



# ORCHID CITY

REINVENTING THE FUTURE OF LIVING





**LIVING**



**LEARNING**



**PRODUCING**



**ENTERTAINING**



**WORKING**



# ORCHID CITY

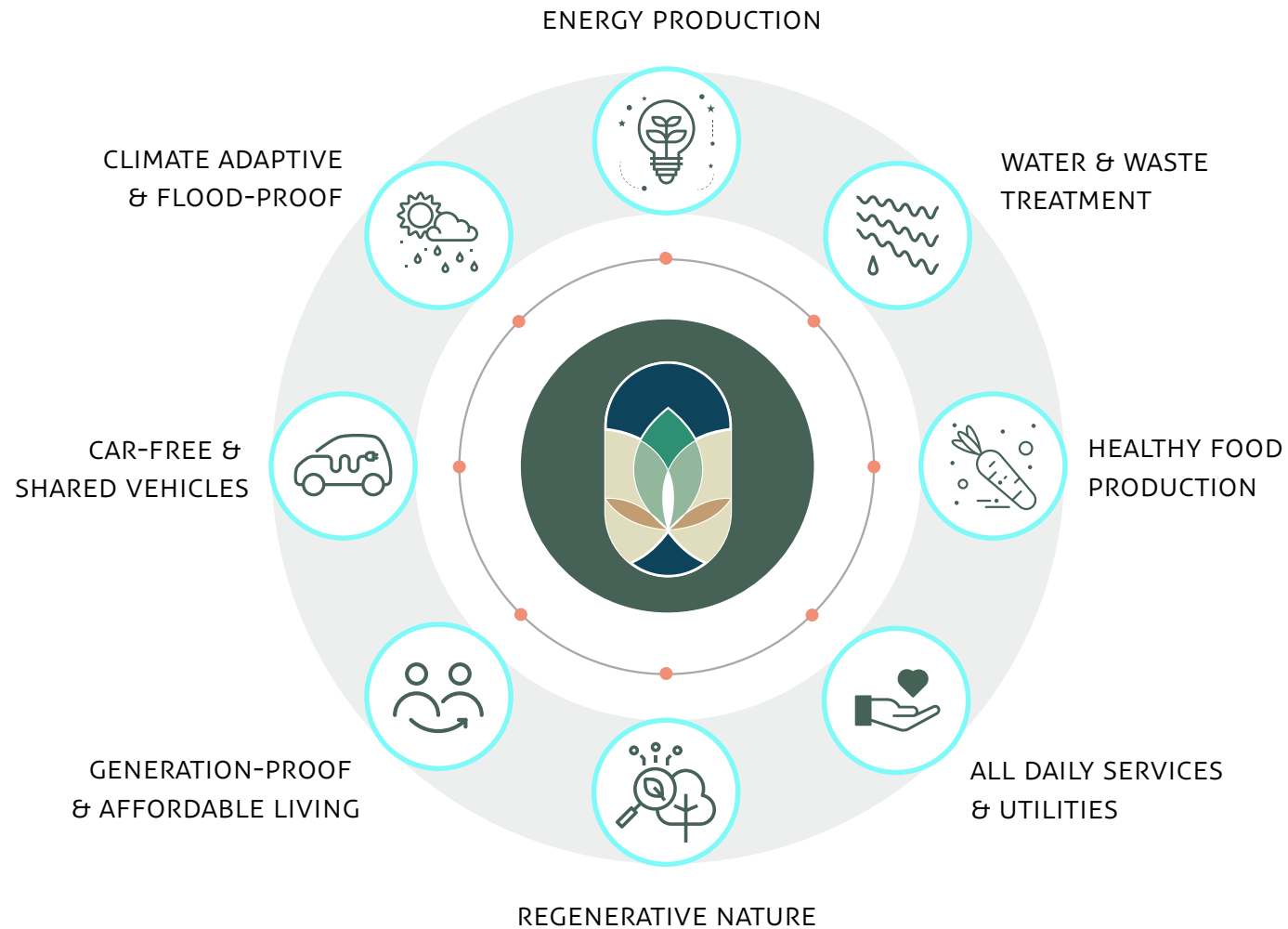
## REINVENTING THE FUTURE OF LIVING

**We are building a place that has never been built before, in a time where the world desperately needs new solutions for a resilient future.**

**Orchid City is the world's first self-sustaining city blueprint. Here, we reinvent how we coexist with nature and with each other.**

Orchid City goes beyond just being a beautiful place to live. It is a home for those who want to live happy, healthy lives, in harmony with the environment and the community around them. It is the first affordable, physically, socially, and environmentally sustainable city blueprint in the world. For those wanting to help build a better future.

# ORCHID CITY IS FULLY SELF-SUSTAINABLE IN







# REGENERATIVE NATURE & FOOD PRODUCTION

SELF-SUFFICIENT COMMUNITIES POWERED BY ECOSYSTEM SERVICES

**Orchid City regenerates nature, and our relationship with the natural environment. It is entirely self sufficient in terms of food, energy, water, and waste processing, relying 100% on ecosystem services.**

Orchid City applies innovative solutions in agriculture and resource management, and uses climate-adaptive strategies. It integrates agroforestry, permaculture principles, circular

greenhouses and aquaculture in diverse production areas. Forest, wetlands, lakes, and wild plains regenerate biodiversity and give us a flourishing environment, resilient towards the future.

These regenerative natural areas in turn give us a healthy and inspiring natural living environment.

## HIGHLIGHTS

- › Self-sufficient in food, energy, waste & water
- › Sustainable agriculture through agroforestry, permaculture, and aquaculture
- › Advanced organic greenhouses
- › Constructed wetlands and helophyte filters as biodiverse purification systems
- › Biodiversity preservation and restoration
- › Circular nutrient cycles







# REDISCOVER YOUR HAPPINESS & WELLBEING

FIND THE LIFE YOU DESERVE TO LIVE

**A rediscovered life, in and with nature. with a focus on wellbeing. A healthy life means more than just conscious living. It requires a healthy and happy community as much as the individual. Orchid City supports mental and physical health, with essential services and community programs, for all.**

Orchid City's programs give meaning and purpose, with quality workplaces and meaningful activities. Communities are built

by people from young to old, with generation-proof homes, care services, education, inspiration, and a wide range of programs designed to make people smile and care.

Each Orchid City plan covers solutions that deliver essential services in an inspiring environment that puts well-being first, unifying everything you need to live, work, play, and learn safely and comfortably.

## HIGHLIGHTS

- › Mental and physical health programs
- › Public parks, sports, and outdoor activities
- › Entertainment and leisure
- › Research and business center
- › Educational institutions
- › Elderly care
- › Daycare facilities & schools







## RECONNECTING PEOPLE THROUGH GENERATIONS

A VIBRANT AND DIVERSE COMMUNITY WHERE EVERYONE CAN STAY CONNECTED.

**A rediscovered life, in and with nature, connected to the community, from the start of life to the very end, for all. Orchid City re-imagines living by creating a safe, unique, and exciting place to live and work, for now and for in the future. Together.**

As a city of the future, an inclusive, diverse community with affordable, future-proof housing is an essential element. We build communities around values of equality,

diversity, inclusivity and accessibility, ensuring that all city's citizens can grow together. By combining villas, social housing, student housings and elderly care we build a diverse community of transgenerational living where everyone can participate.

Orchid City offers financial support for startups and innovation, as well as workshop centers, community services and programs.

