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# stand-up innovation

## A Vision for Circular Economy in Cities

Vienna, 28 October 2019

**Maria Wirth**



[www.alchemia-nova.net](http://www.alchemia-nova.net)

# Cities as circular economy hotspots



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Cities are centres of human & economic activity



TAKE

MAKE

DISPOSE

material



energy



water



solid waste



wasteheat



wastewater



~~Cities as  
resource  
sinks~~

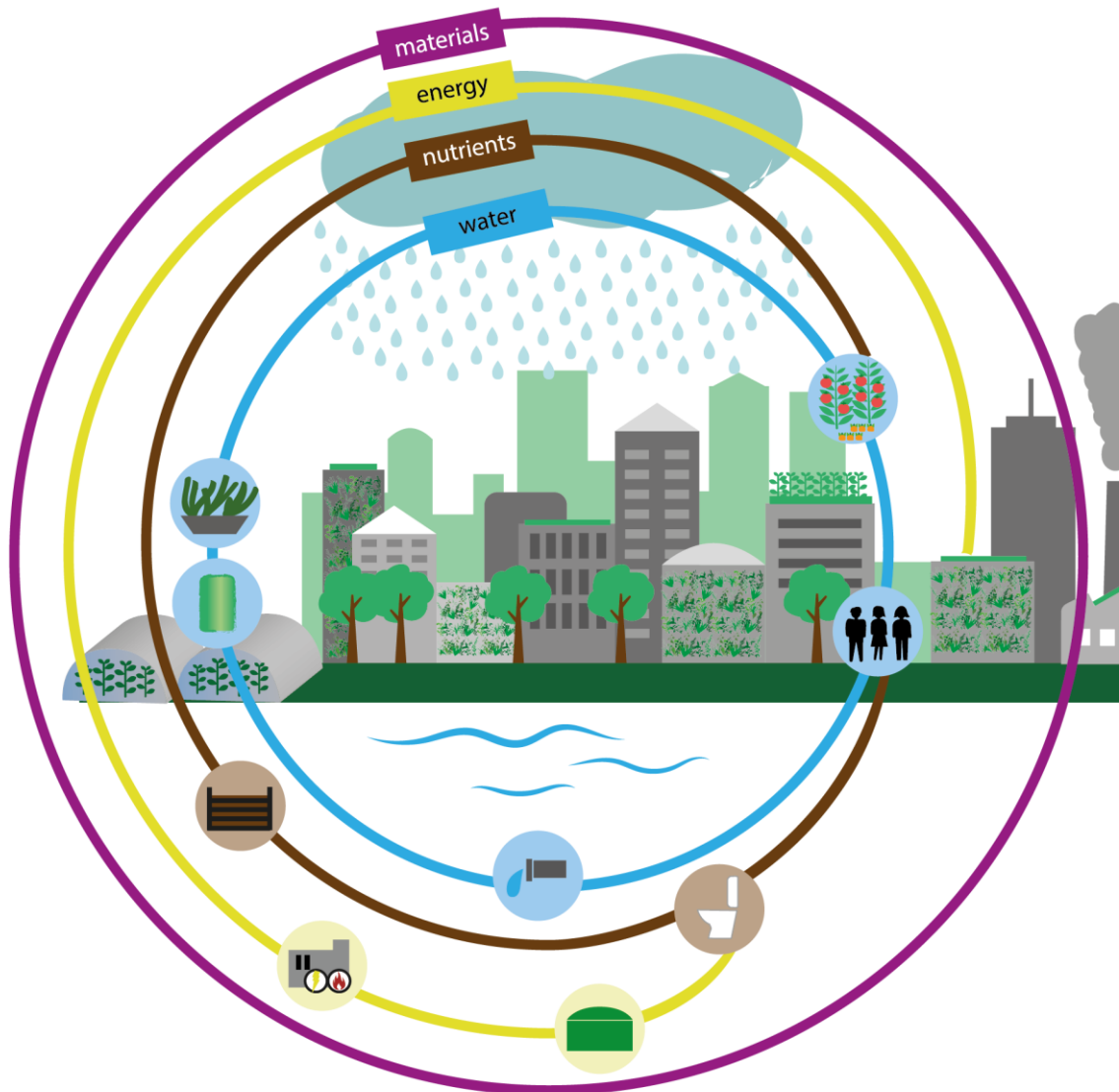
Source: iStock by petovarga






# Cities as resource turntables



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-  built environment
-  commodities
-  biological cycles





