

Year (start)	Name	Description	Commissioned by	Type
2025	Yumana (Tijuana)	The Yumana site is located near the US border in the northern part of Tijuana, Baja California. The site will be redeveloped into an urban precinct focusing on natural qualities, health, and wellness. Given that the site is located on top of a hill with steep slopes, questions arise about soil stability, ecological characteristics, and water management. This research program aims to develop a regeneration strategy for biodiversity and the soil and contribute to adjusting the urban master plan. Implicitly, the site's natural elements will need to be manifested so that these qualities can add to the health of future residents and non-human species. The strategy is translated into concrete adjustments and implemented through earthworks and ecological areas. In many hilly and mountainous landscapes, problems occur with landslides and water conservation. These settings are especially true when these areas are close to or part of urban areas, which causes serious issues for the inhabitants. Flooding and the accumulation of sand and clay sediments lead to hazards, disruptions, and other problematic situations. The key-line design approach aims to identify the points between valleys and ridges where water can be diverted and landslides stabilized. This method is achieved by redirecting runoff along the contour lines. This practice prevents disasters, creating higher soil fertility and the opportunity to reshape the urban landscape to develop an ecological and productive landscape.	CREO	Urban design
	Livable Mérida	The Livable Mérida design workshop aims to develop sustainable urban planning and design concepts based on ancient local knowledge. It is organized as an intensive charrette, in which students, faculty, and local stakeholders from planning institutions and government work together to develop novel spatial concepts for the future of three small towns that over time have been overgrown and incorporated by the larger urban area of Mérida. The combination of archeological knowledge and tools and creative design insights enhances the chance to create a future that is greener, more regenerative, and embedded in local knowledge and history at the same time.	Université Libre Bruxelles, EU	Urban design & archeology
	Arboleda Botanical Garden	The Botanical Garden in Arboleda is a collection of trees and plants organized according to the seven ecotones of the Monterrey Metropolitan region, ranging from the desert to the pine forest. In this project, an eighth ecotone, a riverine ecosystem, will be added, connecting the creek to the other ecotones. The design for this will include capturing rainwater from the nearby urban development and reorganizing the existing creek to meander and slow down the excess water.	CREO	Public space design
	Regenerative Regions Symposium - II	The second International Symposium on Regenerative Regions is held from May 26 to 28, 2025. It brings together thought leaders, creatives, faculty, students, and engaged people worldwide to discuss how we can plan for, design, and develop Regenerative Regions. The core message is that we should listen carefully to what nature tells us. The wisdom of natural living systems should be taken as the first step in any urban development, whether large or small. If we understand the dynamics, the processes, and the systems at work in ecology, the soil, climate, water, and the air, we will be better capable of developing a conscious urban landscape. Within this framework, we must ensure that people and non-human organisms are healthy, safe, happy, and balanced. This ecological equilibrium can be found and further designed at the regional scale. At this scale, the natural systems are at work and can shape the environment where we all can thrive. We are	TEC-FoE	Curation of symposium

		<p>inspired by the thoughtful keynotes from Belfast, Sydney, Pondicherry, and Melbourne, in combination with lively discussions in several interactive workshops. Moreover, the active participation of TEC students in architecture, urbanism, sustainable development, and climate action shows us how they think the future should look like: sustainable, clean and healthy, and regenerative, so we can move from the current situation in which we have to live, through healing our environment and rediscover to love the places we live.</p>		
	<p>UrbanSWARM (Urban transformations for small-scale, circular and Resilient nature-Based solutions: Sustainable Water, Waste and Biodiversity Management)</p>	<p>UrbanSWARM pioneers a unique approach to urban regeneration by developing small-scale, high-impact nature-based solutions (NbS) for circular water and waste management. These solutions transform underutilized spaces into resilient, biodiverse, climate-positive areas. Applying a Swarm Planning approach, UrbanSWARM designs NbS that enhance placemaking, community resilience, and urban impact. Key objectives include advancing circular water systems, repurposing construction waste for green infrastructure, and testing adaptive NbS to promote biodiversity and climate resilience. The project implements Urban Living Labs in Belgium, the Netherlands, Greece, and Spain, providing scalable solutions, policy guidelines, and best practices. Engaging local governments, businesses, academia, and communities, UrbanSWARM fosters partnerships and knowledge exchange across Europe</p>	<p>DUT (Driving Urban Transitions)</p>	<p>Urban design research</p>
	<p>Thirsty city/thirsty river: Regenerative Rio Pesquera</p>	<p>The metropolitan area of Monterrey faces increasing environmental challenges in the future due to climate change: declining precipitation trends and rising temperatures. This results in hot urban areas and water scarcity. The residents are experiencing severe problems. The Thirsty City research program addresses these problems in an integrated and systemic way. Both water quantity and quality are equally important, and the land use change from the upper basin areas to the lower-lying discharge areas is considered. Moreover, this is seen as a design approach, providing spatial solutions to increase water quality and retain as much water in the system as long as possible. It is crucial to retain and collect water within the city. This can be done by slowing down streams and encouraging infiltration. Also, new water reservoirs will enhance water availability, helping restore rivers, streams, and channels, creating more parks, and designing the spaces for water purification and storage of this valuable resource. Finally, the spatial quality and accessibility of the green-blue urban network are attractive to nearby residents. The first watershed we will explore is the Rio Pesquera.</p>	<p>TEC-FoE</p>	<p>Landscape-ecological planning and design</p>
<p>2024</p>	<p>Nature-rich Schouwen Duiveland</p>	<p>A residents-driven design-research project how the island of Schouwen-Duiveland can stay within planetary boundaries. In an intensive interactive process, the demands and wishes of the local populations are creatively collected and translated in a long-term spatial vision for the island.</p>	<p>Delta Climate Center</p>	<p>Participatory urban-rural research</p>
	<p>Internet of Trees – Miyawaki forests</p>	<p>To implement the greening of the city, the Tiny Forests program offers inhabitants, students, and university staff the opportunity to commemorate an impactful occurrence in their personal lives. This can be a wedding, a funeral, a primary school class, a memorable anniversary, and so forth. The tiny forests are planted according to the Miyawaki method. The plants and trees are planted very close to each other, which makes them strong enough to survive difficult conditions and grow faster than regular forests. The intensity also leads to a (up to 30%) higher carbon capture than a typical forest does. Only native species (trees, shrubs, and grasses) are used for the forests. Bird appearances and carbon capture are measured to monitor and</p>	<p>TEC-FoE, TEC-PrepaTEC</p>	<p>Local ecological design</p>

