



Innovation Design
The Central Role of Values in Innovation

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Yesterday the world changed...

Healthcare: by 2050, 50% of the developed world is expected to be chronically ill. In both developed and emerging markets demand for healthcare is growing and the **COSTS** and **social impact** becoming **unsustainable**



Smart grids, e-mobility, waste-management, healthcare: **System Transformations**
require **new ecosystems** with public & private organizations



Engaged managers and entrepreneurs combine doing **business** with creating a **better world**



The
**PURPOSE
ECONOMY**





Scarce natural resources



Economic threats



Climate change



Natural disasters



Pandemics



Unhealthy lifestyles



Aging population



Food crisis



Social unrest

Threats ...



... are opportunities

Solving societal challenges



Good solutions create **value** for users, organizations and society, and our planet

Talking about 'value'...

Philosophy: are things **valuable** because we **cherish** them, or do we **cherish** them because they are **valuable**?



Is value objective or subjective?

Economy: exchange value, surplus value and wealth

[Pine & Gilmore, The Experience Economy, 1999]



Harvested beans = \$0,01/cup



Roasted, grinded, packed & distributed = \$0,05 - \$0,25/cup



@ Café Florian, San Marco, Venice = \$15,00/cup



Heightened ambience = \$5,00/cup



Brewed = \$0,50/cup



Artistoteles

οικονομία

“the art of living
and living well”

~~“the art of
money-making”~~

Psychology: well-being, happiness and motivational values



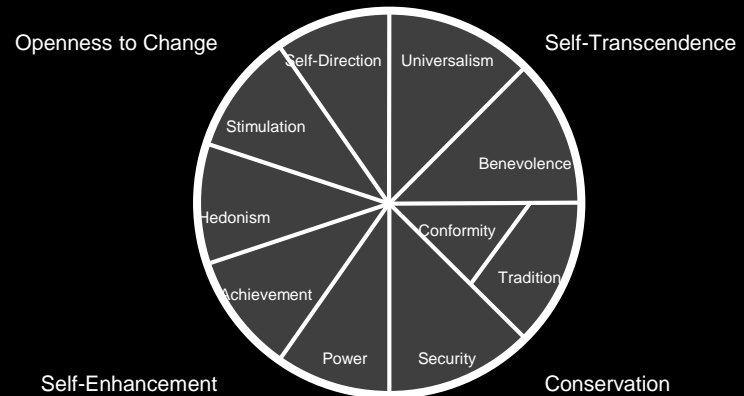
[Seligman, Authentic Happiness, 2002]

[Sagiv & Schwartz, Value Priorities and Subjective Wellbeing: Direct Relations and Congruity Effects, 2000]

Positive psychology

- a **pleasant life**
life of enjoyment – positive feelings and emotions that are part of healthy living
- a **good life**
life of engagement – beneficial effects of flow (positive match between strengths and tasks)
- a **meaningful life**
a life of affiliation – contributing to something larger or more permanent

Motivational values



Sociology: well-being, happiness and motivational values



Symbolic value

the value of honour

Sentimental value

the origin matters



Absolute, transcendental value

not for sale – 'the fear of loss'

Ecology: phenomena in the **physical** and **biological environment** of organisms that affect their **survival** in the broadest sense

Earth centred values
beyond a human-centred view

Value of biodiversity
valuing the services of the ecosystem

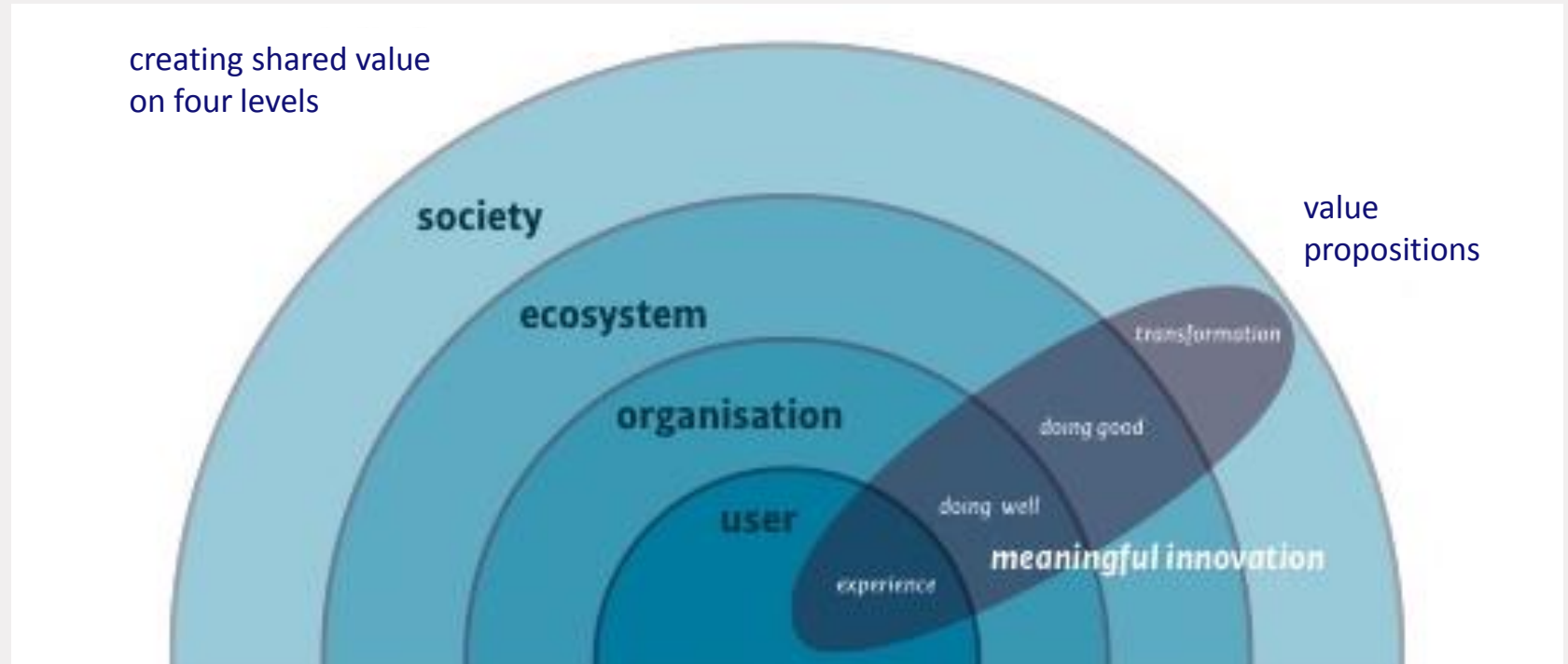
Human development
the art of living well

