# 1. A Polycentric Region in a Natural Environment
## Concept, Context, Connectivity

This proposal establishes a new vision for the area between Oxford and Cambridge as the region continues to grow and enhances its position as a world class centre of innovation and education. By establishing symbiotic overlapping networks, our vision creates a unique and varied polycentric region within a natural environment that can develop and grow over time, increasing the mobility and quality of life of all residents, facilitating the exchange of knowledge and creation of sustainable economic activity, and ccreating places with enduring social and community value.
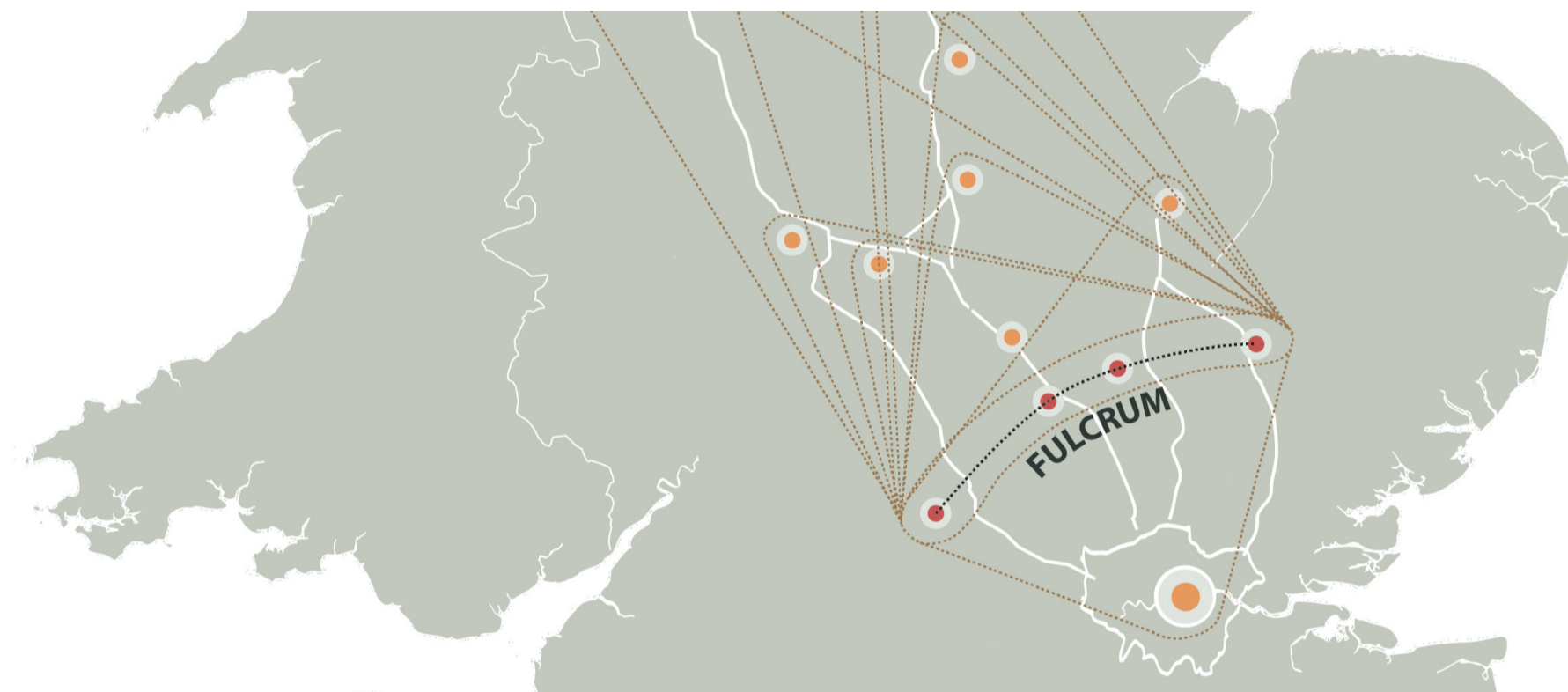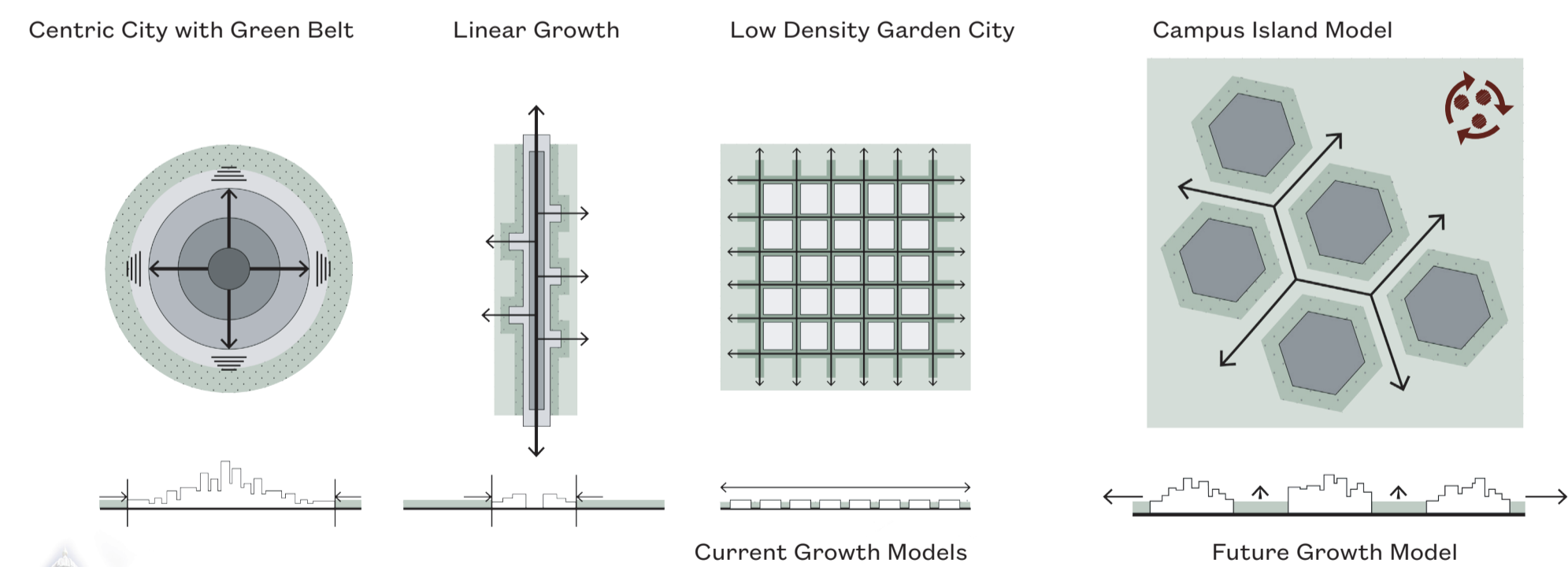
### Current Connectivity