	<p>sense these forests' environmental conditions. Generally, these forests are self-sufficient after 2-3 years and have grown to a size that is big enough to survive independently. So far, three Miyawaki forests have been planted on the Monterrey TEC campus. This research project aims to interlink groups of trees and exchange collected information to understand their behavior, demands, and conditions. By placing sensors in every tree, a range of data will be collected, such as the humidity, temperature, level of CO2 in the air, nitrogen, ozone, the light intensity and shade, growth of the tree, soil fertility, etc. Moreover, through the <i>haikubox</i>, birdsongs are recorded, and the species of visiting birds is followed. By connecting the collected data and interrelating them, a range of analyses are possible. In this project, we aim to determine how well the trees, or the group of trees, are doing. Are they healthy and happy, and how are they contributing to human well-being (for instance, by capturing carbon, providing a cool place, and so forth)? Every sensor is openly accessible through a dashboard, where everyone can access the collected and current data of every tree. All information is easy to understand and accessible. After the first results of collected and connected data become available, the plan is to expand the Internet of Trees to all Miyawaki forest initiatives.</p>		
Green Metropolis	<p>Human influence on climate has been significant and has different impacts. In the case of Monterrey, droughts are the most impactful. The vast landscape of the Monterrey region is dry and suffers from rising temperatures, which compromise the drinking water supply. The Green Metropolis project investigates which transformations at the metropolitan scale help reverse the Anthropocene developments and their adverse effects on human health and safety. This starts with analyzing the existing soil, water, and ecological conditions, to base spatial design on the watersheds of the city. Urban sprawl impacts natural conditions and the livability of the metropolis. This landscape pain is identified. The quarries, the most significant highways, housing that creeps up mountains into natural protected areas, contaminated waterways, the large parking lots, and the XL-sized buildings and industrial sites are mapped. Also, all natural creeks obstructed, overbuilt, or made invisible by more than 17,000 constructions are mapped out. These pains are the point of departure for repairing, reversing, and regenerating the urban landscape. Four possible scenarios are designed: (I) a free urban development, occupying all landscape in the urban fringes, (II) including small green spaces within this urban sprawl (like is usual business), (III) create a green belt around the current urban boundary, rewilding all rivers and creeks to become bio-corridors, turning the highways into green bio-corridors and greening all roofs of the XL buildings, and (IV) additionally greening all residential roofs, planting trees and agave in every street, so if we look on Google Maps we see a completely green metropolis. These scenarios are integrated into one vision for the Green Metropolis.</p>	FAMM	Regional planning & design
Maguay landscape	<p>The Maguay plant:</p> <ul style="list-style-type: none"> - Provides humidity - Temperature drops when planted in combination with Mezquite and Huizache, and cattle grazing - Captures carbon: 30-60 tons CO2 per hectare - Improves the soil, roots keep water - Produces aguamiel by fermenting; the fibers are thin but strong and can be used for clothing 	TEC-FoE	Regional landscape design

	<ul style="list-style-type: none"> - Enhances biodiversity - Has medicinal powers. Can cure skin cancer through the somewhat toxic skin of the plant. - Leaves can be used in construction: roof tiles - The skin opens as soon as it rains and closes again when it gets dry, keeping the water inside the plant It recovers poor soils in arid landscapes and is ideal for cultivation in desert landscapes. Given the additional benefits of carbon capture, medicine, and other products, it is an exciting option for landscape regeneration. At the landscape scale, 1 hectare of Maguey (2000 plants and 400 Mezquites) captures 45 tons of CO2 At Villa de Patos (1500 hectares), the maximum potential is to capture 6750 tons of carbon. We designed a landscape plan for General Cepeda and the surroundings of what this could look like when we integrate Maguey plantations in the desert. In an urban setting, we could plant 2000 plants and 400 mesquites in a strip along every street; it would require 4 km to reach the same effect (capturing 45 tones of CO2). This activity involves planting 5 magueys and 1 mesquite every 10 meters. If we plant this along every residential street in every neighborhood, we can calculate the carbon capture per municipality. We can design a plan for the urban landscape in every municipality. 		
Reinventing traditions	<p>The abundance of bulk and processed foods has led to an increase in diseases such as diabetes and obesity but has also had a mental impact on the health of people. In the meantime, people have almost forgotten how rich the local cuisine used to be. Heritage recipes are museum pieces rather than being used in the average kitchen. This is while many of these traditional foods are much more nutritious and healthier than the globalized instant food sources, we all consume, whether we want it that way or not. If we capture the heritage food recipes and determine their nutritional value and potential positive impact on human health, traditional menus can be revived. More than this, the acceptance of these dishes can be enhanced if iconic chefs use them to develop novel dishes based on heritage recipes. This way, the healthy, local cuisine becomes popular, and more people would experience its taste, quality, and food value. The collection and documentation of heritage recipes from older adults living in disadvantaged neighborhoods are translated into novel dishes, which the residents of these neighborhoods can consume.</p> <p>When the ingredients and crops are grown locally, in urban farms, community gardens, or orchards, the local youth can be trained in skills such as gardening, harvesting, storing, processing, trading, cooking, and every other aspect of the food cycle. This way, people will eat healthier, old recipes will be kept and used to create modern dishes, and a young generation living in disadvantaged places will be allowed to develop valuable skills and enter the labor force. The goal is to use heritage recipes to create a healthy food system for the Northeast region that keeps us within the global planetary boundaries.</p> <p>The activities include documenting recipes, understanding their health benefits, growing the ingredients, and using the produce in new dishes developed by top local chefs. This way, people will have easy access to healthy food options in restaurants, supermarkets, and outlets, which helps them to live more healthily. The growth of local healthy food has been abandoned in our urban environments and is replaced by processed food from far away, obtained by many in supermarkets. This has caused easy access to food but also several health implications, such as obesity and diabetes. To counteract this development, local organic food supplied directly</p>	Challenge Based Research - TEC	Cross-disciplinary research

