



Aalto University
School of Arts, Design
and Architecture

Design Approaches to Sustainable Consumption

**Session 2 (Thursday 11.1.):
Designing for sufficiency (part 2)**

Mikko Jalas & Tatu Marttila

Thursday 11.1.2024

Agenda for session 2

9:15–11:15 Designing for Sufficiency (Mikko Jalas; see session slides part 1)

11:30–12:00 Presenting project work theme selection for week 2

Project work focus theme selection



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Recap: Strategies for DfS

Sustainability as a concept is very broad – there also exists a multitude of DfS strategies, orientations, & methods.

Definitions depend of context, framing, goals and focus, and so on...

***Design for Sustainability* by Ceschin & Gaziulusoy (2020) lists the following:**

- Green design & product ecodesign
- Emotionally durable design
- Design for sustainable behaviour
- Cradle-to-cradle design
- Biomimicry design
- Product-service system design for sustainability
- Design for the base of the pyramid
- Design for social innovation
- Systemic design

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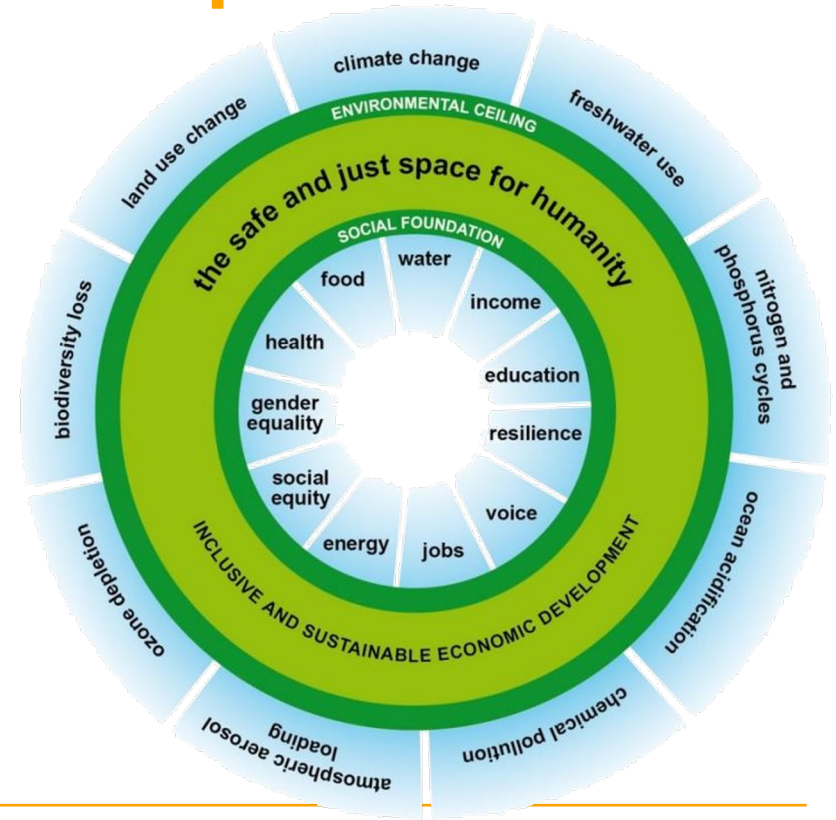
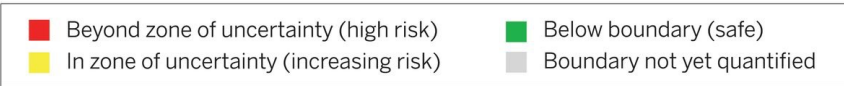
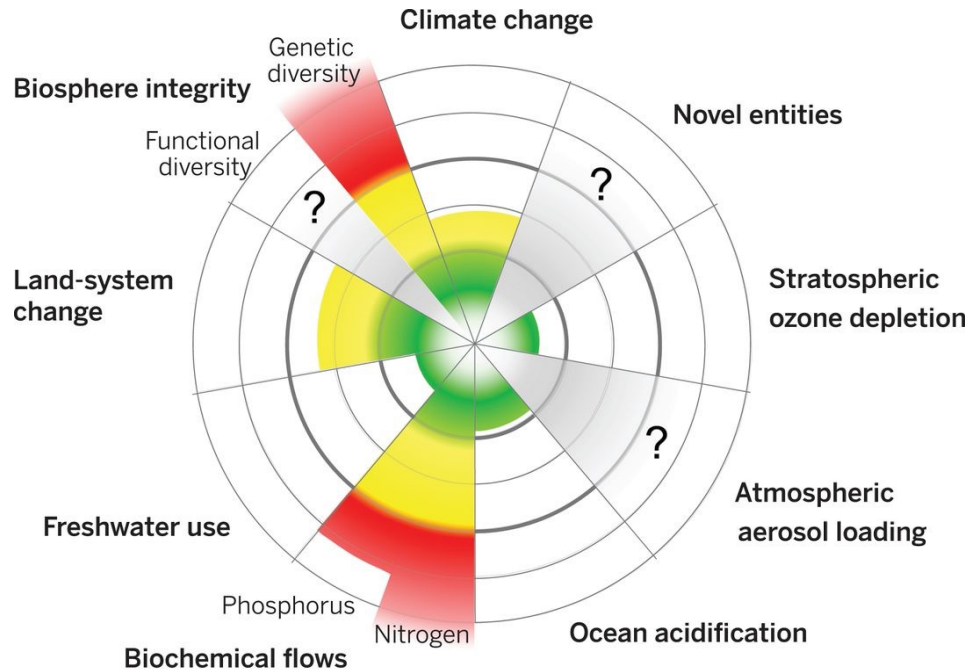
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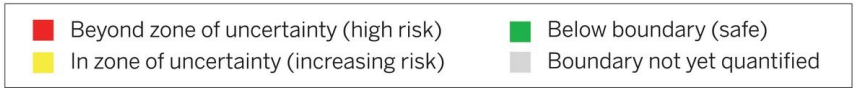
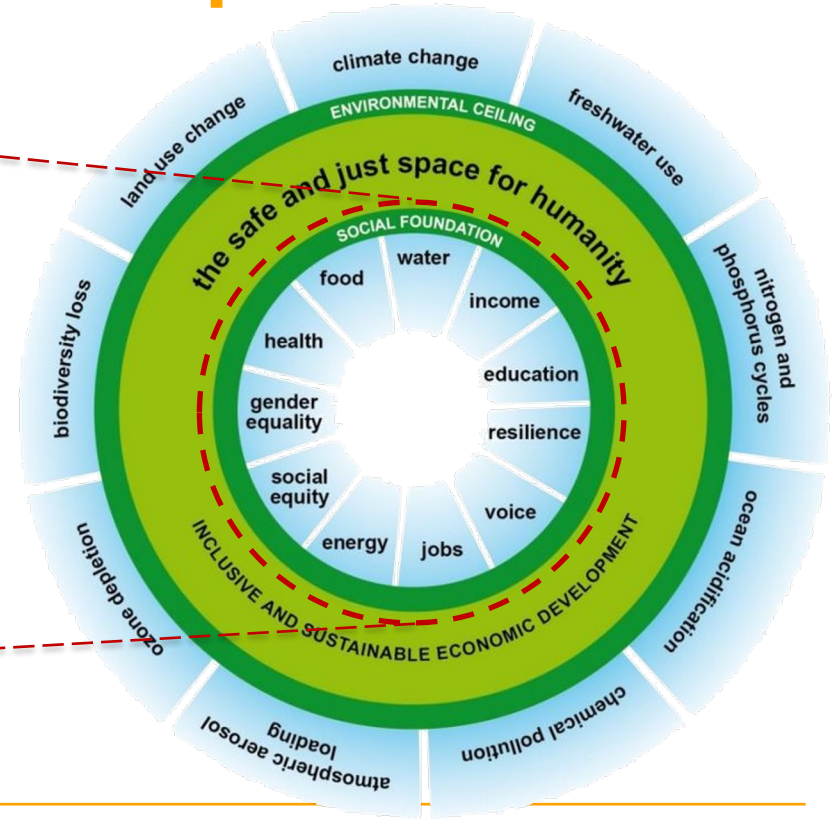
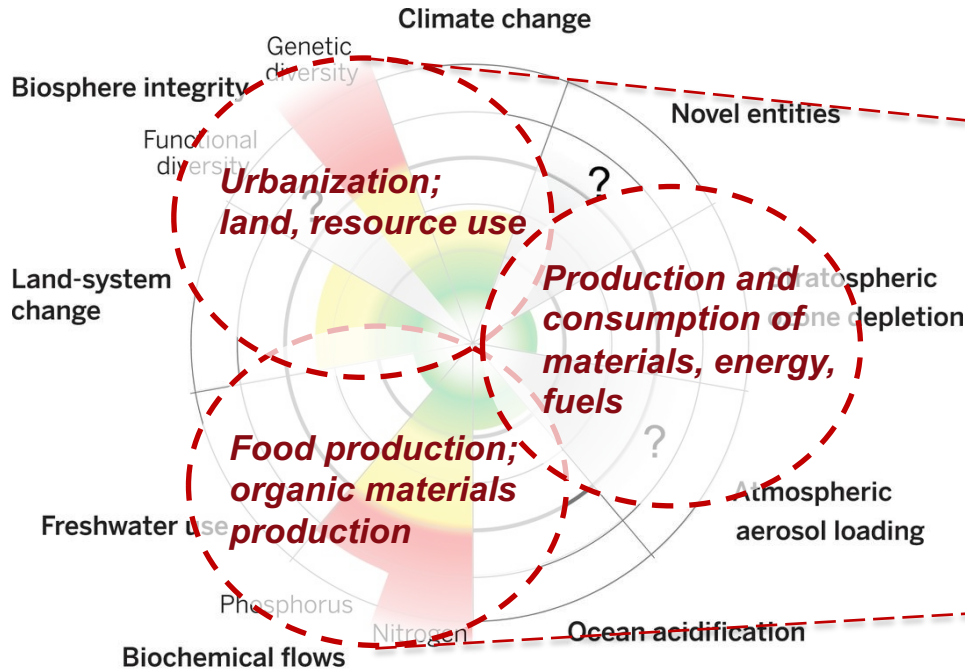
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- **Strategies that connect with materials, technologies, infrastructures etc.** ➤ **Strategies that focus on socio-technical, socio-cultural, and socio-ecological systems**

