



PLANTAGON



Urban Agriculture

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CEO

PLANTAGON INTERNATIONAL

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BUSINESS AS USUAL IS OVER



PLANTAGON



Innovation Booklet by Swedish Government, 2013
Swedish Institute

Founded 2008

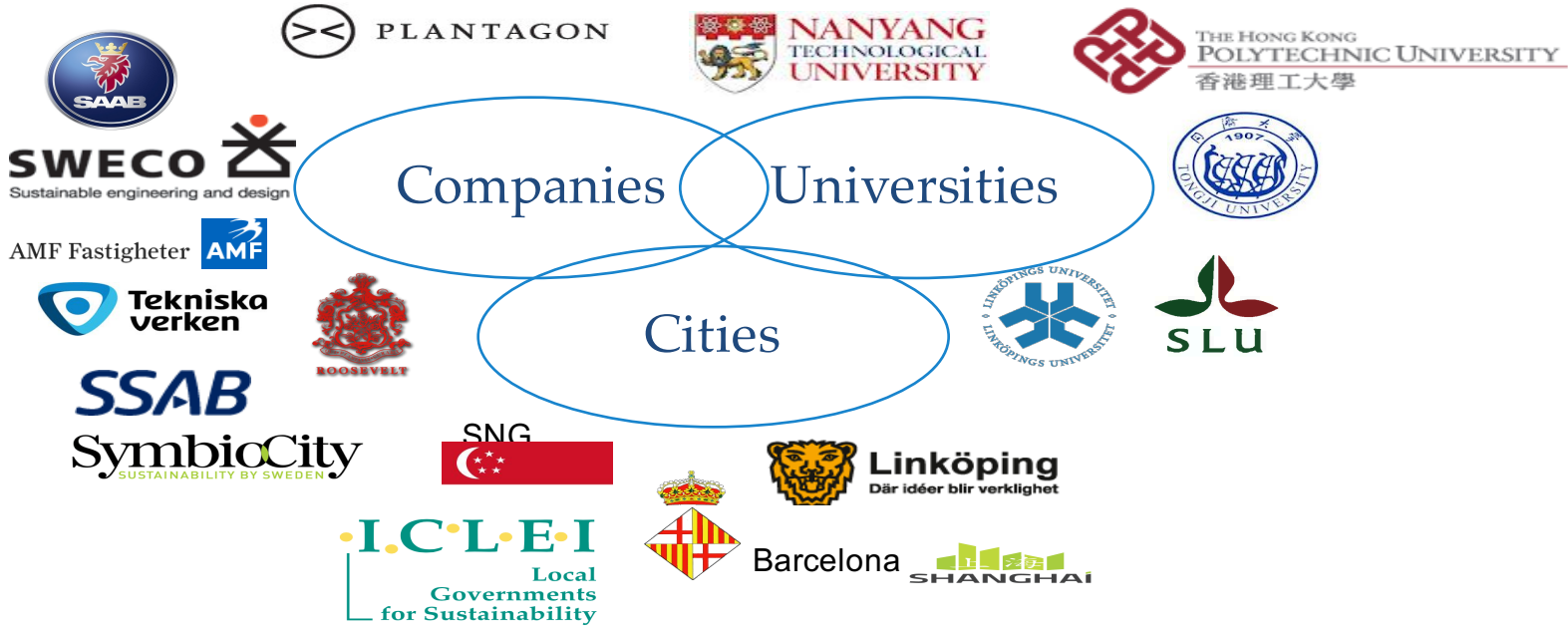
Innovation approach

Global brand strategy

Focus Urban Agriculture