		<p>to the local community can be grown. This research aims to create a place where these crops can be grown on the campus. The research contains several steps: 1. Identification of potential spaces on the campus and arranging permission 2. Design the urban gardens based on the demanded crops 3. Realize and maintain the urban gardens 4. Program events and happenings, such as teaching classes by local chefs, artists in residence programs, local food-related events, and dinners.</p> <p>The research develops a model for implementing healthy recipes, growing organic crops, designing the urban farm, and organizing a year-round plant and harvest program. The urban Milpa system has been developed to support vulnerable communities by providing them with an easy and healthy way of growing crops. In this system, frijoles, calabazas, and maíz form the basis and are surrounded by impossible plants. It is easy to construct, maintain, and harvest. This project will implement clusters of 4-6 raised beds in multiple locations in Independencia, teach the residents how to construct and grow the crops, then use the ingredients in healthy dishes and cook them together in a community dinner.</p>		
	Regenerative Regions symposium - I	<p>The International Symposium on Regenerative Regions was held on 5-6 March 2024. It brought together a range of thought leaders, creatives, faculty, students, and engaged people from around the world to discuss the way we can plan for, design, and develop more Regenerative Regions. The core message is that we should listen carefully to what nature must tell us. The wisdom of natural, living systems should be taken as the first step in any urban development, no matter how large of small these are. If we understand the dynamics, the processes, and the systems at work in ecology, the soil, climate, water, and the air, we will be better capable of developing a conscious urban landscape.</p> <p>Within this framework we then need to make sure that people and non-human organisms are healthy, safe, happy and in balance. This equilibrium can be found and further designed at the regional scale. At this scale the natural systems are at work, and can shape the environment within which we all can thrive.</p> <p>We have been inspired by the thoughtful keynotes from London, Oaxaca, Pretoria, Delft, Sydney-Port Moresby and Helsinki-Taipei-Kharkiv, in combination with lively discussions in several panels. Moreover, students from the Master of Architecture and Urban Design from TEC and the Urban Ecology Design Lab from Delft University of Technology showed us how they think the future should look like: really sustainable, clean and healthy, and regenerative, so we can move from the current pain in which we have to live, via healing our environment to loving the places we live.</p>	TEC-FoE	Curation of Symposium
2023	La Ola Verde	<p>In our jobs (and lives), we use many resources that impact the climate and contribute to climate change. We could minimize or even turn this impact positive by capturing more carbon than we emit through creating nature, green spaces, and planting trees and forests. The objective is to programmatically create a movement and a green wave (La Ola Verde) that overflows the city of Monterrey. Most people contribute to global warming by using energy, driving a car, consuming food, or taking a flight. Together, we influence the climate to become warmer and more unpredictable. At the same time, we don't put mechanisms in place that could bring back natural balance, and changes are limited to natural variability. At a global level, governments are trying to put policies in place to limit global warming, but</p>	TEC-FoE	Overarching strategic foresight

		<p>these policies are too abstract for many people to feel that they limit our way of living. At a personal level, people are therefore not overly enthusiastic to take measures in their daily lives. Consequently, we should bridge the long-term abstract future with concrete and easy-to-undertake interventions, which, all together, make a difference. Trees, forests, peat bogs, wetlands and marshes, urban parks, food forests, community gardens, and all other forms of green space contribute to capturing greenhouse gases. If we make it easy for residents to be part of a green transformation, that enhances their direct living conditions to become cooler, with more shadow, healthier, safer and so on, we can collectively contribute to limiting, or even reversing climate change, stop, or even reverse biodiversity loss, while being happier, healthier and less vulnerable. This transformation requires strategic and programmatic action and establishing a movement that starts small but can grow rapidly. The goal is to create a green wave flowing over the city, transforming the urban environment into green, pleasant spaces that are healthy for all humans and nonhuman organisms and can regenerate the city and its people.</p>		
	Sound of the Wild	<p>Urban residents are increasingly unaware of their natural surroundings. When the sounds of a forest are brought to them, they are expected to become more interested in and receptive to nature's vulnerability and beauty. In this research, we will capture the sounds of the forest of Chipinque and stream them online so people can listen to what happens in the forest in real time. Also, listening to early morning sounds or how the forest sounded weeks or years ago is possible. The technology is placed in an artefact designed as a sculpture, an artistic expression, to fit in the forest environment. Still, it may also cause interaction with animal life and the human public. The research aims to experience nature wherever people are, to increase their affinity and understanding.</p>	TEC-FoE	Cross-disciplinary research
	Research program Regenerative Design	<p>Formulating the research program for the regenerative culture, city, and design theme at TEC. In this research program we use ecology, hydrology, (urban) forestry, and urban agriculture as the driving forces for urban design and regional planning, enhancing the resilience and sustainability of the city. It includes exploring innovative research by design projects in an academic cross-disciplinary context as well as collaborations with industry partners and urban stakeholders.</p> <p>Funding efforts are undertaken to obtain university, national and global funding. Over the last 3 years we have been successful in receiving funding for an average of 3 million pesos per year (eq. 150,000 Euro).</p> <p>The team Regeneration by Design consists of three postdoctoral researchers, a project coordinator and three campus interns. Daily management, yearly management cycle and long/term management (continuity of team).</p>	TEC	Programmatic strategy and team management
2022	Sound of the Land	<p>Since the 1970s, we have lost at least 2/3 of biodiversity. Many people do not even remember which species or ecosystems were in their landscape before. We tend to forget how our city sounded, looked, felt, or smelled in the past. To raise awareness of this lost memory and nature, we can reconstruct the senses of the past through immersive experiences. When we collect sounds and images from the last 100 years, we can use them to compose this experience as if we are moving through time. Lost qualities can be regenerated in the future. Therefore, the current impression of the city is not the final but the starting point of creating a brighter, more livable future. People continuously change their senses through time, moving from a tranquil rural equilibrium via a hectic urban cacophony to a new balance between</p>	TEC-FoE	Cross-disciplinary research