Context: Sustainable consumption and production



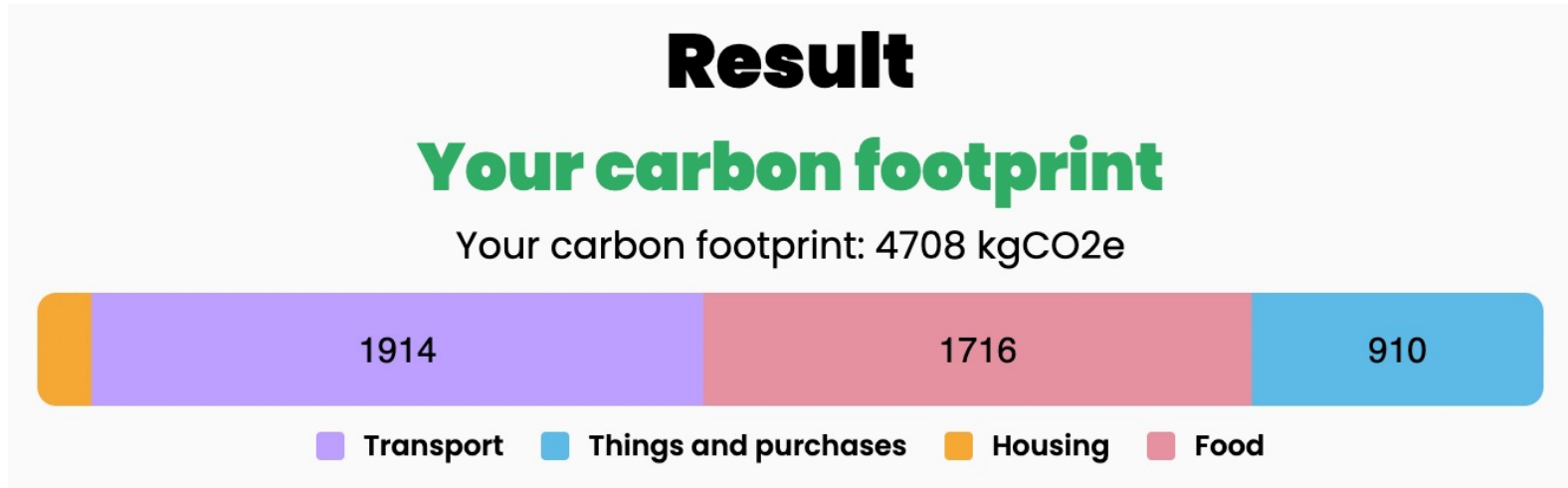
Context: Sustainable consumption and production



Sitra's lifestyle impact test

Sitra's (the Finnish Innovation Fund) lifestyle impact test helps to assess the impacts of one's lifestyle choices, and consider actions: <https://www.sitra.fi/en/projects/lifestyle-test-2/>

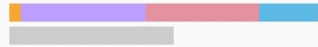
Available in Estonia, Finland, Germany, Greece, Italy, Portugal, Slovenia and Turkey.



Compared to

Higher than **1.5 degree target**

+88.3%



● Target by 2030: **2500** kg CO₂e

Lower than **people in your country**

-51%



● People in your country **9610** kg CO₂e

Your placement against others



2500 kg CO₂



4600 kg CO₂

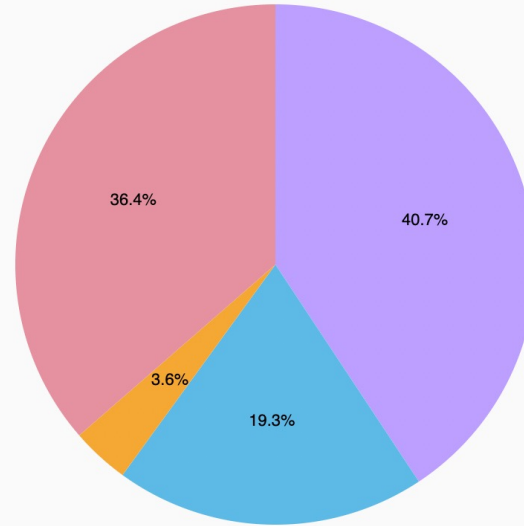


4708 kg CO₂



5800 kg CO₂

Your carbon footprint breakdown



■ Transport ■ Things and purchases ■ Housing ■ Food

Total carbon footprint in a year

4708 kg CO₂e

Looks like you would have to lower your carbon footprint by 47% by the year 2030 to get your lifestyle to a sustainable level. Start the change by building your plan from the actions tailored for you.



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Project work approaches and themes

Project work – thinking about the different DfS approaches

For the project work, you will need to select your preferred DfS approach to tackle your project case...

Focus DfS approaches for the project work:

A
Ecodesign &
PSS design

B
Behavioral
communication
and information
design

C
Participatory
and collaborative
design

D
Strategic and
transition design

E
Speculative,
critical, radical
design

A. Ecodesign & PSS design

Focus and scope:

- Material, product, product-service system level innovation

Framing of challenge:

- User-product interactions and consumption habits

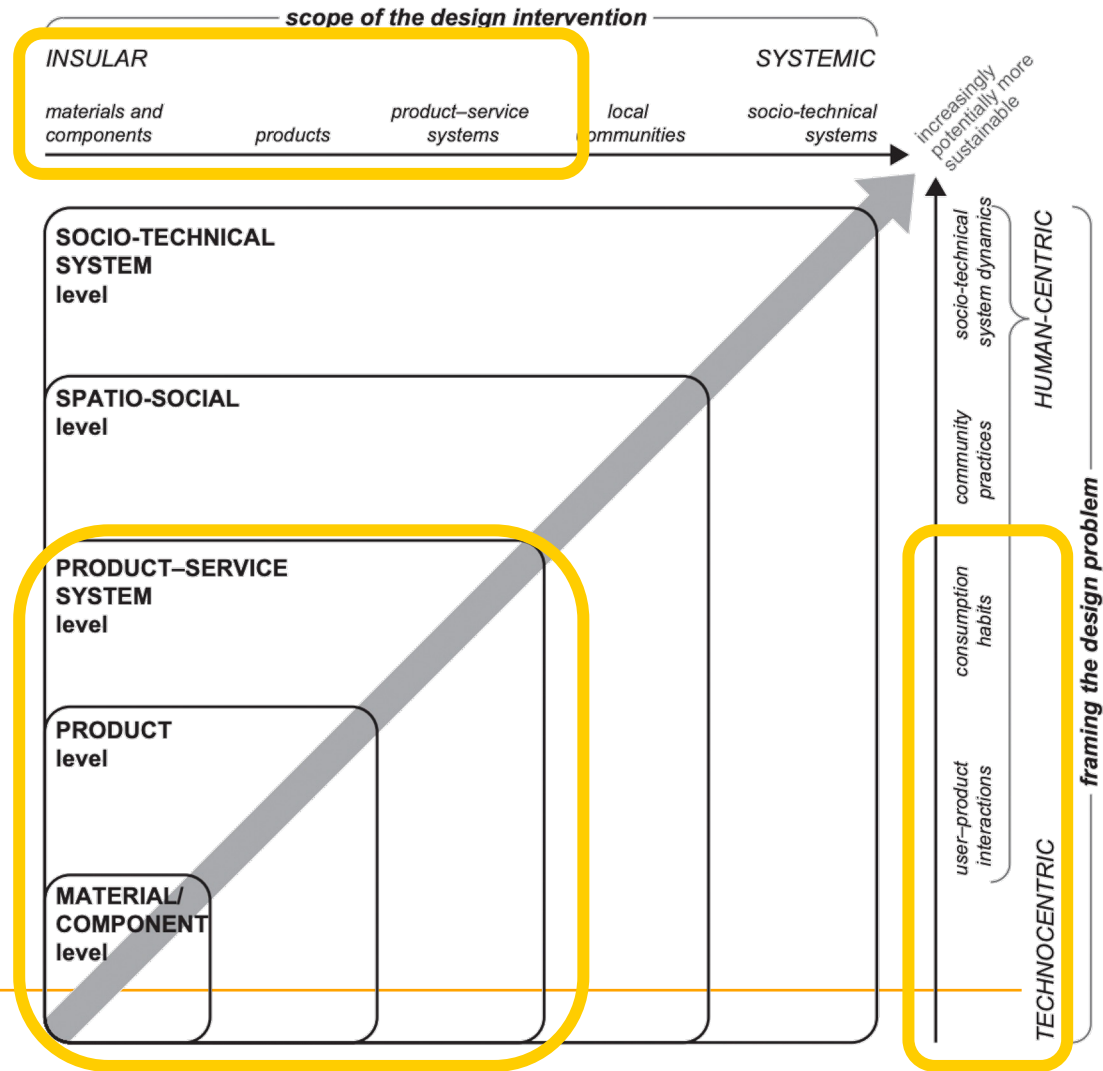


Figure 12.1 The DfS innovation framework

B. Behavioral communication and information design

Focus and scope:

- Material, product, product-service system, and community level innovation

Framing of challenge:

- User-product interactions, consumption habits, community practices

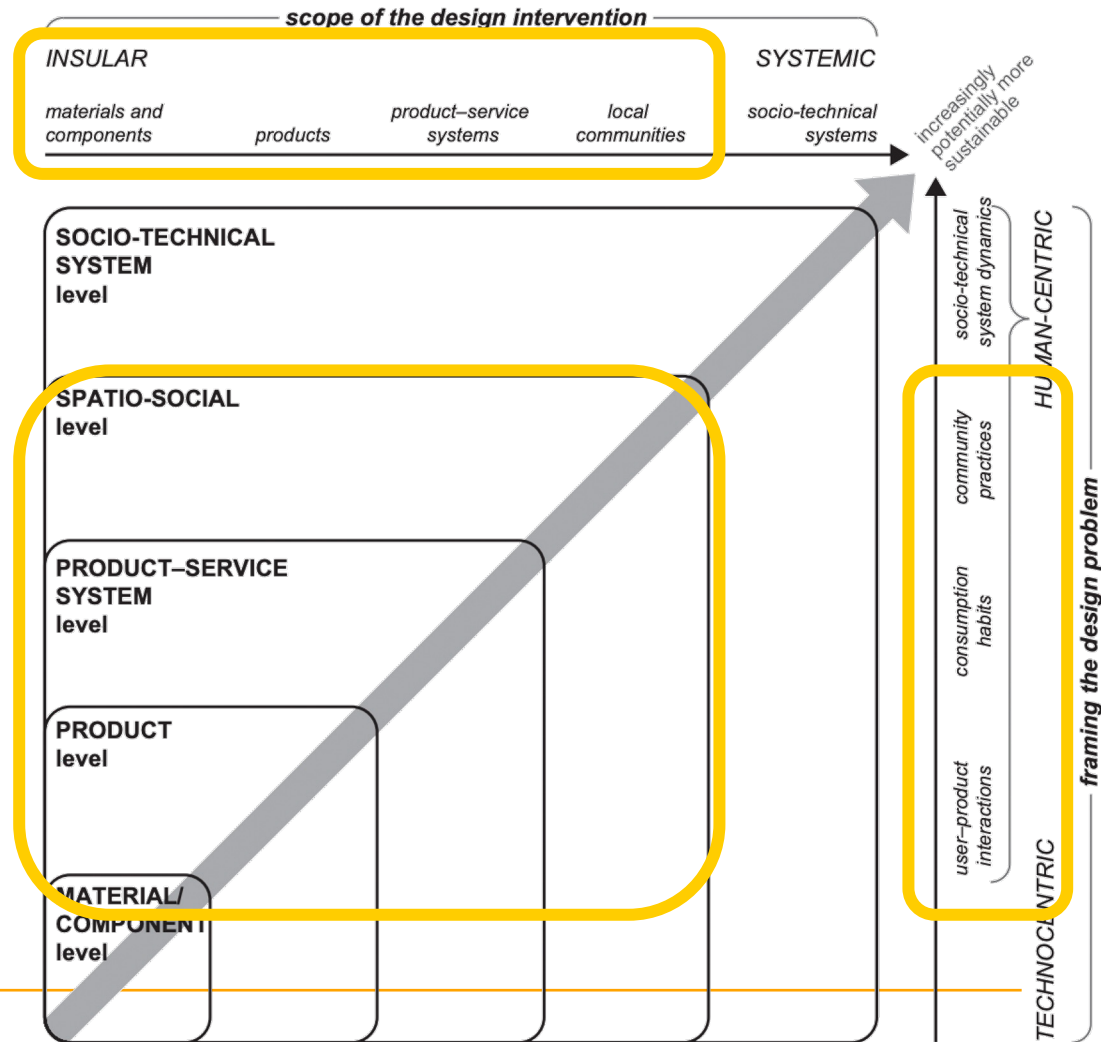


Figure 12.1 The DfS innovation framework

C. Participatory & collaborative design

Focus and scope:

- Product, product–service system, and community level innovation

Framing of challenge:

- Consumption habits, community practices
- Participatory strategies

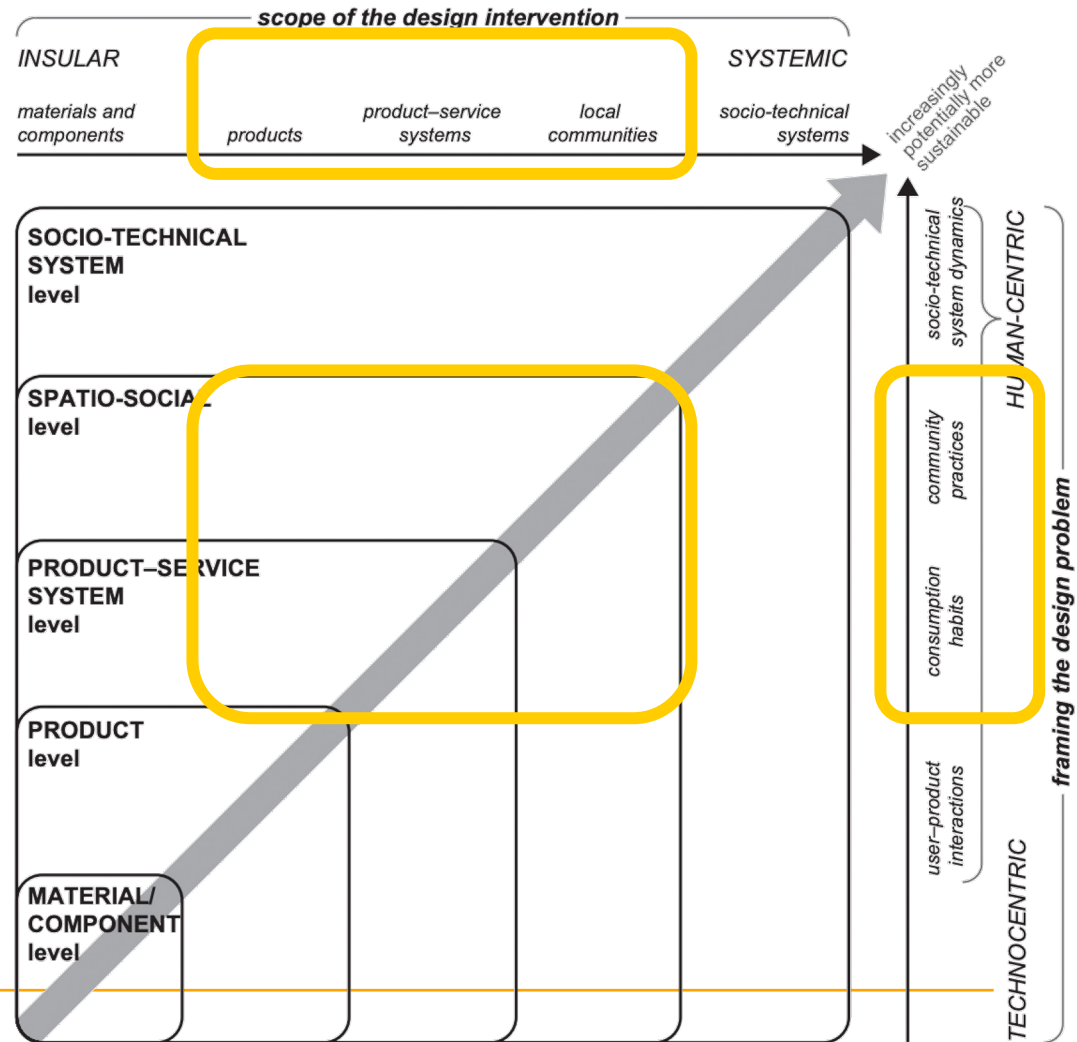


Figure 12.1 The DfS innovation framework

D. Strategic and transition design

Focus and scope:

- Product–service system, community and socio-technical system level innovation

Framing of challenge:

- Consumption habits, community practices, socio-technical system dynamics
- Transition management dynamics

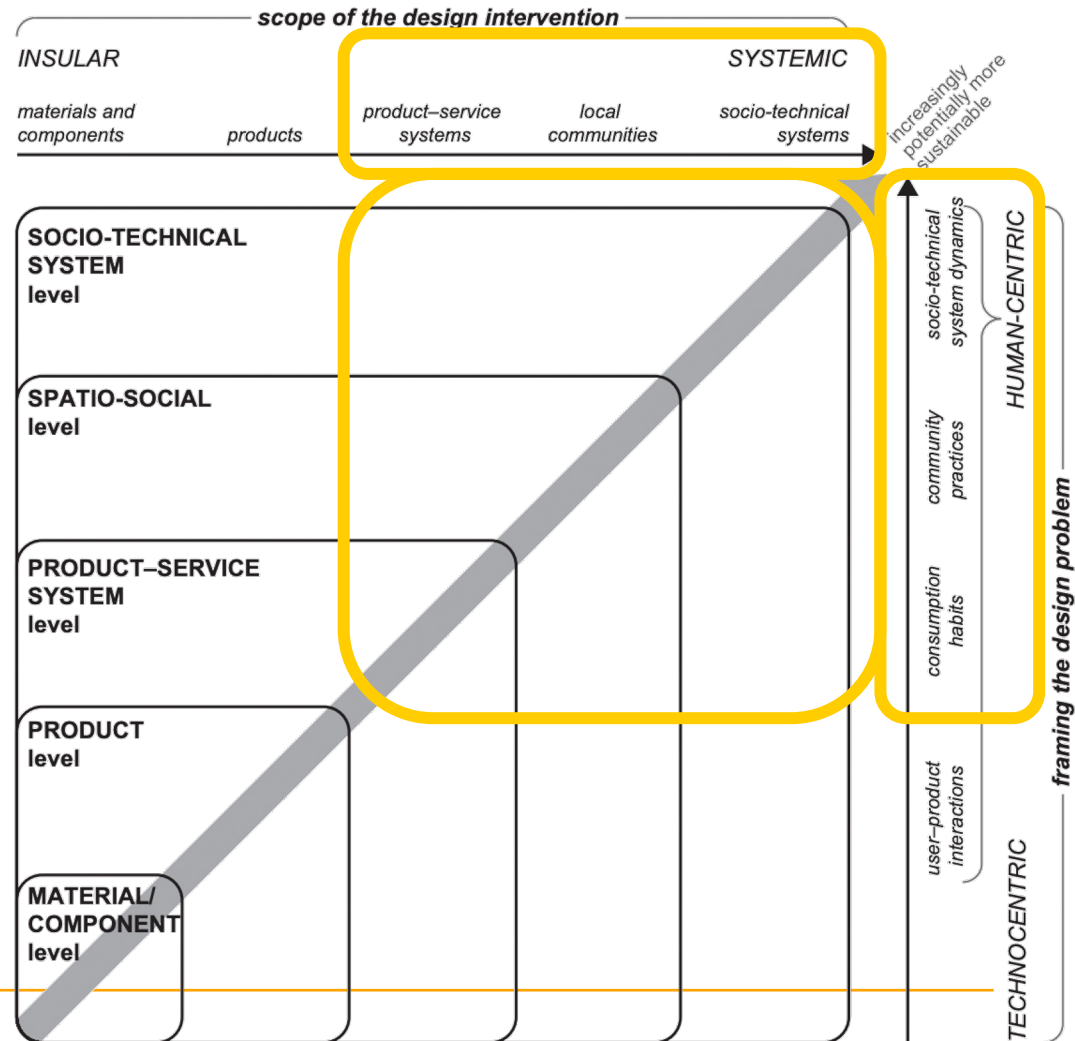


Figure 12.1 The DfS innovation framework

E. Speculative, critical, radical design

Focus and scope:

- From products and PSS to socio-technical system level innovation

Framing of challenge:

- From user-product interactions to socio-technical system dynamics
- Speculative futures/realities
- Critical and radical dynamics

