30 IEA-HPT ANNEX 61 PRE-WARMING EVENT

30 January 2023
Kathleen Van de Werf – BUUR Part of sweco
Transforming Society Together
- Introducing Sweco’s Value Proposition

**TRANSFORMING** reflects how change and advancement are part of everything we do. Sweco co-creates solutions that address urbanisation and capture the power of digitalisation. These solutions make our society more sustainable, through our expertise in numerous fields and our commitment to the success of our clients.

**SOCIETY** reflects that Sweco is deeply involved in the constant transformation of the societies where we operate and that we are always ready to address the challenges at hand.

**TOGETHER** reflects the way Sweco empowers our local engineers and architects to co-create with our clients to reach the best possible solutions. We interact as one team with the client at the center of everything we do.
WE DO URBANISM

Part of Sweco
DIVISION BUUR
220+ PEOPLE

WORKING ON URBAN SUSTAINABILITY
DIVISION BUUR
14 TEAMS – 5 BUSINESS UNITS - WORKING ON URBAN SUSTAINABILITY

MANAGEMENT TEAM

LANDSCAPE & PUBLIC SPACE
- LPS SOUTH
- LPS NORTHWEST
- LPS EAST

CLIMATE ADAPTATION
- ECOSYSTEMS EAST
- ECOSYSTEMS WEST
- CLIMATE RESILIENCE PLANNING

COMPLEX PROCESSES
- COMPLEX PROCESSES

TRAFFIC & MOBILITY
- MOBILITY PLANNING
- TRAFFIC ENGINEERING
- TRAFFIC MODELING

URBAN PLANNING
- STRATEGIC PLANNING NORTHEAST
- STRATEGIC PLANNING WEST
- URBAN PROJECTS SOUTH
- URBAN PROJECTS NORTH

ECOSYSTEMS WEST
ECOSYSTEMS EAST

PROGRAMS

COMPLEX & LARGE PROJECTS

MANAGEMENT TEAM

BUSINESS UNITS
TEAMS
Our eight complementary programs reflect how we can pursue our mission.

They focus on important societal challenges that require the transformation of our living environment.

8 URBAN DEVELOPMENT PROGRAMS
CHALLENGES OF FUTURE PROOFED DISTRICTS
ACT ON URGENCY

Common transition agenda

Keep raw materials, materials and products as high-quality as possible in the cycle

Use renewable energy sources

Strengthen the resilience of natural systems

Goals are clear, the transition paths towards those goals not

Complex challenges

A systemic change where all key players must evolve along with it
RESILIENT CITIES

By 2050, about 2.5 billion people will live in cities.

The **circularity gap is widening** - the global economy is becoming less circular, from 9.1% circular in 2018 to 8.6% in 2021.

For the last decade, the **date of overshoot day** has been moving in the wrong direction of the calendar every year.

How can we avoid overshoot day through **circular design and planning**?

**Challenges of future-proof urban development** and how to address them as an urban planner?

Important role of the **scale of the district** to accelerate the impact of pilot projects.
OOSTEROEVER
CIRCULAR DISTRICT

from an underused industrial area towards an
inclusive, productive and regenerative harbour
OSTEND - OOSTEROEVER

Vision on the transition from an underused industrial area towards an inclusive, productive and regenerative city district
1. CONTEXT
OSTEND OOSTEROEVER

Define success factors to reinforce the existing economic tissue – zone under pressure – urgency to guarantee space for economy

Ruimtelijk Uitvoerings Plan
Spatial Implementation Plan
(city authorities)

1. View Victoriaaand and water tower
2. View industrial plots
3. View Moreauxlaan tramway

Project area - Economic role and integration with surroundings
OSTEND OOSTEROEVER

Situated between 4 spatial backbones of the city of Ostend
QUAY RIBBON – plan for the strengthening of the economic structures of the city
OSTEND OOSTEROEVER

GREEN RIBBON – increasing connection and synergies between cultural landscapes, ecosystems and agriculture
OSTEND OOSTEROEVER

ROYAL RIBBON – structural urban spine aiming for the connectivity between daily amenities, services and intense dynamics of the city
OSTEND OOSTEROEVER

COASTAL RIBBON – Sand beaches and dune landscapes represent the cultural heritage, landscape value and protection against sea level rise
2. PROJECT PROCESS
HIGH CIRCULAR AMBITION

development should follow and facilitate 4 circular principles / focusing on 5 streams
SPATIAL LAYERS

Spatial embedding of those streams
3 STEPS METHODOLOGY

Starting from the unique DNA of the site and its context

- ECONOMIC VOCATION - COLLECTIVE AMBITION, LOCAL ADDED VALUE -
- SPATIAL FRAMEWORK - FLEXIBLE SPATIAL CONDITIONS -
- SYSTEMIC STRATEGIES - CIRCULAR DEVELOPMENT -
FUTURE VOCATION

with local and regional actors - define a common ambition and identity – 4 economic vocations

OOSTEROEVER
CIRCULAR DISTRICT
INCLUSIVE, PRODUCTIVE AND REGENERATIVE
SPATIAL FRAMEWORK PLAN

highlighting fundamental spatial structures for an integrated development in the context
5 SYSTEMIC STRATEGIES

programming of the plan / specific actions to translate synergies between resource flows and spaces
shared underground infrastructure as a backbone of the site