	<p>man and nature. The goal is a physical realization of an immersive experience that allows for a seamless transition through time in sound and visuals of the changes that the city of Monterrey has gone through, and the positive way we envision it will go through in the future. The value of this rediscovery and reclamation will support human health and growth in many ways, including emotional well-being, productivity, peacefulness, creativity, self-understanding, self-reliance, positivity, and grounding (literally and figuratively).</p>		
<p>Nature-driven machine learning for regenerative urbanization</p>	<p>Cities have become vulnerable places. Many people are concentrated here, and many people are at risk when a disaster happens. Developing the city tends to increase this risk, adding more assets, constructions, and fixed structures (and adding more people), which may collapse in case of sudden changes. This development means the resilience and adaptive capacity of the city need to be improved to cope with this vulnerability or even become immune to it. Hundreds of years of city planning have not led to cities that automatically increase their adaptivity. The complex efforts for economic growth, the building of larger and bigger cities, and the limited awareness of long-term risks suggest that the cities planned by human beings will continue to be vulnerable. Machine learning is a process in which people enter data. This data is often biased by the person or people who provide the data. Can we consciously use this bias for the better? Can we use machine learning to develop spatial scenarios for future cities that are less vulnerable to sudden change? Can we replace human-provided, biased data with data that inherently enhances resiliency? As we know, ecosystems bounce back after a disruptive event, finding their new equilibrium. Also, individual species know how to anticipate changes that might happen in the future. Species instinctively act upon a disruption or change that is coming. Suppose we understand ecological behavior (of ecosystems and individual species) and translate this behavior into data that we can enter into the machine learning process. Could we then develop spatial scenarios for the city that are inherently resilient and have a high adaptive capacity?</p>	<p>TEC-FoE</p>	<p>Cross-disciplinary research</p>
<p>Groene Valleï (Green Valley)</p>	<p>The Gelderland Valley is under huge pressure of current land use, such as intensive forms of agriculture, impacting the ecological qualities significantly. To create a resilient landscape regional partners took the initiative for a rewilding of the landscape-ecological connection between the two moraine landscapes at both sides of the Valley.</p>	<p>Residents collective</p>	<p>Landscape rewilding</p>
<p>De Vrije Maas (the Free Meuse)</p>	<p>Within the context of the Room for the River program, in which the physical space in and along river beds is extended to give room for increased water discharge, a range of dike enlargements are proposed. One of these, the Bokhoven dike escarpment is prone to flooding as it is the narrowest flow-through in the entire Meuse. The inhabitants of this area have the idea to integrate several ambitions in one design for the area Flood mitigation, enhancement of biodiversity, safety and recreational activities, go hand in hand whilst creating a longing perspective for the landscape, in which people and all other organisms will live safely together. Design of a holistic and regenerative landscape vision.</p>	<p>Residents collective initiative</p>	<p>Rewilding river landscape</p>
<p>Atelier lead Knowledge corridor Leiden, Designing Knowledge Ecologies</p>	<p>The development of a sustainable knowledge ecology and broad prosperity in a regional perspective are tasks that require a long-term approach. Spatial cohesion and interaction are important for this, as is the creation of good spatial conditions for the promotion of excellence and equal opportunities. This design workshop explores how landscape and urban planning can</p>	<p>TU-Delft</p>	<p>Landscape urbanism</p>

		contribute to a more resilient and regional knowledge ecosystem in South Holland. While taking the innovation districts in Delft, The Hague, Leiden and Zoetermeer as the starting point, the potential of the regional landscape system is explored and considered as the fundament for sustainable social, ecological and spatial-economic development. This means that in addition to the urbanisation challenge, energy transition and climate adaptation, an attractive, inclusive and liveable urban landscape is on the agenda as preconditions for knowledge development and broad prosperity.		
	Greening NEOM	NEOM is the name of a mind-boggling development to design a complete new city in the northwestern part of Saudi Arabia. Given the fact this landscape is arid, and consists of desert, rock and sand, the main question is how to create a livable and green landscape that forms the condition for urban environments. Greening NEOM therefore emphasizes the creation of a green, forested landscape, that not only brings about pleasant climate for its new citizens, but also contributes to a net decrease of temperature in the region. As part of large international consortium, led from Brazil, Cittaideale is designing the landscape, based on scientific findings regarding climate modeling, hydrology and ecological succession.	NEOM	Rewilding (sub)continental landscape
2021	REWILD	REWILD is plan submitted for the tender Sluisbuurt Kavel 4a, Amsterdam. Nature-inclusive building is reinterpreted by allowing nature to take the lead in the design process. The natural-historical characteristics of the Ur-IJ are metaphorically used in the design proposal. Nature determines the environment to be suitable for all organisms.	Kondor-Wessels	Urban design - plot
	Natuurrijk Nederland (Nature-rich Netherlands). www.natuurrijknederland.org ;	Designing the plan for a country in which nitrogen, food, climate and biodiversity crises are solved in one go. By transforming agricultural land into nature (50%) and housing (4% of the transformed area), biodiversity is tripled, the housing crisis is solved, and agricultural sector is provided with a healthy and economic profitable perspective. Nature-rich Netherlands presents a spatial plan at national level, an execution strategy, and a business plan.	Pro-deo	National spatial design
	ONSITE TU Delft campus	Supervising and teaching the design studio ONSITE, in which local solutions are design by the Master students to increase on campus biodiversity. The designs, explored through research by design methodology will be technically elaborated and realized. This we subsequent design studios increase the overall ecological quality on the TU Campus. This studio is part of the Urban Ecology and Ecocities Lab, Faculty of Architecture.	TU Delft	Supervising and teaching Landscape Urbanism
	Strategic planning and regional design Future of Dronten	The Netherlands has to deal with high pressure on the housing market. The strategic vision for Housing Dronten investigates how a substantial amount of housing can be added to the existing town, based on landscape qualities and connecting climate, food and nature with health and social cohesion a socio-ecological urban development.	Province of Flevoland	Urban planning
	Research program Landscape-driven design	The development of a research program on landscape driven urbanism, including obtaining research funding. The creation of innovative research projects in collaboration with staff and students and with regional stakeholders. Daily personnel management of two researchers and one assistant.	InHolland	Research programming and team management
	Landscape driven North Holland	Research by Design project, investigating the pathways to sustainability for the regional landscape of the province of North Holland. Based on Geomorphological and Paleontological knowledge and understanding of the genesis of the landscape, a regional design is conceived illuminating the basic landscape systems of hydrology, ecology and landscape.	InHolland	Regional landscape urbanism