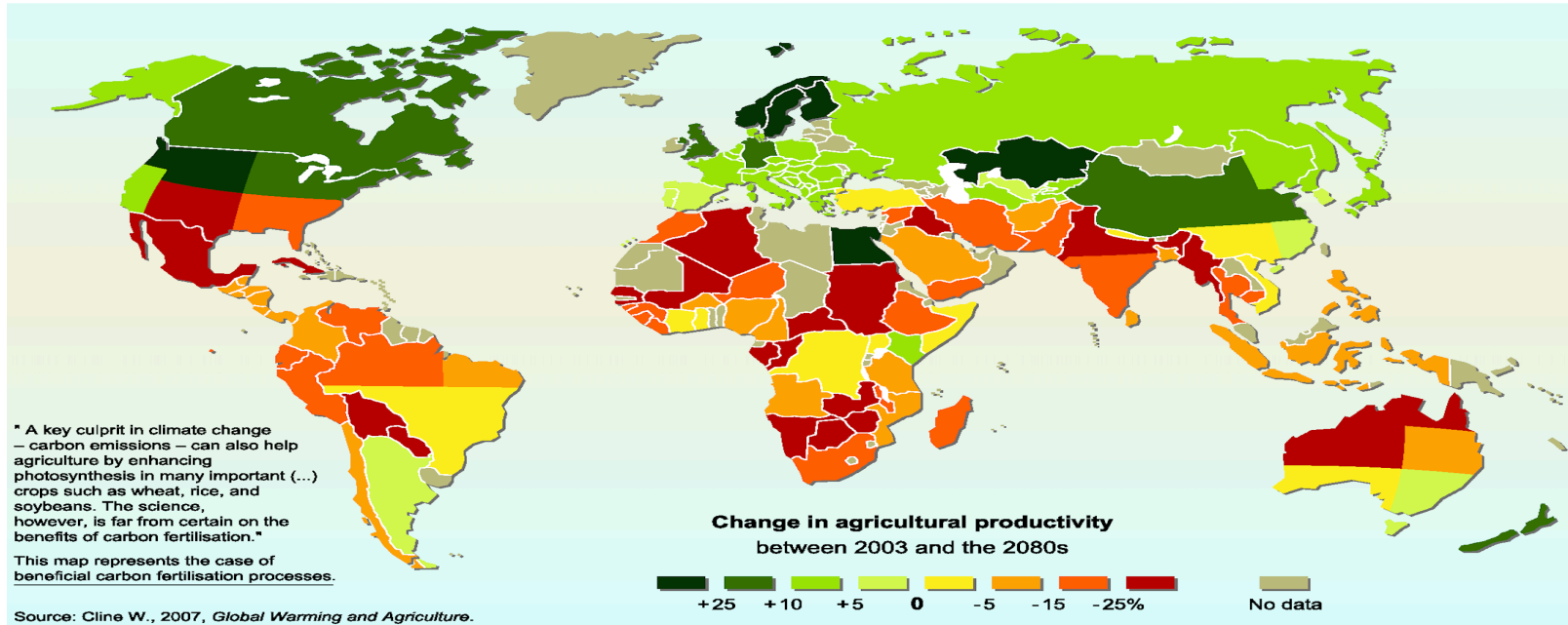
TRIPLE-HELIX APPROACH





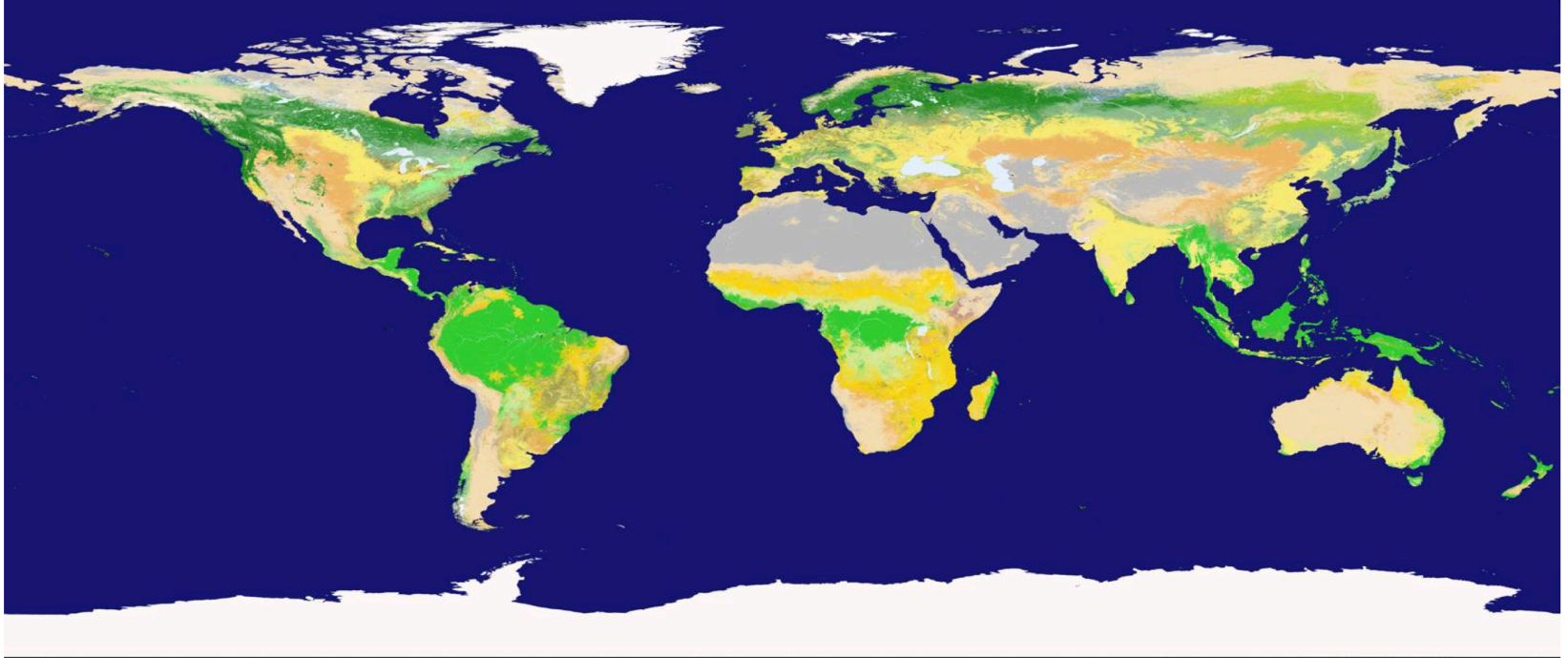
CLIMATE CHANGE

Projected impact of climate change on agricultural yields





