally provide them with options. It is more important that students be given the space they need to explore and draw conclusions for themselves. We want them to experience the pleasure of discovery and the accompanying sense of pride. We facilitate students by teaching them to be curious, to conduct critical research, to openly share knowledge and to improvise - to jam and remix until something new and relevant emerges. While some of our students have already acquired this attitude from their progressive secondary schools, for others, it is still a new concept. For many of our students - and certainly for the lecturers - it can be an enormous **jump** in thinking. In our lab-learning communities, students collaborate with researchers, government representa-

tives, commercial and non-profit organisations and (city) users. Learning coaches - the lecturers - support students in the shared search for multi-value creation and societal earning capacity. Our creative lab teaching culture also gives students a chance to take a different approach than usual and teaches them to be unafraid to experiment with innovative approaches for collaboration and ideation during their studies (and hopefully thereafter). Students must be confident and convinced that our educational culture believes it is OK to make mistakes, and that they can rely on support when they make mistakes of their own. This is a cultural shift we must make together; text box 12.

#### **Concluding**

In conclusion, I have reached the end of what I wanted to say. I realise that I have given a broad perspective on our societal impact design research and education. To my mind, this is in line with a new field of study and a new research line, as well as aligning with the emerging transformation economy, the societal earning capacity, the multi-value creation we strive to achieve, and the key methodology for systemic co-design to which our research line will contribute. The Societal Impact Design research line is still in its infancy, yet the contours of the knowledge agenda are already clearly visible. I am very much looking forward to starting this work with my colleagues and the labs.

#### **TEXT BOX 12: CULTURAL SHIFT**

At the moment, Creative Business students still feel excited about making mistakes and learning from them. It can be scary to share your unpolished ideas during the co-design process and to test those ideas with others. Or to appreciate your failed attempts because they yielded so many new insights. Most students are not (yet) used to the idea that the process itself and the resulting insights can be rewarding for them, too. Their learning coaches do not always see things that way either. They might, for instance, have a strong focus on direct results. Together, we are learning that the collaborative design research process itself can be very valuable for students and for the participating coalitions. The process helps build trust and leads to the insight that there are inevitably new questions lurking behind every question. As it stands, it costs students a great deal of effort, time and frustration to find out whether a promising idea might actually drive behavioural change. We intend to support them by methodically and systematically exploring the best way to guide students through the process, and determining what this will require from our lecturers. •

I envision us  
learning and  
growing together,  
personal and up  
close. With the  
goal of leaving  
the world a bet-  
ter, greener and  
more social place  
for the generati-  
ons to come.

# Acknowledgements

I have come to the end of my public lecture. To my knowledge, we are the first Societal Impact Design research-line at any university of applied sciences in the Netherlands. And I am proud of that. As you understood, we have already started and I cordially invite you to think, feel, learn and act along with us.

More than ten years ago, I started my own co-design agency Wien's ontwerperschap? after a career as an industrial designer at various companies including Giant bicycles. I stood with my feet in the clay of the neglected and poor districts in Eindhoven and Amsterdam Nieuw West. I learned little by little what design can add to the social and health domains. Later on, projects followed around loneliness, mourning, refugees, dementia, underprivileged pregnant women, children in poverty and more. I worked together in coalitions with governments, municipalities, health-care institutions, patient associations, business communities and (applied) universities. I worked with anthropologists, psychologists, sociologists, artists, physicians and healthcare providers in various compositions. Likewise, this inaugural lecture is the result of that practical experience as a co-designer. Throughout my design and research career, I have been fortunate to collaborate with very many

inspiring colleagues and friends. They also nourished my thinking, feeling and acting. Thanks to all!

Yet, I think the seed for a research career was planted in my time at the University of Technology in Eindhoven, where I got the chance to set up and lead the home domain at the Faculty of Industrial Design. Years later, another project -the dementia simulator based in my own co-design practice- planted a second, more substantive seed. It eventually led to my first publication in an international scientific design journal.

Consequently, a special thanks goes out to Koen and Berry, whom I have known since my time in Eindhoven and who have more than supported me in my academic journey. Moreover, the chance that I got from Ben and Wiebe to co-develop and boost a dementia simulator with Ijsfontein, was crucial for my first publication.

The trust I got a year ago of Huug, Marij, Peggy and Joke to become a professor of Societal Impact Design at the domain Creative Business is a new milestone. One that I am happy to pick up inside the Creative Business research centre. Within this group, I am very happy with

such an experienced colleague like Joke, who supported me already in all kinds of ways and of which I still can learn a lot. Big kiss! In addition, it was great to be so well supported by Barbara, Dorus, Francesca, Hilda, Kim, Martine, Pia and Willemijn in the preparation of this public lecture accompanied by this beautiful publication.