### Future Connectivity



High Integration

Low Integration
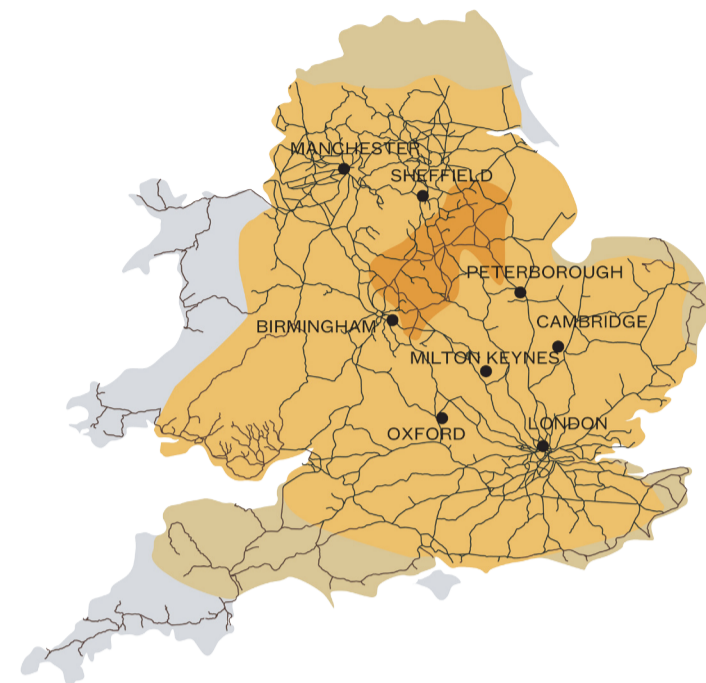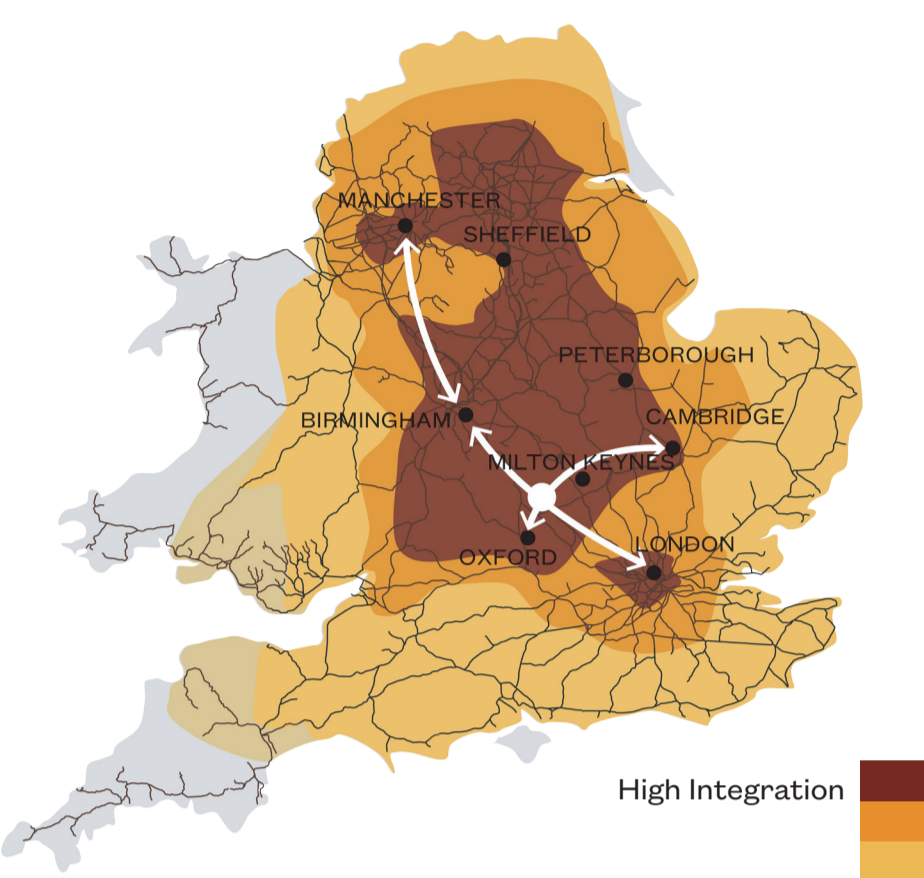
Connectivity in the region is significantly improved by the East West Corridor. When combined with HS2 connectivity is enhanced at a wider national level, placing the region centrally within a new area of opportunity.
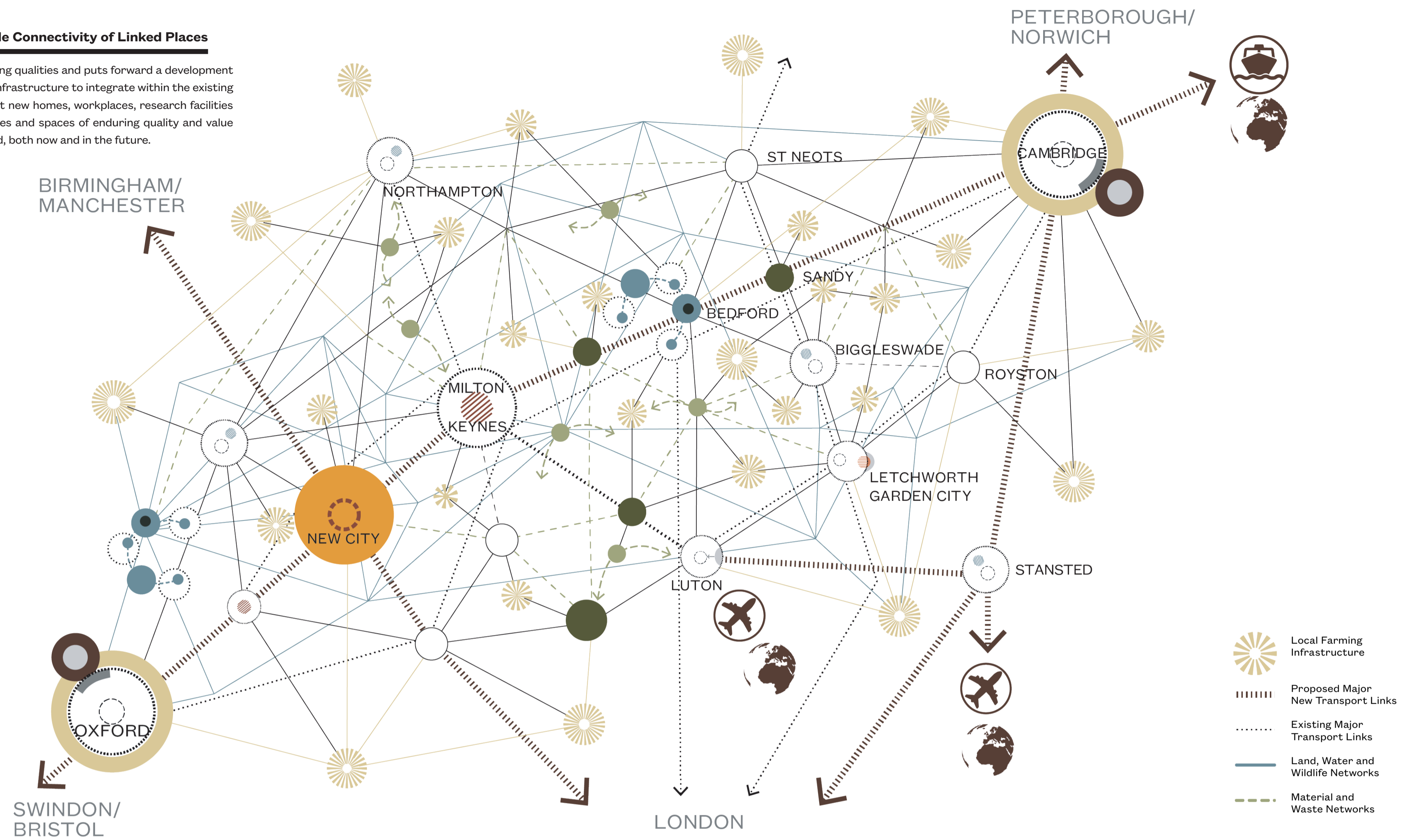