### HIGHLIGHTS

- › Trans-generational living
- › Community services and program
- › Safe, generation-proof homes
- › Commute by bike or public transport
- › Financial support for startups
- › Social housing
- › Workshop centers

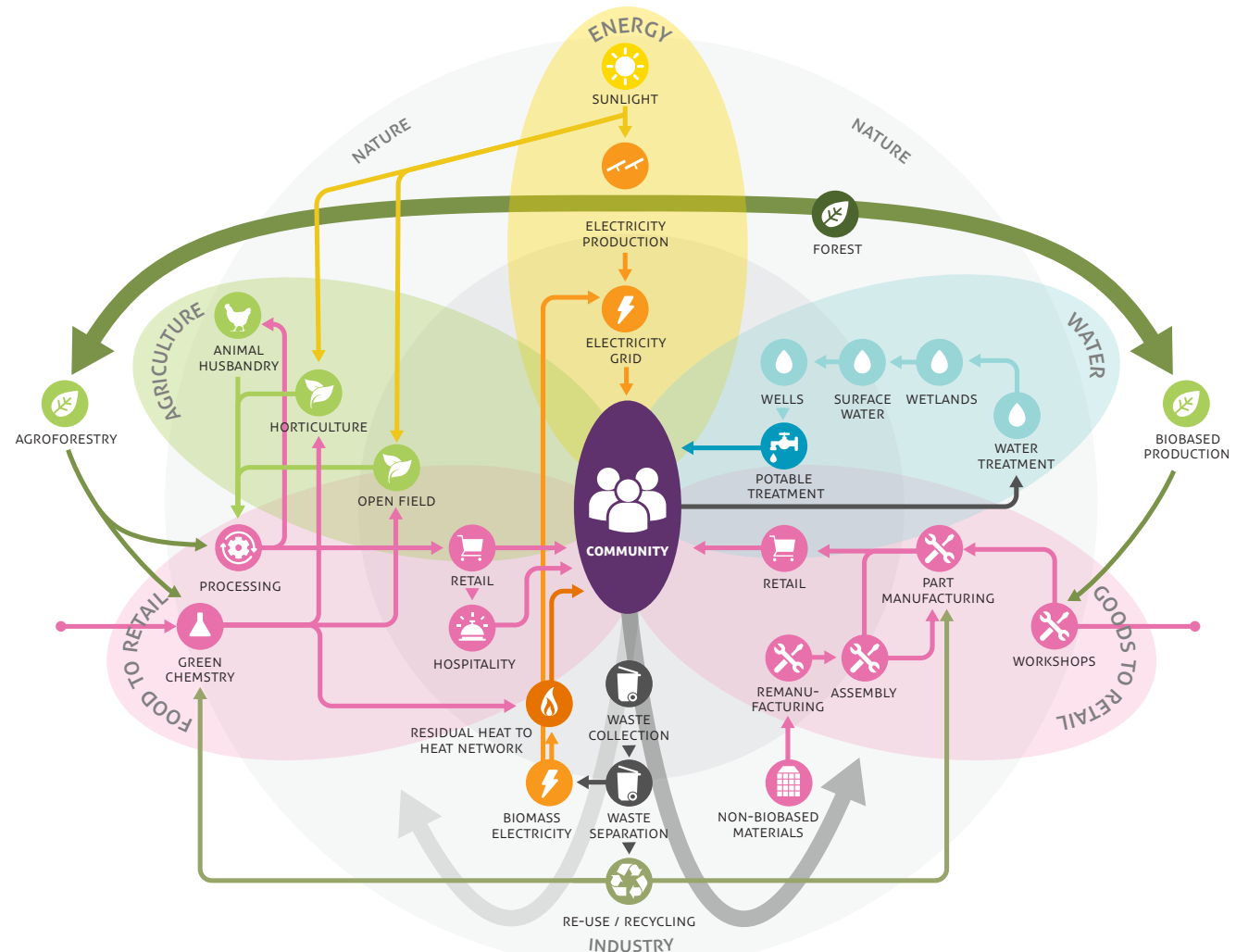


# RESOURCE CIRCULARITY

REGENERATIVE RESOURCES CYCLES KEEP THE CITY FLOURISHING

**Orchid City's self sufficiency is driven by a closed-loop, circular approach, powered by ecosystem services. Besides food, energy, and water, it is mostly circular with regards to all other resources, including building materials, transport and equipment, and agriculture.**

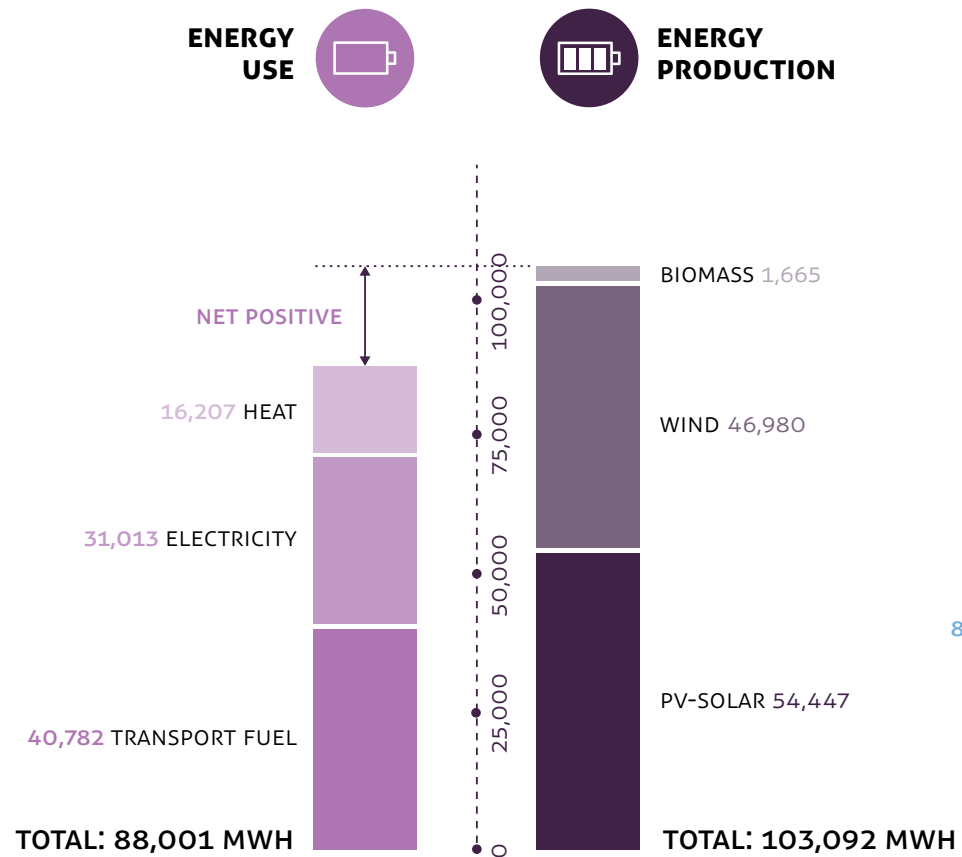
Driven by ecosystem services, a true closed loop economy is created, capturing value as well as boosting ecosystem regeneration. On-site workshops create essential daily products, such as ceramics, textiles and clothing, construction materials, and tools.



