

TEAGASC 2030

The case for metropolitan agriculture

Teagasc 2030 is a Foresight exercise designed to establish a broadly-shared vision for the agri-food and rural economy in 2030 and its knowledge requirements, with a view to strengthening the strategic capabilities of Teagasc and its relevance to its stakeholders as well as enabling it to provide proactive leadership in a rapidly changing open-market environment.

Peter Smeets
Alterra, Wageningen UR
July 25, 2007



About 80% of urban agglomerations are located in coastal or delta regions

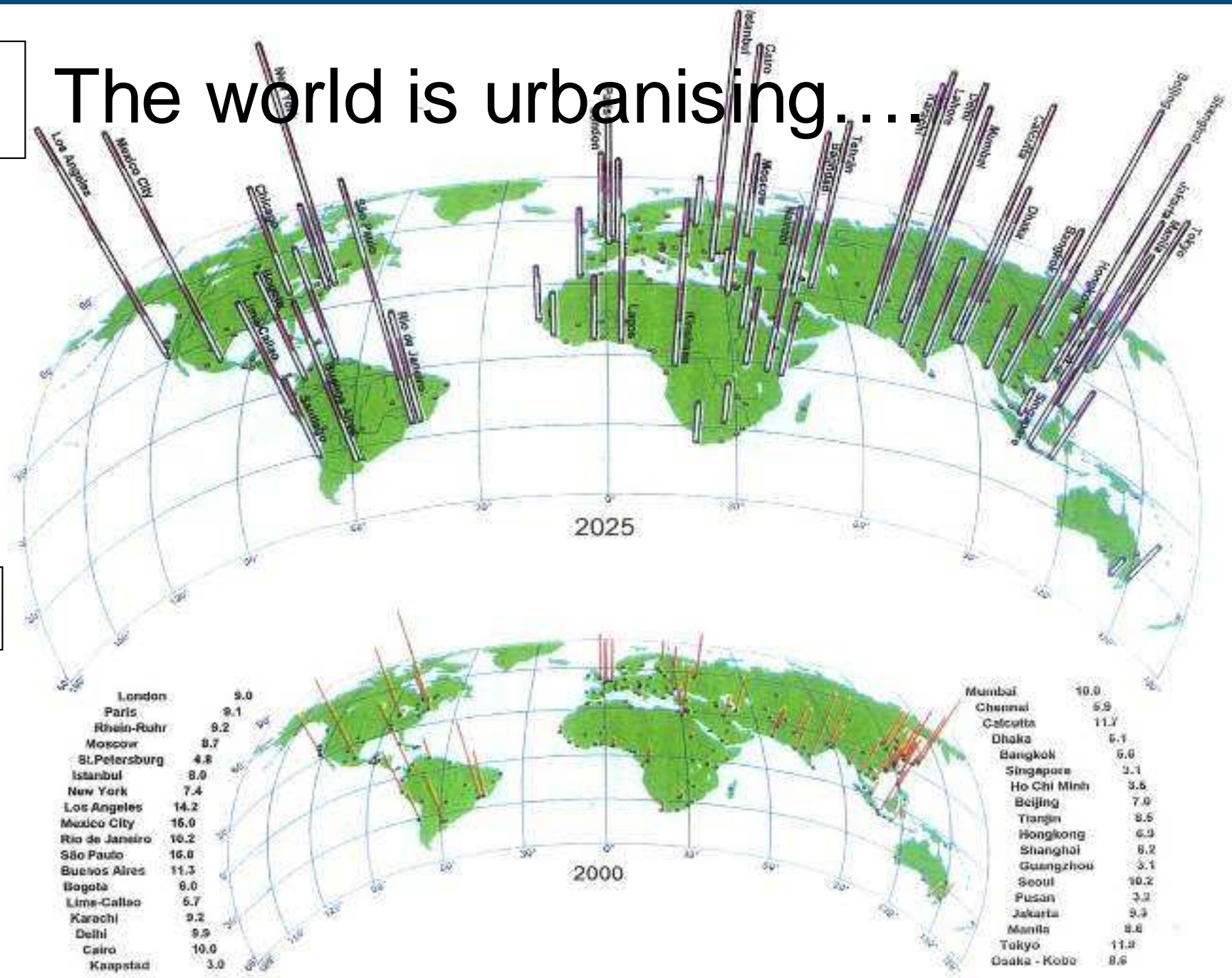
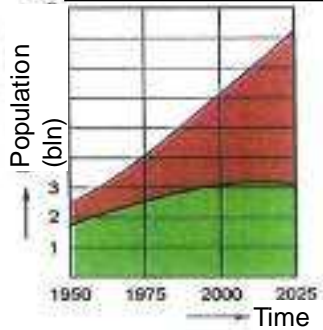
The world is urbanising....