FULCRUM

### Future Growth Model



Centric City with Green Belt

Linear Growth

Low Density Garden City

Campus Island Model

Current Growth Models
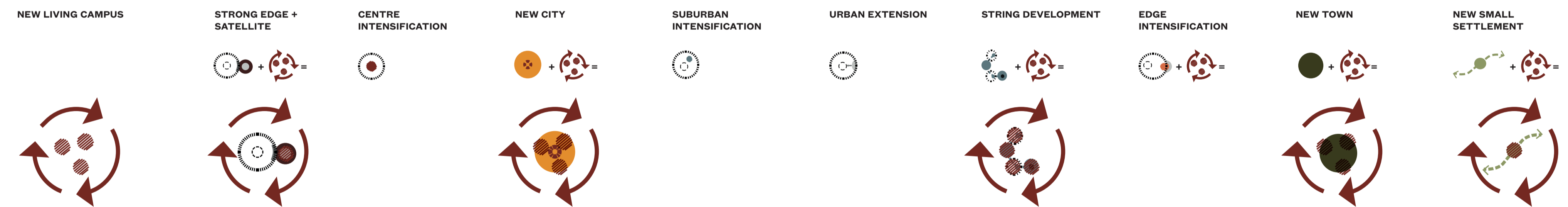
Future Growth Model

### Network Map: A Wide Connectivity of Linked Places

Our vision builds on existing qualities and puts forward a development framework to allow new infrastructure to integrate within the existing context over time, so that new homes, workplaces, research facilities and high quality new places and spaces of enduring quality and value are created and cherished, both now and in the future.



PETERBOROUGH/ NORWICH

BIRMINGHAM/ MANCHESTER

ST NEOTS

NORTHAMPTON

CAMBRIDGE

SANDY

BEDFORD

BIGGLESWADE

ROYSTON

MILTON KEYNES

LETCHWORTH GARDEN CITY

NEW CITY

STANSTED

LUTON

OXFORD

SWINDON/ BRISTOL

LONDON

Local Farming Infrastructure

Proposed Major New Transport Links

Existing Major Transport Links

Land, Water and Wildlife Networks

Material and Waste Networks

### 10 Development Typologies



NEW LIVING CAMPUS | STRONG EDGE + SATELLITE | CENTRE INTENSIFICATION | NEW CITY | SUBURBAN INTENSIFICATION | URBAN EXTENSION | STRING DEVELOPMENT | EDGE INTENSIFICATION | NEW TOWN | NEW SMALL SETTLEMENT

Within the context of a polycentric region, the 9 conceptual typologies are all relevant and appropriate for a variety of locations ans scales.

We added one more – a New Living Campus – to create 10 typologies covering a wide range from existing town and city intensification to new autonomous development at key network intersections such as the EWR and HS2 node.

Further development of our thinking has concluded that the New Living Campus principles can also enrich a range of the 5th Studio development typologies and these are illustrated in more detail in the report.

We therefore consider the New Living Campus as a unifying device to define and structure other typologies within the proposed development framework.



Mæ

with: Oneworks, Planit, AKT II, Tyrens, Max Fordham
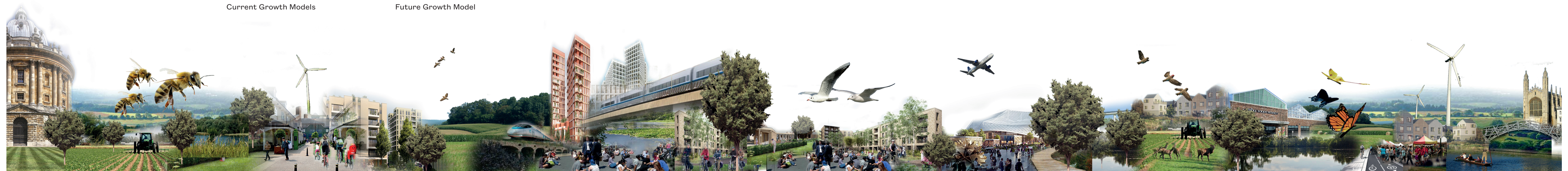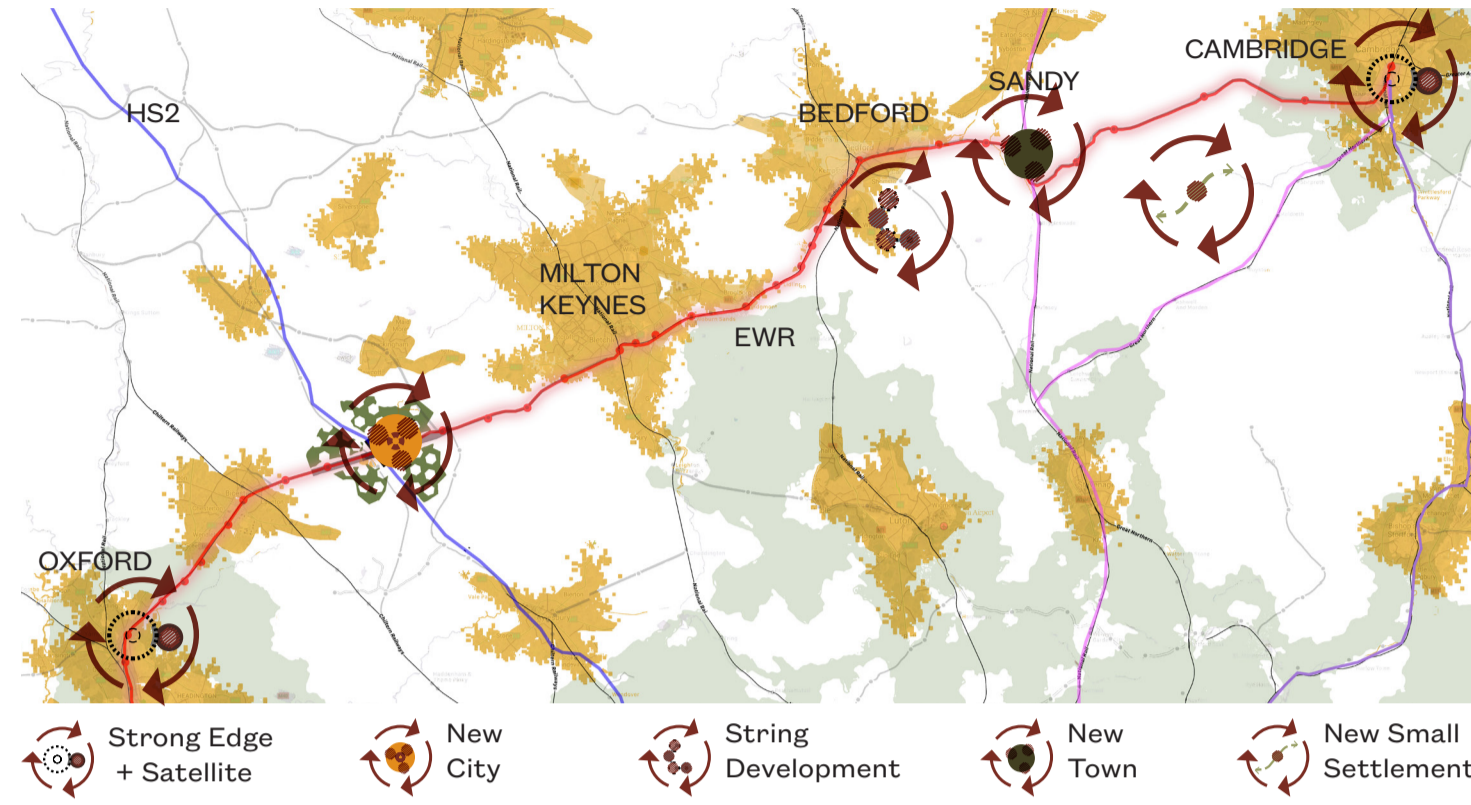
# 2. A New Living Campus
## Vision, Placemaking, Infrastructure