Moreover, I am grateful to be able to collaborate with inspiring research peers: Anja K & Anja O, Ben, Christine, Guido, Joke, Jürg, Karel, Ko, Koos, Maaïke, Peter, Remco and last but not least Roos, our lab pioneer. In addition, I would like to thank my teaching colleagues Antje, Bjorn, Esther, Iris, Jannerieke, John, Manon, Martijn, Nicolette, Ouafila, Pawan, Remco, Reuben and Simone (excuse me if I forget someone) with whom I renewed the Creative Future lab education in recent years.

Subsequently, thanks to the educational pioneers in the Urban Leisure & Tourism Lab in Amsterdam-North which -due to our last corona years- have worked hard: thanks topper Claudia, Cecile, Edwin, Feico, Ferdinand, Fieke, Jeroen, Jolanda, Josien, Linda, Luca, Majorie, Marie-Ange, Marion, Mireille, Mirna, Myrthe, Philippa, Stijn, Swen, Taco, Tom, Willy, Wim, Zac.

And thanks to all students and working field partners who enthusiastically started the lab adventure and engaged with us. Cheers to Danielle, Egbert, Jake, Judith, Kees, Machteld, Maya, Mechteline, Mitra, Peter (and who I forget: apologies again).

Finally, of course, there are the people in my personal sphere. Dearest Jochem, Lieve, Smilla and Hans: without your practical and loving support this story (and me) would possibly not have been come this far. Thxxx!



# References

## Literature

Akama, Y., & Light, A. (2018, August). *Practices of readiness: punctuation, poise and the contingencies of participatory design*. Proceedings of the 15th Participatory Design Conference: Full Papers- Volume 1, 1-12.

Antczak, K. A., & Beaudry, M. C. (2019). *Assemblages of practice. A conceptual framework for exploring human-thing relations in archaeology*. *Archaeological Dialogues*, 26(2), 87-110.

Bateson, G. (1973). *Steps to an Ecology of Mind*. New York: Ballantine Books.

Battarbee, K., Suri, J. F., & Howard, S. G. (2014). *Empathy on the edge: scaling and sustaining a human-centered approach in the evolving practice of design* (pdf). IDEO. Can be found online at: [www.ideo.com](http://www.ideo.com)

Berger, P.L. & Luckmann, T. (1966). *The Social Construction of Reality*. Penguin Books: New York, NY, USA.

Brand, R., & Rocchi, S. (2011). *Rethinking value in a changing landscape. A model for strategic reflection and business transformation*. A Philips design paper.

Brown, T. (2009). *Change by design: How design thinking*

creates new alternatives for business and society. Collins Business.

Chang, H., Ngunjiri, F. W., & Hernandez, K.A.C. (2013). *Collaborative autoethnography*. Walnut Creek, CA: Left Coast Press.

Chen, D. S., Cheng, L. L., Hummels, C., & Koskinen, I. (2016). *Social design: An introduction*. *International Journal of Design*, 10(1), 1-5.

Den Ouden, E. (2012). *Innovation design: Creating value for people, organizations and society* (p. 196). London: Springer.

Dilts, R., Grinder, J., Bandler, R., & DeLozier, J. (1980). *Neuro-Linguistic Programming: The Study of the Structure of Subjective Experience*. Vol.1. Cupertino (CA): Meta Publications.

Dilts, R. (1990). *Changing Belief Systems with NLP*. Cupertino, CA: Meta Publications.

Dorst, K. (2011). *The core of 'design thinking' and its application*. *Design studies*, 32(6), 521-532.

Dunne, A. (2008). *Hertzian tales: Electronic products, aesthetic experience, and critical design*. MIT press.

Dunne, A. (2008). *Design for debate*. *Architectural Design*, 78(6), 90-93.

Gardien, P., Djajadiningrat, T., Hummels, C., & Brombacher, A. (2014). *Changing your hammer: The implications of paradigmatic innovation for design practice*. *International Journal of Design*, 8(2), 119-139.

Gerritsma, R. (2019). *Overcrowded Amsterdam. Striving for a balance between trade, tolerance and tourism*. In C. Milano, J.M. Cheer & M. Novelli (Eds). *Overtourism: Excesses, discontents and measures in travel and tourism* (p125-147). CABl. <https://doi.org/10.1079/9781786399823.0125>

Gerritsma, R. Waterreus, S., Koens, K., Smeenk, W., Stomppff, G. (2020). *Exploration of Amsterdam: Contexts and trends of social exclusion, forms of coping and innovative community solutions*. In Holland University of Applied Sciences.

