



Aalto University
School of Arts, Design
and Architecture

Sustainable design S2

Mikko Jalas
21.4.2022

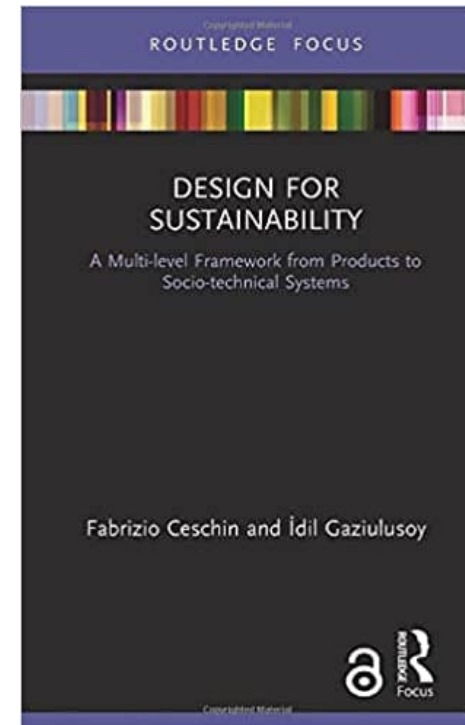
Agenda

- 9.15 - 9.30** **Practicalities. Last session. Reading C&G (workload?)**
- 9.30 - 10.20** **Levels/strands of design for sustainability (C&G)**
- 10.35-11.10** **Discussion – another corners exercise**
- 11.10 -11.40** **Footprinting exercise**
- 11.40-11.45** **Next session: what are product labels and standards.**

Design for sustainability

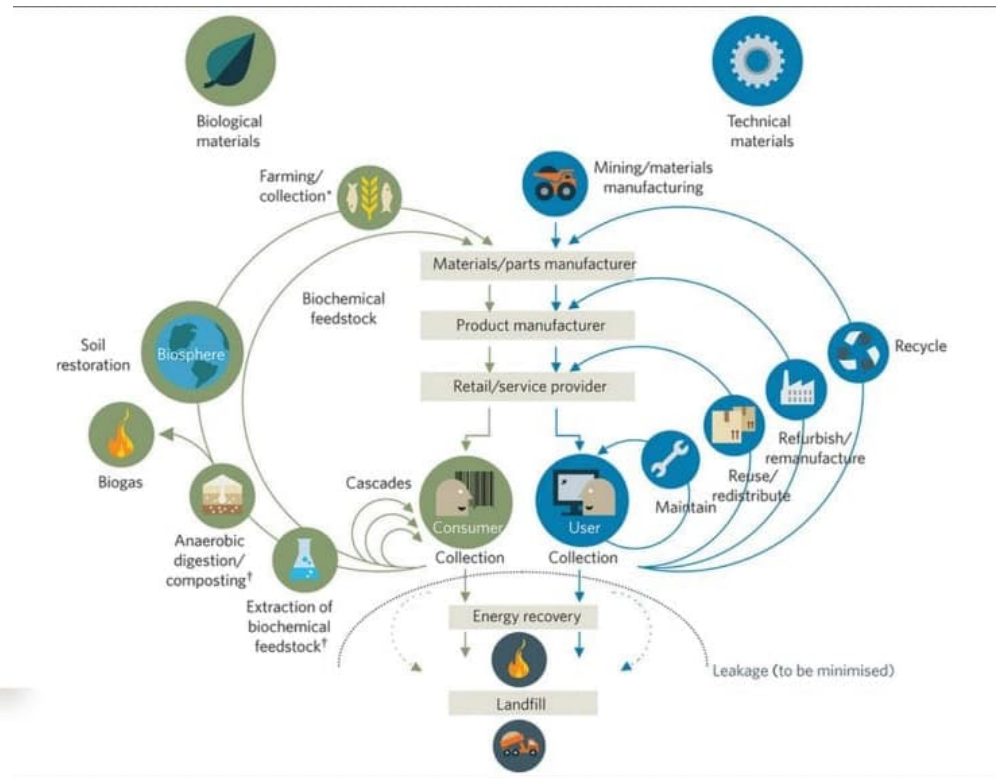
‘Radical transformational change in how human society operates’

