



Aalto University
School of Arts, Design
and Architecture

Design Approaches to Sustainable Consumption

**Session 4: Multilevel perspective in design
Design for sufficiency**

Tatu Marttila, Shreya Sood, Mikko Jalas

Thursday 20.1.2021 (9:15-12:00)

Agenda

- 9:15–9:30** **Recap of last Tuesday**
- *Recap on systems focus and PSS design*
- 9:30–9:50** **Breakout room exercise (continues from Tuesday)**
- 9:50–10:30** **Presenting exercise results**
- 10:30–10:45** *Break*
- 10:45–11:00** **Multilevel perspective in design**
- 11:00–12:00** **Mikko Jalas: Design for sufficiency – sustainable consumption and social innovation**

Recap of last session



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Strategies for Design for Sustainability

DfS approaches can be divided in **four levels of focus** according their relation to systemic and socio-technical emphases (Ceschin & Gaziulusoy, 2020):

1. Product innovation level:

- Green design
- Ecodesign
- Emotionally durable design
- Design for sustainable behaviour
- Cradle-to- Cradle design
- Biomimicry design
- Design for the Base of the Pyramid

2. Product-Service System innovation level:

- Product-Service System design

3. Spatio-Social innovation level:

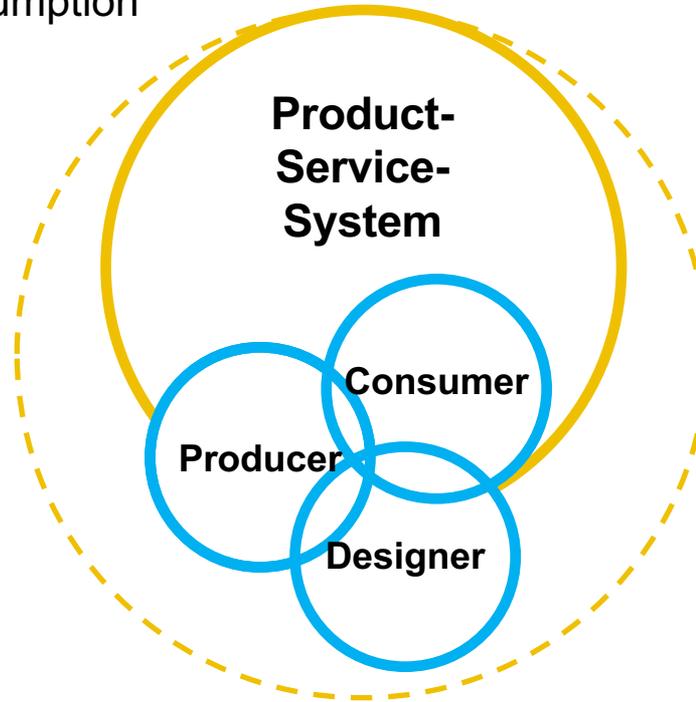
- Design for Social Innovation
- Systemic Design

4. Socio-Technical System Innovation level:

- Design for System Innovations and Transitions

Sphere of sustainable PSS design action

Sustainable consumption and production at the interplay of stakeholders:



Sustainable PSS:

- ✓ Functional results as a goal
- ✓ Expanded stakeholder network
- ✓ Sharing vision
- ✓ New roles for stakeholders
- ✓ Ownership into system processes and components