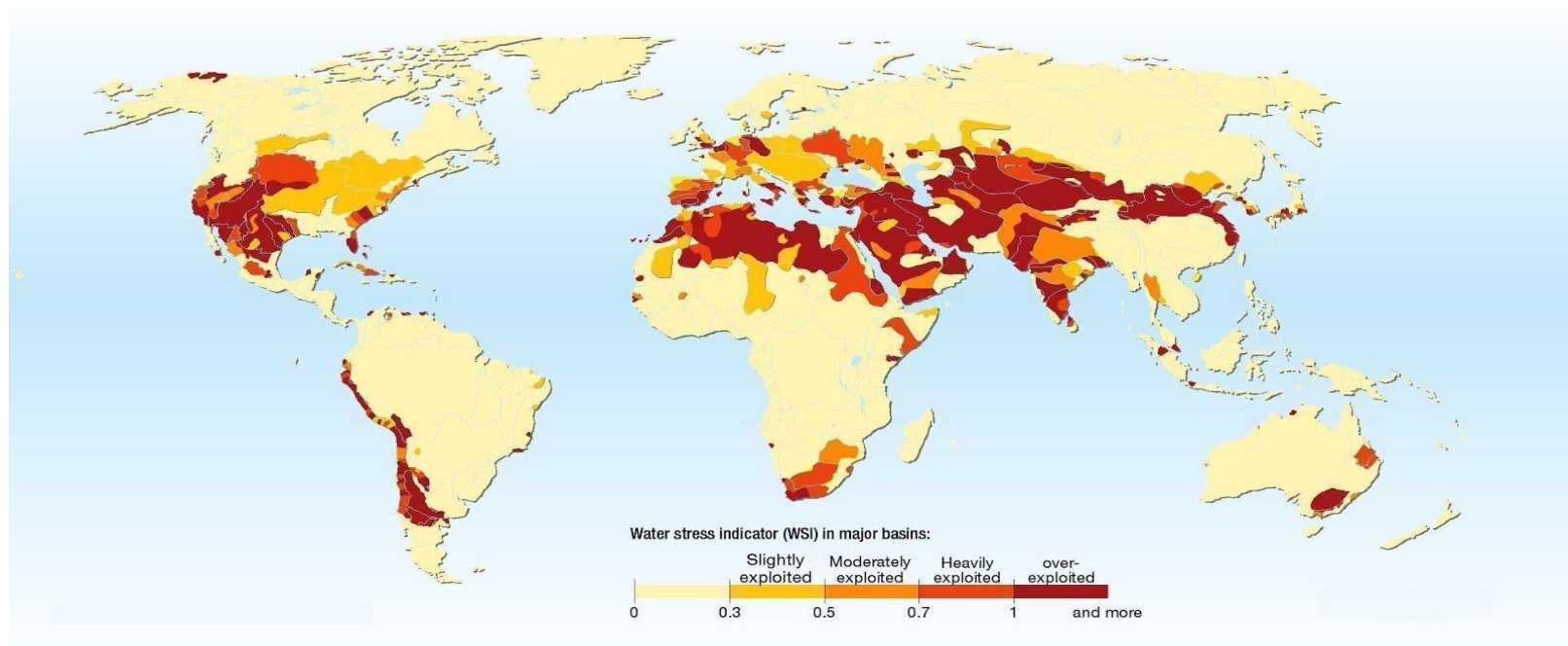
OUR AGRICULTURAL LAND



* NASA/Boston University land use project, 2013



WATER SCARCITY

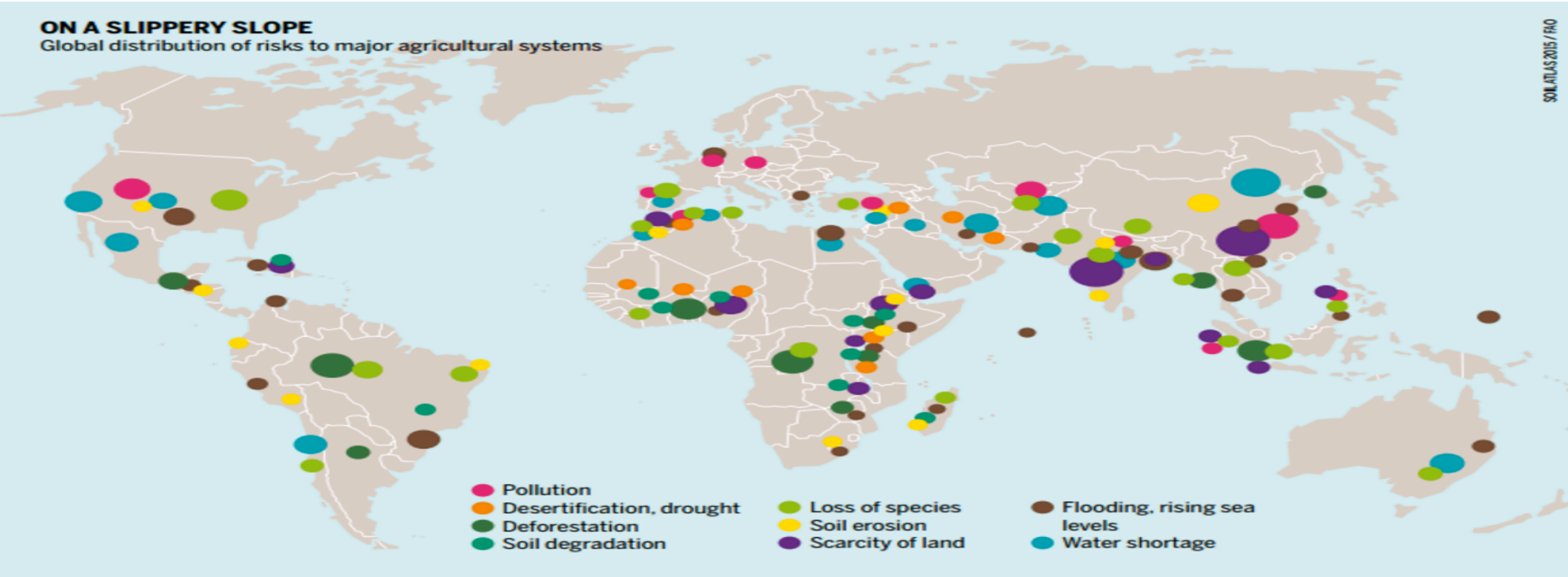




RISKS