- **Pioneers like Buckminster Fuller and Victor Papanek.**
- **Evolution**
 - Product innovation, eco-design, e.g. R-strategies, renewable energy
 - Product-Service System innovation level
 - Spatio-Social innovation level
 - Socio-Technical System innovation level



Product innovation

Green design, eco-design
Sustainable material choices
R strategies: Re-use ...
Recycle



e.g. http://www.ecodesign.at/research/ecodesign_toolbox/EN/

Emotionally durable design



Photo: Vesa Härkönen

I was born in April 1950 in Gamleby, Sweden. Designed with a stroke of the pen by my father Tore Holm my immediate future was to gambol over the blue waters of the Lake Geneva. My Christian name was Silène III

(http://www.6mr.fi/yachts.php?yacht_id=61)

Enabling product personalisation

Designing products that ‘age with dignity’

Designing products that collect and store memories

Caring relations with products

Design for sustainable behaviour

INITIAL CONCEPT - ALEPA WEEKLY RECIPE

- Based on our research and ideation we developed initial concept of Alepa Weekly Recipe shelf - a physical shelf that offers ingredients for vegan, vegetarian and meat recipe
- The concept displayed also data from the recipes carbon footprint and nutritional values
- The initial concept was tested in user tests



Chloe Hartman
Ellen Saukkonen
Esko-Matti Helin
Darja Sergeeva
Shubhajt Dutta

Design for sustainable behaviour

Using products differently

Convenience/availability: make it easier for people to adopt a desired behaviour.

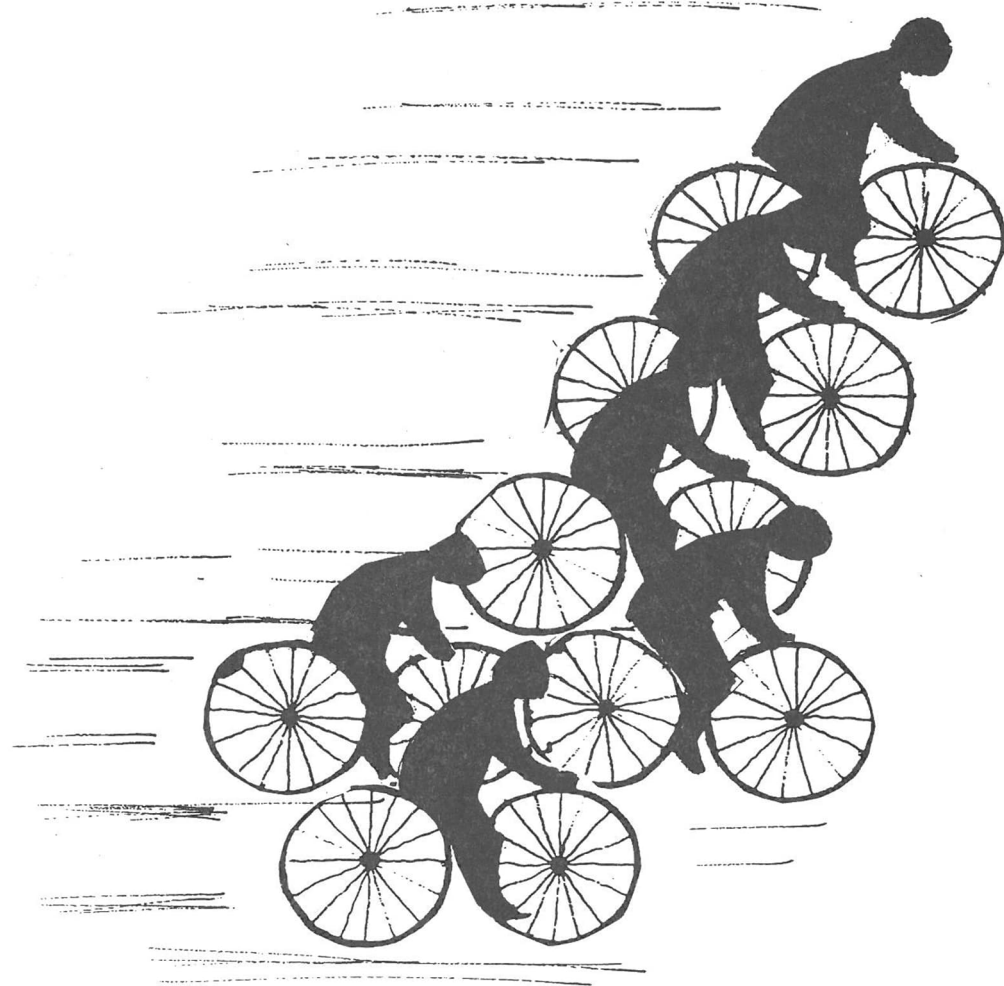
Desirability/acceptability: making people want a desired behaviour.

