

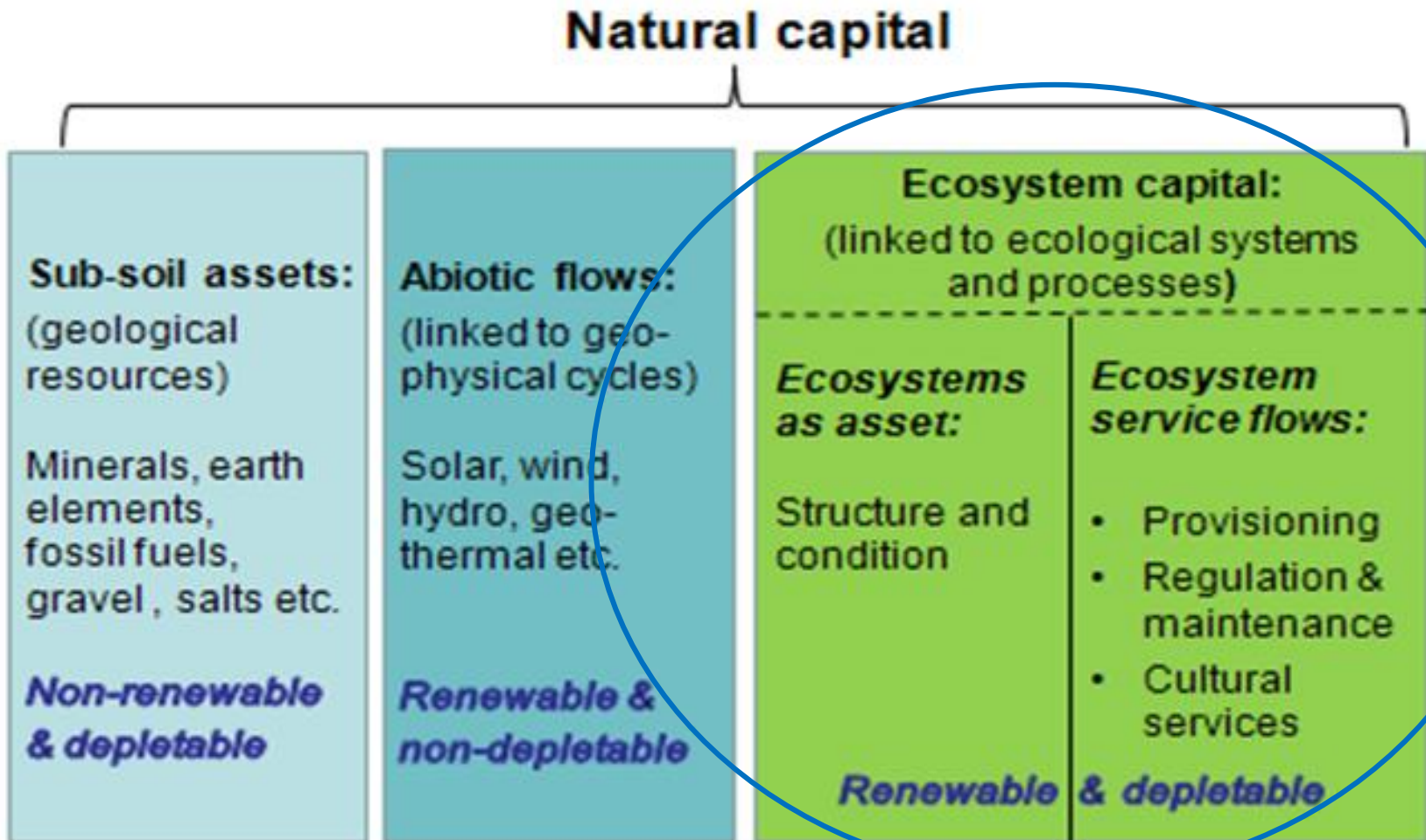
European Environment Agency

**... 33 countries and ...cultures
(technical, administrative,
political)**



Need of a common approach to framing