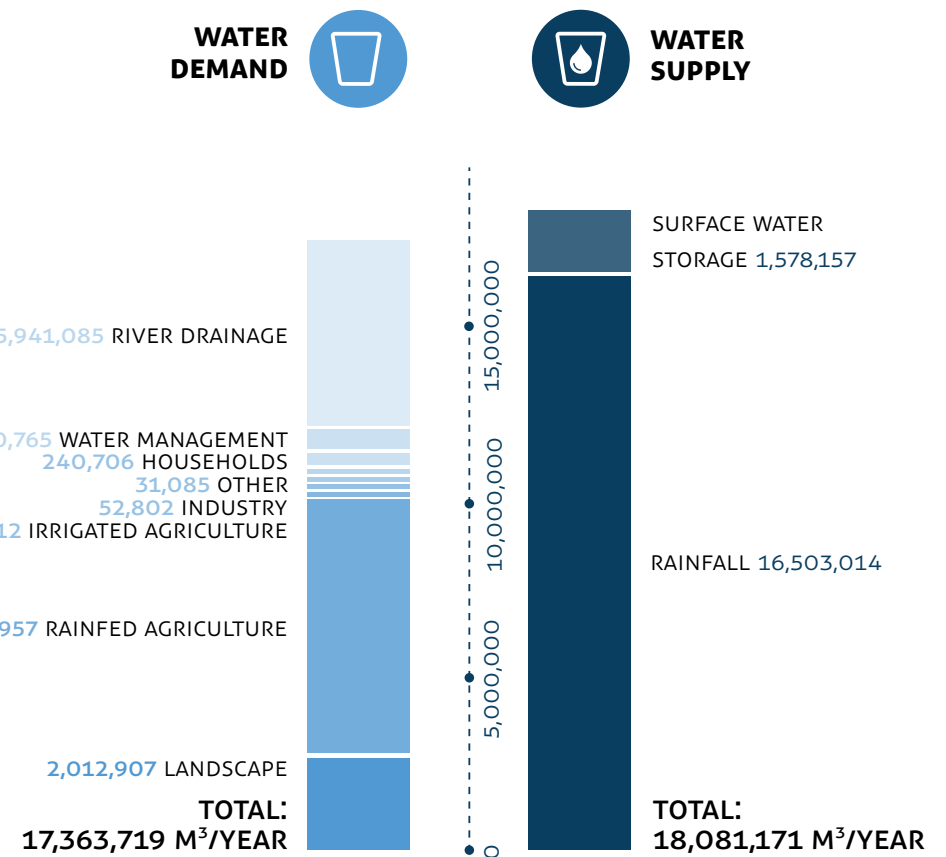


# RESOURCE CIRCULARITY

## ENERGY

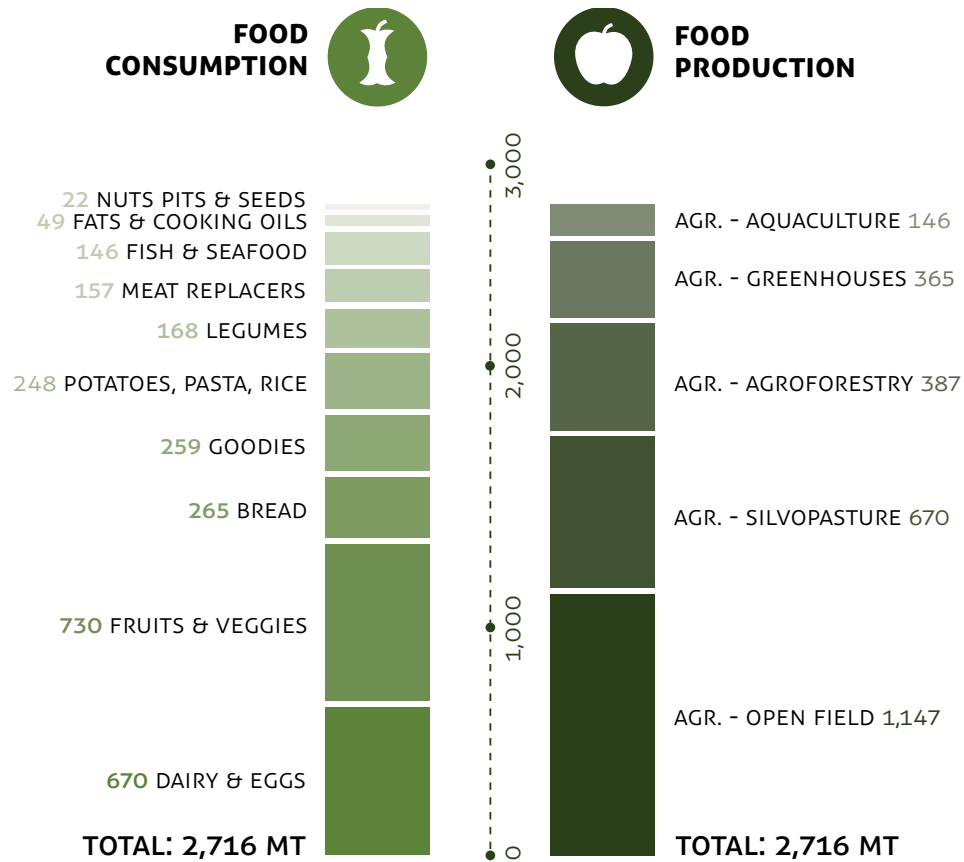


## WATER

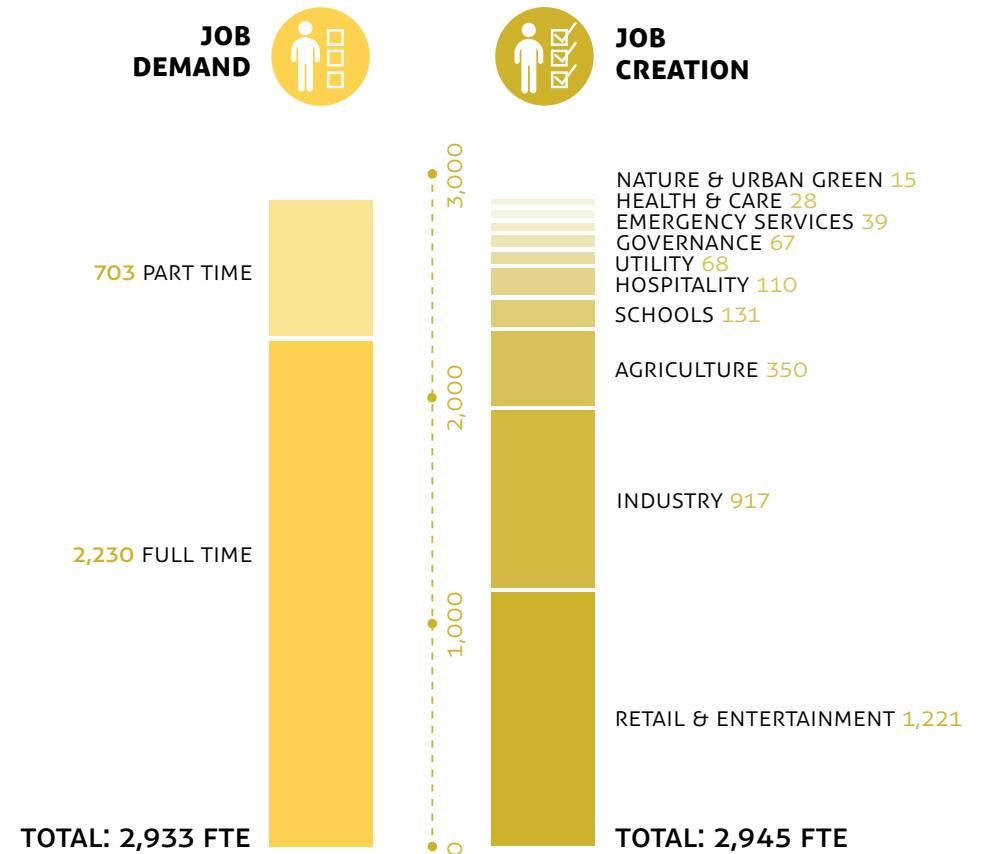


# RESOURCE CIRCULARITY

## FOOD



## JOBS





# CIRCULAR FOOD

**A complete healthy and balanced diet is catered for in Orchid City with agricultural systems right inside the neighborhood. These are professionally managed, voluntarily supported by the community, and offer organic, safe, and plentiful food year round.**

To provide inhabitants with a complete and healthy diet, a large variety of food is produced. The cultivation methods and produce selection are adjusted to local culture and yearly variations.

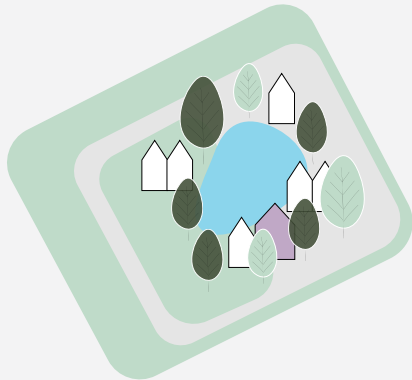
The main production method is agroforestry, where the cultivation of edible plants is in harmony with nature. This is supplemented by high yield, high tech autonomous greenhouses in which fruits and vegetables are sustainably produced with great efficiency. The forest is also a source for a variety of bio-based building materials that are processed and implemented in the city itself.