Gladwell, M. (2006). *The tipping point: How little things can make a big difference*. Little, Brown.

Godin, D., & Zahedi, M. (2014). *Aspects of research through design: a literature review*.

Gudde, R. (2016). *Het agoramodel. De wereld is eenvoudiger dan je denkt*. Leusden: ISVW Uitgevers.

Hakio, K., & Mattelmäki, T. (2019). *Future skills of design for sustainability: An awareness-based co-creation approach*. *Sustainability*, 11(19), 5247.

Hermes, J., Koch, K., Bakhuizen, N. & Borghuis, P. (2017).

*This is My Life: The Stories of Independent Workers in the Creative Industries in the Netherlands*. Javnost/The Public, 24(1), 87-101.

Hermes, J.; Bakhuizen, N. & Bouwmeester, J. (2015). *Bottom up verandering, top down aangestuurd: Onderwijskwaliteit en managementcultuur in het hbo*. Tijdschrift voor Hoger Onderwijs, 33(4), 59 - 74.

Hess, J. L., & Fila, N. D. (2016). *The development and growth of empathy among engineering students*. *American Society for Engineering Education*.

Hummels, C., & Frens, J. (2008). *Designing for the unknown: A design process for the future generation of highly interactive systems and products*. In DS 46: Proceedings of E&PDE 2008, the 10th International Conference on Engineering and Product Design Education, Barcelona, Spain, 04.-05.09. 2008 (pp. 204-209).

Hummels, C., Trotto, A., Peeters, J., Levy, P., Alves Lino, J., & Klooster, S. (2019). *Design research and innovation framework for transformative practices*. In Strategy for change (pp. 52-76). Glasgow: Caledonian University.

Irwin, T. (2015). *Transition design: A proposal for a new area of design practice, study, and research*. *Design and Culture*, 7(2), 229-246.

Kleinsmann, M., & Valkenburg, R. (2008). *Barriers and enablers*

for creating shared understanding in co-design projects. *Design studies*, 29(4), 369-386.

Klomp, K. & Oosterwaal, S. (2021). *Thrive. Fundamentals for a new economy*. Business Contact.

Koens, K., (2021). *Reframing Urban Tourism*. Publicatie bij de lectorale rede. Amsterdam/Diemen: Hogeschool Inholland.

Kouprie, M., & Sleswijk Visser, F. (2009). *A framework for empathy in design: Stepping into and out of the user's life*. *Journal of Engineering Design*, 20(5), 437-448. doi:10.1080/09544820902875033

Latour, B. (1996). *On actor-network theory: A few clarifications*. *Soziale welt*, 369-381.

Lee, J. J., Jaatinen, M., Salmi, A., Mattelmäki, T., Smeds, R., & Holopainen, M. (2018). *Design choices framework for co-creation projects*. *International Journal of Design*, 12(2)

Leonard, D., & Rayport, J. F. (1997). *Spark innovation through empathic design*. *Harvard business review*, 75, 102-115.

Manzini, E. (2015). *Design, when everybody designs: An introduction to design for social innovation*. MIT press.

Mattelmäki, T., Vaajakallio, K., & Koskinen, I. (2014). *What happened to empathic design?* *Design Issues*, 30(1), 67-77. doi:10.1162/desi\_a\_00249

McLelland, D.C. (1987). *Human Motivation*. Cambridge: Cambridge University Press.

Mediaperspectives (2019). *Monitor creatieve industrie*. Online te vinden op: [www.mediaperspectives.nl/app/uploads/2020/01/MCI19\\_Profielen\\_DEF.pdf](http://www.mediaperspectives.nl/app/uploads/2020/01/MCI19_Profielen_DEF.pdf)

Morozov, E. (2013). *To Save Everything, Click Here: Technology, Solutionism, and the Urge To Fix Problems That Don't Exist*. London, Penguin.

Nasr, R., (2021). *De fundamenteen*. Amsterdam: De bezige bij.

Oerlemans, L. A. G. (2007). *Netwerken en innovatie: Een perfecte match?*. Tilburg University.

Overdiek, A., & Geerts, H. (2021). *Innoveren met labs-hoe doe je dat? Ervaringen van Future-Proof Retail*. Den Haag.

Papanek, V. (1972). *Design for the real world: Human Ecology and Social Change* (2nd ed.). Chicago, United States of America: Academy Chicago Publishers.

Parsons, T. (2013). *The social system*. Routledge.