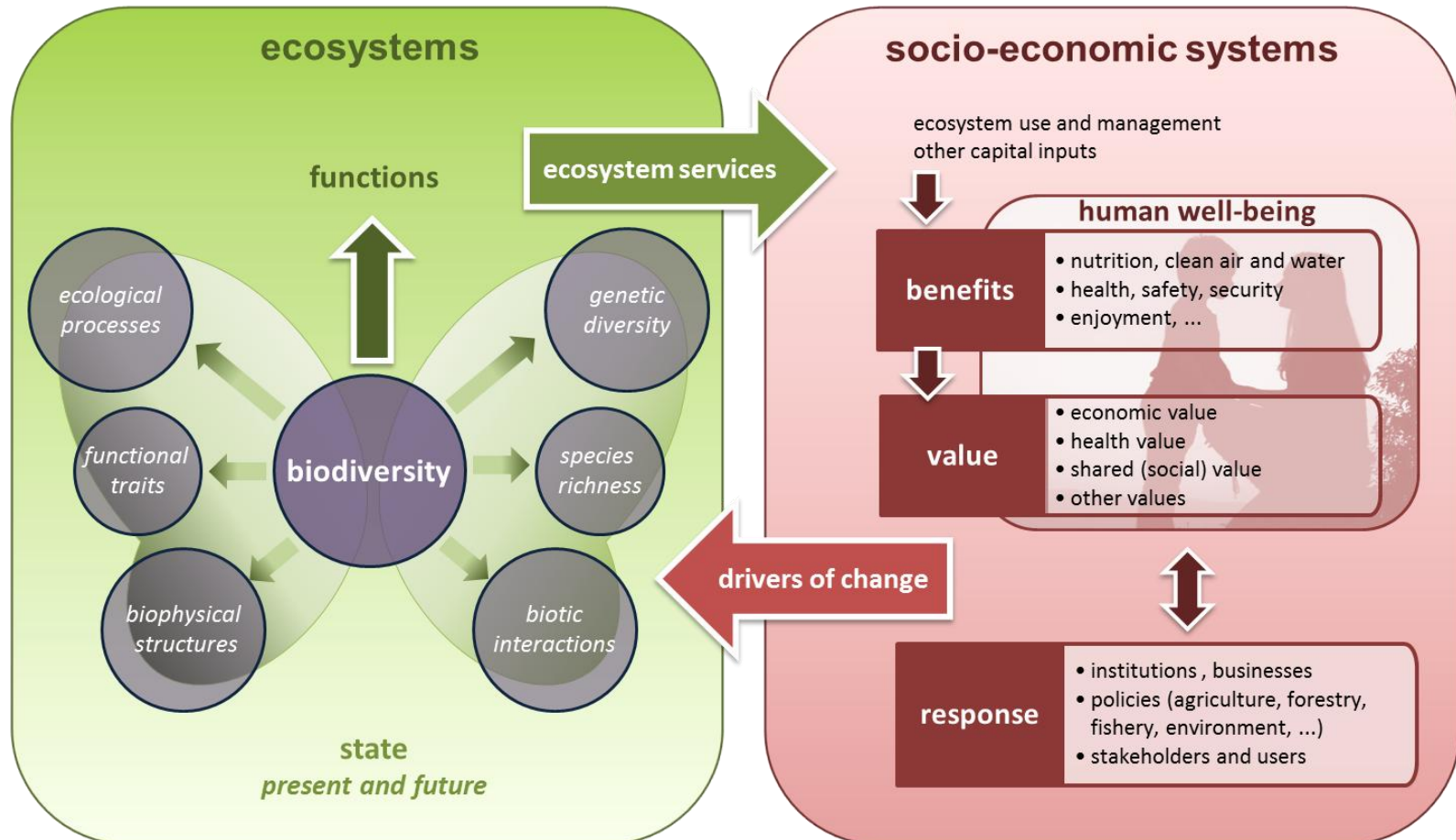
Components of Natural Capital:



Mapping and Assessment of Ecosystems and their Services



Overall conceptual framework



We divide the services into....

