



Aalto University  
School of Arts, Design  
and Architecture

# Sustainable design S2

*Mikko Jalas*  
22.4.2021

# Agenda

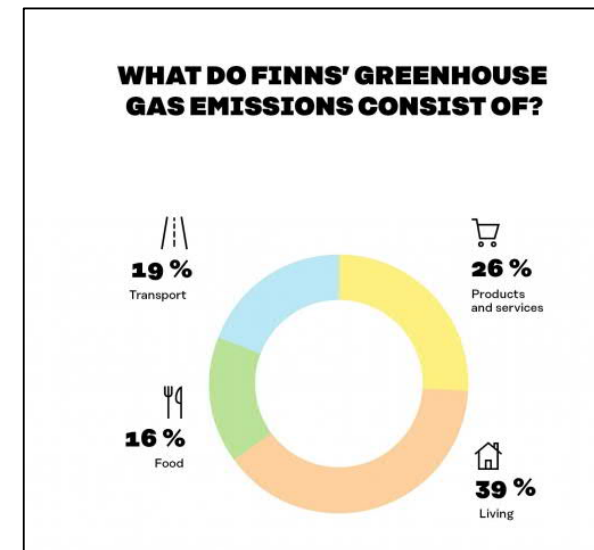
- 9.15 - 9.30**      **Practicalities. Last session. Reading C&G (workload?)**
- 9.30 - 10.05**    **Levels/strands of design for sustainability (C&G)**
- 10.15-10.30**    **In zoom breakout room: how do the levels connect**
- 10.30-10.45**    **Discussion**
- 11.00 -11.30**    **Footprinting exercise**
- 11.30-11.45**    **Next session: what are product labels and standards.**

# Consumption-based accounting

## Territorial emissions

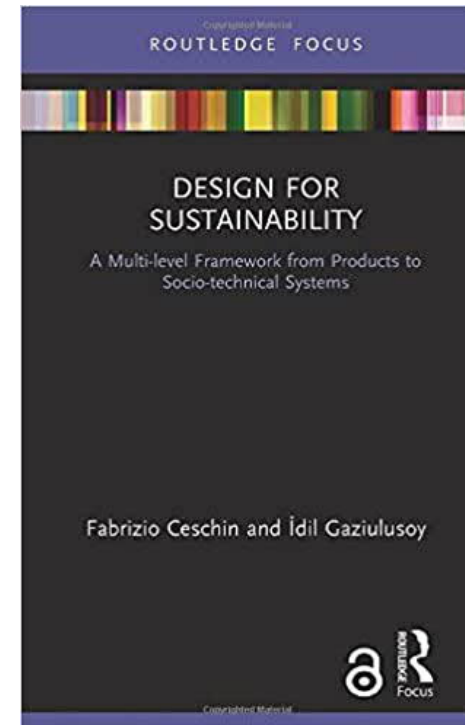


CO2 Emissions | Global Carbon Atlas



# Design for sustainability

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





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

Enabling product personalisation

Designing products that ‘age with dignity’

Designing products that allow users to capture memories

Caring relations with products

# 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**



Flickr: Drew XXX

# Product service systems

## 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?**





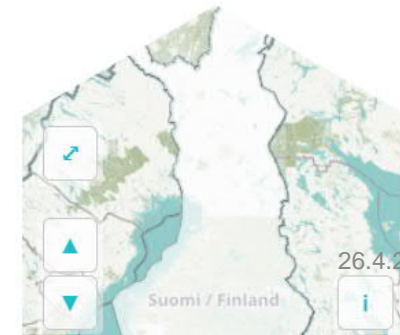
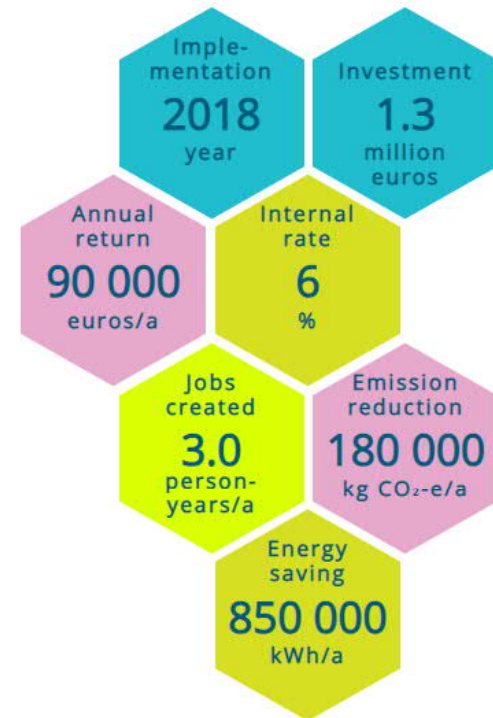


# National joint procurement of solar power systems open 2016–2020 – dozens of municipalities participating already

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.



26.4.2021

# Social innovation

**Innovation/design ‘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/>

# Social innovation

**Innovation/design ‘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**

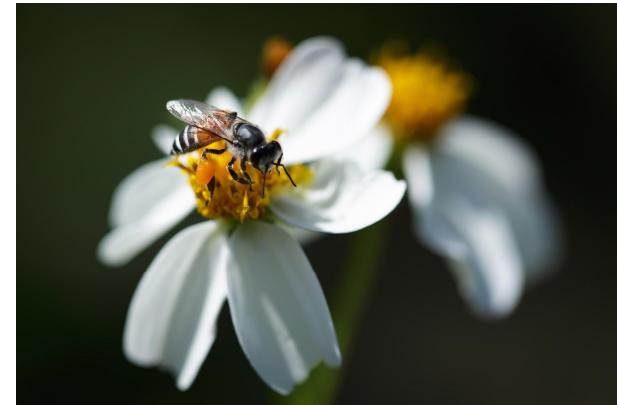


<http://acs.aalto.fi/category/test-site/>

# Systemic design

**Industrial symbiosis**  
**Waste is a resource**

**But symbiosis is also a**  
**'lock-in'.**



Flickr: Daril Extension



Flickr: Mustafaciftci



# Socio-technical system innovation

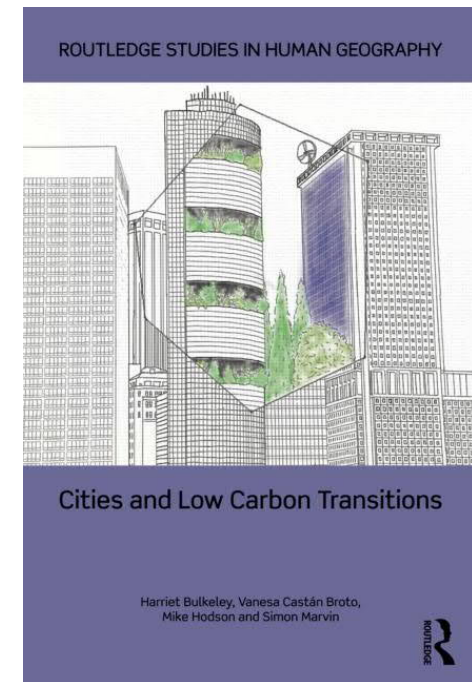
**‘Sustainable need fulfilment’**

**Backcasting ‘How to get there?’**

**Long term societal change supported  
by living labs & experimentation**

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

**Transition design – destabilize the old  
and nurture the new**



# 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

# For the next time

Find three 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