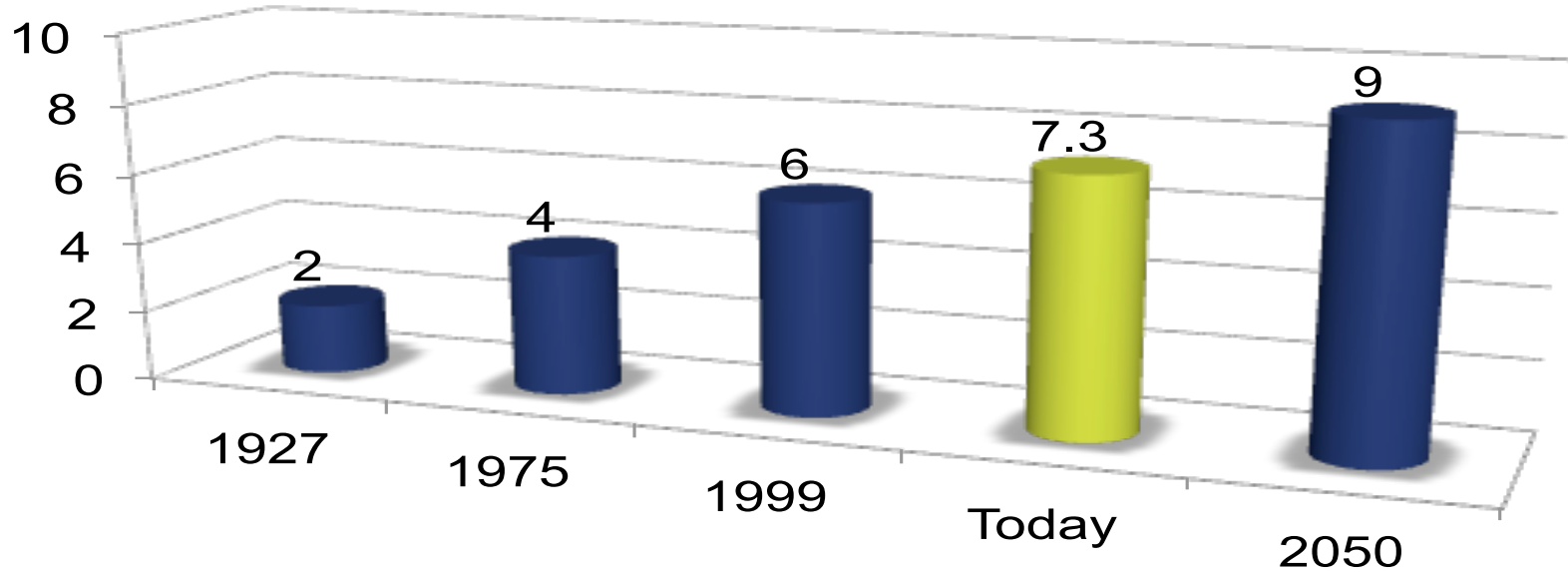
ON A SLIPPERY SLOPE

Global distribution of risks to major agricultural systems



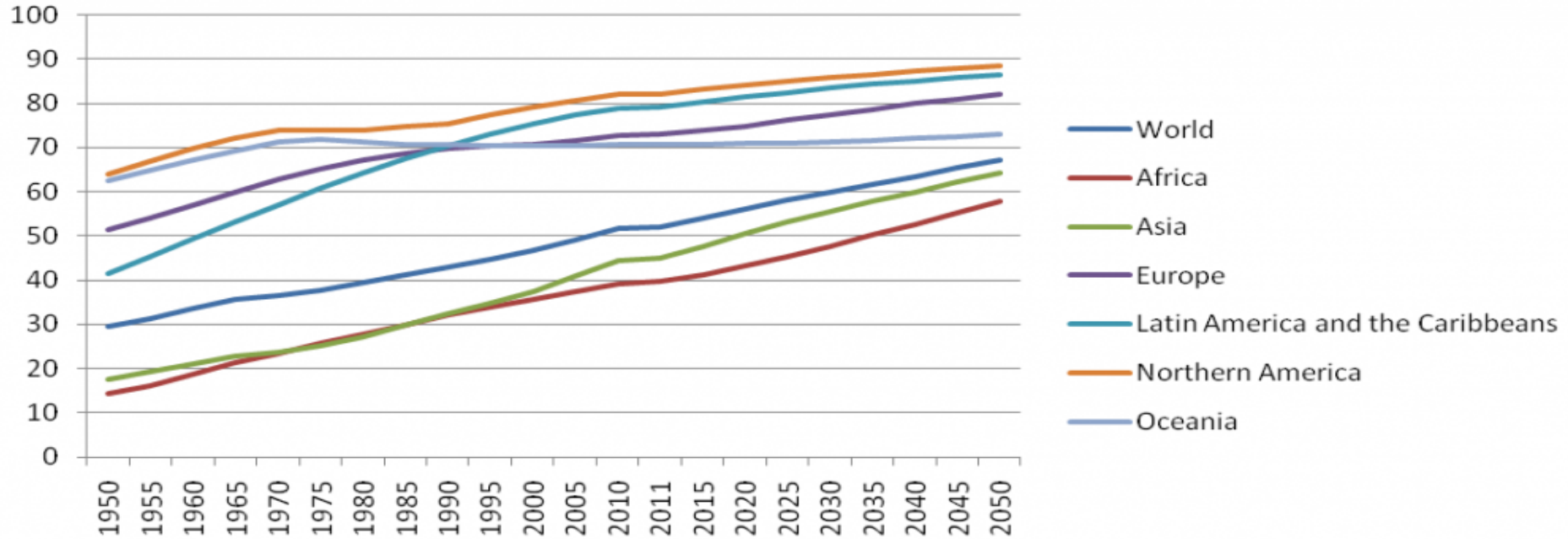


POPULATION GROWTH [in billions]