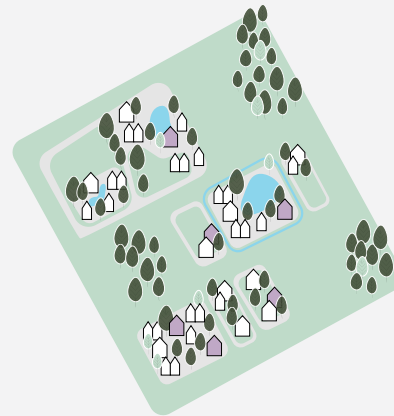
# BUILT ON A SCALABLE DYNAMIC MODEL

Orchid City can match in scale corresponding to the availability of space, the ambition of the partners, and the demand for sustainable developments. Anything from a small neighborhood to a sizable town is within reach.



## 500 inhabitants

Total land area: 175 ha  
Built up area: 4.1 ha  
Centers & satellites: 1  
Self-sufficiency: 75%  
Development costs: € 125 million



## 5,000 inhabitants

Total area: 1,840 ha  
Built up area: 49 ha  
Centers & satellites: 3-5  
Self-sufficiency: 90%+  
Development costs: € 1.400 million



## 15,000 inhabitants

Total area: 5,570 ha  
Built up area: 140 ha  
Centers & satellites: 5-8  
Self-sufficiency: 95%+  
Development costs: € 4.200 million

>>>

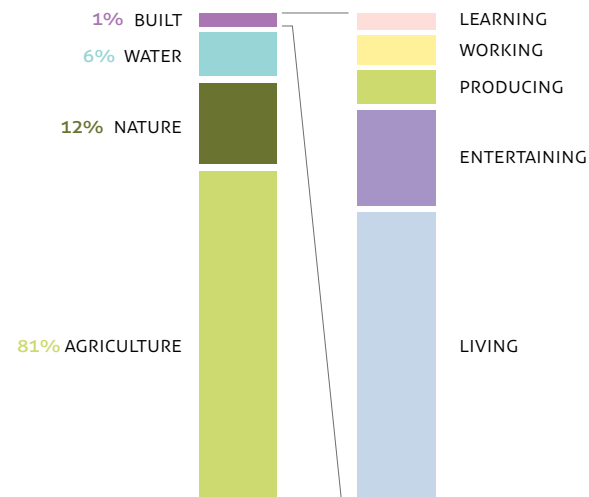


# PROGRAM OVERVIEW

The program for an Orchid City of 5,000 people offers all daily functions needed.

Orchid City has a diverse program that fulfills both the majority of services expected in a city and ambitious sustainability goals. Diverse housing, care, schools, entertainment, production and working are mixed, in a lively and diverse habitat.

## LAND USE & BUILT ENVIRONMENT

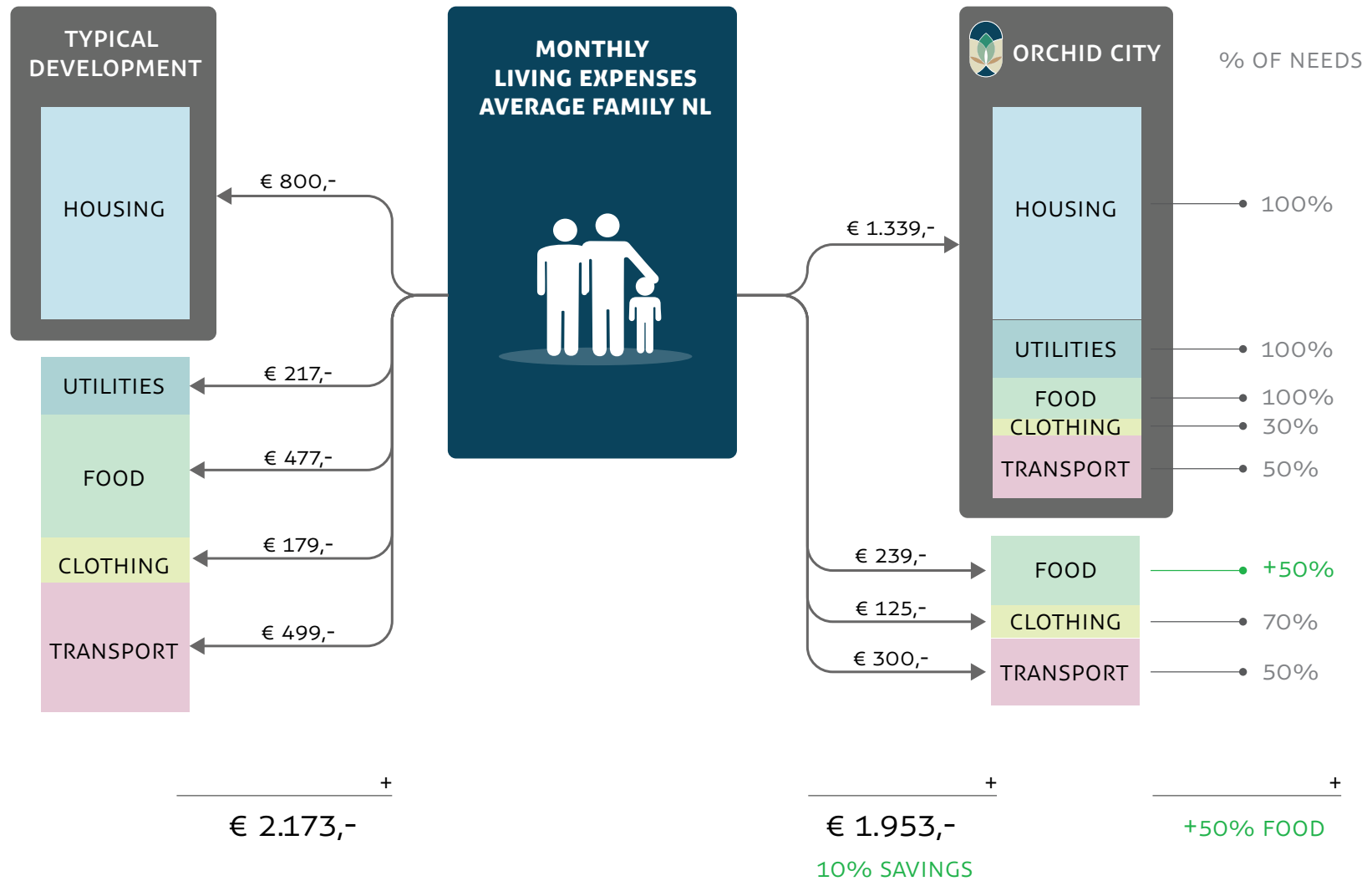


PROGRAM		TOTAL (HA)
<b>LIVING</b>		
Housing		13.9 ha
Detached		3.1 ha
Villas		0.5 ha
Semi-detached		3.5 ha
Rowhouse		4.7 ha
Two Bedroom Ap.		0.5 ha
Studio Apartment		0.3 ha
Elderly Homes		0.4 ha
Student Housing		0.1 ha
Social Housing		0.8 ha
Care & Health		0.5 ha
Emergency Services		0.3 ha
Infrastructure		17.0 ha
<b>TOTAL</b>		<b>31.7 ha</b>
<b>LEARNING</b>		
Schools		1.8 ha
Daycare		0.1 ha
Primary Schools		0.9 ha
High School		0.7 ha
Craft School		0.1 ha
<b>TOTAL</b>		<b>1.8 ha</b>
<b>ENTERTAINING</b>		
Hospitality		1.7 ha
Hotel		0.6 ha
Resort		0.5 ha
Restaurants		0.5 ha
Bars / Cafes		0.1 ha

Leisure	3.6 ha
Spa & Relaxation	0.2 ha
Community Centers	0.6 ha
Entertainment	0.5 ha
Culture	0.3 ha
Sport Facilities	0.6 ha
Services	6.0 ha
<b>TOTAL</b>	<b>10.5 ha</b>
<b>PRODUCING &amp; NATURE</b>	
Industry & production workshops	6.7 ha
Urban Green	2 ha
Agriculture	1,462 ha
Open Field	309 ha
Husbandry	1,034 ha
Orchard	96 ha
Greenhouse	23 ha
Nature & Water	332 ha
<b>TOTAL</b>	<b>1,800 ha</b>
<b>WORKING</b>	
Offices	1.1 ha
Co-working	0.3 ha
Retail	0.2 ha
Market	0.6 ha
Conference Center	1.0 ha
<b>TOTAL</b>	<b>3.2 ha</b>
<b>TOTAL ORCHID CITY NL</b>	<b>1,846 ha</b>

This table details the program of a scenario of 5000 people in Orchid City, The Woods, in the Netherlands.