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# Built environment



# Rethinking construction



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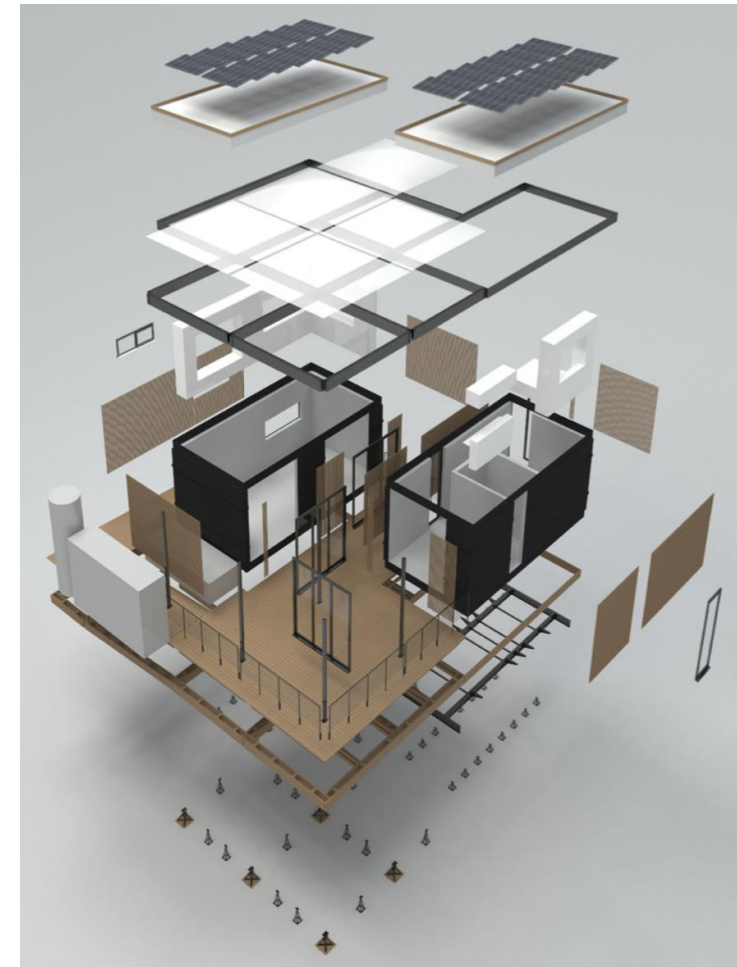
- Modular construction
- Deconstructability
- Standardisation
- Pre-fabrication



Flexline, Hegelo, NL



Cellophane House™, Kieran  
Timberlake, NY



[www.bamb2020.eu](http://www.bamb2020.eu)