- Policy-related design
- Legitimacy of 'nudging' and undercover influence
- Influence through social norms
- A practice-lens



Flickr: Drew XXX

Bicycle communiting



Product service systems (PSS) Sharing/Access economy

C&G: Designing PSSs requires a different approach to designing individual products.

PSSs are complex artefacts composed of products, services, and a network of actors who produce, deliver and manage the PSS.

Incentives for resource efficient design?

Why to own products?

What are the 'ultimate' services that we need?



Spatio-social innovation

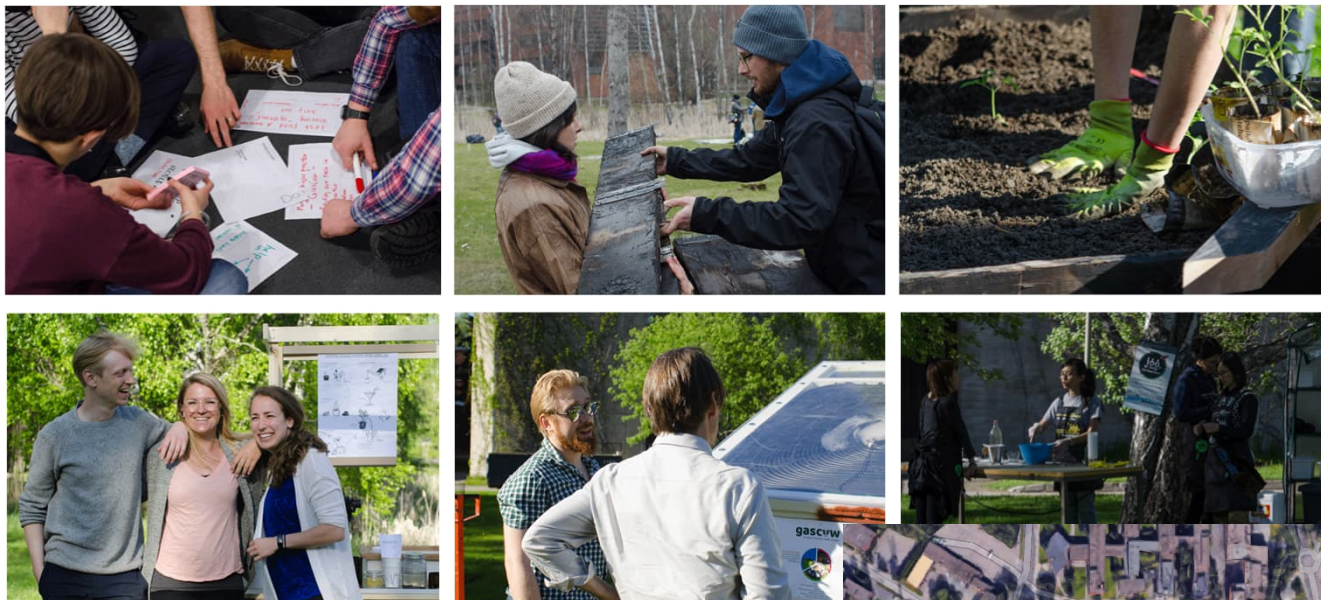
**Innovation in human settlements
(Co-) Innovation/design that ‘equips’
people to strive for sustainability.
Supports and maintains communities.
Making them more probable.**

Replication is a key concern. Social innovation often does not connect to commercialization processes.



