### Urban green, Globalisation and R&D

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Trends that shape agriculture
Rise of new forms of horticulture
New roles of urban green

Food as Instrument
Green as Problem Solver

Changing dynamics of R&D for SMEs



## Trends that shape agriculture

Globalisation - leading to estrangement between consumer and producer

ICT

- data-driven production and supply chain
- 'Uber-effect' employ under-used capacity - derelict land, empty buildings, volunteerism, waste re-use

### Urbanisation

- more stress on the food system, while challenging the liveability of cities
- Urban design: from functional division to multi-functional design.





## Rise of new forms of horticulture

- Product Differentiation
- Local 4 local chains and branding
- Multi-functional agriculture (urban and peri-urban)
- 'Uber'-farming derelict land, empty buildings, volunteerism, waste re-use
- Urban Green as problem solver (water retaining, reducing heat island effect, capturing fine dust)

Agri clusters remain, and integrate with urban cylces (waste, energy, CO<sub>2</sub>)









## New roles for Urban Green: Food as Instrument

Urban, multifunctional Agriculture: Food as <u>instrument</u> for societal change (and not as aim!)

- Social cohesion
- (Re-)integration
- Place making
- Liveability of areas
- Health (hospital gardens, schools)
- Circularity in cities (energy, water, waste)



## Food as instrument

#### New entrepreneurs in Agri

- Emerging business in urban area and established business concepts in peri-urban area
- Innovation strategies focussed on market- and product development (marketing and services)
- High societal appreciation
- Challenge to find earning models urban challenges are not quantified for their societal costs







## New roles for Urban Green: Green as Problem Solver

Liveability

Water retaining and purification

Reducing heat island effect

Capturing fine dust





### Green as problem solver

Green providers offer products with added value, ...

- Collaboration architects and green providers
- Collaboration technical designers and green providers
- .... but find lack of earning models
- Clients can't find revenue and remain traditional
- High media-attention, ...
- In but limited story telling by green providers (high focus on B2B)





## Changing dynamics of R&D for SMEs

- Top-down funding is replaced for bottom-up subsidy
- Consortia are supported in developing new products
- vanilla, algae, wasabi, hop, grind-pepper, medicinal plants, typical warm-climate fruit, fine dust, urban edible green
- Club of 100



Concepts as Metropolitan Solutions and the Biobased Economy shape our thinking



### Conclusions

Food trends and Global trends have changed the shape of horticulture over the past 20 years, and will continue to do so

Urbanisation and ICT are driving forces

Food as Instrument
 Green as Problem Solver
 .... both require earning models for their societal added value

Open Source mentality changes & Research requires active participation





# Design the ultimate urban greenhouse

Students are being challenged to submit an urban greenhouse design which brings professional food production into urban neighbourhoods, connects it with local energy systems and encourages citizens to engage with sustainable production and consume healthy food.

Registration between 1\* and 31\* October 2017

Check out www.wur.eu/studentchallenges

### Could you design the ultimate urban greenhouse?

Wageningen University & Research is organising a Challenge to Design a Sustainable Urban Greenhouse.

Who for? Students in relevant fields at universities or universities of applied sciences

What's the challenge? Submit an urban greenhouse design which brings professional food production into urban neighbourhoods and encourages citizens to engage with sustainable production and consume healthy food. Spark the future, improve the quality of life!

When's this happening? Register between 1<sup>#</sup> and 31<sup>#</sup> October 2017. You will present your design for an expert jury during the last week of August 2018.

What's next: Start putting together your dream team now and get ready to Design a Sustainable Urban Greenhouse.

Check out www.wur.eu/studentchallenges

## Questions?