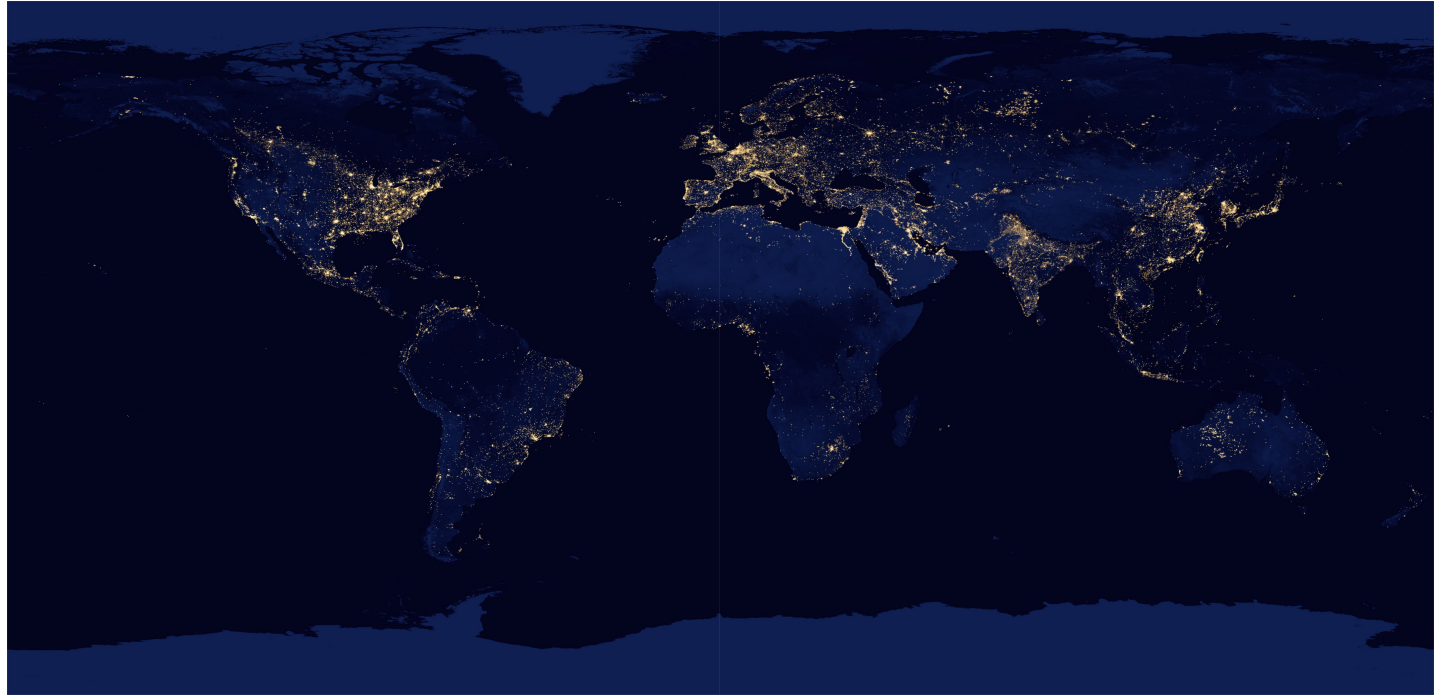
URBANIZATION





CITY FACTS

- 1.2% Earth's Surface
- 60% of world's Population
- 75% World's CO2 Emission
- Hub for 40% of Global GDP
- Waste Flows





AGRICULTURE

TECHNOLOGY

ARCHITECTURE

AGRITECHTURE

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AGRITECHTURE

A unique way of combining urban agriculture, innovative technical solutions and architecture to meet the demand for efficient food production within cities.

AGRICULTURE

- Combining the physical, biological, economic and social conditions for successful and productive agriculture solutions in urban environments

TECHNOLOGY

- Applying existing technologies and developing new innovative ways to create efficient processes, systems and solutions for sustainable urban agriculture

ARCHITECTURE

- Developing esthetical and functional real estate solutions that integrate within the urban infrastructure