Rotmans, J., & Loorbach, D. (2009). *Complexity and transition management*. *Journal of industrial ecology*, 13(2), 184-196.

Sanders, E. B. N., & Stappers, P. J. (2008). *Co-creation and the new landscapes of design*. *CoDesign*, 4(1), 5-18.

doi:10.1080/157108  
80701875068.

Sanders, E. B. N., & Stappers, P. J. (2012). *Convivial toolbox: Generative research for the front end of design*. Amsterdam, the Netherlands: BIS Publishers.

Sangiorgi, D. (2011). *Transformative services and transformation design*. *International Journal of Design*, 5(2), 29-40.

Scharmer, C.O. (2016). *Theory U: leading from the future as it emerges: the social technology of presencing*. San Francisco, CA: Berrett-Koehler.

Schön, D. A. (1983). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. Jossey-Bass.

Senge, P.M. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization*; Doubleday: New York, NY, USA.

Smeenk, W., Tomico, O., & van Turnhout, K. (2016). *A systematic analysis of mixed perspectives in empathic design: Not one perspective encompasses all*. *International Journal of Design*, 10(2), 31-48.

Smeenk, W., Sturm, J., & Eggen, B. (2017). *Empathic Handover: How would you feel? Handing over dementia experiences and feelings in empathic co-design*. *CoDesign: International Journal of CoCreation in Design and the Arts*, 1-16. Taylor & Francis. doi: 10.1080/15710882.2017.1301960

Smeenk, W., Sturm, J., Terken, J., & Eggen, B. (2018). *A systematic validation of the empathic handover approach guided by five factors that foster empathy in design*. *CoDesign: International Journal of CoCreation in Design and the Arts*, 15(4), 308-328. Taylor & Francis

Smeenk, W., Sturm, J., & Eggen, B. (2019). *A comparison of existing frameworks leading to an empathic formation compass for co-design*. *International Journal of Design*, 13(3), 53-68.

Smeenk, W. (2019). *Navigating empathy: empathic formation in co-design*. (Doctoral dissertation). Technische Universiteit Eindhoven.

Smeenk, W., Köppchen, A., Bertrand, G. (2021). *Het co-design canvas*. Online te vinden op: [www.siscodeproject.eu/labarticle/cubes-co-design-canvas-a-one-page-tool-for-social-change/](http://www.siscodeproject.eu/labarticle/cubes-co-design-canvas-a-one-page-tool-for-social-change/)

Smeenk, W. (2021). *Systemisch Co-Design*. SIA Sprong. Hogeschool Inholland, Amsterdam/Diemen.

Smeenk, W. (2022). *Applied Design Research: A Mosaic of 22 Examples, Experiences and Interpretations Focussing on Bridging the Gap between Practice and Academics* (1st ed.). Joore, P., Stomppff, G., & Eijnde, J.V.D. (Eds.). CRC Press. <https://doi.org/10.1201/9781003265924>

Smeenk, W. & Astola, M. (2021). *No empathy without empowerment in co-design*. In proceedings.

Smeenk, W. & Willenborg, A. (2022). *Design, Play, Change, a playful introduction in design thinking*. BIS, Amsterdam.

Stomppf, G. (2020). *De kracht van verbeelden. Design thinking in teams*. Amsterdam/Diemen: Hogeschool Inholland.

Takanen, T. (2013). *The power of being present at work: co-creative process inquiry as a developmental approach* (Doctoral dissertation). Aalto University, Finland.

The British Design Council (2021, April). *Beyond net zero: A systemic design approach* (pdf). London: Design Council. can be found online at: [www.designcouncil.org](http://www.designcouncil.org)

Thölke, J. (2015). *Vonken van vernieuwing (verhalen van 8 jaar lectoraat innovatie van leren in organisaties)*. Nijmegen: HAN Marketing, Communicatie en Voorlichting (met Roelofs, F. en Sipman, G.J.) (Eds.)

Thölke, J. (2021). *Gave en opgave. Authentiek leiderschap als zoektocht naar de beste versie van jezelf in verbinding met de wereld om je heen*. Amsterdam/Diemen: Hogeschool Inholland.

Tönnies, F. (1887). *Gemeinschaft und Gesellschaft*. Whitefish, MT: Literary Licencing, 2014.

Van de Broek, J., van Elzakker, I., Maas, J., Deuten, J. (2020). *Voorbij lokaal enthousiasme. Lessen voor de opschaling van living labs*. Den Haag: Rathenau Instituut

Van Kollenburg, J., Bogers, S., Rutjes, H., Deckers, E., Frens, J., & Hummels, C. (2018, April). *Exploring the value of parent tracked baby data in interactions with healthcare professionals: A data-enabled design exploration*. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (pp. 1-12).uut.