Value of nature
importance of nature for human wellbeing & health

Spirituality
living a meaningful life

Creating meaningful value propositions

Meaningful innovations

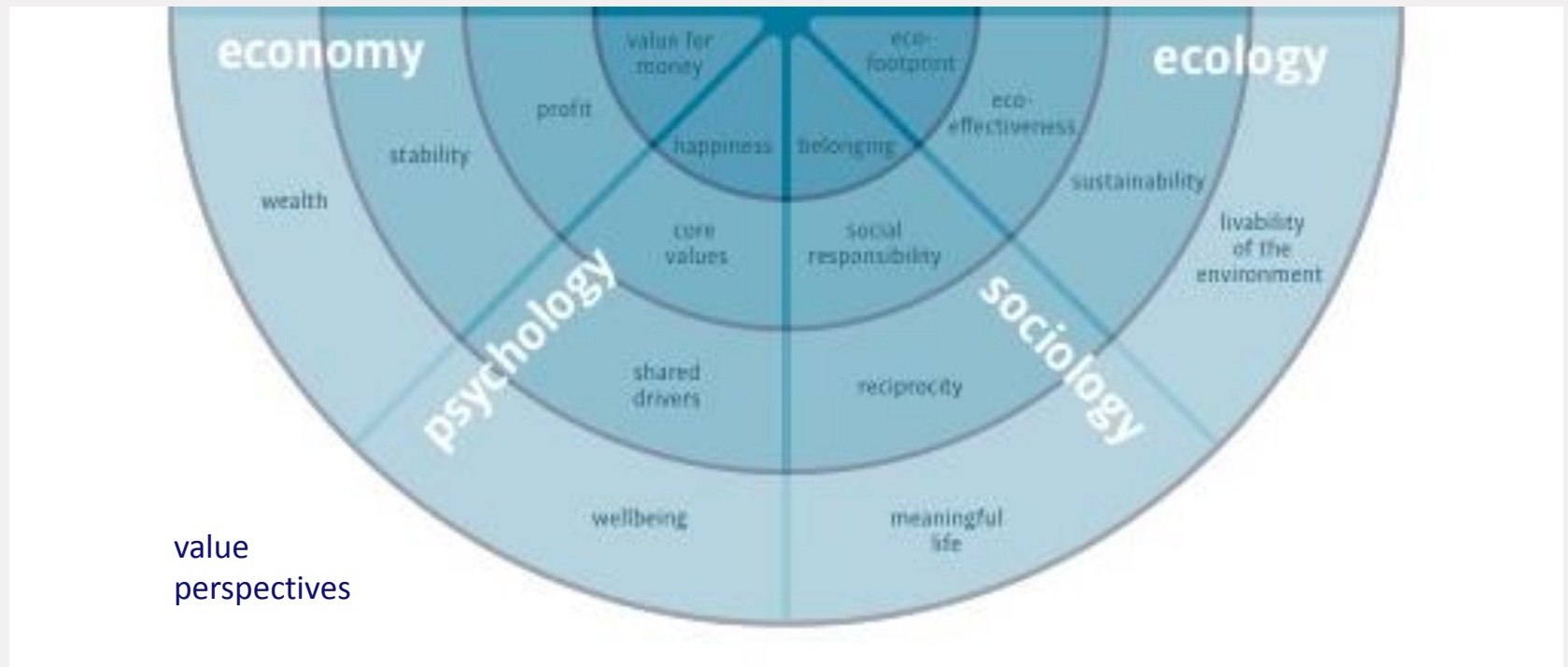


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Value perspectives

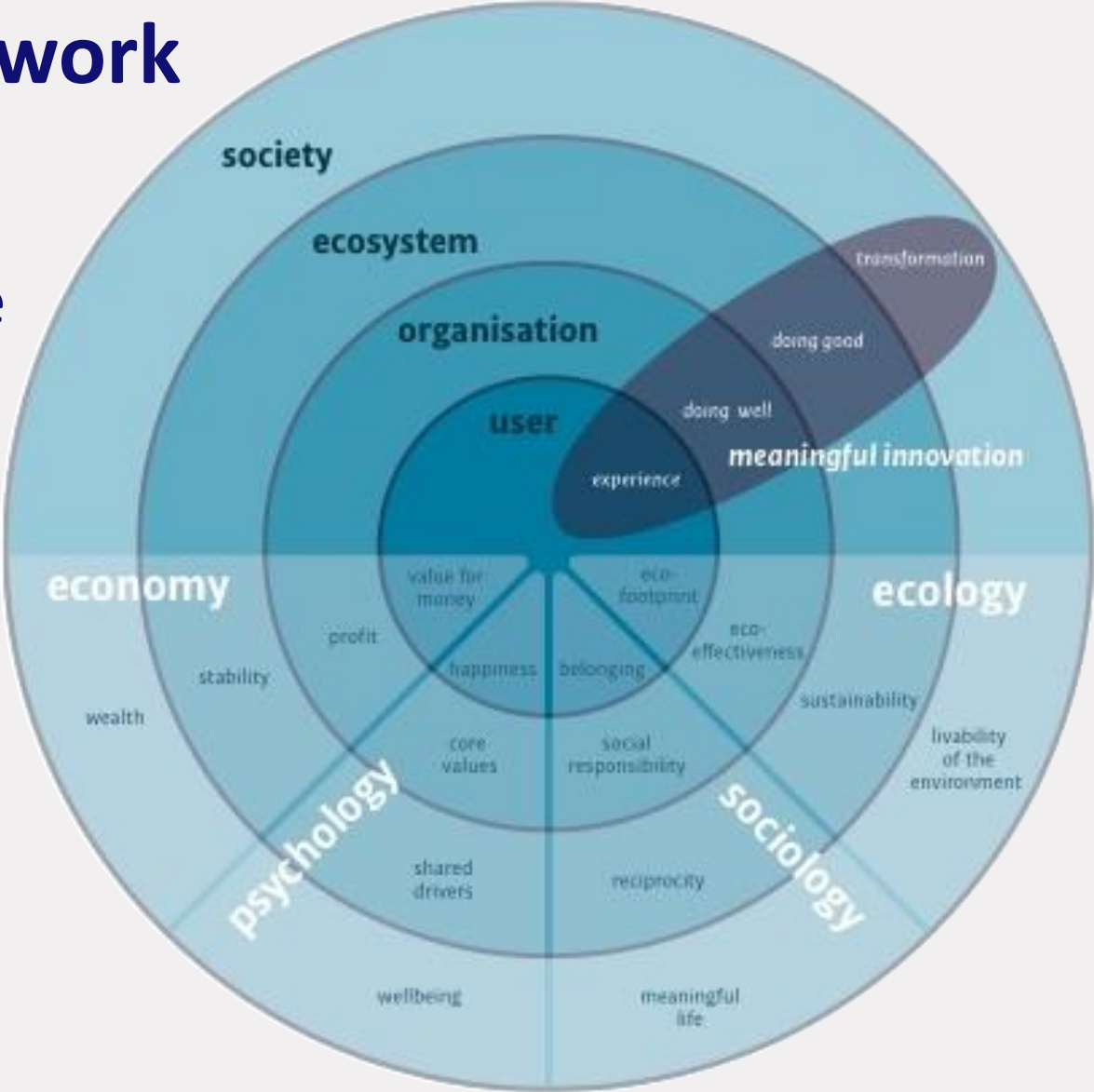
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User
Organisation
Ecosystem
Society



The Value Framework

Creating Shared Value by integrating value perspectives

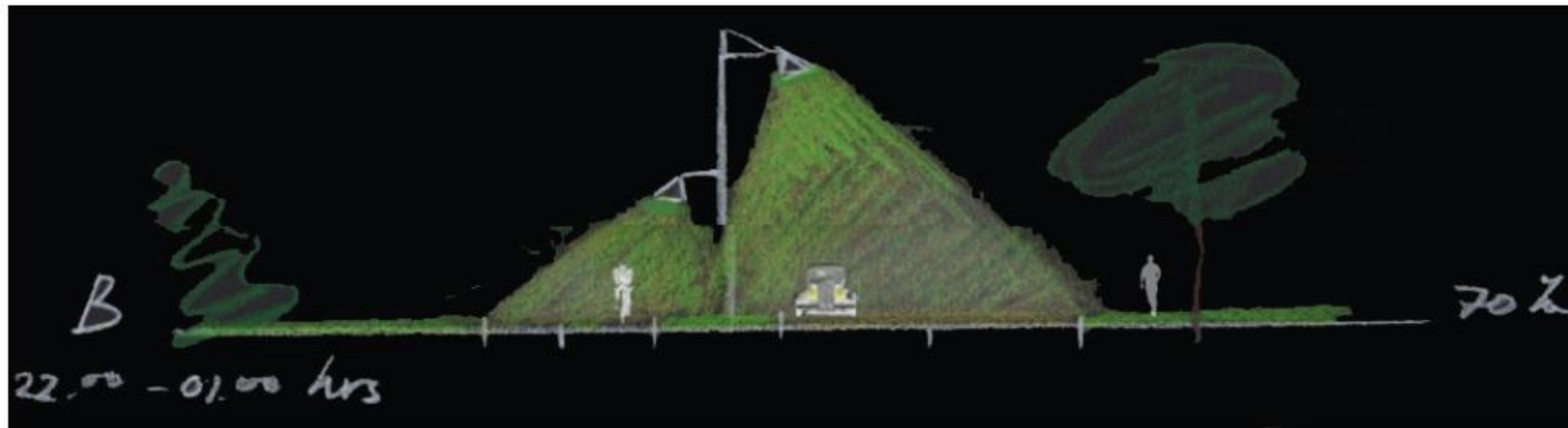


Innovation Design: Creating Value for People, Organizations and Society. Springer Science+Business Media BV. ISBN 978-1-4471-2267-8. 2012.

