

# Webinar: Development and Evolution of a Sustainable City and Community

## *Drivers of Change in Growing Green Cities*

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# Drivers of Change in Growing Green Cities

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# Drivers of Change in Growing Green Cities



- Introduction to AIPH
- Elements and drivers of change
- Case studies





# AIPH

**We are the world's champion for the power of plants**



## Core programmes

- Expos – world horticultural expos: 30 million in 5 years
- FloraCulture International magazine The logo for FloraCulture International (fci), featuring the lowercase letters "fci" in blue and the full name "FloraCulture International" below it.
- Sustainability, Novelty Protection, Plant Health
- Green City – living green





## Drivers of Change in Growing Green Cities



# AIPH

## Green City programme



### Core AIPH programme

- lead global thinking on the successful integration of nature into the built environment
- promote the essential role of plants in creating vibrant urban areas
- develop an international standard for green cities
- focal point for green city best practice and a source of expertise
- knowledge exchange, advocacy and networking
- inspire people, organisations, city councils and government administrations





# AIPH 2020 Green City Guidelines



- Re- launch of 2011 guidelines
- New cases studies demonstrating best practice
- Case studies on cities in different climates
- Case studies of different city typologies
- UN Sustainable Development Goals
- Importance of Green City across disciplines
- Digital format for wider exposure and easier access

.....**stimulate city change**

## Types of Change

Incremental – small changes within a system

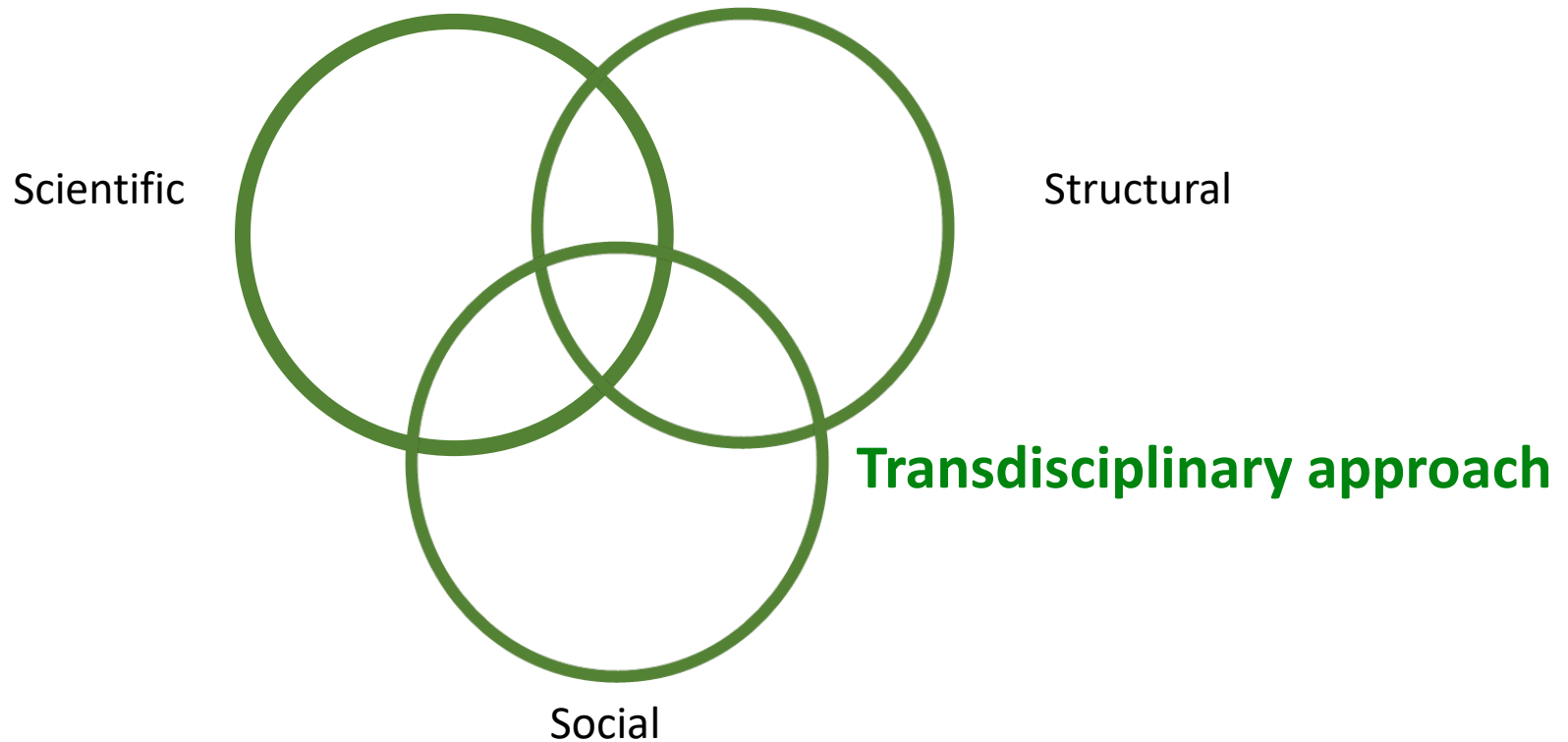
Transitional – improving an existing system