The New Living Campus proposes clusters of development within a natural setting, encouraging the landscape to flow through and around the whole. Each cluster has the potential to accommodate a variety of densities and types of housing, as well as a range of other uses.

### Potential Typology Locations within the Network

We have indicated a series of potential locations along the East-West corridor for a variety of typologies based on the New Living Campus.
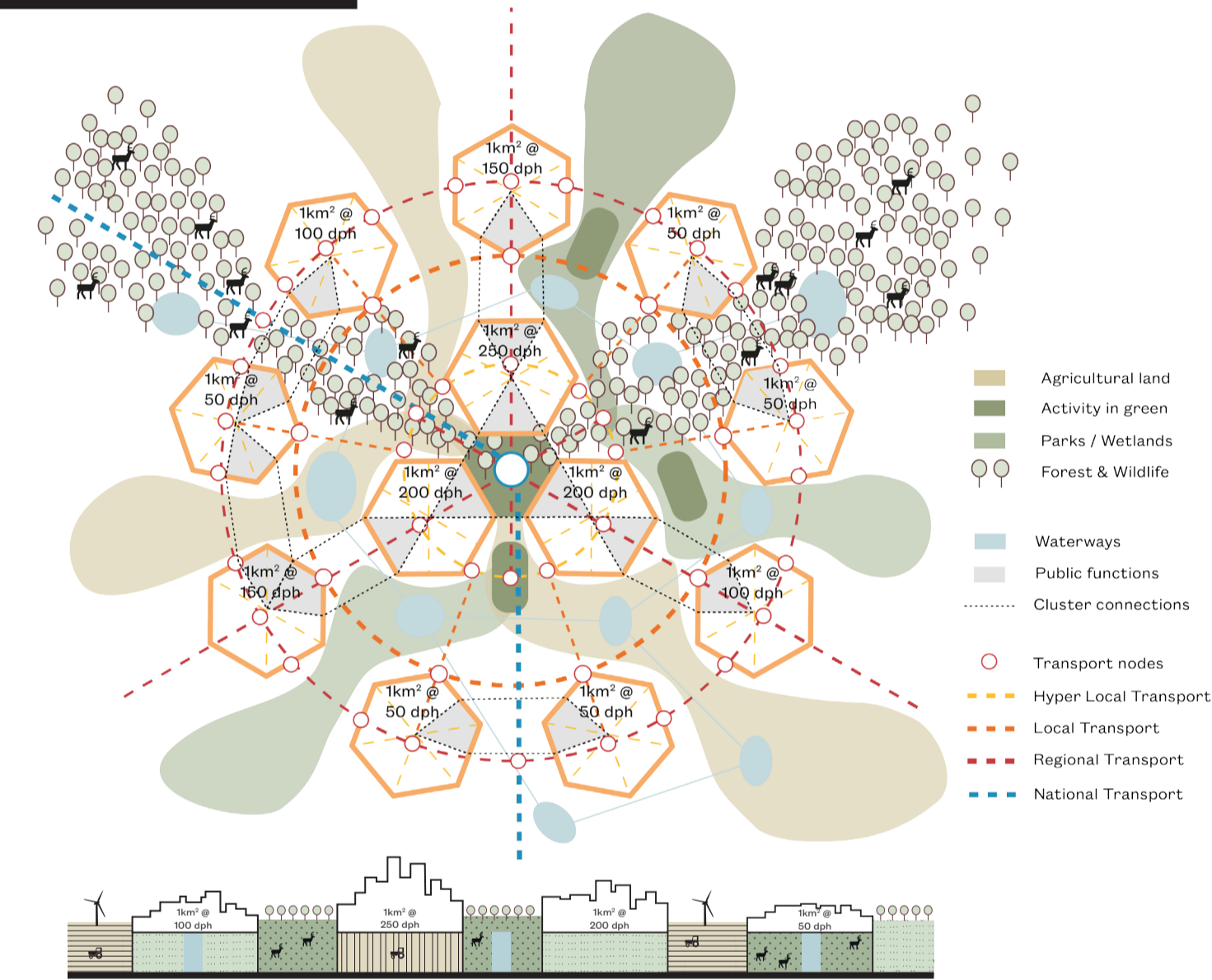
These typologies work at a range of locations and scales within a unified development framwork.