2020	Moeder Zernike	The future is uncertain. The Zernike campus Groningen is eminently the place where new knowledge is developed, and therefore also the best place to experiment with new solutions which may be useful in the future, however that may look. Climate adaptation on the Zernike campus is primarily focused on dealing with a surplus of rainwater, drought, and rising temperatures. These form the new framework for the functioning of life on campus: new circumstances determine how students, employees, and perhaps in future, residents, can use and live on the campus. For a sustainable use of the built environment and our landscape, we must not only account for changing consumption patterns, such as for example a different diet, but also for changing ways in which goods and materials are produced. These will have their own impact on how we must arrange our environment and how we can use this to our advantage.	Municipality of Groningen, a.o.	Rewilding landscape design
	Foodscape Groningen	In this research by design project the hypothetical question how we can feed the entire regional population with local-regional grown produce is central. For this we used the LANCET-diet (to stay within planetary boundaries), translated to the Dutch context. The landscape design shows how different soil-types can grow all crops and produce to provide all residents with enough, healthy food, and at the same time increase the space for nature in the region.	KIEM	Landscape urbanism
	Aquaponic foodwall	Design of a wall in one of the university buildings on campus as an aquaponic system. This system integrates fish and crops as a circular system.	KIEM	Building interior
	Climate precinct Europapark	A collaborative project with local residents how to transform their neighborhood in a climate proof area, in which water sensitivity, ecology, and sustainable materials are the core values to redesign the urban environment. An interactive design process with the people living in the area.	KIEM	Urban design
2019	Toukomst	The project focuses on the long-term sustainability and resilience of the province by asking the regional population to propose local projects that collectively will shape the future (Toukomst in local dialect) of the region. Based on 900 ideas submitted by the population we designed the long-term red threads in a future vision that is not sealed but open to transformations and changes along the way.	Province of Groningen	Future landscape and urban design
	Making City	H2020 project in which renewable energy supply is design as an integrated part of the transformation of several neighborhoods in Groningen City and the partner cities in Europe.	H2020	Urban design research
	Research programming Sustainable Spatial Transformations	The research program developed for the team of Sustainable Spatial Transformations focused on food, water, energy and ecology. Part of the program is the attraction of funding for innovative and cross-disciplinary projects as well as the daily management of the team (two post-docs, three PhD-candidates and leading the support team consisting of faculty and staff within the school of the built environment.	Hanze University	Research program and team management
	M-Nex Western Sydney	The Cumberland Plain, west of Sydney Metropolitan and east of the Blue Mountains, is the playground of urban development. The new international airport is projected in this landscape and kindles subsequent developments, such as an agri-logistics hub and room for over one million inhabitants, To embed this urban development in the landscapes thorough analyses have been undertaken of the water, soil and elevation in the landscape, as the precondition for the local production of food, clean water and energy. It turns out that to start with the landscape first, the ecology, climate adaptation and soil preservation can be enhanced whilst integrating housing and industries in	University of Western Sydney	Urban precinct design/landscape urbanism

		the landscape. Planning for the Food-Energy-Water nexus in Western Sydney consisted of a series of local and international design workshops. The results of these interactive charrettes are integrated designs for localized and regenerative production of food, regeneration of water sources and flows, and generation of renewable energy, as the primer for urban development of Western Sydney.		
2018	FEW Nexus	Urban communities are particularly vulnerable to the future demand for food, energy and water, and this vulnerability is further exacerbated by the onset of climate change at local. Solutions need to be found in urban spaces. This article based around urban design practice sees urban agriculture as a key facilitator of nexus thinking, needing water and energy to be productive. Working directly with Urban Living Labs, the project team will co-design new food futures through the moveable nexus, a participatory design support platform to mobilize natural and social resources by integrating multi-disciplinary knowledge and technology. The moveable nexus is co-developed incrementally through a series of design workshops moving around living labs with the engagement of stakeholders. The methodology and the platform will be shared outside the teams so that the knowledge can be mobilized locally and globally.	SUGI	Urban design and landscape urbanism
2017	Urban Research Network (URN) Sydney	Ignition and development of an Urban Research Network across the greater Sydney Metro region. Part of this network are Universities (Sydney based and international), real estate and developers, Governments and councils, and social groups and NGO's. The research network focuses on a resilient Sydney, determined the strategic focus areas and holistic program and projects. The business plan formulates the financial feasibility and contributions of the collaboration and connects finance with the content. Based on the AMS (Amsterdam Metropolitan Solutions) model.	Industry partners Sydney Metro	Strategic research network collaboration
	Chair SASBE International conference, Sydney, 5-7 December 2017	Organization, chair and management of the Smart and Sustainable Built Environment (SASBE) conference. Attraction of international delegates, direction of the review process and selection of keynote speakers. The conference was held at UTS (Sydney). The output of the conference are two books (Springer) with all presented papers).	SASBE, UTS, 75 delegates	Chair, scientific curation, organization
2016	Design charrette Kessenuma	The Fukushima disaster required reconstruction efforts in the region. This, second workshop took place in Kessenuma and brought together an eclectic group of local residents, policy makers and designers. Together they formulated a spatial vision how to rebuild their town and landscape. The process is shaped as a design charrette, in which the complexities of the problem(s) are made tangible through visualizations and creative exercises. This design-led approach produced outcomes of the participatory design process in a short amount of time, which were supported by all participants.	Australia-Japan Foundation	Landscape urbanism, reconstruction design
2015	Lead expert URBACT III	Support consortia in developing and conducting their collaborative projects in improving cities to develop pragmatic solutions that are new and sustainable and that integrate economic, social and environmental urban topics.	URBACT	Advisor urban environmental projects
	External Reviewer	EVO DEVO Studio, AAP Architecture, Art, Planning, Cornell University, Ithaca	Cornell University	Review final crit session
	Design charrette Binder Sum	Facilitation and design of the design charrette for Binder Soum in the northeast of Mongolia. How to create an integrated spatial vision for the town and the region around it to attract more visitors was the central question. Local residents, and representatives from the national, regional and local	KEIO	Rural landscape and town design