Collaboration beyond business partnering

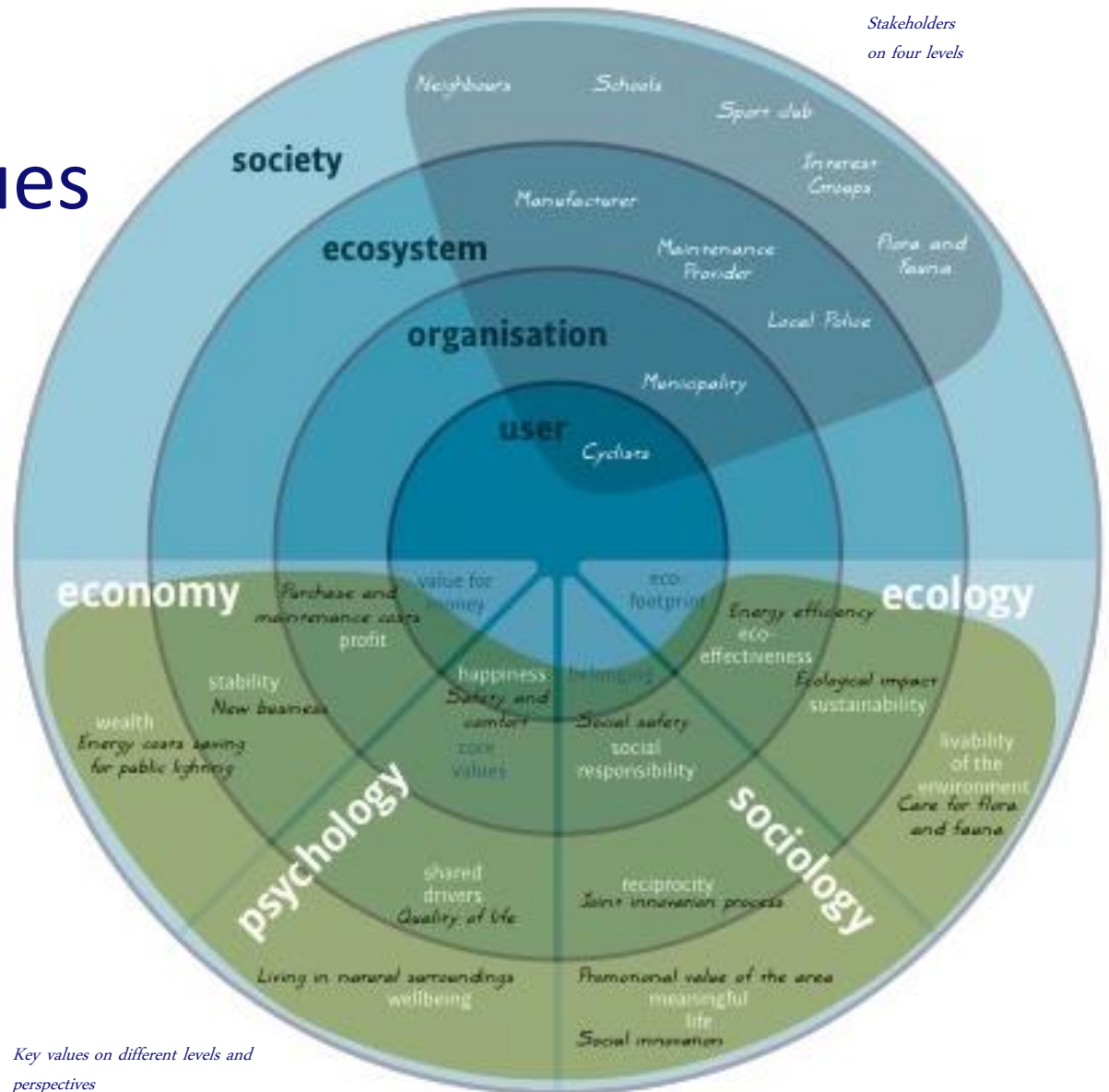


Example Zilverackers: bicycle path in ecological zone



Stakeholder values for Zilverackers

Stakeholders on four levels



Key values on different levels and perspectives

Shared value for different stakeholders



Commuters, e.g. schoolchildren



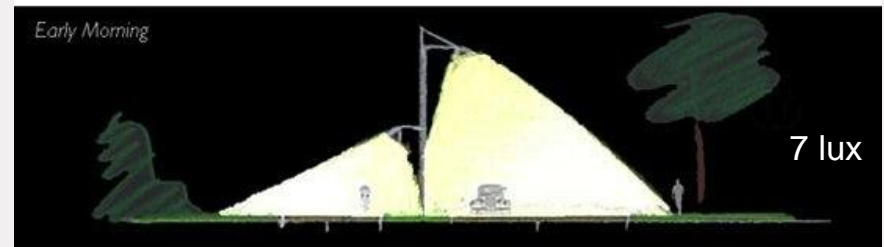
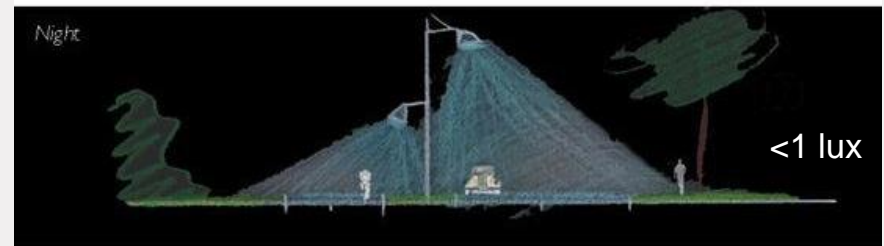
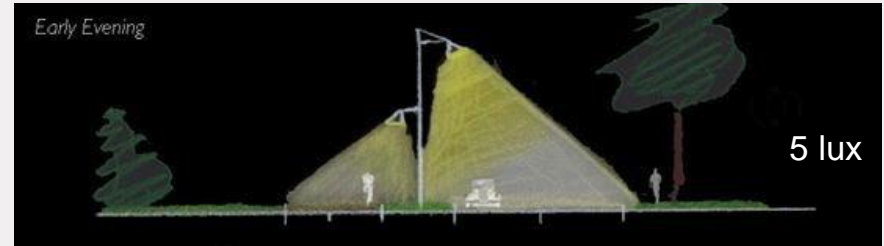
Animals & plants, and e.g. athletes