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# Commodities



# Selling light, not light bulbs

Product as a service

Incentive for product  
life extension



Schiphol airport - lighting.philips.com

Sharing economy





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# Biological cycles





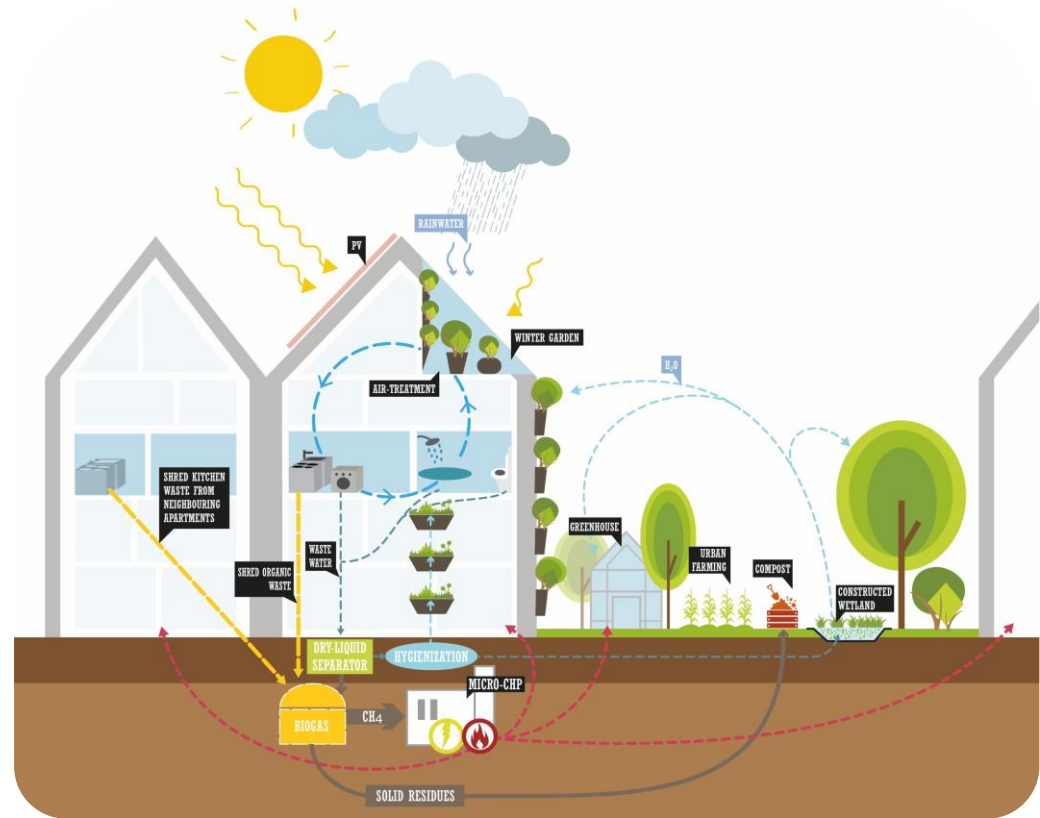
# A building like a tree



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William McDonough's Treescraper Tower of Tomorrow



alchemia-nova HOUSEFUL



# Using the power of nature-based solutions



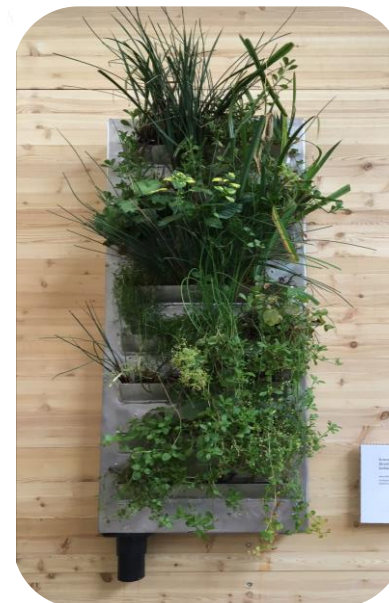
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HOUSEFUL



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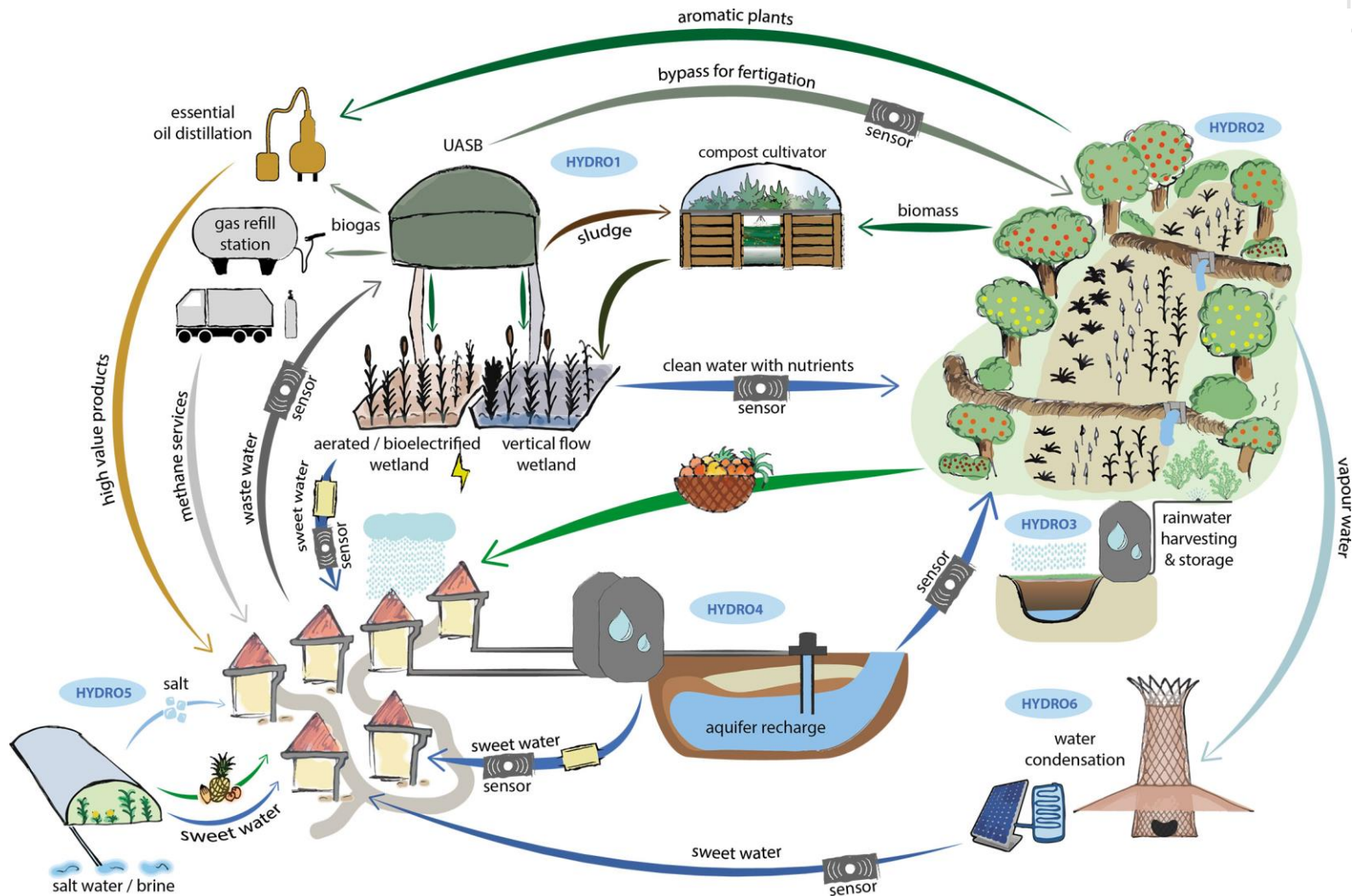