Ecosystem services

The benefits people get from ecosystems

Provisioning services

Crops, Livestock, Game, Fisheries, Water supply, Wild species diversity (genetic resources)

Regulating services

Climate, Hazards, Detoxification & Purification, Disease/pest control, Pollination

Cultural services

Aesthetic, Spiritual, Inspirational, Educational, Recreation, Tourism, Wild species diversity

Supporting services

Necessary for the delivery of other ecosystem services

Soil formation, Nutrient cycling, Water cycling, Primary production



Four steps of implementation

Until 2014/2015

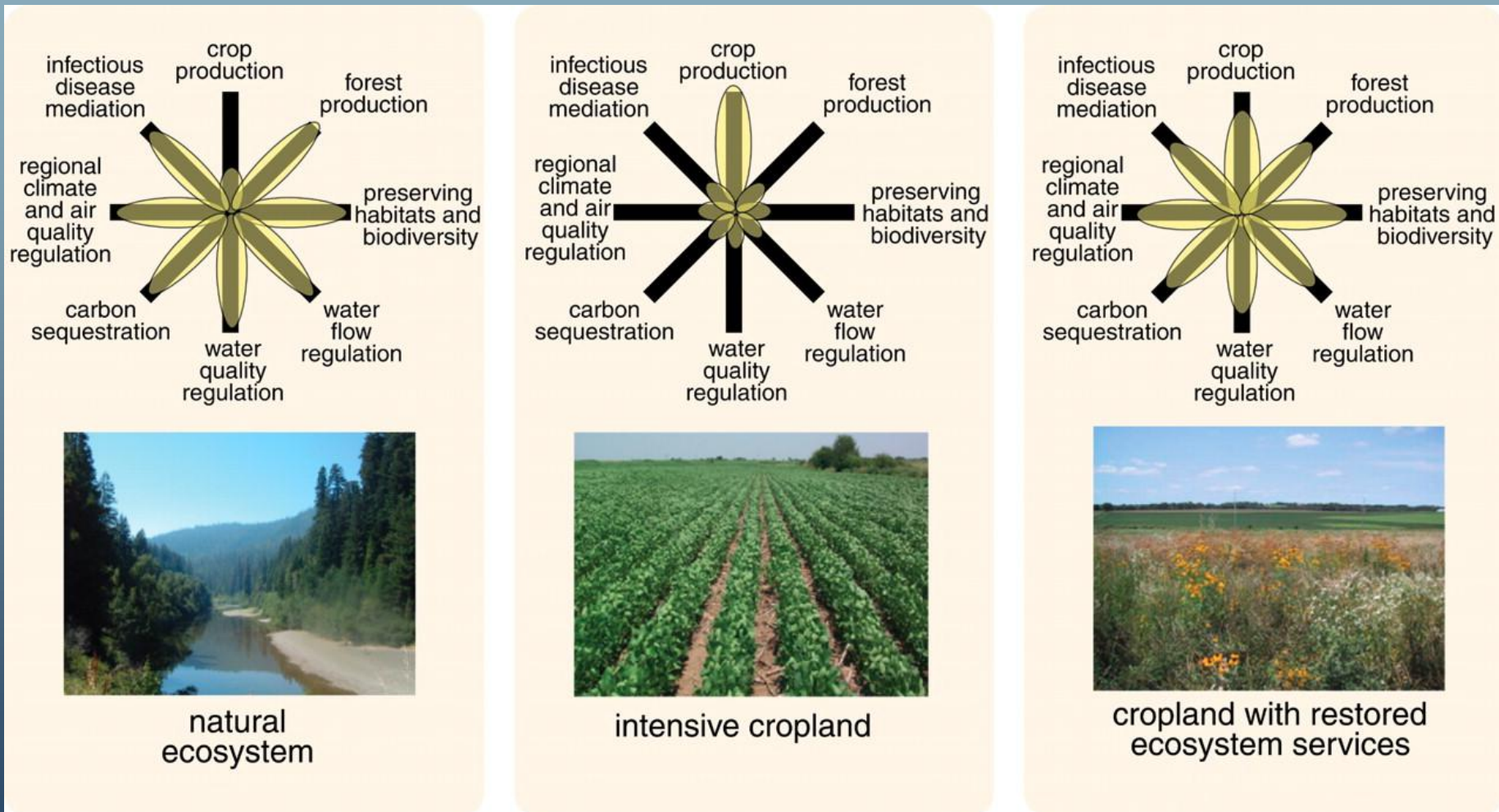
- I. Biophysical baseline mapping and assessment of the state of major ecosystems (EEA)
- II. Biophysical baseline mapping and assessment of defined ecosystem services (JRC)