Transformational - a fundamental system change



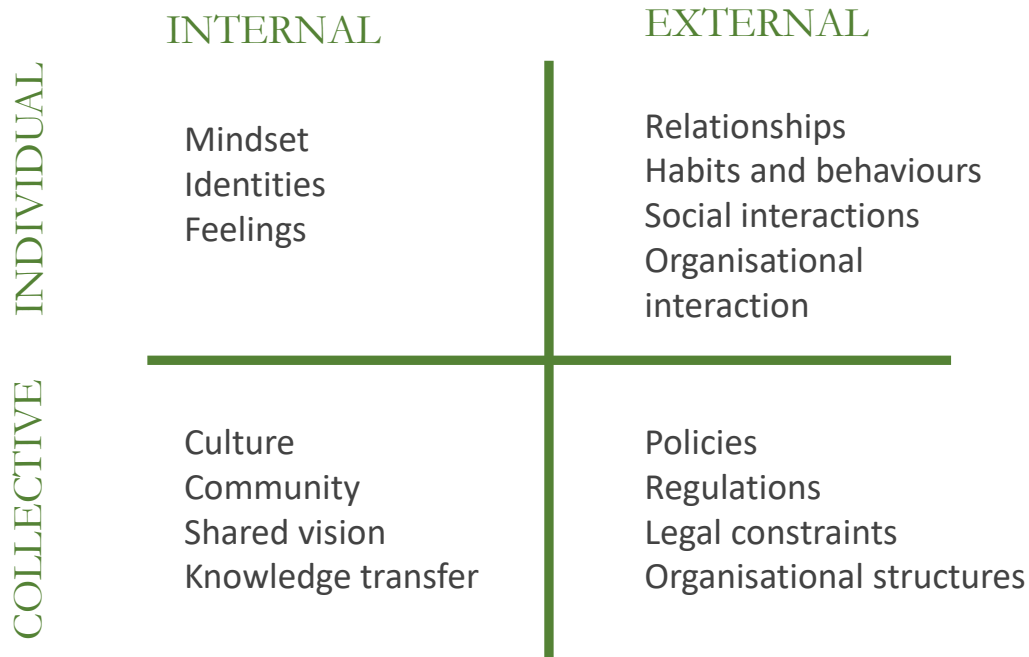


# Transformational Change





## Dimensions of change



*Adapted from Retolaza 2011*



## Drivers of Change in Growing Green Cities



# Case study: The 606, Chicago



*Images: courtesy of The Trust for Public Land*



## Case study:

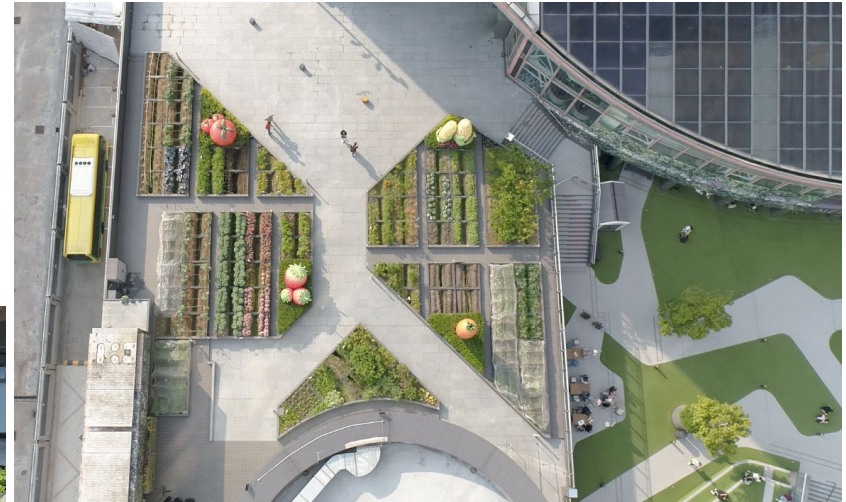
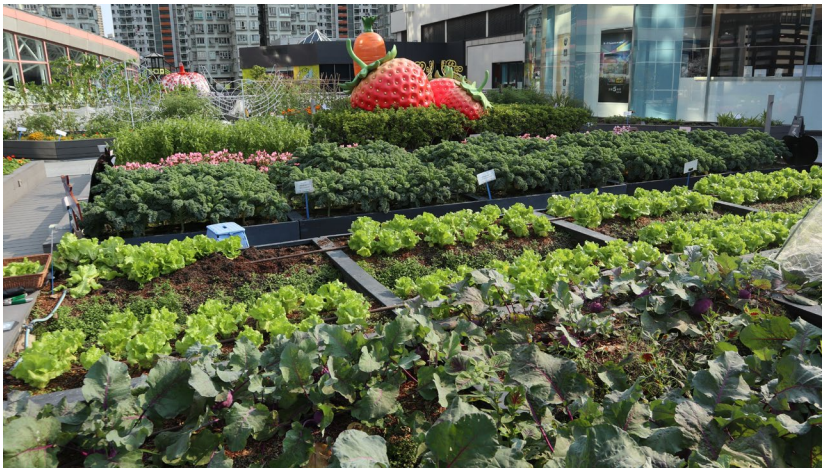
The City of Melbourne, Australia





## Case study:

### Metroplaza, Hong Kong




Images: courtesy of Rooftop Republic




## Case study: Greenlife Australia

## De Groene Agenda

plantlifebalance.com.au



THE BLOG THE LOOKS THE APP THE SCIENCE THE NURSERIES




**HANGING Botanics**

An entertaining space becomes an indoor oasis with this wildly photogenic look that features elegant ferns and tropical beauties cascading from the ceiling. Strike a pose and say "Leaves!"

royalforaholland.com

### WHAT DOES GREENERY DO?

- Plants in offices purify the air: they reduce concentrations of CO<sub>2</sub> and volatile organic compounds, keeping the air fresh and healthy.
- Outdoor vegetation curbs heat in and around buildings in the summer, lowering heat stress and reducing the need for air-conditioning.
- Green roofs and façades increase insulation capacity, reducing both heating and cooling expenditure.
- Office plants release water vapour which humidifies the air, reducing headaches and improving concentration
- 'Green views' also boost concentration and aid recovery from stress.
- Green environments encourage people to undertake activities such as a lunchtime walk, keeping staff alert and healthy. Long periods of sitting adversely affect health.