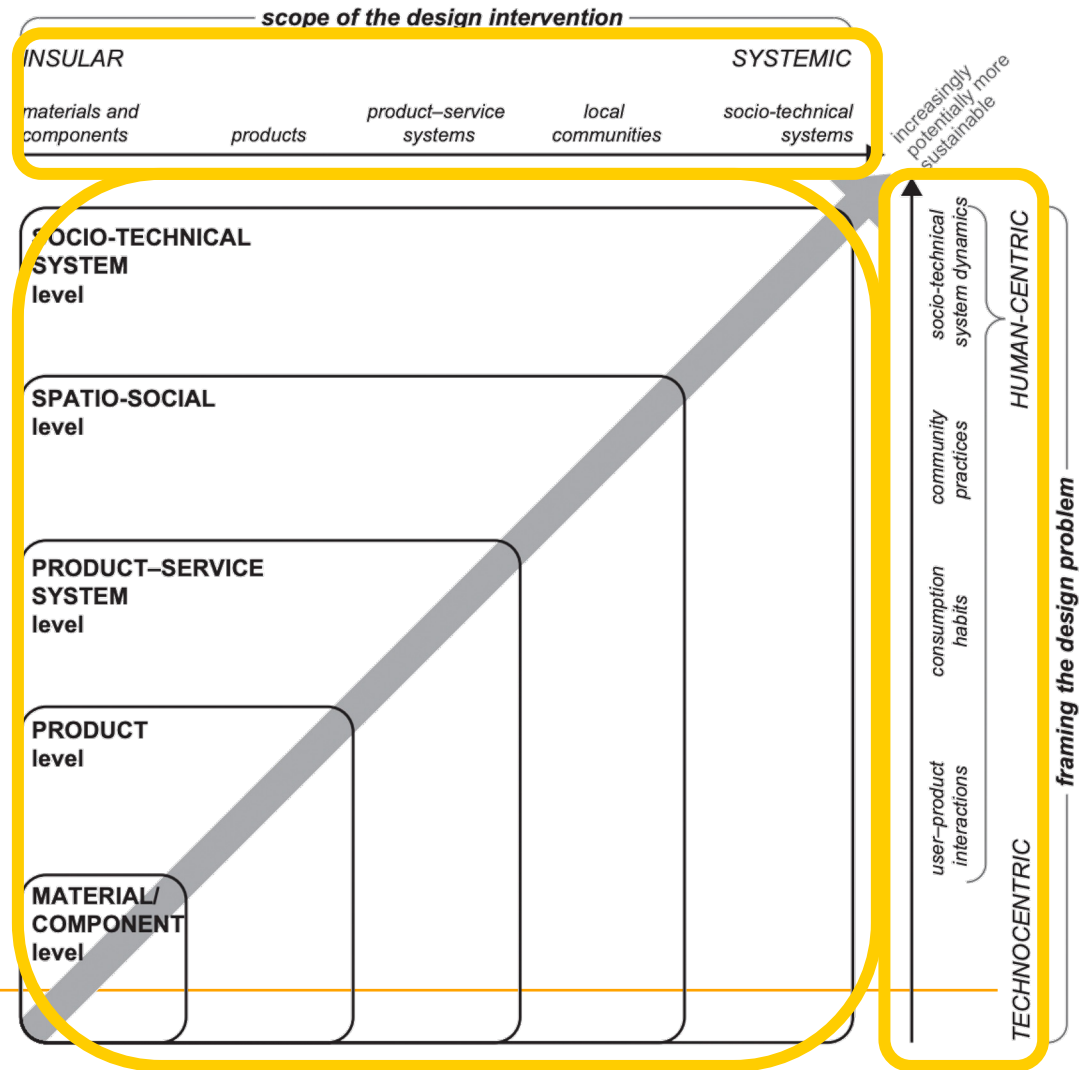


Figure 12.1 The DfS innovation framework

Project work focus themes – areas of sustainable consumption and production

For the project work, you will also need to select your preferred theme of sustainable consumption and production.

Focus themes of sustainable consumption and production:

Food
systems and
services

Mobility
systems and
services

Housing and
buildings

Textile,
clothing,
fashion

ICT & domestic
appliances

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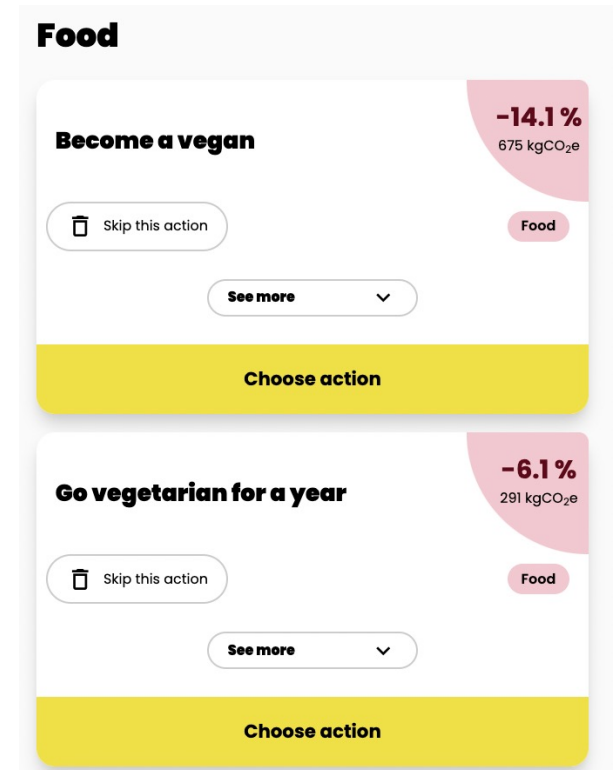
I. Food systems and services

Thematic focus:

- Systems and services for food production and consumption

Consider, for example:

- Carbon footprint (inc. logistics) of production and consumption, foodwaste, recycling
- Health aspects, social aspects, ethical aspects
- Community aspects?