<http://acs.aalto.fi/category/test-site/>

Practical Sustainability 'TestSite' at Aalto campus – Welcome (paul.mesarcik@aalto.fi)



Social innovation

Innovation/design that ‘equips’ people to strive for sustainability
Replication is a key concern and social innovation often does not connect to commercialization processes.

On the other hand, commercialization processes, e.g. consumer credit support work-and-spend lifestyles



<http://acs.aalto.fi/category/test-site/>

Systemic design

Industrial symbiosis
Waste is a resource

But symbiosis is also a
'lock-in'.



Flickr: Daril Extension



Flickr: Mustafaciftci

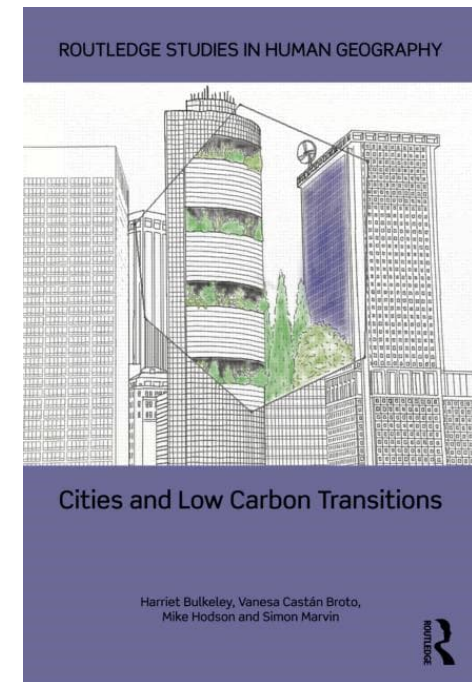
Socio-technical system innovation

Long term societal change supported by living labs & experimentation

Backcasting ‘How to get there?’ ‘What are the steps?’

Transition design – destabilize the old and nurture the new. ‘What are the hurdles and who are the gate-keepers?’

Urban design & changes processes in the ‘infrastructure of everyday life’



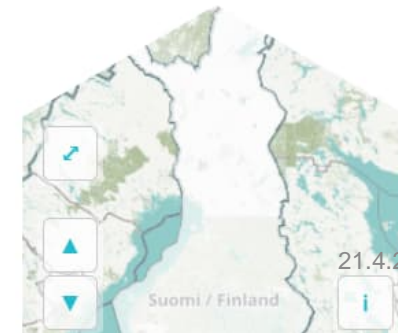
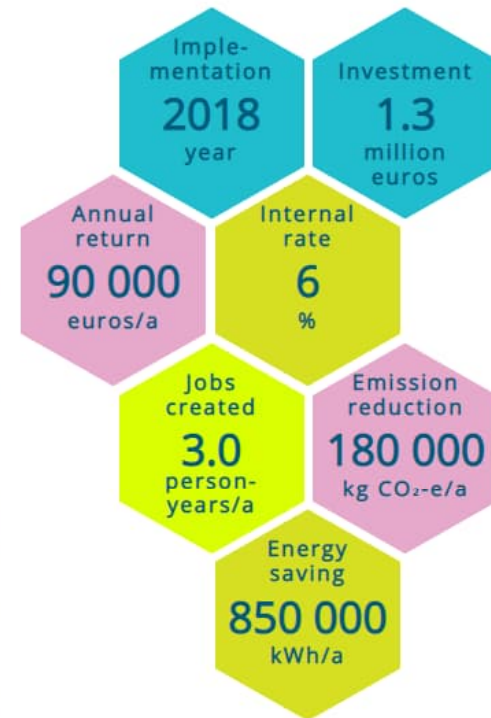


National joint procurement of solar power systems open 2016–2020 – dozens of municipalities participating already

by SYKE | Published 2.9.2019

Together with the Finnish Environment Institute, Kuntahankinnat has put solar power stations to be connected to the electrical grid out to tender.