Nr. of inhabitants (mln)



City with more than 1 mln inhabitants

Growth urban (red) and rural (green) population

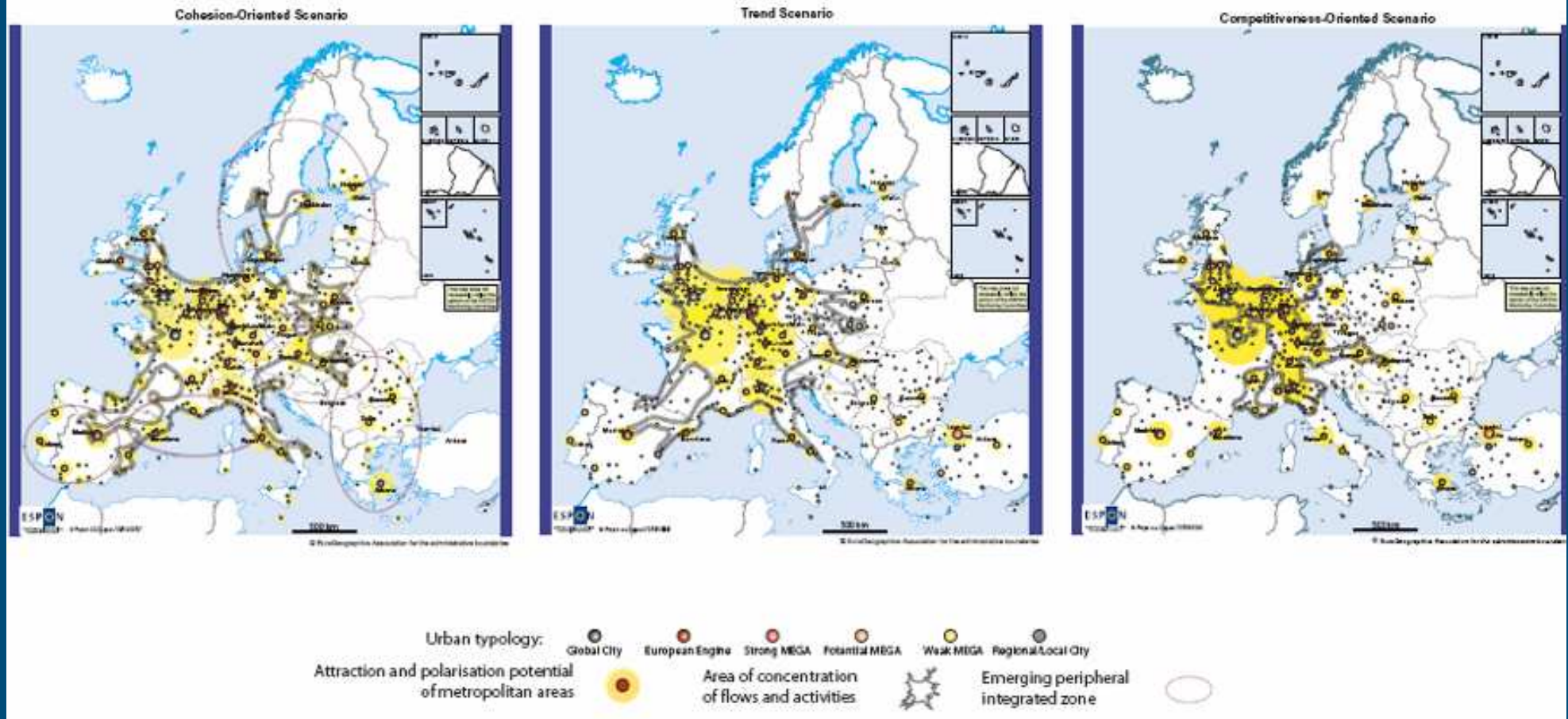


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Urban development 2030 according to ESPON