Until 2020

- III. Alignment of ecosystem service assessments with scenarios of future changes;
- IV. Valuation of ecosystem services for baseline and contrasting scenarios and integration into environmental and economic accounting.



So, mostly a question of how we use the natural capital



Source: Foley et al., 2005 *Science* Vol. 309



A close-up photograph of several bright yellow dandelion flowers in full bloom, scattered among lush green grass and other foliage. The flowers are the central focus, with their numerous fine petals creating a dense, circular appearance. The background is a soft-focus mix of green leaves and stems, suggesting a natural, outdoor setting. The overall lighting is bright, highlighting the vibrant yellow of the petals against the various shades of green.

**Working with Nature more
intelligently....**

Green Infrastructure? It enhances Europe's natural capital

An aerial photograph of a large, multi-story building with a prominent green roof. The roof is divided into several rectangular sections, each filled with lush green vegetation. The building's facade is a light-colored, possibly stone or concrete, with a series of small, rectangular windows along the top edge. In the background, a dense urban landscape is visible, featuring various high-rise buildings and a curved structure on the left. The overall scene illustrates the integration of nature into urban infrastructure.

...it provides ecological, economic and social benefits through natural solutions – and is a key tool to sustainable spatial planning and development



...or?





...room to rivers and waterways...



No one-size-fit-all!

The services provide benefits to people....