# INTEGRATED VALUE MODEL

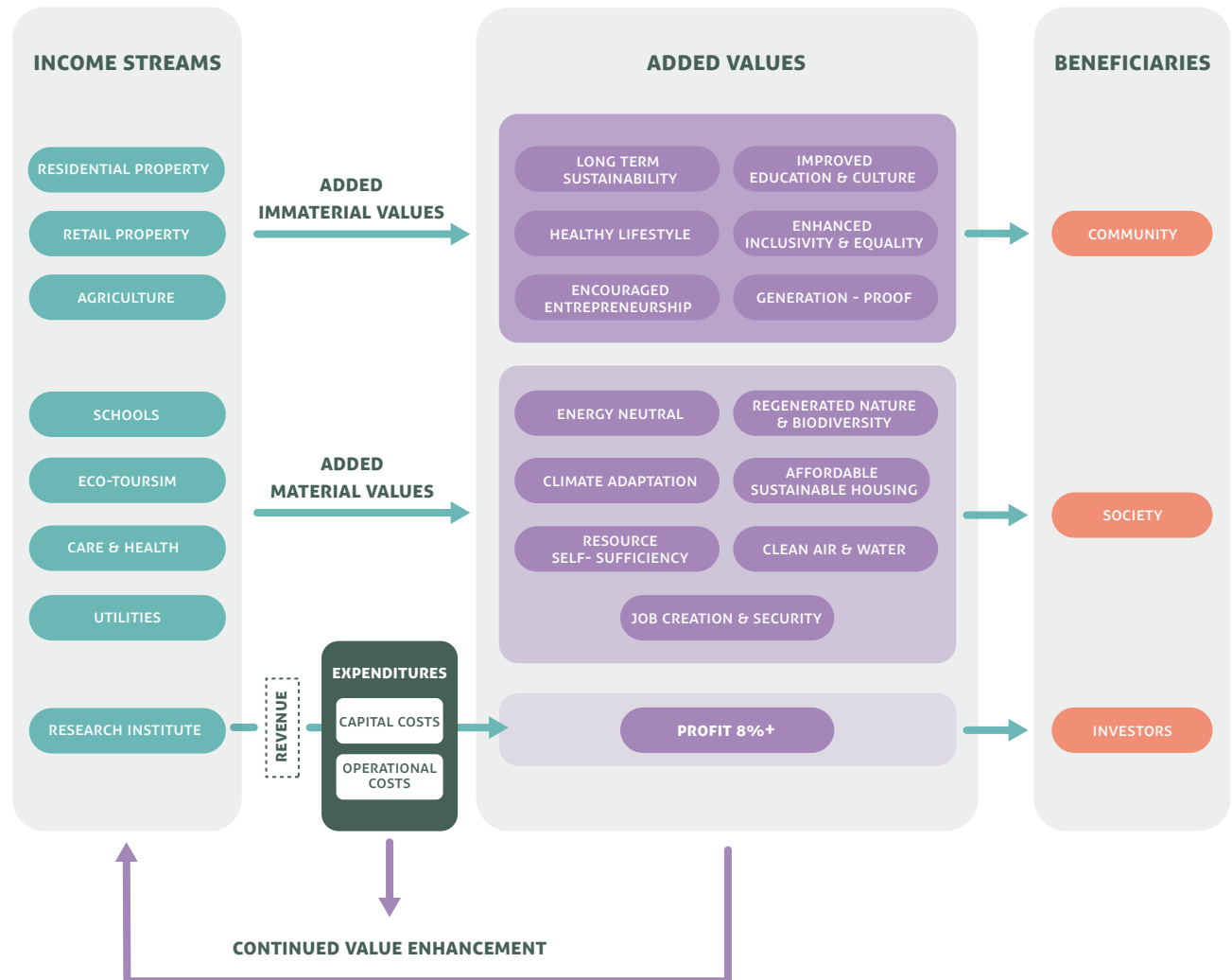




# VALUE BEYOND FINANCE

Orchid City's business model generates revenue to support a healthy profit margin, as well as generating added value for beneficial stakeholders, including the community, the region, and the country.

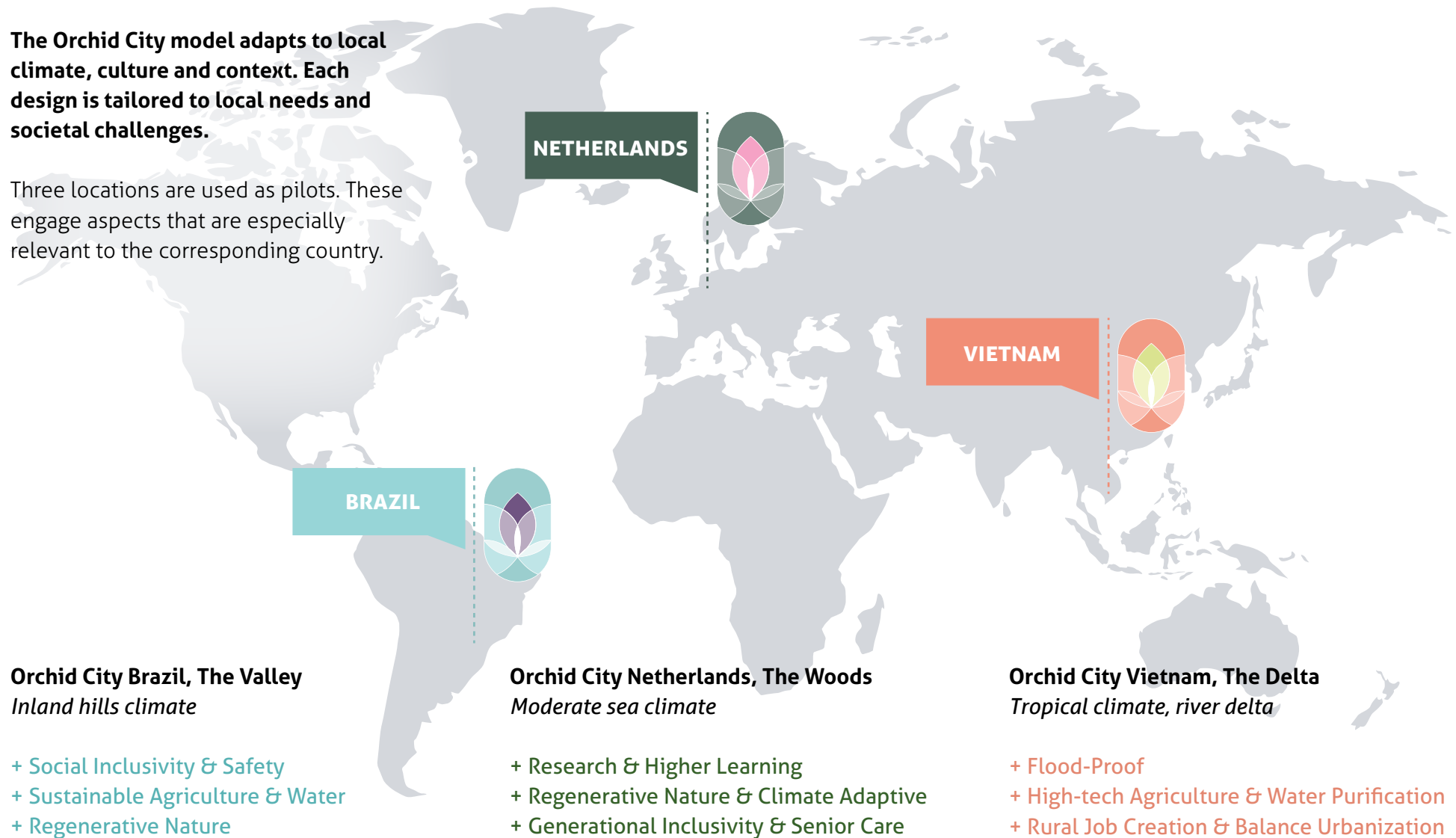
The value diagram to the right reflects the value flows generated through operations at Orchid City, and their material, immaterial, and financial value generated.