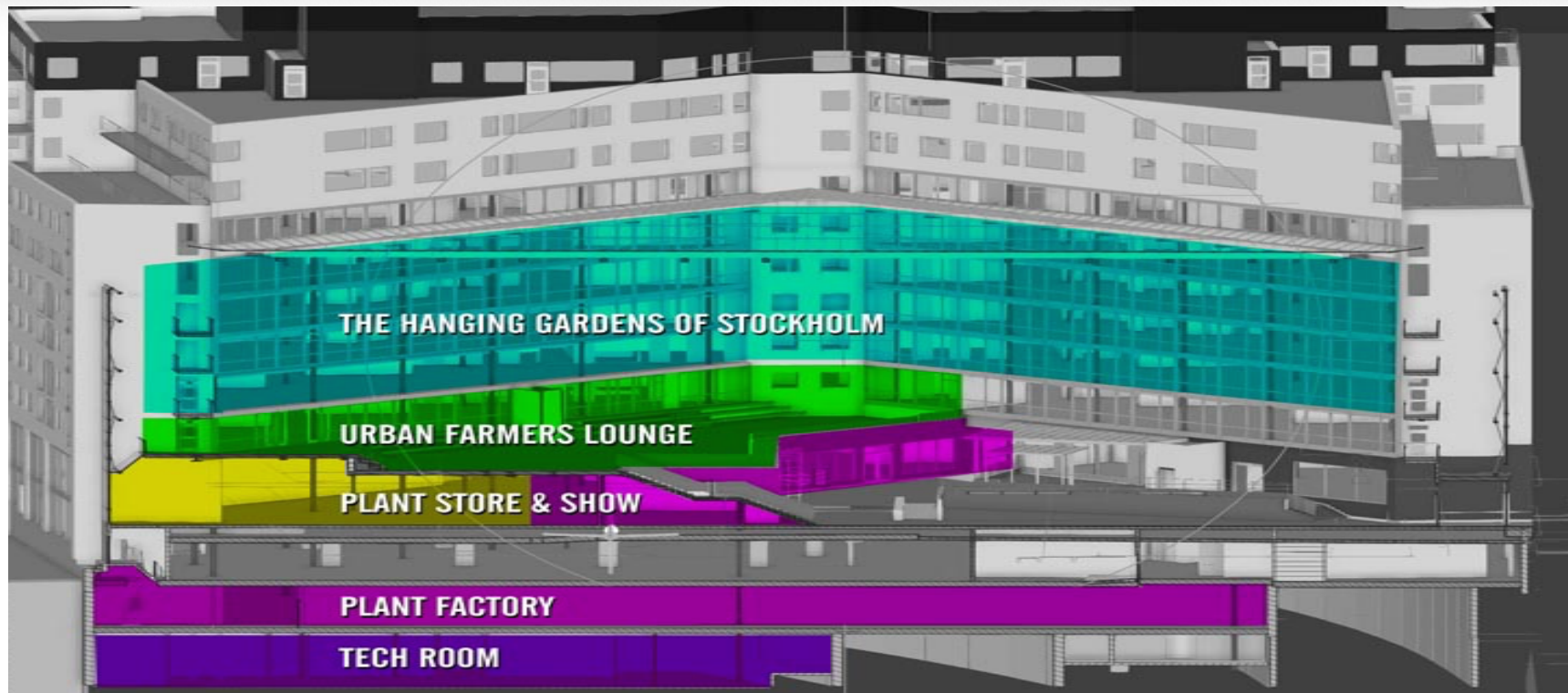


SERVICES

	Conceptualisation	Configuration	Implementation	Operation	Licensing
	<ul style="list-style-type: none">▲ Concept development▲ High level feasibility▲ High level implementation plan▲ Visualisations	<ul style="list-style-type: none">▲ Detailed design▲ Technical optimisation▲ Financial plan▲ Operating Model▲ Funding▲ Project planning	<ul style="list-style-type: none">▲ Construction▲ Technical setup▲ Operational setup▲ Establish distribution / supply chain channels▲ Training	<ul style="list-style-type: none">▲ Day-to-day operations▲ Sales & Marketing▲ Continuous improvement and quality control▲ Administration	<ul style="list-style-type: none">▲ When quality can be ensured, developers and operators of agritechture solutions can use Plantagon IP through a licensing agreement
PRODUCTS					
Micro Systems	▲ Plantagon also have a portfolio of smart agritechture micro-systems for offices, homes and retail markets . They are smart, interactive, beautiful and simple. Plantagon's food walls and fish tanks combined with aquaponic solutions contributes to good indoor environment and put food on your plate at the same time. Plantagon also offers micro systems for retail markets who wish to grow food directly in their facilities.				
Retro Fitting	▲ Plantagon can add agritechture solutions as an extension of an existing building , by combining inhouse technologies (such as the double glass facade) and existing/external technologies. This typically takes place on the property owners land next to the building in the form of a vertical greenhouse, adding value to the property and producing food in an urban environment.				
Extension	▲ Plantagon can retro-fit empty areas of existing real estate or change the current use of space to implement agritechture solutions. Besides its recognised brand, Plantagon's portfolio includes in house technologies and concepts, but can also adapt existing/external technologies to create new meeting places and increase attraction and value of properties.				
New Building	▲ Plantagon can establish a multifunctional (office-, residential- or hotel) building incorporating an industrial scale vertical greenhouse , using its unique IP protected processes and systems. These greenhouses can either consist of pure industrial agriculture, or combine agriculture and real estate components (residential, commercial, hospitality). The design and uniqueness of the building, creates a landmark in any city it is developed.				
Symbiotic System	▲ Plantagon can discover or create a Symbiotic System with existing infrastructure within a city, combining agritechture with other municipal functions such as cooling/heating, biogas production, waste/water management, energy production and social initiatives within a city. A Symbiotic System is a vital part to create a sustainable environment with food production in a city.				