Local climate regulation

Flood regulation

Timber production

Recreation

Aesthetic values

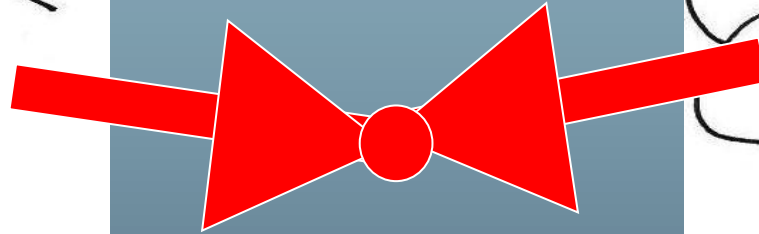
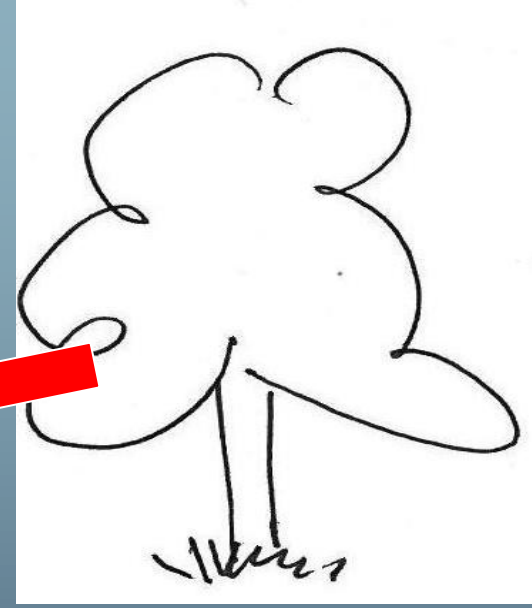
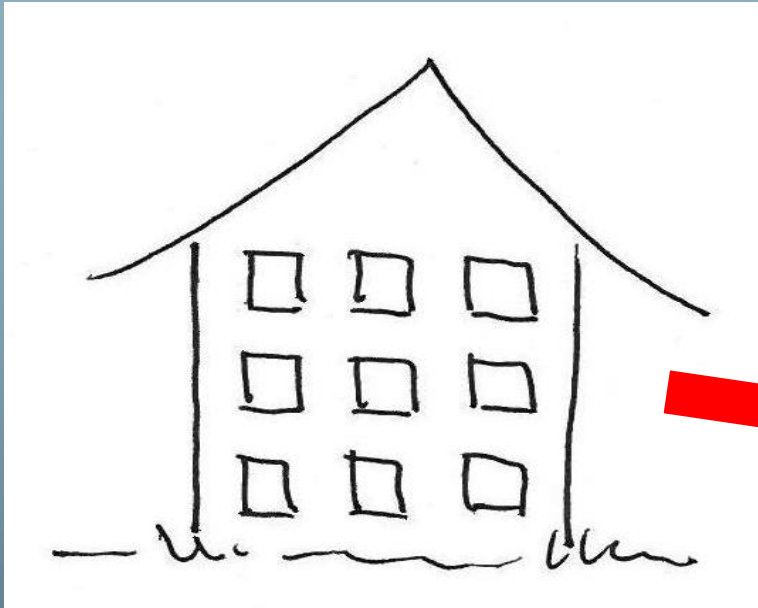
Production of food



Carbon sequestration

Habitat services

Urban & Nature



- Work more progressively with nature – especially in cities
- It is all about urban design and creating cities we would like to live in...
- Greening cities makes them more liveable and at the same time generate win-win solutions – a pleasant environment at lower costs
- It is about pushing forward the best solutions

URBAN
GROWTH
IS
UGLY



Thank you!



European Environment Agency
www.eea.europa.eu



Cool down... ..air TREE
concept!

Viva Madrid?





... real TREE in cities...

- Up to 10 C difference between peri-urban and central areas
- 100 m² of trees help reduce T by 1 C
- Green surfaces 10 C cooler than artificial ones

...but there is more...



...multifunctional services/benefits of urban forest and green areas for health

Increased physical activity and reduced obesity

Reduced stress levels and improvements in mental health

Reductions in noise levels – which can improve mental and physical health

Lower levels of violence and crime – which can reduce the risk of many health outcomes

Improvements in hospital recovery times

Increased social interactions which can help to improve overall well-being.