# CONTEXT SENSITIVE ADAPTATION

The Orchid City model adapts to local climate, culture and context. Each design is tailored to local needs and societal challenges.

Three locations are used as pilots. These engage aspects that are especially relevant to the corresponding country.





**LEGEND**

- REPERIAN BELT
- SILVOPASTURE
- AGROFORESTRY
- FIELD AGRICULTURE
- AGRICULTURE (VARIETY OF CROPS)
- AGRICULTURE (VARIETY OF CROPS)
- AGRICULTURE (VARIETY OF CROPS)
- RICE PADDIES
- AQUATIC PLANTS
- GREENHOUSES
- CONSTRUCTED TERRACES
- ORCHARDS
- SURFACE WATER (RIVER, LAKE, WETLAND, WADI, CHANNEL)
- BUILT AREA (INCLUDING IF FACILITIES)
- EXISTING MINE ZONE
- ROADS

**LEGEND**

- REPIARIAN BELT
- SILVOPASTURE
- AGROFORESTRY
- FIELD AGRICULTURE
- AGRICULTURE (VARIETY OF CROPS)
- AGRICULTURE (VARIETY OF CROPS)
- AGRICULTURE (VARIETY OF CROPS)
- RICE PADDIES
- AQUATIC PLANTS
- GREENHOUSES
- CONSTRUCTED TERRACES
- ORCHARDS
- SURFACE WATER (RIVER, LAKE, WETLAND, WADI, CHANNEL)
- BUILT AREA (INCLUDING IF FACILITIES)
- EXISTING MINE ZONE
- ROADS

**LEGEND**

REPAIRIAN BELT	AGRICULTURE (VARIETY OF CROPS)	CONSTRUCTED TERRACES
SILVOPASTURE	AGRICULTURE (VARIETY OF CROPS)	ORCHARDS
AGROFORESTRY	AGRICULTURE (VARIETY OF CROPS)	SURFACE WATER (RIVER, LAKE, WETLAND, WADI, CHANNEL)
FIELD AGRICULTURE	AGRICULTURE (VARIETY OF CROPS)	BUILT AREA (INCLUDING IF FACILITIES)
AGRICULTURE (VARIETY OF CROPS)	RICE PADDIES	EXISTING MINE ZONE
AGRICULTURE (VARIETY OF CROPS)	AQUATIC PLANTS	ROADS
	GREENHOUSES	

- 
- LEGEND**
- REPIARIAN BELT
  - SILVOPASTURE
  - AGROFORESTRY
  - FIELD AGRICULTURE
  - AGRICULTURE (VARIETY OF CROPS)
  - AGRICULTURE (VARIETY OF CROPS)
  - AGRICULTURE (VARIETY OF CROPS)
  - RICE PADDIES
  - AQUATIC PLANTS
  - GREENHOUSES
  - CONSTRUCTED TERRACES
  - ORCHARDS
  - SURFACE WATER (RIVER, LAKE, WETLAND, WADI, CHANNEL)
  - BUILT AREA (INCLUDING IF FACILITIES)
  - EXISTING MINE ZONE
  - ROADS

The map illustrates a comprehensive land use plan for the OC Core region. It features a central 'OC CORE' area with various agricultural zones, surrounded by 'FARM VILLAGE', 'RIVER - FOREST NEIGHBORHOOD', 'NEIGHBORHOOD ON THE TERRACES', and 'LAB DISTRICT'. The 'ORCHID CITY DOWNTOWN' is also marked. A legend in the bottom left corner provides a key for the symbols used, including 'REPERIAN BELT', 'SILVOPASTURE', 'AGROFORESTRY', 'FIELD AGRICULTURE', 'AGRICULTURE (VARIETY OF CROPS)', 'RICE PADDIES', 'AQUATIC PLANTS', 'GREENHOUSES', 'CONSTRUCTED TERRACES', 'ORCHARDS', 'SURFACE WATER', 'BUILT AREA', 'EXISTING MINE ZONE', and 'ROADS'.

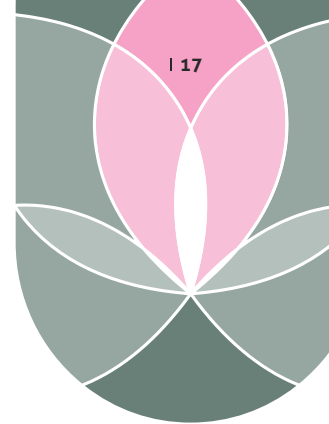
- 
- LEGEND**
- |                                |                                |   |
|--------------------------------|--------------------------------|---|
| REPAIRIAN BELT                 | AGRICULTURE (VARIETY OF CROPS) | CONSTRUCTED TERRACES                                |
| SILVOPASTURE                   | AGRICULTURE (VARIETY OF CROPS) | ORCHARDS  |
| AGROFORESTRY                   | AGRICULTURE (VARIETY OF CROPS) | SURFACE WATER (RIVER, LAKE, WETLAND, WADI, CHANNEL) |
| FIELD AGRICULTURE              | AGRICULTURE (VARIETY OF CROPS) | BUILT AREA (INCLUDING IF FACILITIES)                |
| AGRICULTURE (VARIETY OF CROPS) | RICE PADDIES                   | EXISTING MINE ZONE                                  |
| AGRICULTURE (VARIETY OF CROPS) | AQUATIC PLANTS                 | ROADS   |
|                                | GREENHOUSES                    |   |

**LEGEND**

REPAIRIAN BELT	AGRICULTURE (VARIETY OF CROPS)	CONSTRUCTED TERRACES
SILVOPASTURE	AGRICULTURE (VARIETY OF CROPS)	ORCHARDS
AGROFORESTRY	AGRICULTURE (VARIETY OF CROPS)	SURFACE WATER (RIVER, LAKE, WETLAND, WADI, CHANNEL)
FIELD AGRICULTURE	AGRICULTURE (VARIETY OF CROPS)	BUILT AREA (INCLUDING IF FACILITIES)
AGRICULTURE (VARIETY OF CROPS)	RICE PADDIES	EXISTING MINE ZONE
AGRICULTURE (VARIETY OF CROPS)	AQUATIC PLANTS	ROADS
	GREENHOUSES	

- 
- LEGEND**
- REPIARIAN BELT
  - SILVOPASTURE
  - AGROFORESTRY
  - FIELD AGRICULTURE
  - AGRICULTURE (VARIETY OF CROPS)
  - AGRICULTURE (VARIETY OF CROPS)
  - AGRICULTURE (VARIETY OF CROPS)
  - RICE PADDIES
  - AQUATIC PLANTS
  - GREENHOUSES
  - CONSTRUCTED TERRACES
  - ORCHARDS
  - SURFACE WATER (RIVER, LAKE, WETLAND, WADI, CHANNEL)
  - BUILT AREA (INCLUDING IF FACILITIES)
  - EXISTING MINE ZONE
  - ROADS





# OC NETHERLANDS THE WOODS

Orchid City the Woods is situated in a former 'polder' area. The masterplan consists of a rewilding strategy combined with regenerative production, agricultural innovation and greenhouses. Its core has an urban vibe, surrounded with satellites in diverse landscapes such as wetlands, forests and fields. The landscape mirrors a core objective of this plan, developing knowledge in agricultural production, climate adaptation, generational inclusion and senior care.