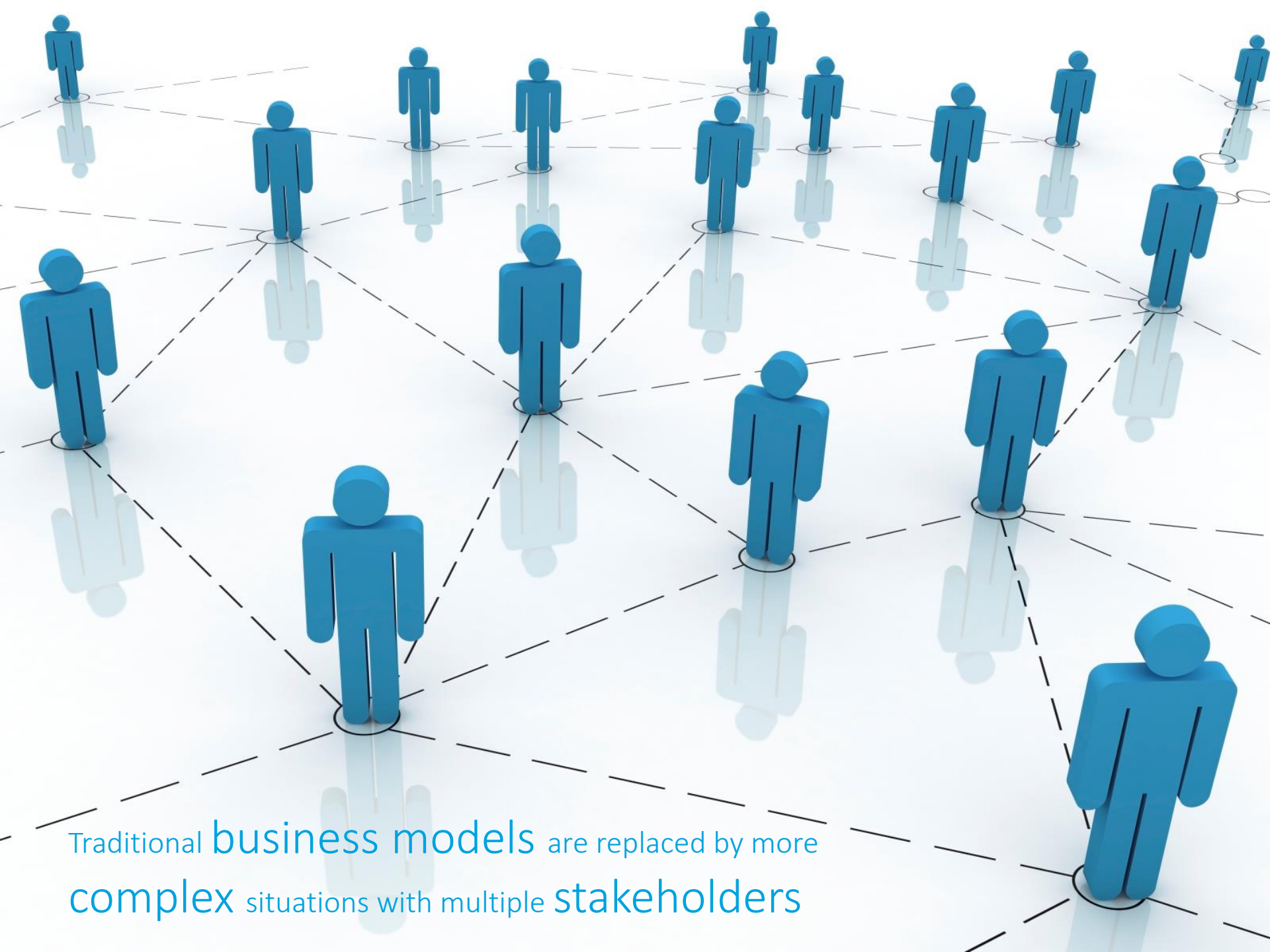
Wildlife, and occasional cyclists



Commuters, e.g. schoolchildren



Designing ecosystem



Traditional **business models** are replaced by more **complex** situations with multiple **stakeholders**