		government as well as international (Mongolian, Japanese, Australian and Dutch) academics created a vision for the longer term that was adopted by the entire group.		
	The Connecting Landscape	Advise to the Federal government how to make a sustainable policy for the Dutch landscape (https://en.rli.nl/publications/2016/advice/the-connecting-landscape)	Rli	Advisor national policy
2014	Smaakpark Ede (Edible Park)	How can we make a sustainable way of growing food and consumption be made visible, touchable and tasteable? In the design of the Edible park Ede this question is the key point of departure for the design. In the park the ingredients are growing that are used by the chef in the kitchen and restaurant. The park is inspired by the local landscape of the moraine landscape with its characteristic creeks and gullies.	Verrot Lekker	Large park, landscape architecture
	Chair 6th International Conference on Sustainable Food Planning (AESOP). Leeuwarden, 5-7 November 2014	The organization, chairing and academic curation of this international conference. Guiding the review process, selecting keynote speakers and the design of the conference, including hands-on design sessions, in an interconnected combination with the presentation of papers. As output of this conference two volumes of proceedings were published (Cambridge Scholar Publishers).	AESOP, VHL, 120 delegates	Chair, scientific curation and organization
	FoodRoofRio	The design, collaboration and realization of a FoodRoof in one of the favela's in Rio de Janeiro (Cantagalo). The foodroof is an aquaponic system, design and built on the roof on one of the houses in the favela. It combines the growth of crops with the cultivation and harvesting of fish (Tilapia). The construction has been carried out by two students and a local architect, in collaboration with the owners of the house and favela residents. The opening was supported by the Dutch Consulate in Rio	VHL, State of Rio de Janeiro	Building, rooftop
	Design charrette Minamisoma	The Fukushima disaster required reconstruction efforts in the region. This, first workshop took place in Minamisoma and brought together an eclectic group of local residents, policy makers and designers. Together they formulated a spatial vision how to rebuild their town and landscape. The process is shaped as a design charrette, in which the complexities of the problem(s) are made tangible through visualizations and creative exercises. This design-led approach produced outcomes of the participatory design process in a short amount of time, which were supported by all participants.	Australia-Japan Foundation	Landscape urbanism, reconstruction design
2013	Set up research program Design for Urban Agriculture	Conceiving the research program for the professorial team to work on the design of urban agriculture in the Netherlands. Interlinked with the landscape architecture department, and connecting to several municipalities in the Netherlands who are seen as frontrunners. Leading the team of researchers and assistants.	VHL	Strategic research agenda programming and team management
	Visions 2050	Collaborative design-led research project, developing visions for low carbon living in four cities in Australia	CRC Low Carbon Living	Urban design
2012	Rubicon	Modeling the benefits of Swarm Planning, a dynamic way of planning for future adaptation to climate change impacts. The Rubicon grant is a prestigious grant that is given to talented early-career researchers for cutting edge research. In total 12 researchers across all academic disciplines received the grant.	NWO	Strategic and fundamental urban research in adaptivity

	Scoping study sustainable assessment tools at precinct level	Investigation of available assessment tools for how resilient and sustainable urban neighborhoods are. Tools have been recruited from all over the globe. Reported in the scoping study.	CRC Low Carbon Living	Urban design research
	External Reviewer,	Studio Mess 3: >fit< for Resilience, Creswick 2042, faculty of Architecture Building and Planning, School of Design	University of Melbourne	Reviewer final crit session
2011	Design-led decision support for regional climate adaptation	Lead investigator and project manager of this urban design and climate adaptation research. Lead of the research team. Organization, facilitation, and execution of a series of design charrettes in small towns across Victoria, Australia. In these design charrettes we worked with local population to raise awareness for climate change and the need to adapt and creatively co-design solutions for the entire town.	VCCCAR	Urban design
	External reviewer	Design Studio Landscape design, Faculty of Architecture	University of Melbourne	Reviewer final crit session
	External reviewer	Design Studio Landscape Architecture "FLOAT. Designing with the dynamics of extreme water events	RMIT University	Reviewer intermediate and final crit sessions
2010	East Side Central Square	Urban design study on the development options of the east side of the central square in the City of Groningen. Complexity of working with the public opinion, and crucial stakeholders that are owners of the real estate in this part of the square. We managed to convince everyone to transform the eastern side of the square and reconfigure the spaces on the square, in the streets leading up to it and the 'backside' of the spaces behind the east façade.	Municipality of Groningen	Urban design
	Hotspot Wadden Sea	Investigation of spatial opportunities and challenges how to adapt the ecological system of the wetlands of the Wadden Sea to climate impacts on the long term. This project is an intensive collaboration between regional governments, the Wadden Sea NGO, and several universities (VU Amsterdam, WUR)	Knowledge for Climate Research Program (KvK)	Climate change research, wetland landscape
2009	Hotspot Peat Colonies	The spatial future of this region, traditionally poor and characterized by an excavated peat landscape, is redesigned to capture more carbon than it emits, this way connecting mitigation efforts with the necessary adaptations in the area. A project which connects academia (Delft University, WUR) with two regional and several local governments in finding solutions that additionally benefit the economic outlook.	Climate Changes Spatial Planning program	Climate change research Peat landscape
	Climate proof Eemdelta	In this so-called impulse-project regional stakeholders from government, academia and industry partners worked together on identifying which initiatives, ideas and projects could enhance the adaptive capacity of the Eemdelta area, with a large harbor, small towns, and large-scale agriculture. This results in the ARK impulse map, on which these ideas have been integrated into one coherent spatial vision for the future.	Adaptation Spatial Quality (ARK), KvK program	Climate adaptation research, harbor landscape
	BIOCHAR	This European project investigates the possibilities of BIOCHAR to be integrated in existing agricultural practice to enhance fertility, humidity, and structure of the soil, so the improve the readiness for climatic changes. A collaboration between 10 European partners in six different countries	Interreg IV-B	Soil improvement