- exchange of energy, water and materials
- activation of local energy sources
- exchange of residual heat from industrial activities into houses, sports facilities,…
- integrated soil remediation encouraging recycling or reuse of the residual space
STRATEGIC FRAMEWORK

sustainable mobility system

- Efficient, qualitative and safe organisation of logistics
- Pedestrian and bicycles networks facilitate the link to the city and neighborhoods
- Conditions for sustainable modes of transportation (electric charging stations and mobility hubs)
STRATEGIC FRAMEWORK
open space strategy

- Focus on the creation of qualitative functional spaces
- Facilitate pedestrian and ecological connections
- Promote social relationships both in residential and economic areas
- Integrated water management integration of ‘the City River Project’
- Collect rainwater by an enclosed wadi structure to capture and store fresh water
STRATEGIC FRAMEWORK

Future proof buildings

- Diverse set of typologies accommodating different types of economic functions and actors
- Increase adaptive capacity of the building stock by applying modular building dimensions and flexible structures
- Designed for collective systems for storage and reuse of rainwater
- Encourage energy-neutral buildings
STRATEGIC FRAMEWORK

- Zoning system integrating maritime, economic, cultural and recreational functions
- Corridors of daily amenities activating links with the neighbourhoods + provide daily services for the site as a qualitative working environment
TRANSITION PLAN

a flexible instrument to guide the development towards an inclusive, productive and regenerative site
MARITIME DISTRICT

3 MAIN MARITIME ACTIVITIES: fishing industry/ boat industry / ‘blue energy sector’
MARITIME DISTRICT
SYSTEMIC SECTION

Sterk gebonden aan de omliggende waterstructuren, zoals het Visserijdok
ECONOMIC POLE
Dens fabric of ECONOMIC ACTIVITIES RELATED TO CIRCULARITY – production & research, small & large
Gedeeld ruimtegebruik bevordert een compact logistiek systeem en vrijwaart meer ruimte voor andere kwalitatieve invullingen en groenstructuren.
CULTURE & RECREATION

DYNAMIC STEPPING STONES LINKING ECONOMIC ACTIVITIES AND DAILY AMENITIES
De *grote dimensies van de gebouwen* kunnen verschillende culturele en recreatieve activiteiten een plaats geven.
HOUSING AND AMENITIES
DAILY FUNCTIONS AND AMENITIES CREATING A PLEASANT LIVING/WORKING ENVIRONMENT
De herinrichting voorziet aangename, verkeersveilige fiets- en voetpaden, brede groenstromen en een betere inpassing van de traminfrastructuur.
The transition plan not only focusses on how the space ‘looks like’, but rather ‘how space works’ and how different spatial and resource networks are systemically linked to each other.
It’s about creating programmatic synergies

By a careful definition of the programmes and their location on site
It’s about circular material flows and shared resources

Facilitated by collective infrastructure, organised by efficient logistic loops that support circular businesses and short supply chains.
It’s about a functional landscape integrating green and blue structures both on the ground level as in the buildings.

Integrating different ecosystems: watermanagement, soil remediation, biodiversity, cooling.

Integrating a healthy living and working environment as well as social inclusion.
It's about an **integrated water management**

**Constructed by different components**

From the **building roofs and underground areas to public and shared spaces**

That work together on **flood control and rainwater captation**
It’s about a shared energy system
Structured by a multiutility network, facilitating exchange of production and consumption.
By linking different scales and layers, we bring different sectors together and cross different governance levels.

Promote the dialogue towards a future proofed plan.

Systemic change that surpasses the traditional silo’s.
Pure design assignments with defined problem evolve into integrated projects

Connected agendas in a complex stakeholder setting

The role of architect, urban planner, engineer evolves to 'partner in transition'

Take steps outside of our traditional way of working – interdisciplinary and systemic approach
cross-division collaboration and knowledge framework on societal transition themes

broad expertise in our divisions to answer these complex issues integrally - from policy support to design and technical implementation

SUSTAINABLE IMPACT PROGRAM

City in symbiosis
urban infrastructure as leverage

Smart and strong cities
and systems

Healthy and Safe City

Circularity

Transforming Society Together

Sustainable Mobility Transition

Climate Resilient City

Energy Transition

Energy transition
Sustainable mobility transition
Circularity
Healthy and safe living environments
Climate resilience
Smart & Strong Cities & Systems
Infrastructure as a lever

INDUSTRY EN & ENV INFRA BUUR BUILDINGS
Created by experts, based on data and facts

Situations, challenges and solutions described based on needs and desires of citizens

Examples, comparisons and best practice from urban areas across Europe

https://www.swecourbaninsight.com/
WE HAVE A COMMON MISSION!
THANK YOU!
MARITIME DISTRICT

URBAN RESOURCE CENTER

- Operates as a material bank where resources can be collected, distributed and remanufactured
- Strategically located nearby the harbour and rail infrastructure
- Accessible by sustainable modes of transportation
HOUSING AND AMENITIES

MARKET HALL

- Opportunity for short supply chains
- Focus on the commerce of fish and local food
- Products and resources recycled or repurposed on site
- Ateliers or repair cafés
- Accessible for pedestrians and bicycle flows
the evolution from linear to circular economy has an impact on the life cycle of products, raw materials and services and thus on everyone's daily life

changing consumption patterns

urban and social fabric must be prepared to support and accelerate these evolutions

resilient cities make space for local energy networks, sustainable mobility, urban-oriented agriculture, for urban-oriented production, for sustainable urban logistics, integrated water management,…

Importance of the district scale