Stratumseind

Defusing escalating behaviour through the use of interactive light scenarios





DE-ESCALATE: Light as mediator

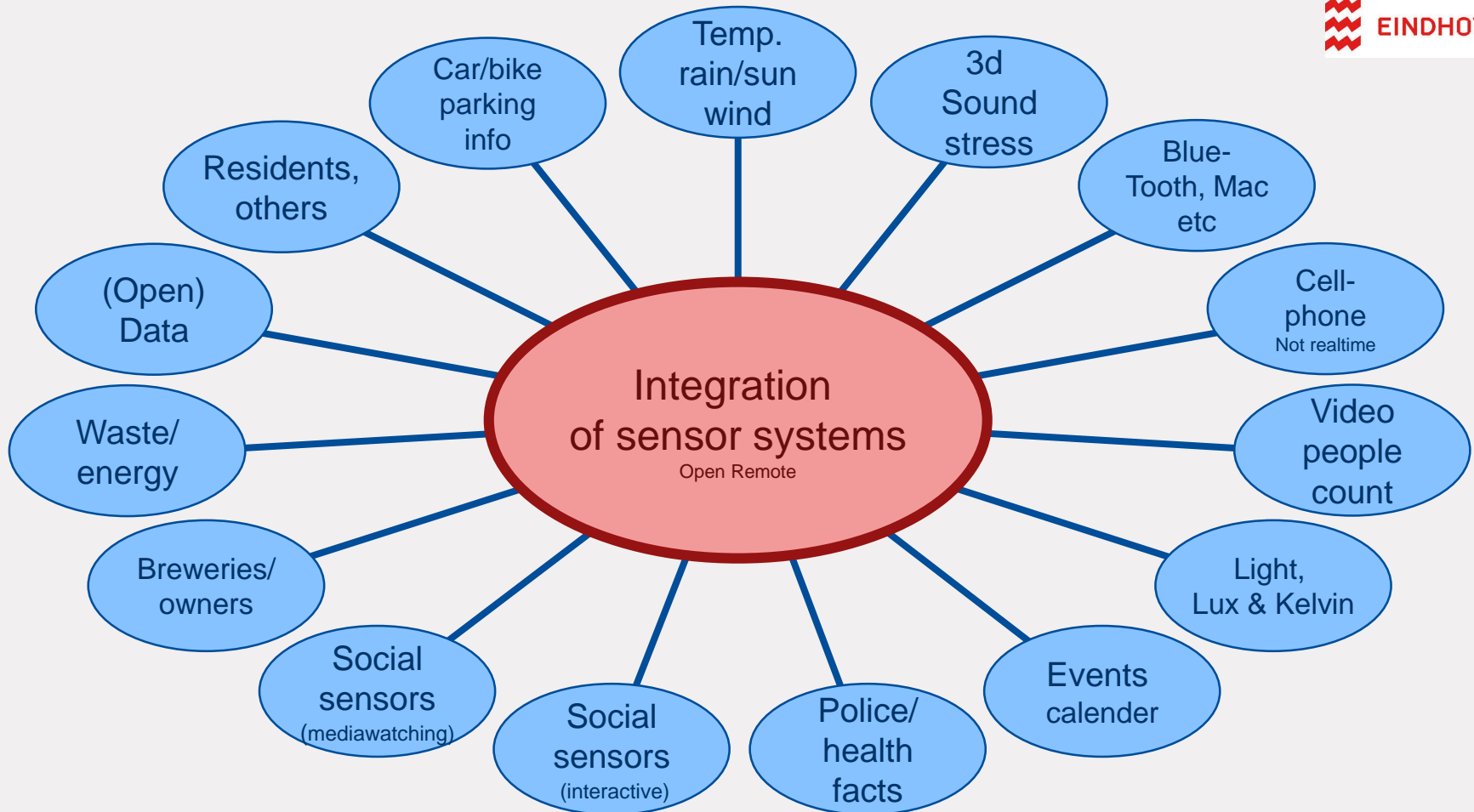


Stratumseind:

Defusing escalating behaviour through the use of interactive light scenarios



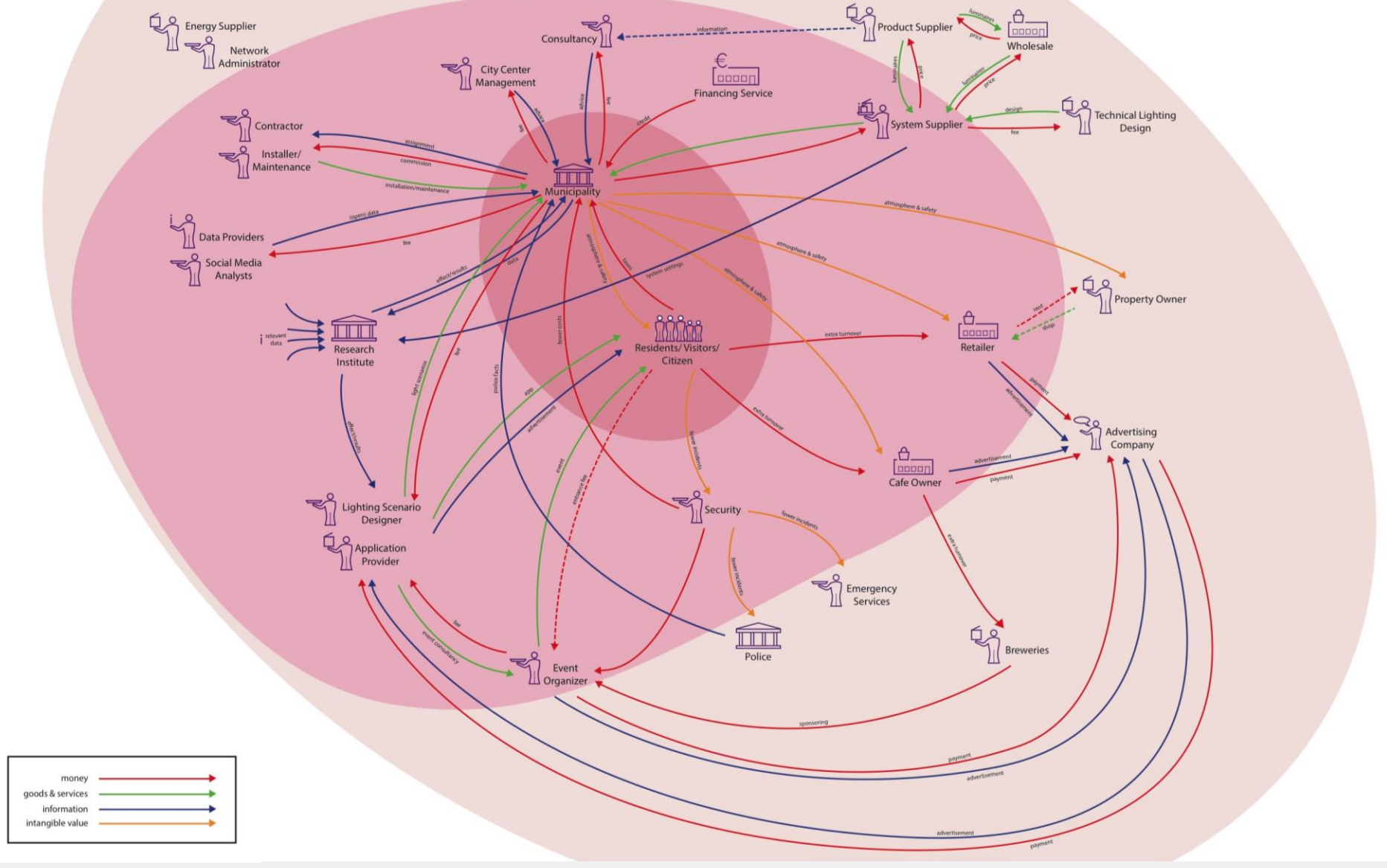
Living Lab - Sensor system integration



LivingLab Cockpit/Basecamp



Value Flow Model



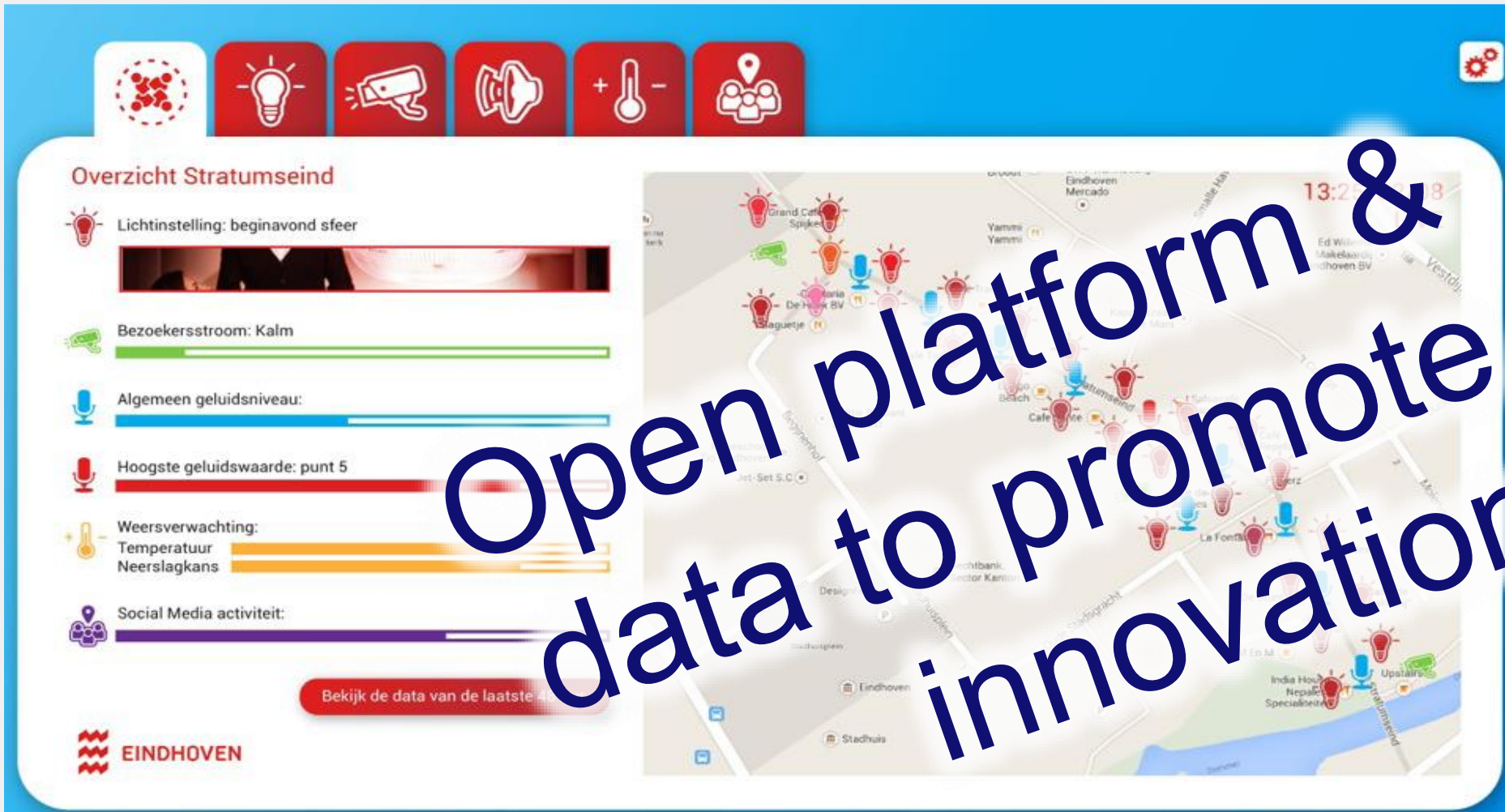
Real time data visualisation

PHILIPS

Work in progress



Open source web-based platform & apps



Principles Data in Public Space



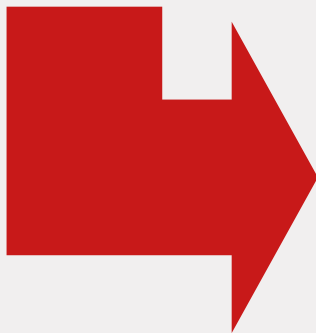
a.	Data residing in the public space (further on: data) belong to everyone. These data are an asset of the public. Data that are collected, generated or measured (for example by sensors that are placed in the public space) should be opened up such that everyone can make use of it for commercial and non-commercial purposes. While doing so, privacy and security aspects should be taken into consideration.
b.	Data may contain personal information. These data can therefore impact the private life of individuals. The rules specified in the Personal Data Protection Act are applicable here. These data may only be opened up after they have been processed (for example, by anonymization or aggregation) such that there are no privacy threats anymore.
c.	Data which do bring privacy or security risks along may only be used according to the privacy legislation. Storage and processing of these data should be performed according to the existing legislation.
d.	Data that do not contain personal information (anymore) should be placed such that everyone can access these data in an equal manner (for example, through an Open Data portal). We call this “opening up” the data. There should be no technical or juridical obstacles that limit, discriminate or block access to data.
e.	Data are always opened up free of charge, without unnecessary processing (as much as possible in a raw form) and according to the functional and technical requirements that are yet to be defined.
f.	A distinction is made with regard to personal data (such as an e-mail address or payment information) that are collected with full awareness and after an explicit consent of the individuals. Use of these data is defined by an agreement between the parties involved according to the rules of privacy legislation (such as an end user agreement).
g.	The city authorities always have an insight into which data is collected in the public space, independently of whether these data can or cannot be opened up.
h.	The city authorities keep an ongoing dialogue with the parties that contribute to the development of data infrastructure in the city and strive to create earning opportunities and a fruitful economic climate.