2008	CPSL-3	Participation in the trilateral working group of the Wadden Sea to design coherent solutions for Coastal Protection and Sea Level Rise across the three countries, Denmark, Germany, and the Netherlands.	Wadden sea secretary	Coastal landscape
	Advisory committee	Participation in the national advisory committee how to implement large scale wind turbines in the landscape. Especially the visual impacts have been studied in a working group consisting of the National government, several provinces and academia (WUR).	VROM (Ministry for Spatial Affairs)	Design research, landscape
2007	INCREASE II	International Conference on Renewable Energy Approaches and the Spatial Environment (INCREASE). International conference series on sustainable energy and spatial planning. Participants: Canada, Jordan, Russia, Germany, China and The Netherlands. Held in Beijing/Shanghai, China. The programming of the conference, inviting the high-level participants and facilitating the conference.	Province of Groningen	Regional design renewable energy landscapes
	Hotspot climate proof Groningen	Leading the research project on how to adapt land-use, landscapes and urban areas to the impacts of climate change in the province of Groningen, the Netherlands. This is an interconnected research project bringing together research institutes (WUR, TU Delft, VU Amsterdam, RUG Groningen) with all municipalities in the province of Groningen, utilities companies (energy, water), NGO's (agriculture, ecology, water) to collaboratively investigate spatial pathways to future climate proof region, culminating in a regional design.	Climate Changes Spatial Planning (CCSP)	Regional design & climate research
2006	INCREASE I	International Conference on Renewable Energy Approaches and the Spatial Environment). International conference series on sustainable energy and spatial planning. Participants: Canada, Jordan, Russia, Germany, China and The Netherlands. Held in Amman, Jordan. The programming of the conference, inviting the high-level participants and facilitating the conference.	Province of Groningen	Regional design renewable energy landscapes
2005	S-REX	Proposal and co-lead of the project 'Synergy between Spatial Planning and Exergy', in which five PhD candidates investigated different aspects of the spatial implications of exergetic principles in the urban and regional landscape. A collaboration between Groningen University, WUR, Delft University and the province of Groningen.	Senter Novem, EOS long-term research program	Regional and local energy planning and design
2004	Grounds for Change	Dutch entry in Global Competition on 'Bridging Regional Spatial Design Strategies with Sustainable Energy Planning', International Gas Union (IGU), Three Northern Provinces and Gasunie, The Netherlands. International collaboration in Bridging to the Future-project with Vancouver, Canada; Shanghai, China; Doha India.	Gasunie, International Gas Union	Regional design energy landscape
2003	Regional Plan Groningen	Manager of the development and implementation of the Provincial Regional Plan I and II (which integrates the Spatial Structure Plan, Water Management Plan, Traffic and Transport Plan and Environmental Plan). Act as the chair of the provincial project team and reporting to the regional minister directly.	Province of Groningen	Regional planning
	Strategy development	Creating an adopted vision for the long-term strategy for the Province of Groningen. In this strategy development choices that are related to policy, finance and politics are presented and discussed, so evidence-based decisions can be made while taking to to account long term changes and developments.	Province of Groningen	Strategic foresight
2002	Investment vision Almere	Project leader of the Investment vision, -program and -strategy for the city of Almere. This consist of a process of political decision making and the key	Municipality of Almere	Strategic vision on

		choices that have to be made financially to create the future city that is jointly decided.		municipal investment
	City Vision Almere	Project management and lead author of the integrated vision of the Municipality Council for the long-term future of the City of Almere	Municipality of Almere	Long-term future visioning
2001	Europapark Almere Poort	Chairing the municipal project team that collaborates with real estate developers to design and realize the first housing area in Almere Poort, Europapark.	Municipality of Almere	Urban development plan
	Working location Almere Poort	Chairing the project team concerned with the urban design and implementation of the working locations located in between the highway and the rest of the Almere Poort development.	Municipality of Almere	Urban development plan
	Urban center and station area Almere Poort	Chairing the project team concerned with the development of the urban center of Almere Poort, a mixed-use development with commercial functions, a train station, sports facilities and housing.	Municipality of Almere	Urban development plan
2000	Structure plan Almere Poort	Chair of the project team for designing the structure plan of the entire development (approx. 10,000 houses, a new football stadium, railway station, city center and working locations, as well as the green structure and urban parks).	Municipality of Almere	Urban precinct, new town design
	Manager team Almere Poort	Overall manager of the development of the new precinct of Almere (Almere Poort). This consists of leading the planning teams (both for the structure plan as well as for individual urban design projects), leading the project management team, and reporting to the aldermen and council.	Municipality of Almere	Team management
1999	Blokhoeve	The urban design of the Blokhoeve area is connected with the environmental 'scores' of the different spatial interventions. This was visualized in a so-called bandwidth diagram, so politicians could see how their preferred urban plans would environmentally score. This was in several iterations then used to improve both the environmental quality as well as the urban designs.	Municipality of Nieuwegein	Urban design and urban assessment
	Drechtsteden	What kind of environmental measures could be taken to enhance the regional urban qualities. These so-called environmental Impulses were identified and mapped for the Drechtsteden area (Dordrecht and surrounding municipalities).	South-Holland South	
1998	Hilversum-Oost	Design of the structure plan for the eastern flank of the city of Hilversum, taking the landscape as the basis for the urban form.	Municipality of Hilversum	Urban design
	Stadsblokken-Meinerswijk	Study for exploring urban development in floodable areas around the river Rhine, near Arnhem. Exploration under which conditions urban development could be possible, safe and attractive.	Ministry of Spatial Affairs (VROM)	Spatial scenario study
	Oortjensveld III	Urban design based on sustainability principles for the new development of Oortjensveld III in the municipality of Roerdalen.	Municipality of Roerdalen	Urban design
	Corridor-study Tilburg Gilze-Rijen	Landscape urbanism design for embedding an industrial area of logistics and an industrial working area in the sensitive landscape between Tilburg and Gilze-Rijen.	Joint Venture Central Brabant	Landscape urbanism
	Watersensitive De Vliert	Public space design how to accommodate rainwater discharge, when all rainwater is kept out of the sewage system and is added in the public space. Design of parks, streets, waterways as an integrated hydrological urban	Municipality of Den Bosch	Public space design