Saving cost in the health sector

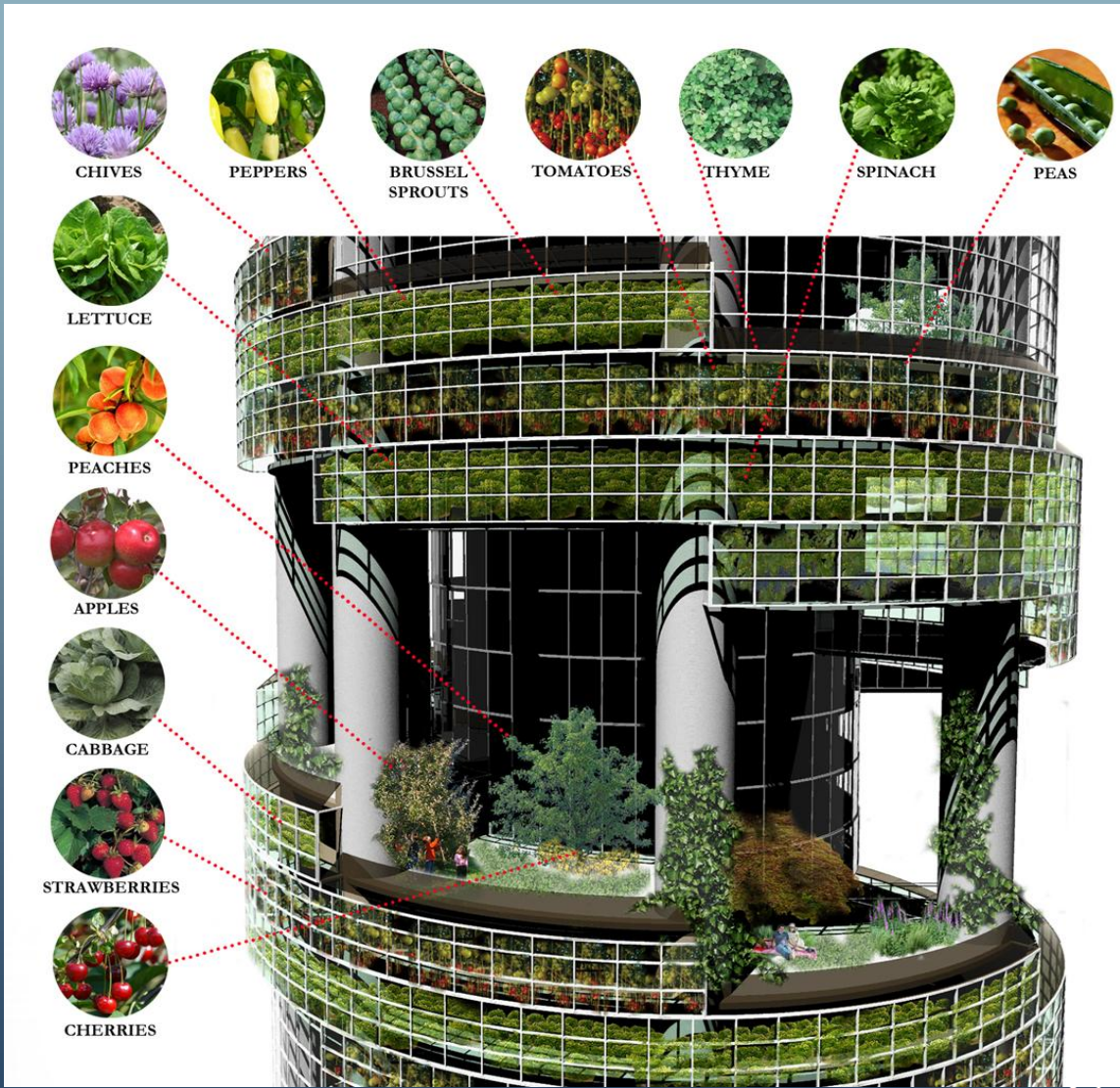
Milan vertical forest: 900 trees eq.
10,000 m² forest



Or food supply....



...some fast cropping concepts!