Van Mensvoort, K. M. (2013). *Pyramid of technology: how technology becomes nature in seven steps*. Technische Universiteit Eindhoven.

Van Turnhout, K. G., Hoppenbrouwers, S. J. B. A., Jacobs, P., Jeurens, J., Smeenk, W., & Bakker, R. R. (2013). *Requirements from the Void: Experiences with 1: 10: 100*.

Weissfeld, P. (2006). *De bestemming van het systeem. Gezondheid en ziekte van het systeem en de consequentie voor individu, groep en organisatie*. Soest. Uitgeverij Nelissen.

Xue, H., & Desmet, P. M. (2019). *Researcher introspection for experience-driven design research*. Design Studies, 63, 37-64.

#### Websites:

- <https://www.clicknl.nl/kia-verdienvermogen-2020-2023/>
- [www.coeci.nl](http://www.coeci.nl)
- [www.ddw.nl](http://www.ddw.nl)
- [https://ec.europa.eu/info/sites/default/files/research\\_and\\_innovation/contact\\_documents/ec\\_rtd\\_mazzucato-report-issue2\\_072019.pdf](https://ec.europa.eu/info/sites/default/files/research_and_innovation/contact_documents/ec_rtd_mazzucato-report-issue2_072019.pdf)
- <https://www.elskedoets.nl/nieuws/elske-doets-en-sarah-van-buren-ylba-in-vpro-tegenlicht-documentaire-de-ontgroeiers/>
- [www.ideo.com/post/the-little-book-of-design-research-ethics](http://www.ideo.com/post/the-little-book-of-design-research-ethics)
- [www.inholland.nl/onderzoek/inholland-themas/creative-future/](http://www.inholland.nl/onderzoek/inholland-themas/creative-future/)
- [www.inholland.nl/onderzoek/publicaties/the-co-design-canvas/](http://www.inholland.nl/onderzoek/publicaties/the-co-design-canvas/)
- [www.intodmentia.nl](http://www.intodmentia.nl)
- [www.kia.clicknl.nl](http://www.kia.clicknl.nl)
- [www.nwo.nl](http://www.nwo.nl)
- <https://www.rijksoverheid.nl/onderwerpen/omgevingswet>
- [www.sia.nl](http://www.sia.nl)
- <https://unesdoc.unesco.org/ark:/48223/pf0000247444>

• Sibbel, H., alias Lebbis (2020). *De bovengrens*. Online te vinden op: <https://www.netflix.com/nl/title/81403684>

• Alkemade, F. (2021). *De kunst van het verlangen*. VPRO Zomergasten, 18 juli 2021. Online te vinden op: [www.vpro.nl/programmas/zomergasten](http://www.vpro.nl/programmas/zomergasten)

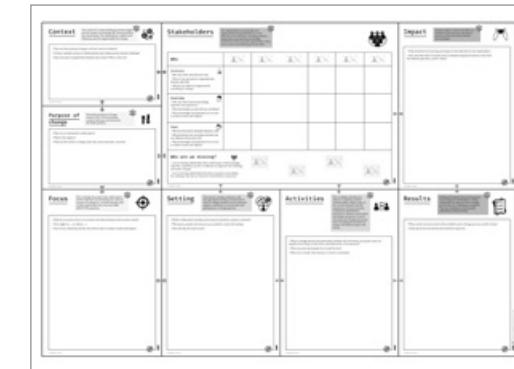
## Co-Design Canvas



Connect people and ideas, use the collective wisdom and act together!

The co-design canvas is a practical instrument for initiating, planning, implementing and evaluating collaboration on societal challenges in an open and transparent way together with various stakeholders. It offers insight into differences between the interests, knowledge, experience and power relationships, facilitates reflection on desired impact and concrete results and ensures that everyone's voice is heard.

Scan the qr code.



Publication accompanying the inaugural lecture delivered and livestreamed on 1 December from Pakhuis de Zwijger in Amsterdam on accepting an appointment as Professor of Societal Impact Design at Inholland University of Applied Sciences.

© Dr. ir. Wina Smeenk, 2021  
Inholland University of Applied Sciences

CC-BY 2.0 gelicenseerd  
creativecommons.org



Lay-out and design: das Studio  
Photography: Jaqueline Gielen and own archive  
Illustrations: Steve Nestorovski  
Illustration Expertise Netwerk Systemisch  
Co-Design: Jochem Galama

Question your  
lifestyle and  
ideas about life

 **inholland**  
hogeschool