## SPECIFIC FEATURES

- › Research & Higher learning
- › Regenerative nature
- › Climate adaptive solutions
- › Trans-generational living
- › Affordability

## PROJECT DATA

- › Inhabitants: 5,000
- › Total area: 1,845 ha
- › Built / Open: 33 ha / 1,812 ha
- › Development IRR: 20%



## LEGEND

SILVOPASTURE	AGRICULTURE (VARIETY OF CROPS)	SURFACE WATER (RIVER, LAKE, WETLAND, WADI, CHANNEL)
AGROFORESTRY	AGRICULTURE (VARIETY OF CROPS)	BUILT AREA (HOUSING & FACILITIES)
FIELD AGRICULTURE	RICE PADDIES	EXISTING INDUSTRIAL SITE
AGRICULTURE (VARIETY OF CROPS)	AQUATIC PLANTS	ROADS
AGRICULTURE (VARIETY OF CROPS)	ORCHARDS	RAILWAY
AGRICULTURE (VARIETY OF CROPS)	GREENHOUSES	BRIDGES



## OC VIETNAM THE DELTA

Orchid City, The Delta is situated in the north of Vietnam's Mekong delta area. Here, the issue of flooding is a crucial topic. The landscape is purposely designed to guide, control and invite water in different areas of the city. While mangroves and elevated land protect the waterfront, productive constructed terraces, food forests, flood plains and a system of channels are introduced in the inland. This plan focuses on extra job creation and water purification.

### SPECIFIC FEATURES

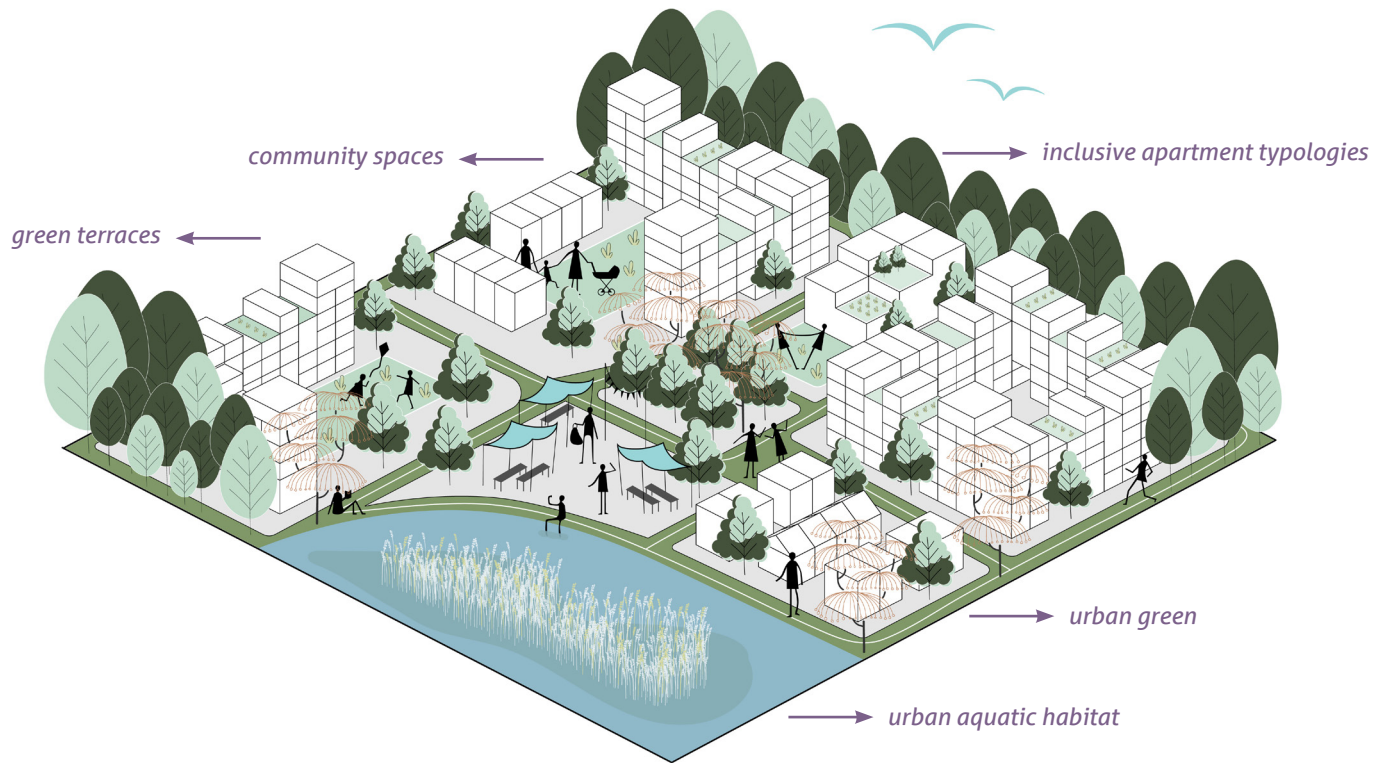
- › Flood-proofing
- › High-tech agriculture & water purification
- › Diverse and fresh locally grown food
- › Rural job creation & De-urbanization

### PROJECT DATA

- › Inhabitants: 5,000
- › Total area: 1,474 ha
- › Built / open: 21 ha / 1,453 ha
- › Development IRR: 18%







## ORCHID CITY DOWNTOWN

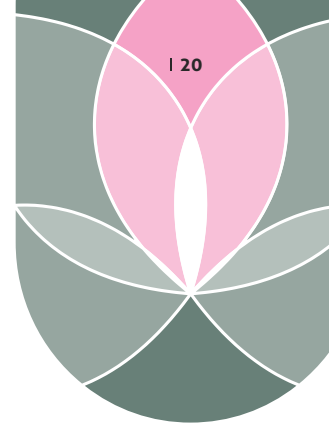
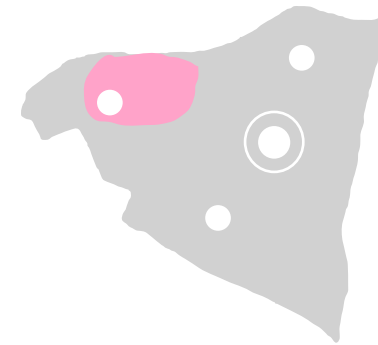
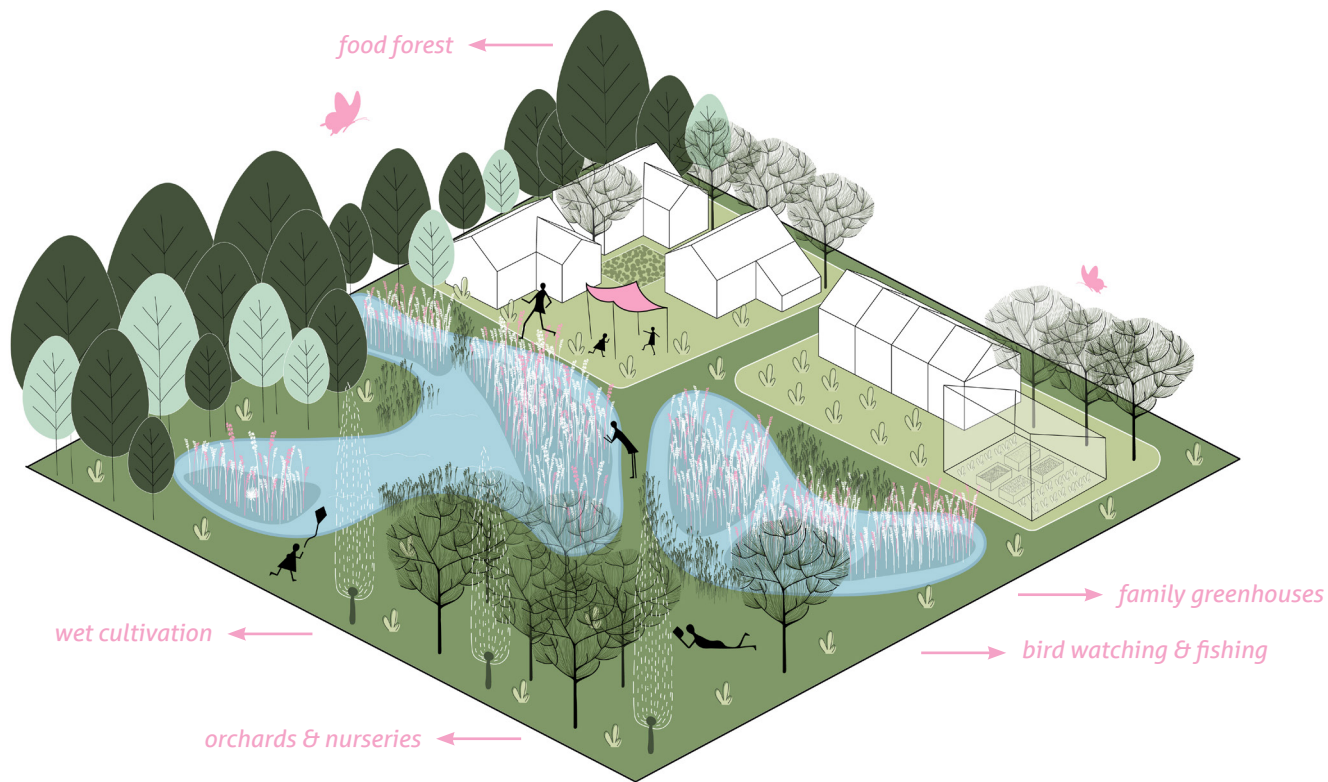
The downtown area is well-integrated with the main infrastructure network, connecting Orchid City with the surrounding region. It represents a medium density urban landscape situated next to a lake, with public spaces, diverse programs, and various building typologies. This area represents the heart of Orchid city.