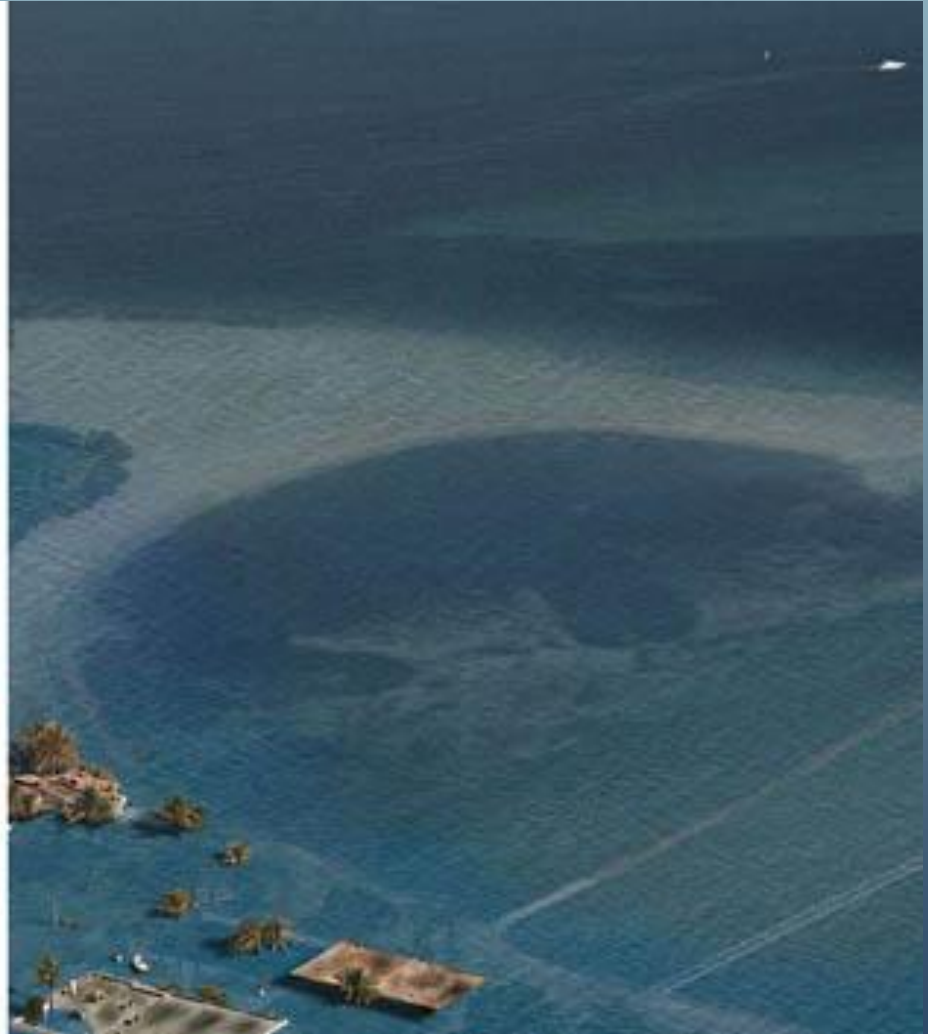
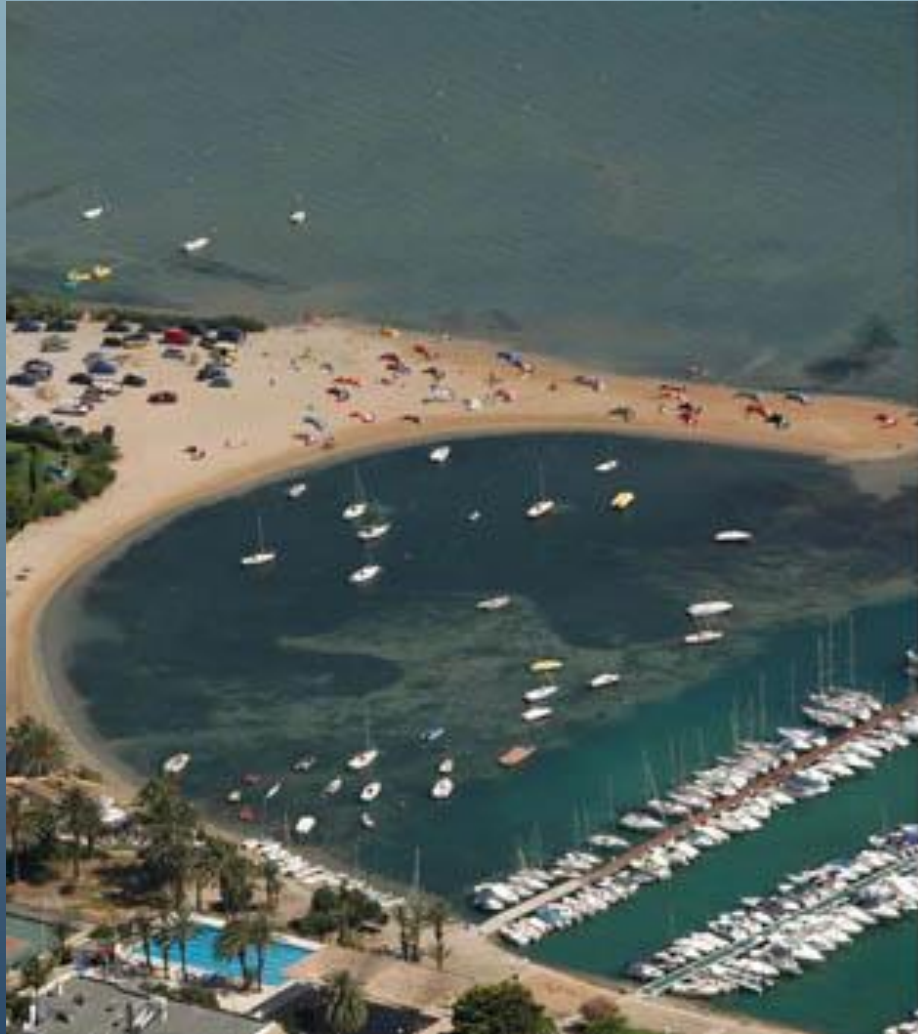