Types of Product-Service System Design

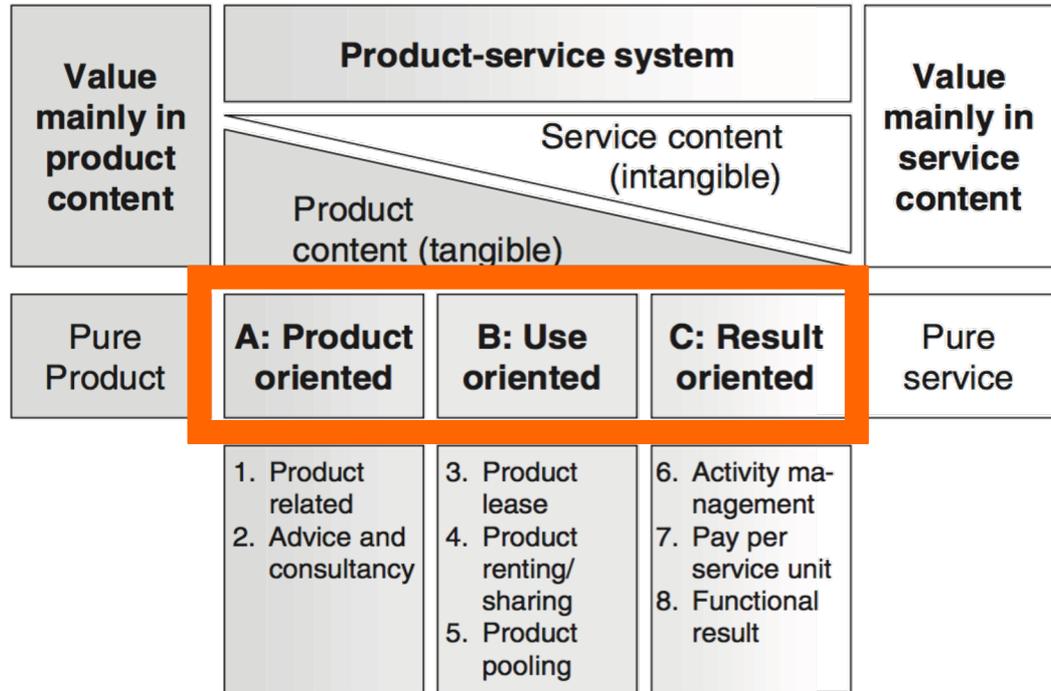


Figure 1. Main and subcategories of PSS

See: Tukker, A. 2004

Sustainable PSS: Examples

Product oriented:



Use oriented:



Result oriented:



couchsurfing

Sustainable PSS design process

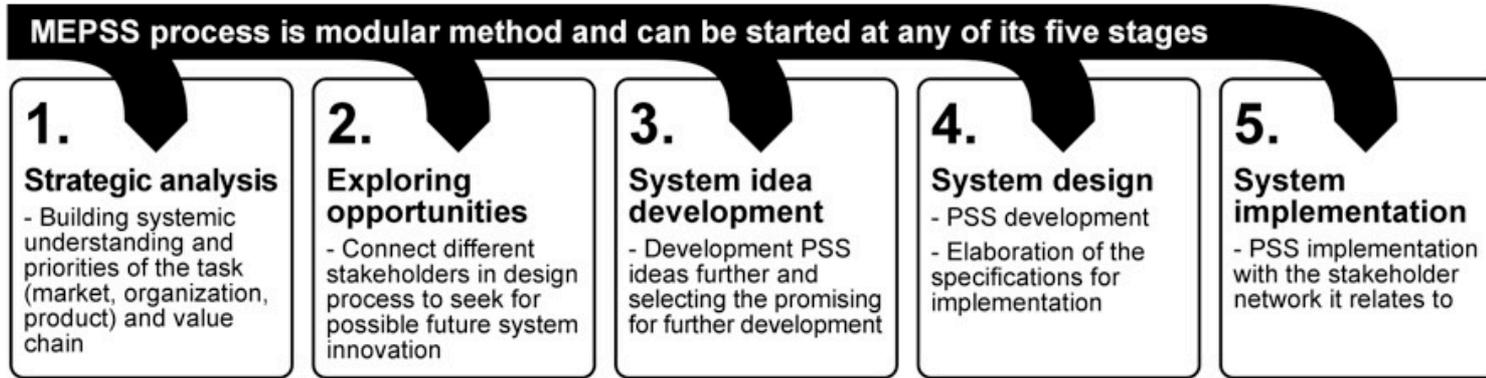


Figure 1. MEPSS design process and its five stages (based on Van Halen, C. et al. 2005; Vezzoli, C. 2007).

Communicating results

Breakout room activity



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Breakout room activity

Case groups in breakout rooms, 20 minutes:

- **Continue to work on PSS example from Tuesday, then present results to others (1 min pitch)**
- What is the core (product/service) offering in your case? Are there additional offerings?
- Is it product-, use-, or result-oriented?
- Who are the main stakeholders (actors) and interactions in the system? What are the interactions?
- How does your example promote or could promote sustainability?
- Present quickly with 1 slide with 1 min pitch

Link to Google slides working canvas: <https://t.ly/zWOs>

Example PSS orientations

Product-oriented:

- Online supplementary data
- Augmented reality solutions
- Improved recyclability of packaging

Use-oriented:

- Organic food cycle
- Car-sharing
- Leasing tools

Result-oriented:

- App for leftover restaurant food services
- Online food services

From design basics to multilevel perspective



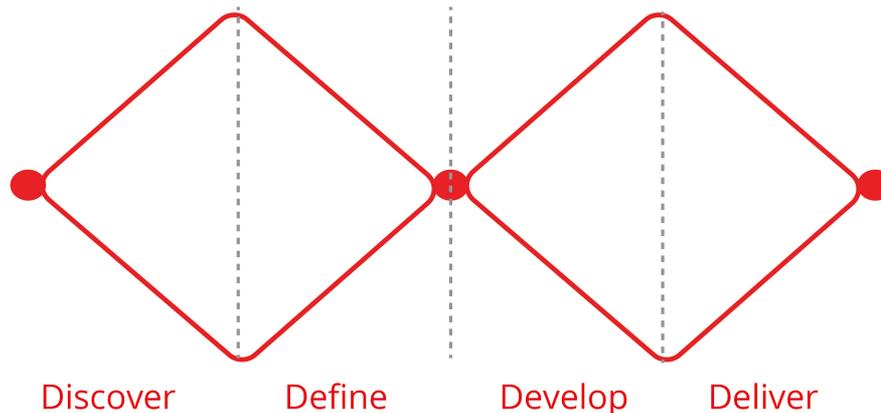
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Design process – general model

There is no one design process, but most descriptive models share few aspects:

- Progress from problem-definition to study ‘solution-space’ to find possible ideas
- Reflective, iterative process expanding the perspectives and re-focusing it
- Including divergence (expansion of focus) and convergence (distilling into ideas)

Double diamond model: 4 steps, but these four steps will include a constant back and forth (UK Design Council, 2005)



Step 1: Discover

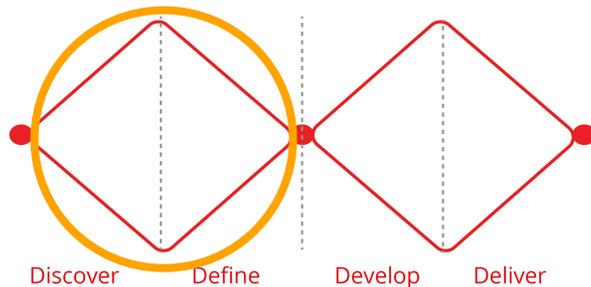
The first part focuses on an **initial idea or inspiration**, often sourced from a discovery phase in which user needs are identified.

Market research, User research, Managing information, Design research groups.

Step 2: Define

The second part represents the definition stage, in which interpretation and alignment of these needs to business objectives is achieved.

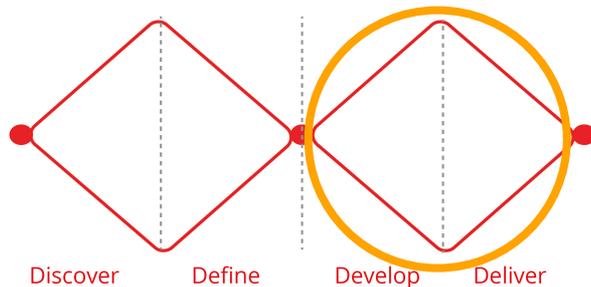
Project development, Project management, Project sign-off.



Step 3: Develop

The third part marks a period of development where design-led solutions are developed, **iterated and tested** within the company.

Multi-disciplinary working, Visual management, Development methods, Testing



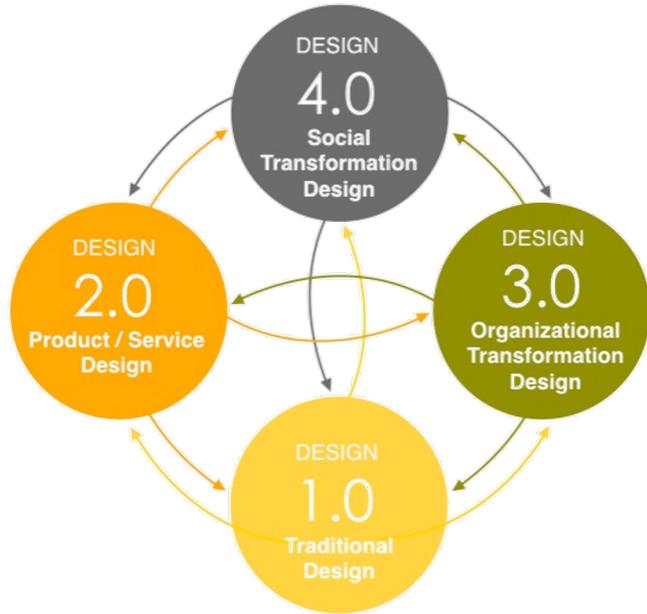
Step 4: Deliver

The final phase represents the delivery stage, where the resulting **product or service is finalized** and launched in the relevant market.