Changing scope and changing role

‘Smartest region in the world’ through triple helix collaboration



Active orchestration of regional ecosystems for knowledge co-creation and exploitation enhanced by a ‘smart specialisation strategy’



University’s role:

- business innovation
- human capital development
- community development
- institutional capacity of the region

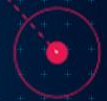
Source: Markku Markkula and Hank Kune. *Smart Specialization and the Role of Universities in Regional Innovation Ecosystems*. *Technology Innovation Management Review* October 2015 (Volume 5, Issue 10).



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innovation Space

innovation Space from dream to demo



Where innovation starts

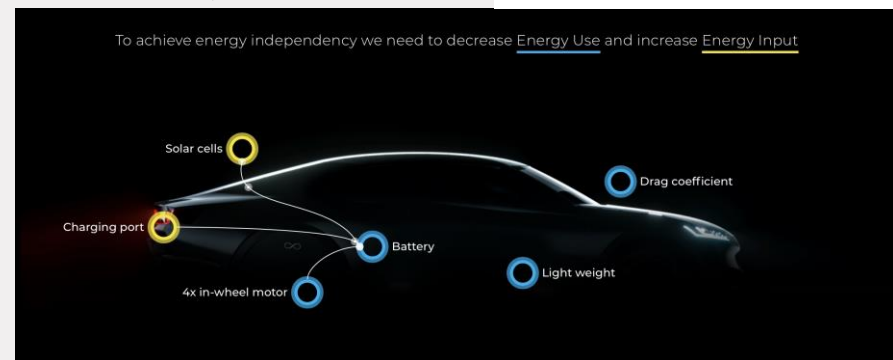
TU/e innovation Space

Educating engineers for the Future:

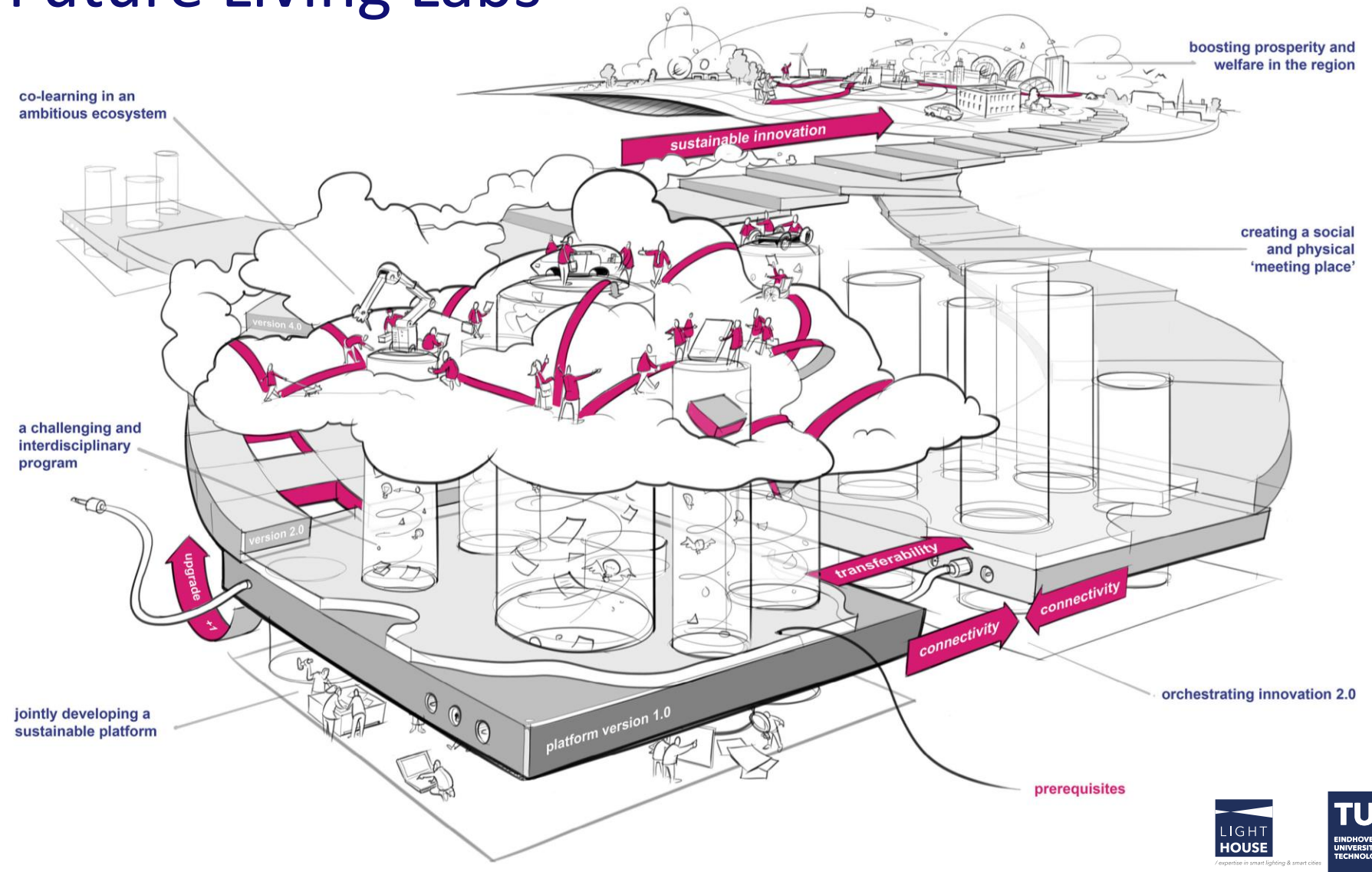
- Interdisciplinary
- Hands-on
- Entrepreneurial
- System thinking



 LIGHTYEAR



Future Living Labs



For more information

References, explanations and examples can be found in the book:

'Innovation Design', November 2011

Available from:

Springer.com and online bookstores

www.elkedenouden.nl