		system. The watersensitive city. Applied to and realized in the neighborhood of De Vliert, Den Bosch		
	3 Sustainable city concepts	Multiple Layer City, Light City and Empty City. Development of hypothetical urban visions for future urban development. With fast growth the city could grow in multiple layers and not use more landscape space. When cities become footloose from the landscape they will be constructed in an ultra-light manner, not touching the land, and ready to be dismantled. The empty city focuses on the reuse of spaces that are no needed anymore when population shrinks.	BRO	Conceptual urban design
	Hoge Vucht, Breda	Design of the Empty City concept, a hypothetical city design how to deal with future shrinkage in urban neighborhoods.	Alterra	Urban design
1997	De Trompet	Urban design of the industrial/working area of 'de Trompet' in the municipality of Heemskerk	Municipality of Heemskerk	Urban design
	Océ	Design of the Structure-plan of the Océ-area (printing company) in Venlo.	Municipality of Venlo	Urban design
	Berkelse poort	Urban design of a new urban development in the municipality of berkel and Rodenrijs.	Municipality of Berkel en Rodenrijs	Urban design
	EPZ	Spatial design vision on how to reuse/reconstruct the area of the power plant of Haelen (the EPZ-plant).	Municipality of Haelen	Urban design, vision
1996	De Brabander	Sturctur planning of a large new development, roughly doubling the existing size of the municipality of Venraij.	Minicipality of Venraij	Urban design
	Houten Vinex, neighborhoods	Several project teams developing urban designs for neighborhoods in Houten-Vinex. These plans have been designed at the urban design and public space level, in detail ready for realization.	Municipality of Houten	Urban design
	Houten Vinex	Participation in the design team of the structure plan for Houten-Vinex, one of the largest urban development plans in the Netherlands. Integrated design combining landscape architecture, mobility, urban design, sustainability and civil engineering.	Municipality of Houten	Urban structure planning
	Nesselande	Member of the design and project team of Nesselande, a new development at the northeastern side of Rotterdam.	Municipality of Rotterdam	Urban design
	IJburg, Haveneiland	Participation in the design team as representing the environment/sustainability for the urban design of the first to be realized island in Amsterdam IJburg. The urban design is adoted and realized.	Municipality of Almere	Urban design
1995	KODUP	Investigation into the costs and benefits of sustainable development plans. This resulted in advice to cross boundaries between institutions (municipalities, waterboards, provinces, utility companies) and sectors (water, energy, food, infrastructure/civil engineering) so costs and benefits could be interconnected and shared. This way every institution would benefit. However, in practice each institute primarily focuses on their own budgets.	VNG (association of Dutch municipalities)	Urban research

	IJburg	Participation in the overall design team and the environmental design team of the new development of Amsterdam IJburg a new neighborhood to be realized on new islands in the so-called Marker-lake. Structure plan phase.	Municipality of Amsterdam	Urban structure planning
1994	The sustainable city	Leadership of the City wide program of the Sustainable City, programming projects and initiatives to stimulate the thinking, designing and implementation of sustainable principles throughout all sectors and departments in the City of Breda. Curating, editing and publishing a yearbook (yearly).	Municipality of Breda	Strategic urban research
	Breda Northeast/Teteringen	Urban structure planning for a new development area in the northeast of the city of Breda, based on novel hydrologic concepts (the water machine), cross municipal boundaries	Municipality of Breda	Urban Design
1993	Regional Ecological Model	Development of a model how to measure the ecological carrying capacity versus the environmental pressure of urban and other land-use functions at the regional scale.	Municipality of Breda	Landscape design/ecological planning
	Valkenberg	Landscape design for the reconstruction of the main city park of Breda.	Municipality of Breda	Landscape architecture
	Chasséterrein	Advisory board and jury of the competition to transform the Chassé-area (a former military base in the city center of Breda into a mixed use urban area with high densities in a park setting.	Municipality of Breda	Urban design
1992	Westerpark	Urban design based on sustainability principles for a new neighborhood in Breda. One of the first so-called pilot projects of sustainable urbanism.	Municipality of Breda	Urban design
	Bavelsche Leij	Landscape design for transforming an existing creek into an ecological waterway. Improving biodiversity and decreasing flood-risk.	Municipality of Breda	Landscape architecture
	DOSS	Representation of the Municipality of Breda in the National committee exploring national spatial strategies to create more sustainable urban systems. Participation in two working groups: sustainable development of urban systems and the eco-region and urban environments.	VROM	Urban research
1991	Heilaar-Steenakker	Large scale urban design of a development area embedded in a cultural-historic landscape and ecologically valuable environment. Transformative land use into housing, industry, and new infrastructure.	Municipality of Breda	Landscape urbanism
	Public parks study	Comparative design study on all public parks in the municipality of Breda, their spatial and functional characteristics, their transformative needs for redesign and/or reconstruction, and the financial investments needed to achieve these changes.	Municipality of Breda	Strategic research park space
	Zaartpark	Ecological redesign of an existing park in the municipality of Breda.	Municipality of Breda	Park design, landscape architecture
1990	Urban regions Brabant	Regional images and functional analyses of four urban regions in the province of Northern Brabant (alternative military duty)	Province of Northern Brabant	Landscape urbanism