HS2
CAMBRIDGE
SANDY
BEDFORD
MILTON KEYNES
EWR
OXFORD

| | Strong Edge + Satellite | | New City | | String Development | | New Town | | New Small Settlement |

### New Living Campus: 12 Clusters, 250,000 inhabitants

We have developed a city Campus model that can house 250,000 people in 12 clusters with a range of densities to accommodate a variety of typologies from self build terrace to multi level apartment block.
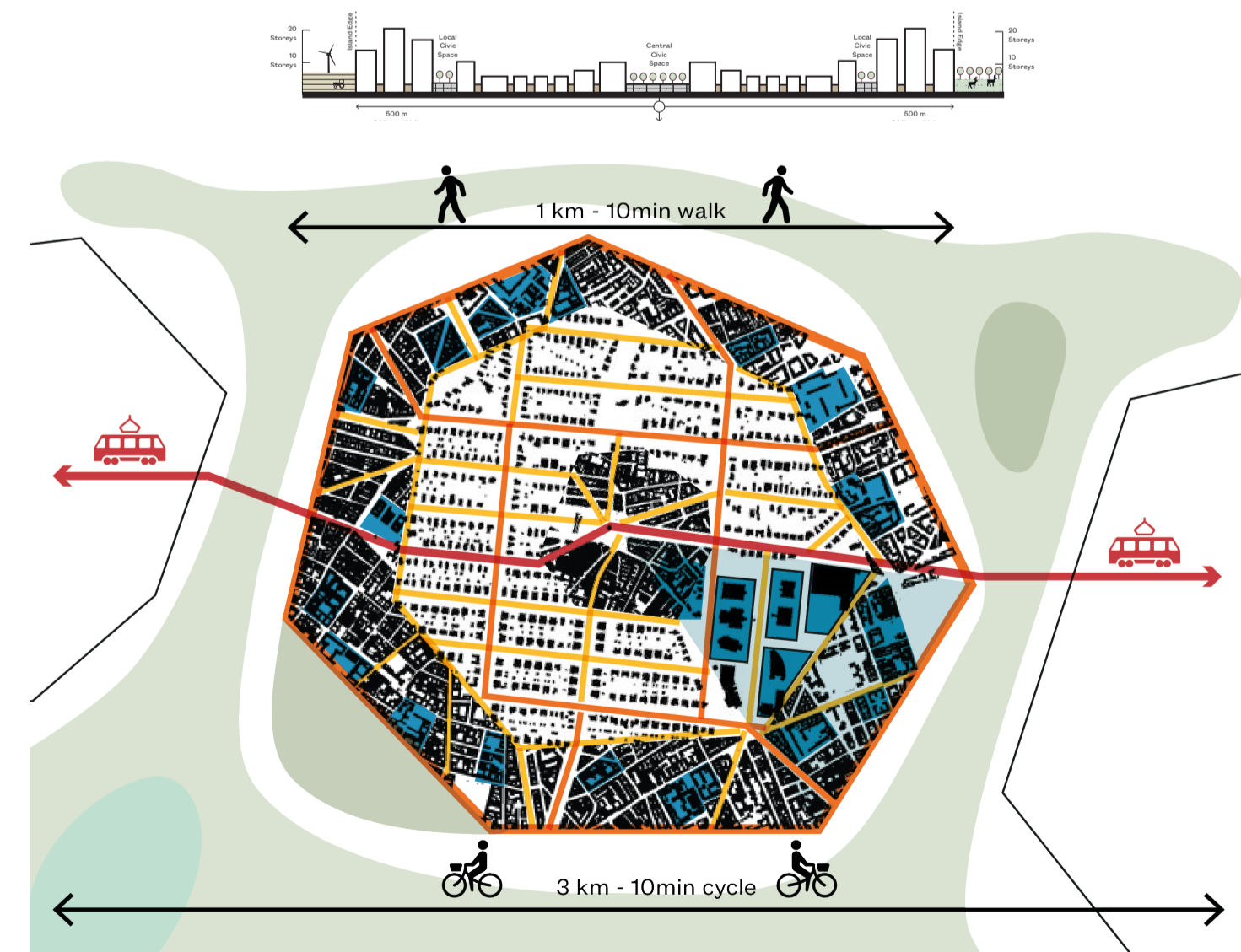
Each cluster of the New Living Campus could develop a specialist faculty to encourage a particular field of innovation, such as 'Construction Material Innovation' or 'Biotechnology in Food Production'.



- Agricultural land
- Activity in green
- Parks / Wetlands
- Forest & Wildlife
- Waterways
- Public functions
- Cluster connections
- Transport nodes
- Hyper Local Transport
- Local Transport
- Regional Transport
- National Transport

### New Living Campus: Individual Clusters, 10,000 to 50,000 inhabitants

Each cluster within the New Living Campus is a community, with a range of homes, public spaces and other facilities, of a walkable scale, giving an average area of around 1km2 or 100 hectares, allowing a cluster to contain between 5,000 and 25,000 homes depending on the location, density and local demand. Thus the model has infinite flexibility, both in its scale and deliverability over time, as clusters can be developed as individual parcels with linked infrastructure.

A strong perimeter provides long views over the landscape. This lends itself to additional height and associated extra density, with a clean edge to the landscape. Likewise, we see the centre of each cluster having some height and density to create a vibrant core with cultural and social activities arranged around central public spaces.



1 km - 10min walk

3 km - 10min cycle









MANCHESTER 40 MIN HIGH SPEED
OXFORD 25 MIN TRAIN
CAMBRIDGE 20 MIN TRAIN
LONDON 30 MIN HIGH SPEED TRAIN

1km² @ 250 dph
1km² @ 200 dph
1km² @ 100 dph

**Development over time enables places to create an identity and allows for future growth**



Clusters of development in a natural environment

# 3. Urcadia
## Scalability and Deliverability

The surrounding context, with existing lakes, waterways, cycleways and other connections, has been used as a starting point, with its rich landscape and and existing railway and road infrastructure.
Clusters can be constructed individually, and where possible will be encourages to work with the local landscape and material supply to sculpt and create a working landscape.
Over time, individual clusters are complete, allowing green and agricultural landscape to flow between, and additional clusters to be completed to suit demand and location. Potentially, much like Milton Keynes, over a period of 30 or 40 years, a group of clusters of varying densities are complete, creating a city of some 250,000 inhabitants.