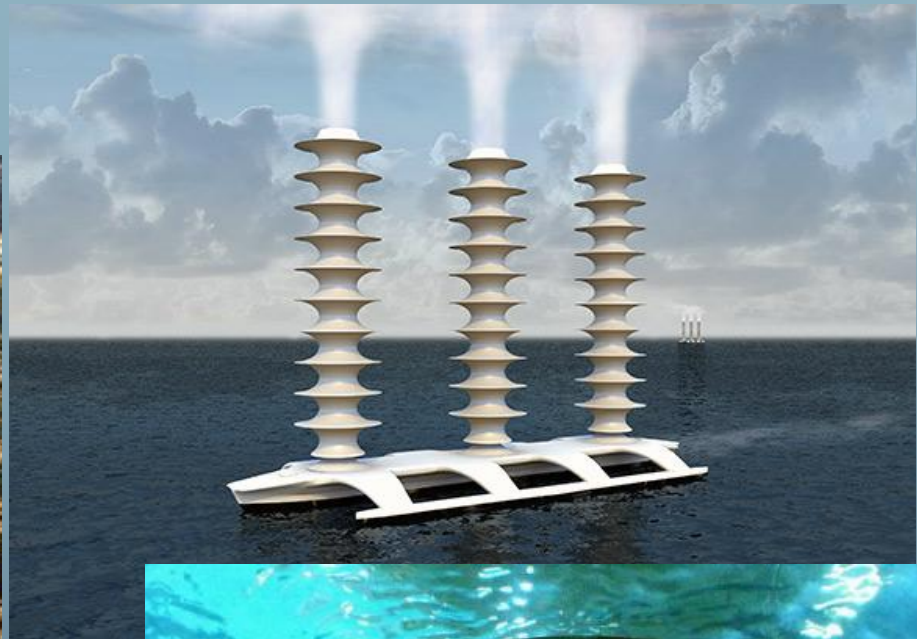
Conflicting growing demand for space – new dominant landscapes?



Coastal new design...



...or an opportunity?



May be reinventing ancient cities?



Seuthopolis -300 BC



Ecosystem resilience must be explicitly targeted



How to get there: the capitals to look after

Natural capital



Social + cultural capital



Human capital



Building capital



How to get there: mobilising financial capital



Thank you!



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