### PROVEN SUCCESS

- A study in Norway showed that office workers without an outdoor view from their desk were five times more likely to put a plant in their office than those with a view.<sup>1</sup>
- A Danish study revealed that office staff with a 'green view' were happier with their view. This happiness in turn correlated positively with (self-reported) productivity levels.<sup>2</sup>
- In an experimental working environment study, employees with a view of plants completed a concentration test 19% faster than those in a room without plants.<sup>3</sup>

### APPLICATIONS

- Green roofs and façades.
- Green indoor office walls.
- Indoor plants in the company restaurant, central spaces and offices/conference rooms.
- Green partitions and mobile planters.
- Attractive landscaping of the office premises, including green borders, hedges and trees.



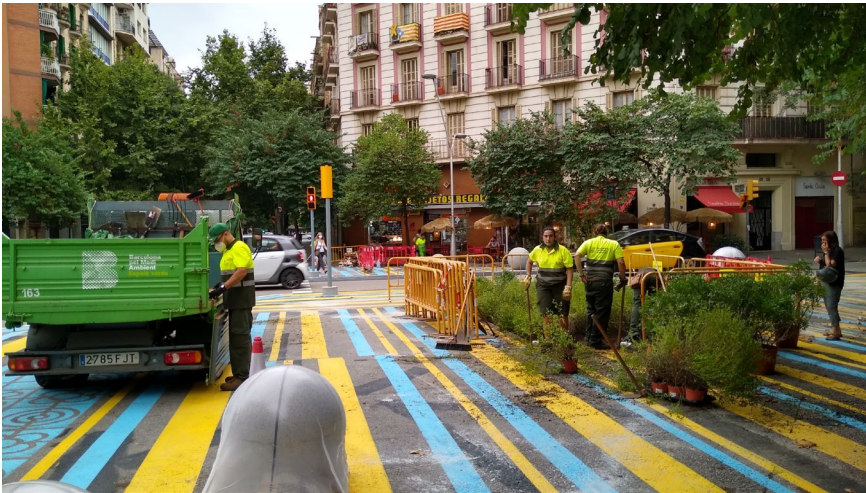
Marel (Stork) Poultry BV

Sources:

- T. Bringslimark, T. Hartig & G.G. Patil (2011), Adaptation to windowlessness: Do office workers compensate for a lack of visual access to the outdoors? Environment and behavior:00139161610958351.
- L. Lottrup, U.K. Stigsdottir, H. Melby & A.G. Claudi (2015), The workplace window view: A determinant of office workers' work ability and job satisfaction. Landscape Research 40(1):5775.
- M. Nieuwenhuis, C. Knight, T. Postmes & S.A. Haslam (2014), The relative benefits of green versus lean office space: Three field experiments. Journal of Experimental Psychology: Applied 20(3):199.



## Case study: Barcelona, Spain



*Images: courtesy of Gabino Carballo*



# Case study:

## National Street Service project:

“Most people speak about streets in the language of those who control them, traffic engineers. When you speak like a traffic engineer, you optimize for speed and efficiency, and often not for other important qualities like comfort and delight,” Anna Muessig says. “..... you should measure what you care about – and you end up managing what you measure. If you measure traffic you will end up managing traffic. If you measure things you care about, like public life and quality of experience, you will be able to manage these outcomes on streets.

*Behaviour change tactics. Meeting of Minds, 2020.  
[meetingoftheminds.org/behavior-change](http://meetingoftheminds.org/behavior-change)*





## Behaviour change tactics. Meeting of Minds, 2020. [meetingoftheminds.org/behavior-change](http://meetingoftheminds.org/behavior-change)

- Messenger – message bearer is influential
- Timelines – delivery and receipt has power
- Social – meaningful connections
- Easy – anticipate and eliminate barriers
- Default – new patterns of behaviour







# Drivers of Change in Growing Green Cities

For more information about AIPH Green City initiatives and for details of the AIPH 2020 Green City Guidelines

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## Thank you



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