### Growth over Time: 10 years

Cluster 1:     Approx 5000 Homes
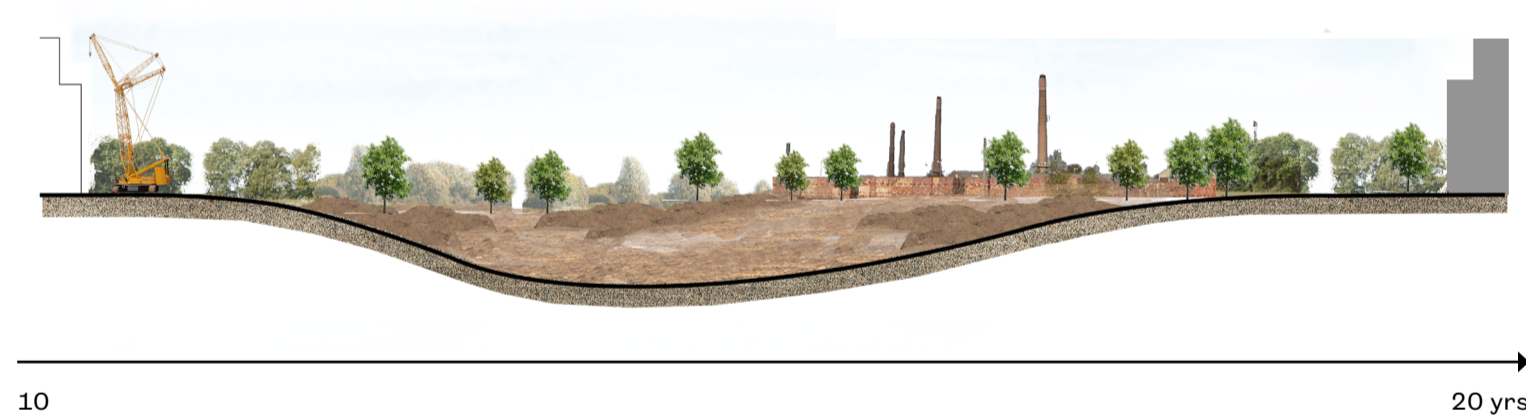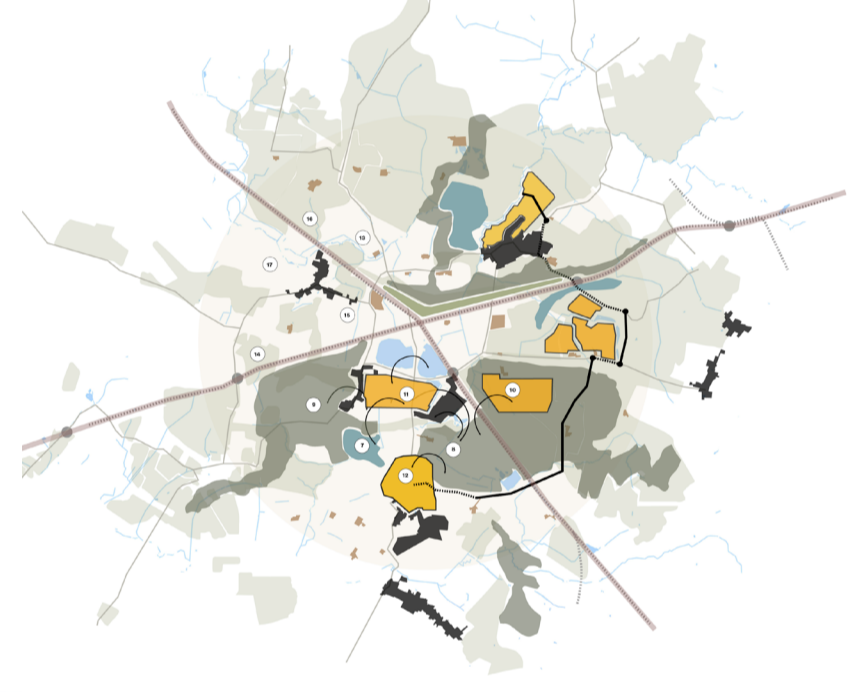
Cluster 2:     Approx 10 000 Homes

Initial tree planting and investment in Cross Laminated Timber technology, could develop a local expertise in off site fabrication of modular building components to supply both the immediate demand and also wider afield to create economic benefit.



1 ——————————————→ 10 yrs
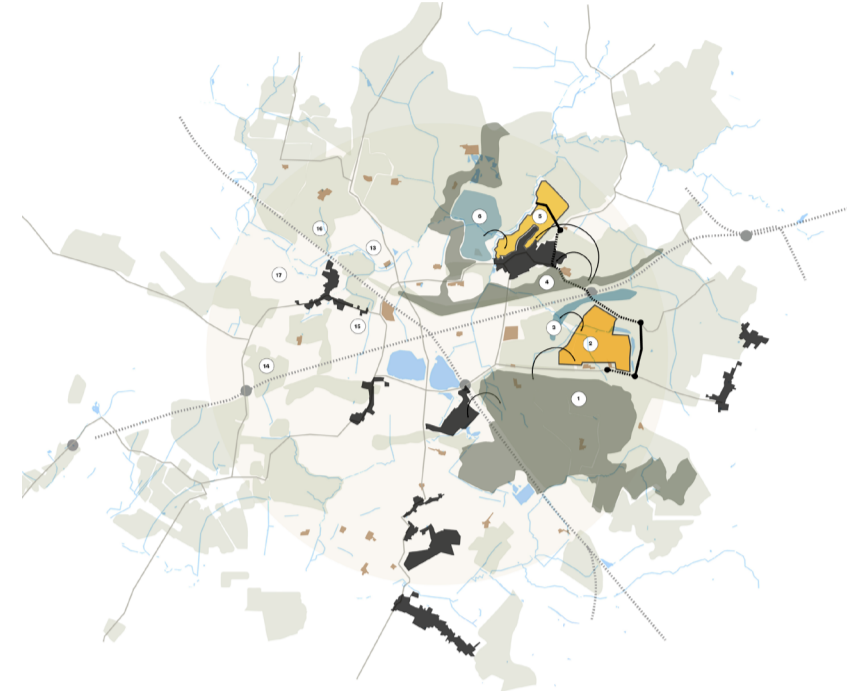
### Growth over Time: 20 years

Cluster 1:     Approx 5000 Homes

Cluster 2:     Approx 10 000 Homes

Cluster 3:     Approx 10 000 Homes

Cluster 4:     Approx 5000 Homes

Cluster 5:     Approx 10 000 Homes

Extraction of local clay, and research into clean brick manufacture, or alternative extruded clay blocks, boards and tiles, could again boost local innovation into this versatile material.
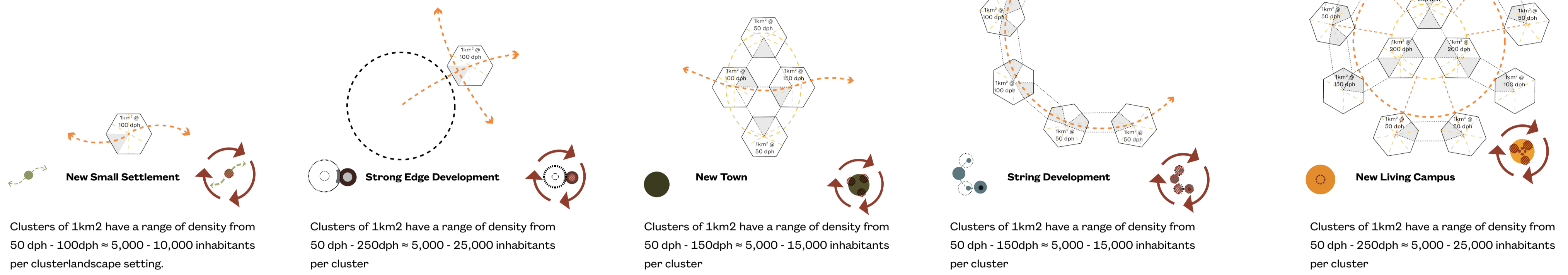


10 ——————————————→ 20 yrs

### Growth over Time: 30 years

| Cluster 1: | Approx 5000 | Cluster 5: | Approx 15 000 |
| Cluster 2: | Approx 10 000 | Cluster 6: | Approx 10 000 |
| Cluster 3: | Approx 10 000 | Cluster 7: | Approx 5000 |
| Cluster 4: | Approx 5000 | Cluster 8: | Approx 20 000 |

As development progresses and clusters are built, then extracted clay pits can become living lakes within the wider landscape, providing reservoirs, water attenuation, fish farms, and amenity activities.