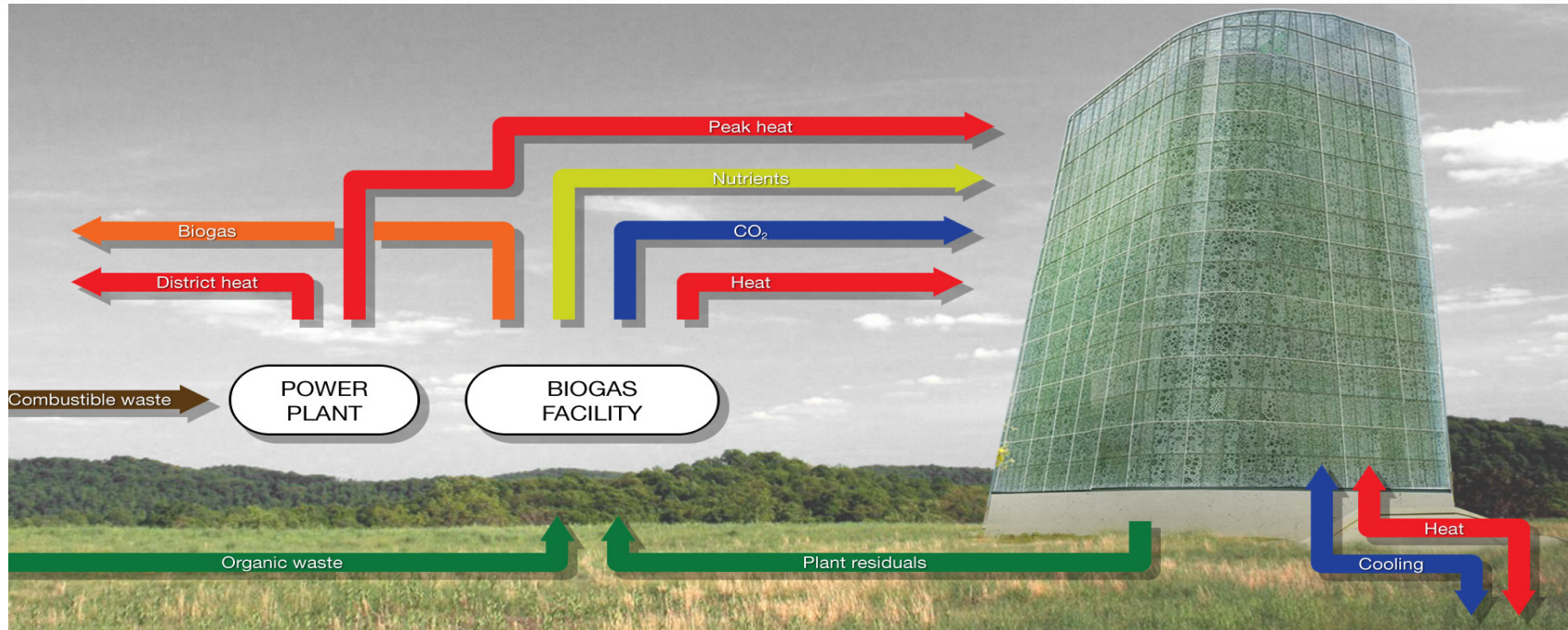
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STANDARDIZATION



- UNEP
- UNISDR
- UN HABITAT
- ITU
- IEC



WCCD

WORLD COUNCIL
ON CITY DATA



- Global Environmental Facility, GEF



INTERNATIONAL-LEVEL WORK



- Sustainable Development in Communities – TC268
- 46 Countries
- Sustainability, Resiliency and Smartness City Indicators
- Urban Data
- Management & Governance System
- Infrastructure Standards

• SMART City Strategies



CITIES & ISO 37120



MAP





& MORE ...



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Investment SEK

Office	200 000 000
Vertical Greenhouse	100 000 000
Total	300 000 000
Factor	1,15
Market value	-345 000 000
Yild	5,00%
Operation net	-17 250 000
LOA Office	6 689

Office

Rent	1 700 SEK/m ²
Maintainance	-300 SEK/m ²
Operation net	1 400 SEK/m²
Total income	9 364 600

Vertical Greenhouse

Income

Amount of food	500 000 kg/year
Price per kg	40,00 SEK/kg
Total income	20 000 000 SEK/year

Costs

Operation	-10 000 000 SEK/år
Maintainance 2 % of inv.	-2 000 000 SEK/år
Total	-12 000 000 SEK/år
Total Vertical Greenhouse	8 000 000 SEK/år



Total income operation

Office (1 700)	9 364 600
Vertical Greenhouse (40)	8 000 000
Total	17 364 600

Market value 347 292 000

Total income operation

Office (2 000)	11 371 300
Vertical Greenhouse (50)	13 000 000
Total	24 371 300

Market value 487 426 000

Total income operation

Office (2 600)	15 384 700
Vertical Greenhouse (100)	38 000 000
Total	53 384 700

Market value 1 067 694 000