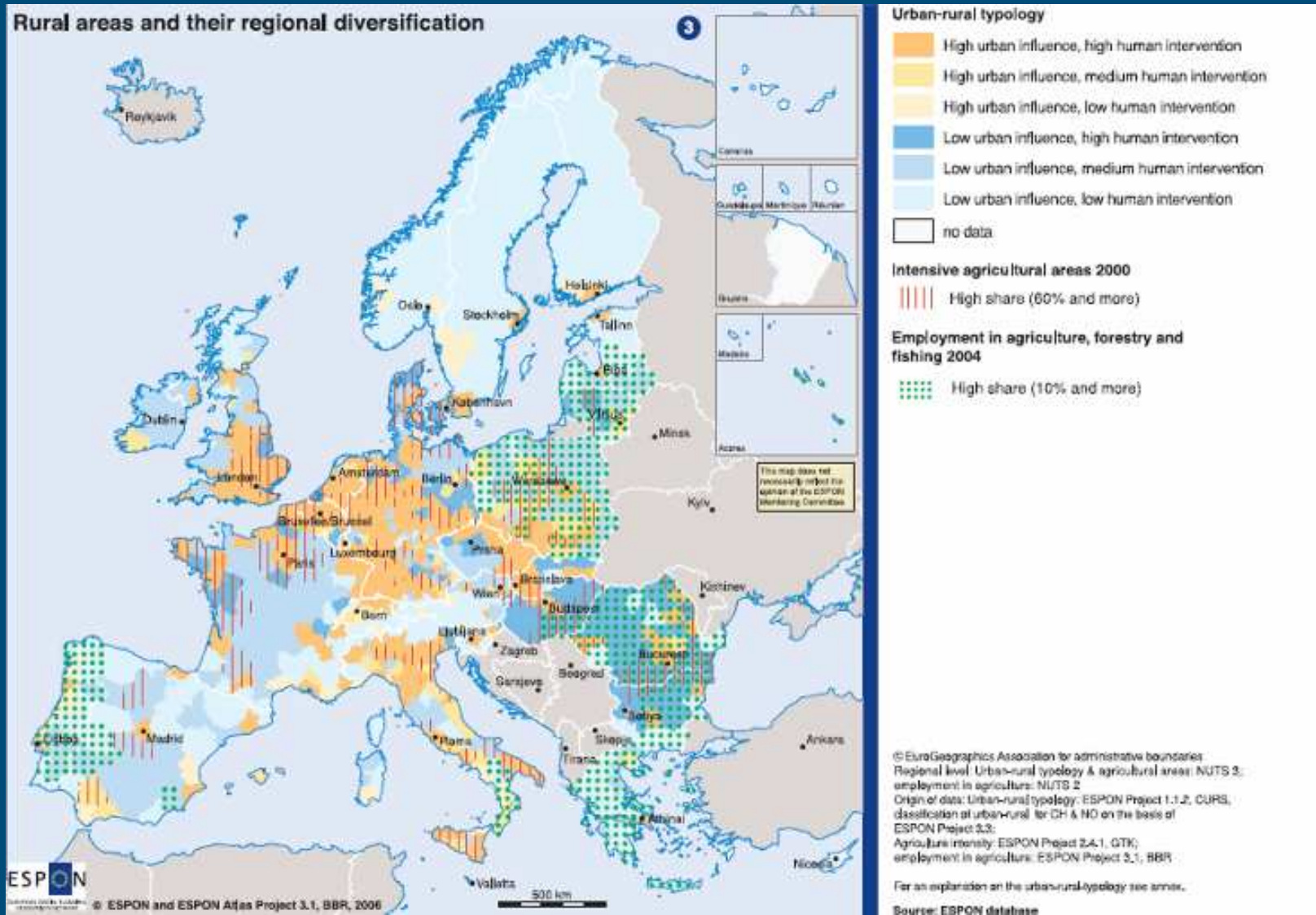
Comparing Scenarios: Spatial structure and urban hierarchy in 2030



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Predominant agriculture will be metropolitan agriculture



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Metropolitan agriculture...