The agreement covers the solar power stations and installing them ready for use. In addition, the agreement covers maintenance and repair outside the warranty, as well as spare parts.



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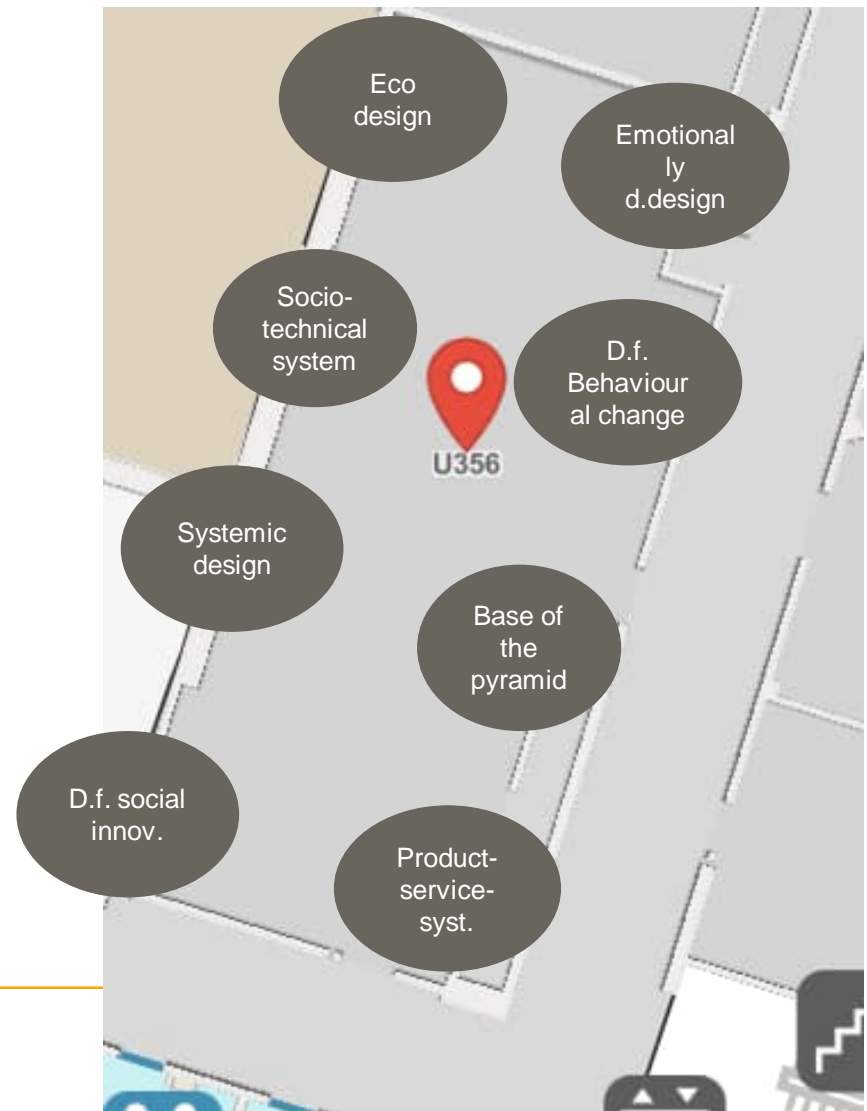
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Discussion

Choose a design approach you are interested in?

Discuss the approach and how it connects to others?

Be ready to share few thoughts



TEST YOURSELF AND FIND OUT WHETHER YOU ARE A THREAT OR AN OPPORTUNITY.