20 ——————————————→ 30 yrs
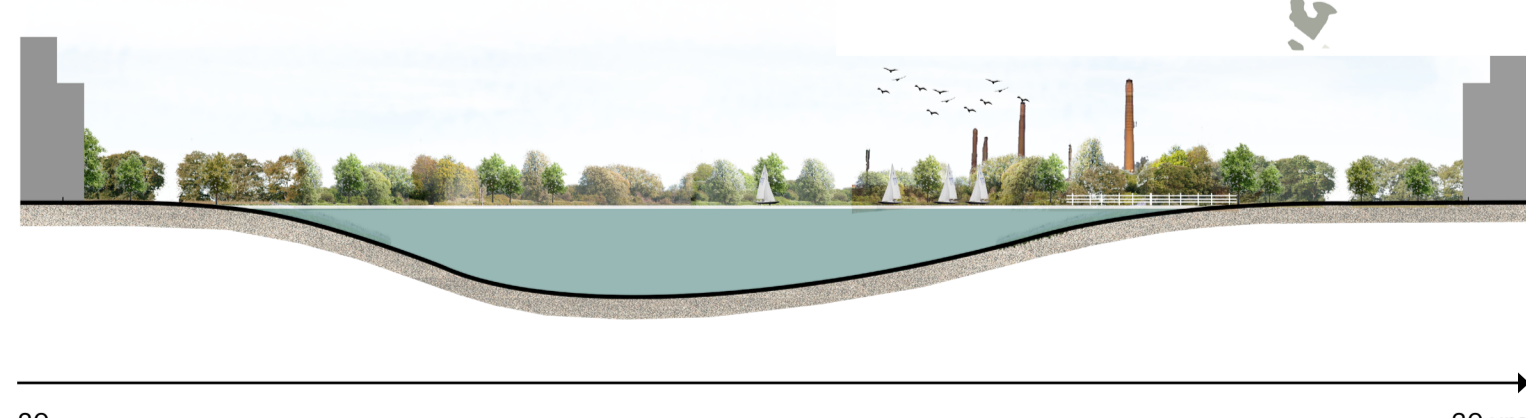
### Campus Typologies

The New Living Campus principles can be applied at a range of sizes, densities, uses and number of clusters, to 5 of the 9 development typologies proposed by 5th Studio, thus acting as an organizing device to give a unifying structure to other typologies within the proposed development framework.



**New Small Settlement**

Clusters of 1km2 have a range of density from 50 dph - 100dph ≈ 5,000 - 10,000 inhabitants per clusterlandscape setting.

**Strong Edge Development**

Clusters of 1km2 have a range of density from 50 dph - 250dph ≈ 5,000 - 25,000 inhabitants per cluster

**New Town**

Clusters of 1km2 have a range of density from 50 dph - 150dph ≈ 5,000 - 15,000 inhabitants per cluster

**String Development**

Clusters of 1km2 have a range of density from 50 dph - 150dph ≈ 5,000 - 15,000 inhabitants per cluster

**New Living Campus**

Clusters of 1km2 have a range of density from 50 dph - 250dph ≈ 5,000 - 25,000 inhabitants per cluster

### New Living Campus City

A Campus of 250,000 inhabitants and growth technologies developed over a 40-50-year time period in 12 individual clusters within a landscape setting.