From food to fashion and fun

- Pharmaceuticals

- Fragrances

Health

- Flavours

- Flowers

Fashion

- Fruits

- Vegetables

- Food Crops

- Fodder

Food

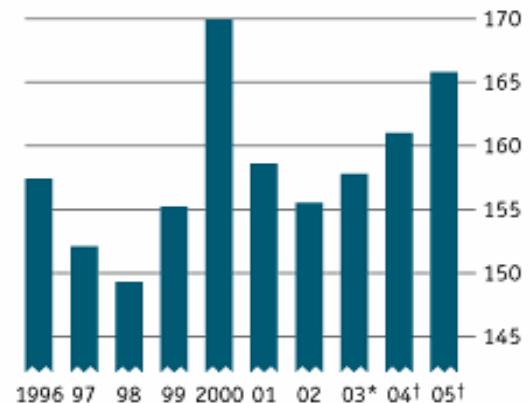
- Fibers

- Fuel

Heating and safety

1 A sensitive flower...

Global luxury-goods market, \$bn

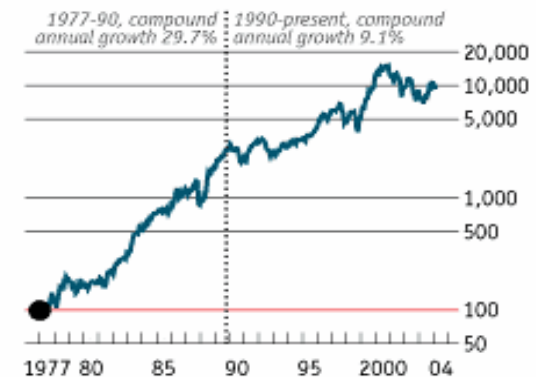


Source: Euromonitor

*Estimate †Forecast

2 ...of enduring appeal

Merrill Lynch Luxury-Goods Large Index
Log scale, April 1977=100



Source: Merrill Lynch



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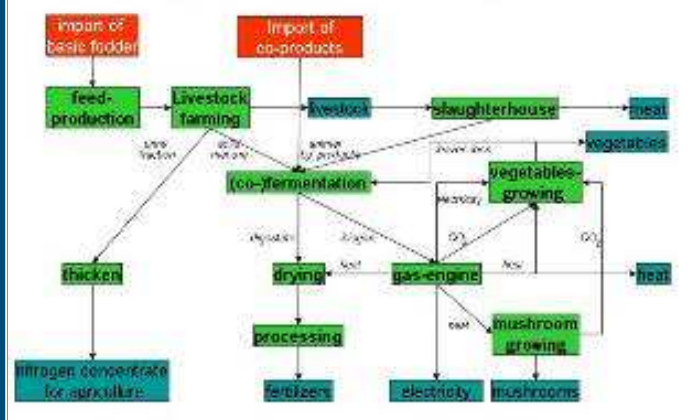
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Metropolitan agriculture.... will take form in agroparks

To meet these challenges Wageningen UR and entrepreneurs are developing the Agropark concept: a system innovation integrating plant (greenhouses, mushrooms) and animal (chicken, pork, dairy, fish) production chains. Agroparks reduce economic costs and environmental effects but also improve product quality and reach for synergy effects in knowledge and site management. Several of these designs are now being implemented in the Netherlands, China and India



Agropark flow diagram



An Agropark is always a tailor made solution, adapted to the local physical, economical and socio-cultural conditions. The participatory design process includes stakeholders that will be involved in the implementation, operation and maintenance as early as possible not only aiming at the Agroparks hardware but also at it's org- and software.



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Metropolitan agriculture Greenport Shanghai



As part of the design for Dongtan Ecocity near Shanghai, a masterplan has been produced for Greenport Shanghai Agropark. Within a fixed framework of ecological, water and transportation infrastructure a flexible development for agropark enterprises is enabled for which several scenario's have been elaborated



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