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# HYDROUSA: demonstrating closed loops on Greek islands



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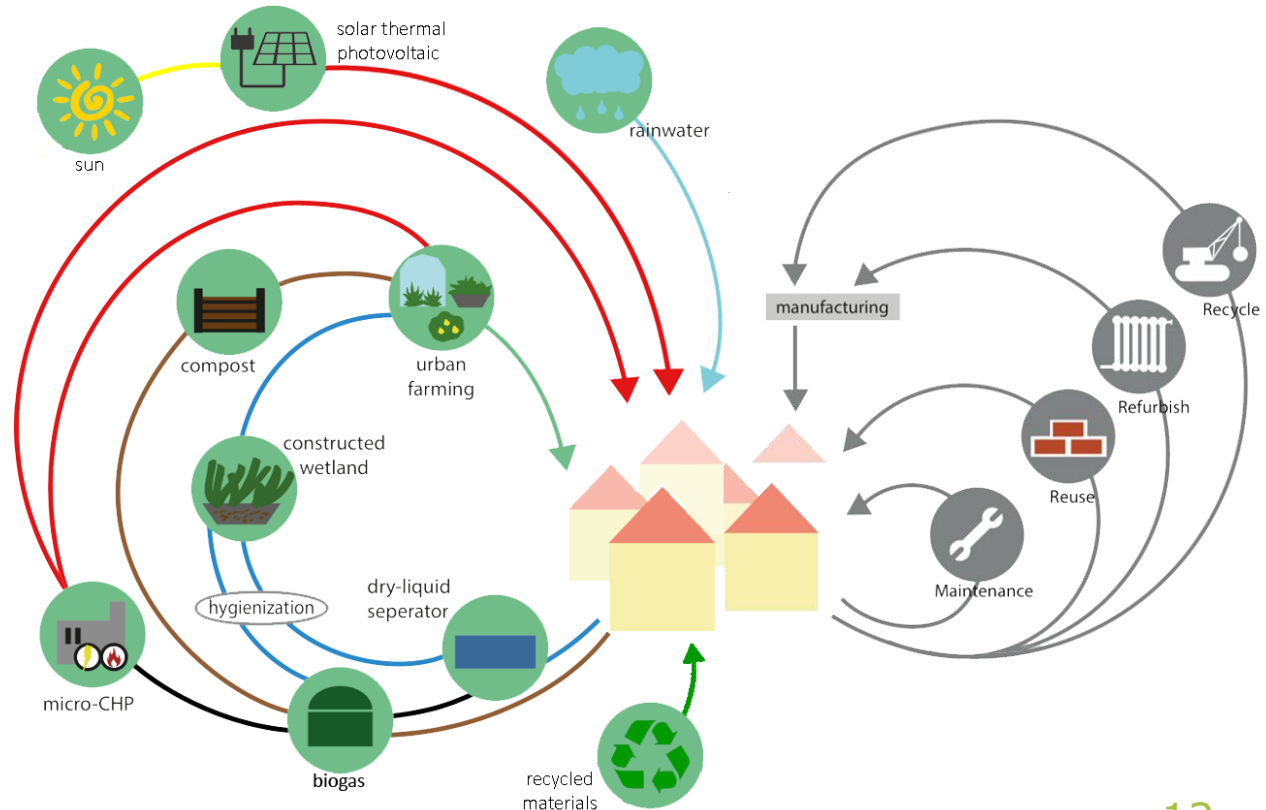
# Towards complete circularity



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## take – make – regenerate

- Multifunctionality
- Life-centered design
- Participation & social transformation





# A city like an ecosystem

source: Agricultura Urbana