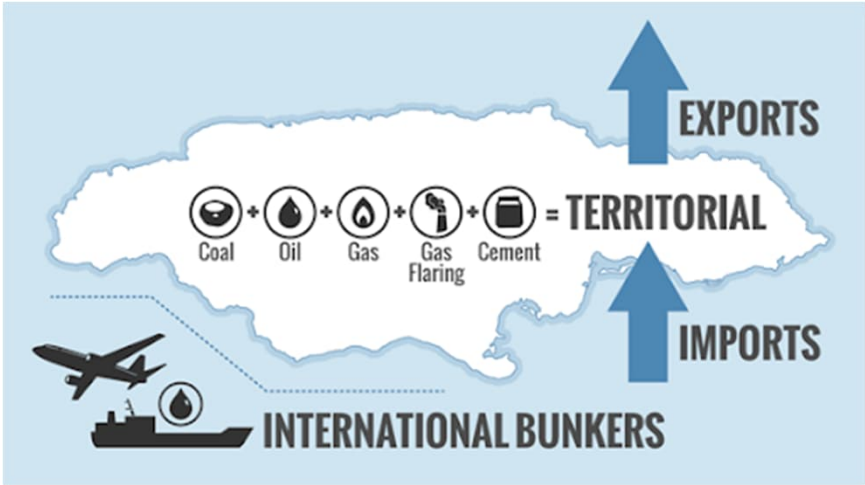
Is your lifestyle good or bad for the environment? After this short test, you will get tips tailored for you. They will help you save time and money and improve your quality of life. And our planet will thank you!

START THE TEST

The test has been done 947 256 times and the average carbon

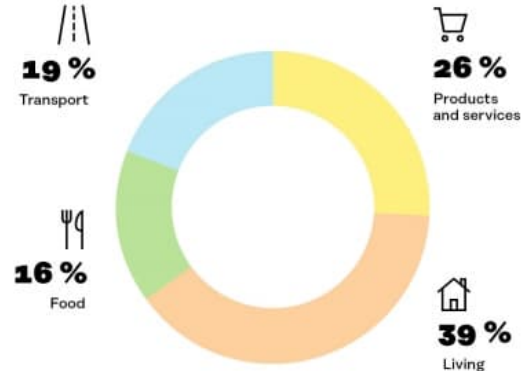
Consumption-based accounting

Territorial emissions



CO2 Emissions | Global Carbon Atlas

WHAT DO FINNS' GREENHOUSE GAS EMISSIONS CONSIST OF?



For the next time

Find two product/service labels or certificates preferably from different areas

- Document the main criteria or data
- Find out who has created the label or grants it



CHILD LABOR IS WORK THAT HARMS CHILDREN OR STOPS THEM GOING TO SCHOOL
In the worst cases there's trafficking or modern slavery.
Children can help out in their own home or do light, supervised, age-appropriate work outside school hours.

IT IS A HUGE PROBLEM IN THE COCOA INDUSTRY
An estimated 2 million children work on cocoa farms in Côte D'Ivoire and Ghana alone.

CHILD LABOR IS FORBIDDEN ON UTZ CERTIFIED FARMS
However, it's impossible to guarantee a complete stop to child labor. No system can monitor 24 hours a day, 365 days a year.
And banning child labor is not enough. Stop a child working on one farm and they'll work somewhere else.

THAT'S WHY UTZ...

- ...EMPOWERS COMMUNITIES TO PROTECT CHILDREN'S RIGHTS**
 - PREVENTION:** Training & awareness raising.
 - IDENTIFICATION / MONITORING:** Know if, where and when child labor occurs.
 - REMEDIATION:** Find solutions to get children into school.
- ...WORKS WITH THE SECTOR TO TACKLE CAUSES OF CHILD LABOR**
 - COMPANIES:** Sustainable supply chains
 - GOVERNMENTS:** Infrastructure & legal framework
 - NGOs:** Lobbying & awareness
 - FARMERS:** Prevent, monitor & remediate

UTZ
Better farming
Better future