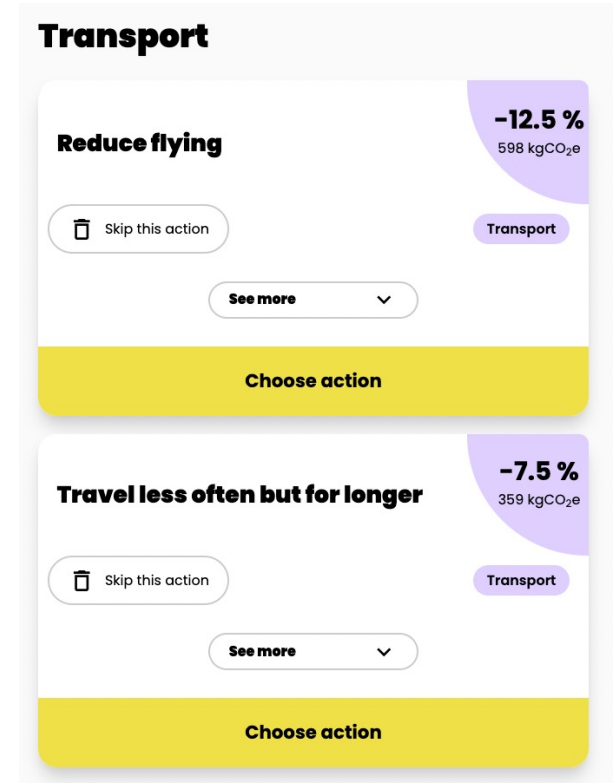
II. Mobility systems and services

Thematic focus:

- Systems for personal travel and transport and logistics more broadly

Consider, for example:

- Energy use and carbon footprint (i.e. fuels, electricity), raw material use
- Modal shifts, reduction/efficiency of travel/logistics, accessibility



III. Housing and buildings

Thematic focus:

- Systems for housing (both short-/long-term) and buildings, also including the related elements of impacts of energy and material use


Consider, for example:

- Carbon impact of energy use (e.g. heating, electricity), and also the impact of building and renovation
- You may also consider tourism, or interior materials (inc. furniture) and so on...

Housing

When you move, move to a smaller home

-1.8 %
87 kgCO₂e

 Skip this action


Housing

See more 

Choose action

Rent a guest room to visitors

-1.3 %
62 kgCO₂e

 Skip this action

Housing

See more 

Choose action

IV. Textile, clothing, fashion

Thematic focus:

- Systems of textile and clothing production, and fashion more broadly, potentially including luxury products

Consider, for example:

- Environmental impact of production, short product-life and end-of-life, social and ethical aspects
- New types of services and circular solutions, critical approach to throw-away fashion

Things and purchases

Care and repair

-4.7 %
226 kgCO₂e

 Skip this action


Things and purchases

See more 

Choose action

Borrow, rent out and share goods



 Skip this action

Things and purchases

See more 

Choose action

IV. ICT & domestic appliances

Thematic focus:

- Systems for information and communication technology (ICT) products, also domestic electric appliances


Consider, for example:

- Energy use of home appliances and ICT, environmental impact of production, raw material use, product-life and end-of-life
- New types of services and circular solutions

Things and purchases

Care and repair

-4.7 %
226 kgCO₂e

 Skip this action


Things and purchases

See more 

Choose action

Invest in sustainable solutions



 Skip this action

Things and purchases

See more 

Choose action

Next session & tasks



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Course and project work schedule

Please note **changes in classrooms!**

Working days	Tuesdays (13-17)	Thursdays (9:15-12)
Week 1 (9.1 & 11.1.)	Introduction to course; DfS introduction (F101)	Designing for sufficiency (visitor: Mikko Jalas) (Q201)
Week 2 (16.1. & 18.1.)	Project work: Kick-off (A-Grid Mordor)	Sustainable PSS design & systems design (Q201)
Week 3 (23.1. & 25.1.)	Socio-technical experimentation & social innovation (F101)	Presenting case work ideas (A-Grid Mordor)
Week 4 (30.1. & 1.2.)	Design for sustainability transitions (Q201)	Communicating sustainability (A-Grid Mordor)
Week 5 (6.2. & 8.2.)	Promoting and scaling-up sustainability (A-Grid Mordor)	Project work tutoring & finalisation (Q101)
Week 6 (13.2. & 15.2.)	Project work: Final presentations (F101)	Feedback session (A-Grid Mordor)

For next week and session 3 (Tue 16.1.)...

- **Select your preferred theme of sustainable consumption and production, and your preferred DfS approach by Monday (15.1.)**
- **Use the following survey to mark your preferences:**
<https://link.webropolsurveys.com/S/4356A3FEBF18101B>
- To consider your choices, think about first session discussions on DfS approaches, and also your lifestyle test results and recommendations!
- Groups are structured for next Tuesday according to the choices...
- **Project work will be kicked off on session 3 next week Tuesday!**

Next week sessions: Topics & readings

Tuesday (16.1.):

Project work: Kick-off

Task to do before lecture:

- Use the survey link (on previous slide) to select your preferred theme of sustainable consumption and production, and your preferred DfS approach

Remember to begin to reflect on weekly topics and progress in your learning diary!

Thursday (18.1.):

Systemic (PSS) design and circular economy

Lecture reading:

- Ceschin & Gaziulusoy (2020) Design for Sustainability, Chapter 7: Product-service system design for sustainability (in MyCourses)
- Supplementary reading (if you feel like it): Chapter 10: Systemic design; Joore & Brezet (2014) Multilevel perspective in design (in MyCourses)

Thank you!