### PROGRAMMATIC FEATURES

- › Apartment buildings with a diverse and inclusive set of apartment typologies
- › Offices & co-working spaces
- › Schools and healthcare center
- › Restaurants, shops, and entertainment
- › Urban farming and green terraces
- › Inclusive public spaces for events





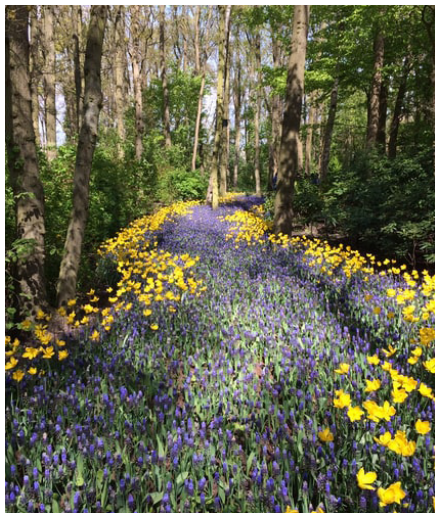


## NEIGHBORHOOD ON THE WETLANDS

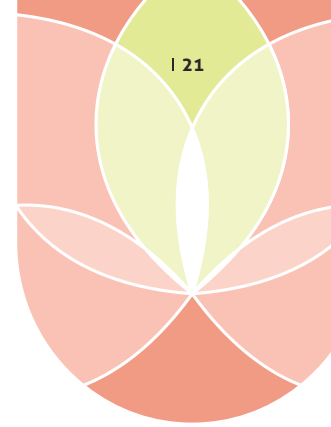
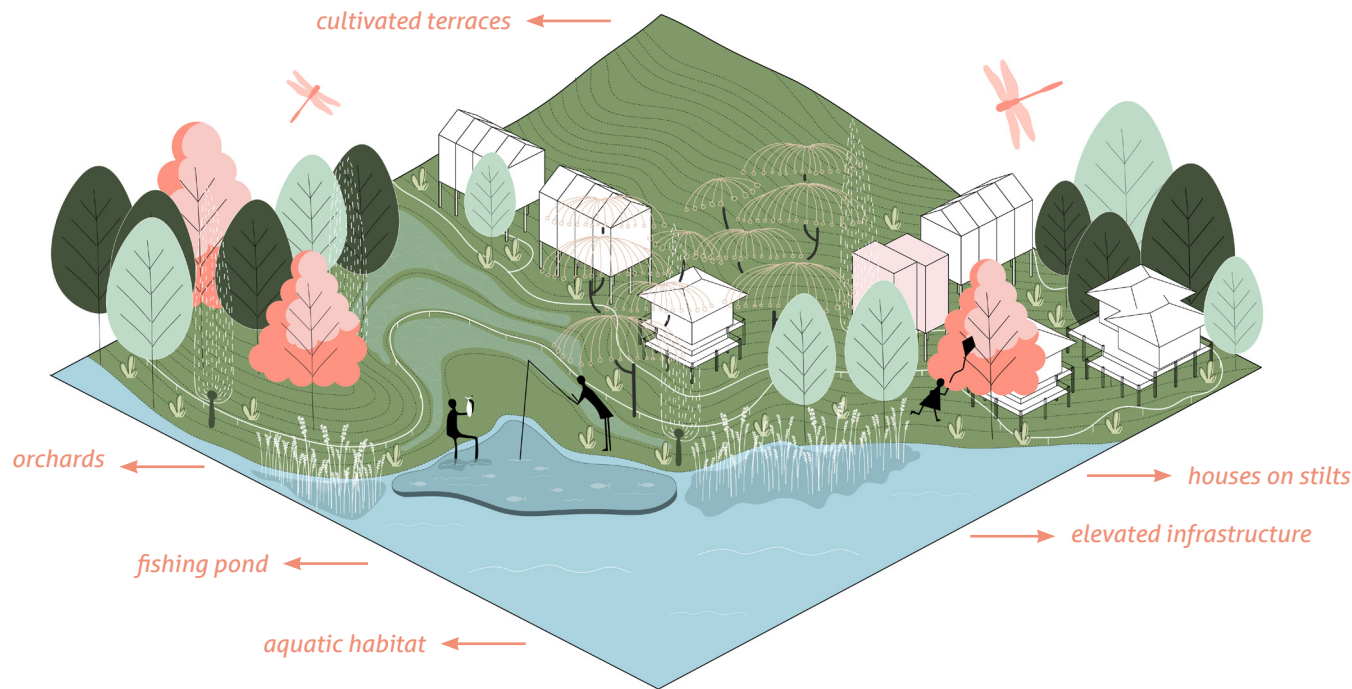
Situated in the west of Orchid City, this area represents a neighborhood built around and on the water. A living lab for the future of the Netherlands, experimenting with water management, wet cultivation and a habitat for birds.

## PROGRAMMATIC FEATURES

- › Semi-detached and detached houses with gardens
- › Wet cultivation and aquatic vegetation
- › Forest of wild vegetation
- › Bird watching areas & fish ponds
- › Community living spaces
- › Family greenhouses and nurseries
- › Leisure areas, sailing and fishing facilities







### NEIGHBORHOOD ON THE TERRACES

The terraces are located on the north-west of Orchid City, The Delta. While intended as a flood-proof measure, the terraces are also cultivated with a variety of crops, including rice paddies and orchards. Villas and semi-detached houses with gardens populate the top parts of the terraces, while villas on stilts are located on the lowest parts and nearby the waterfront, where the fishing pond is also located.

### PROGRAMMATIC FEATURES

- › Villas and semi-detached houses on stilts
- › Elevated flood-proof & productive terraces
- › Elevated infrastructure & food-storage units for emergency situations
- › Fishing ponds
- › Aquatic vegetation, orchards & rice paddies







## ORCHID CITY

2e Daalsedijk 6A, 3551 EJ

Utrecht, the Netherlands

[www.orchidcity.eco](http://www.orchidcity.eco)

+31 30 307 57 34