40 yrs
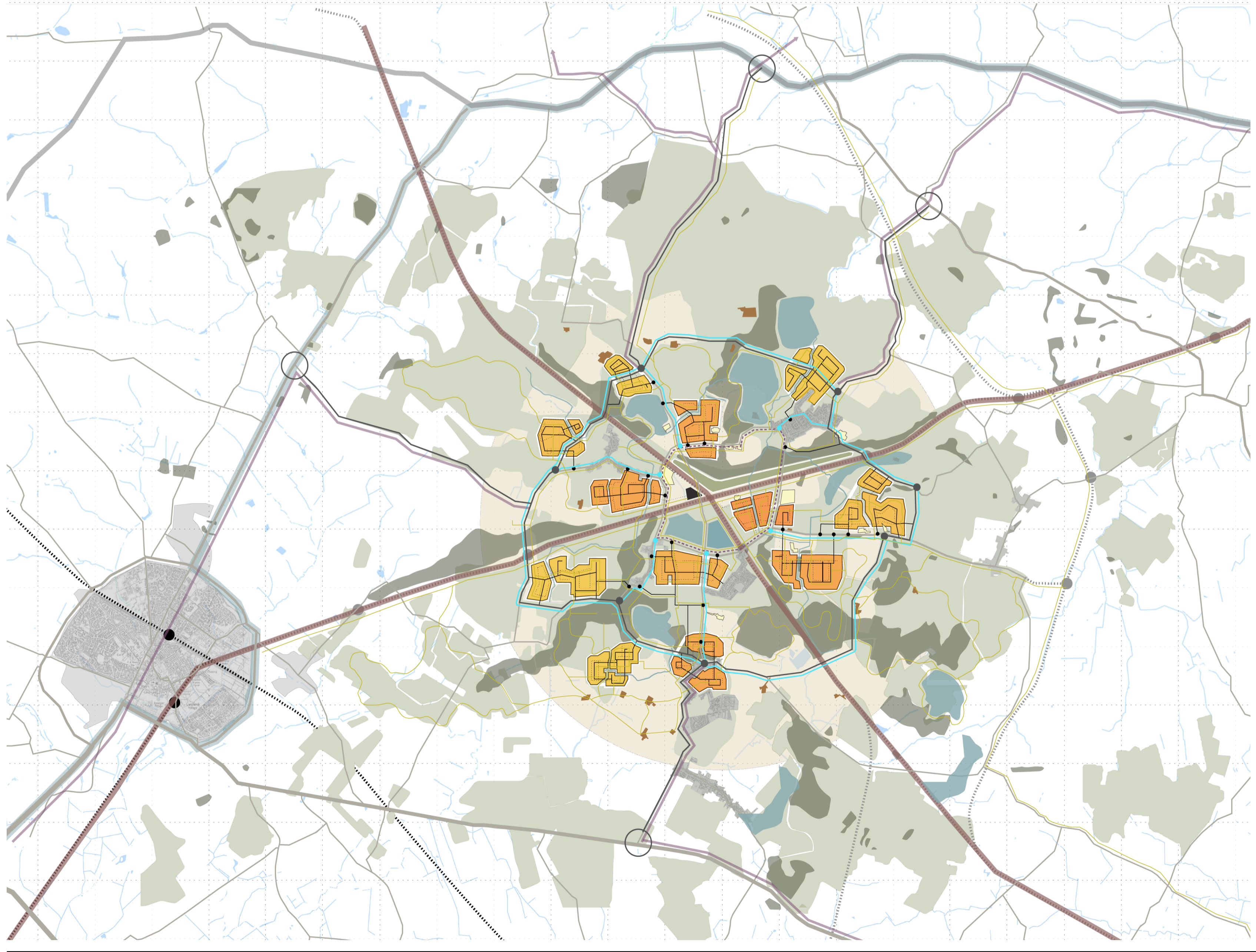
**Key**

| | |
| --- | --- |
| | Existing Towns |
| | Existing Farms |
| | Urban Farms |
| | Green Roof Train Depot |
| | Lakes & Rivers |
| | Woodland |
| | Environmental Stewardship Farmland |
| | Research Farmland |
| | HS2 & EWR railway station |
| | Local Roads |
| | A Roads |
| | M Roads |
| | New Main Roads |
| | New Secondary Roads |
| | Expressway |
| | Hyper Local |
| | Local |
| | Regional (train & bus) |
| | National (EWC & HS2) |
| | Railway not in use |
| | Railway in use |
| | Bike Routes |
| | 50 DPH |
| | 100 DPH |
| | 150 DPH |
| | 200 DPH |
| | 250 DPH |

# 4. Integrated Networks
## A Sustainable Environment

Along with transport infrastructure, a range of overlapping network principles are established to guide specific placemaking and to establish a regional zero carbon, circular economy. The resultant 10 Development Principles set up a framework within which symbiotic and sustainable growth can flourish.

By establishing symbiotic overlapping networks, our vision creates a unique and varied polycentric region within a natural environment that can develop and grow over time, increasing the mobility and quality of life of all residents, facilitating the exchange of knowledge and creation of sustainable economic activity, and creating places with lasting social and community value.

Overlaying these networks creates a richly layered web that connects on multiple levels the dense settlements to the surrounding landscape and natural environment.

**10 Development Principles**

**ECONOMIC NETWORK**

Support infrastructure investment to benefit local communities and promote growth according to local needs

**HEALTH + HAPPINESS NETWORK**

Promote well-being by integrating development with the natural environment to create places with social potential and value, and provide easy access to leisure, sports facilities and healthcare

**FOOD NETWORK**

Integrate sustainable, healthy food production with the local supply chain in a circular economy

**CULTURAL + SOCIAL NETWORK**

Develop new cultural proposals to complement and enrich existing, and create new places at all scales to facilitate social cohesion and cultural interchange

**KNOWLEDGE NETWORK**

Promote lifelong learning for all, forging stronger links between all education types, and supporting cross over between education and business

**COMMUNICATION + DATA NETWORK**

Support enhanced data networks as a catalyst for positive change, with equality of data provision to all areas

**TRANSPORT NETWORK**

Support enhanced connectivity as a catalyst for positive change with an integrated transport system that touches the ground lightly

**ENERGY NETWORK**

Minimise the demand for energy and align on-site energy storage and production with national energy strategy in order to facilitate the widespread use of intermittent renewable energy sources
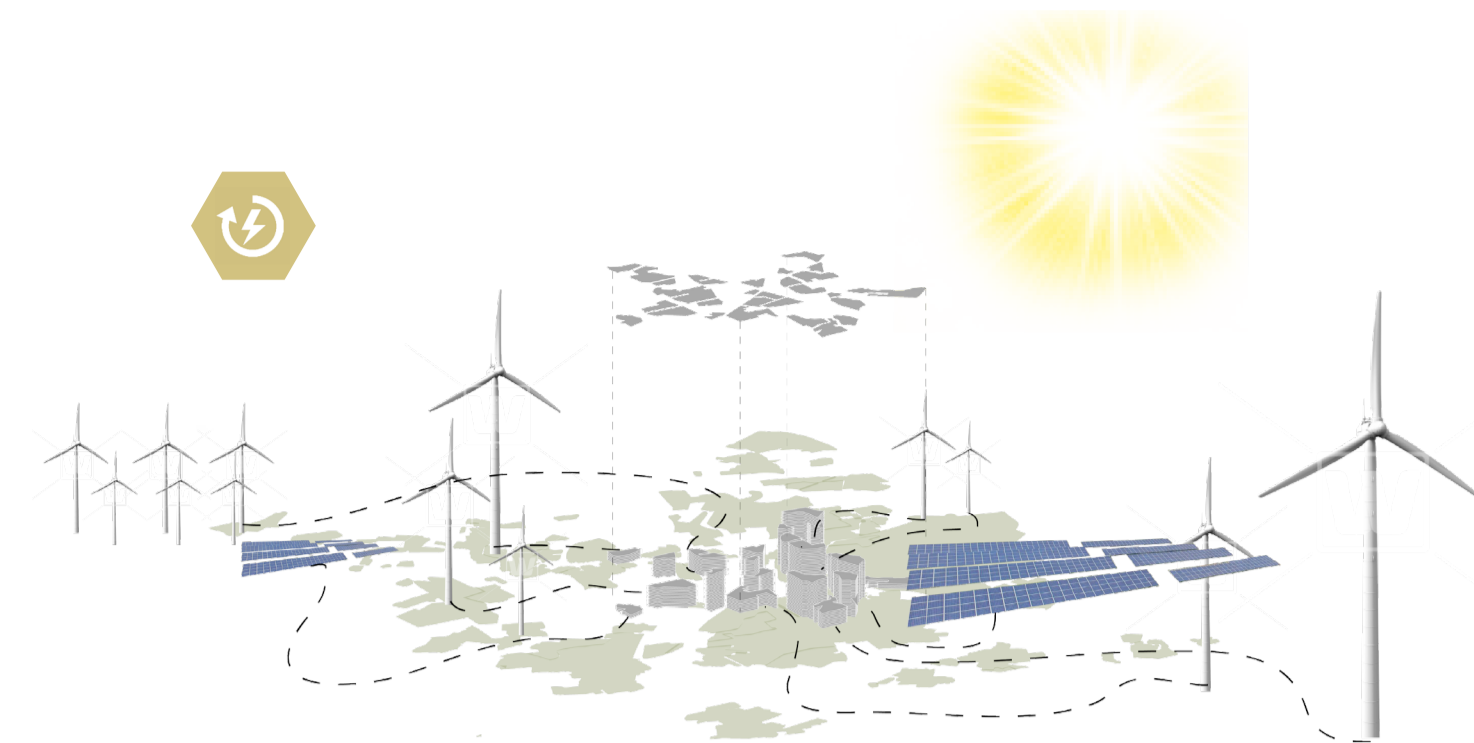
**MATERIALS + WASTE NETWORK**

Support the use of local and sustainable materials in a circular economy with zero waste potential

**LAND, WATER + WILDLIFE NETWORK**

All development to enhance local habitats and wildlife networks through efficient and symbiotic use of land and water

**Intergrated Food and Amenity**



**Transport in a Natural Environment**





**Symbiotic Networks of Potential**

Mæ