Final testing, Approval and launch, Targets, Evaluation and feedback loops

Expanding focus of design action

Design 1.0–4.0
(Van Patter & Pastor, 2005):



Orders of Design
(Buchanan, 2001):

1st order: Visual symbols

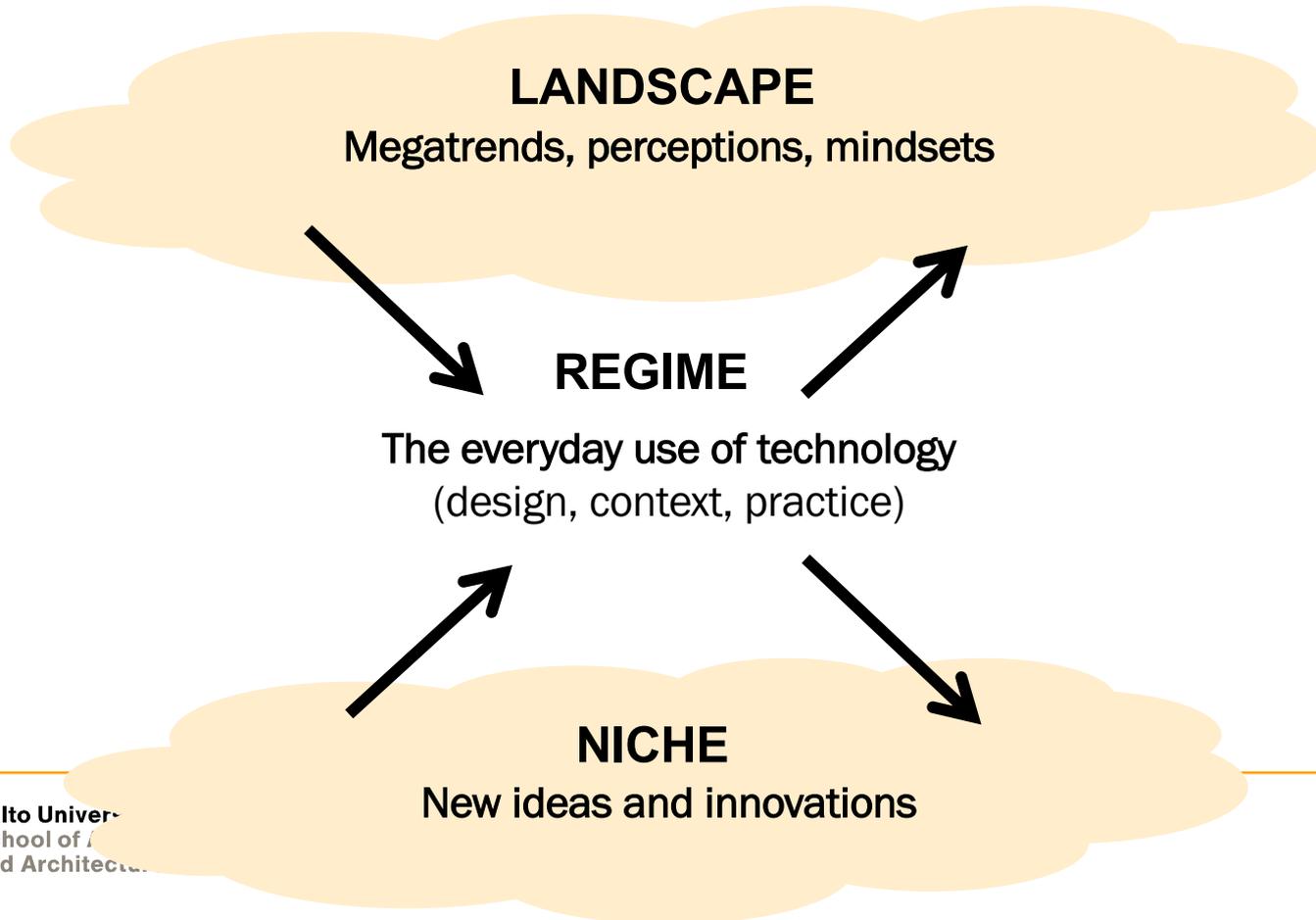
2nd order: Material things

3rd order: Design focusing on human interaction mediated through objects

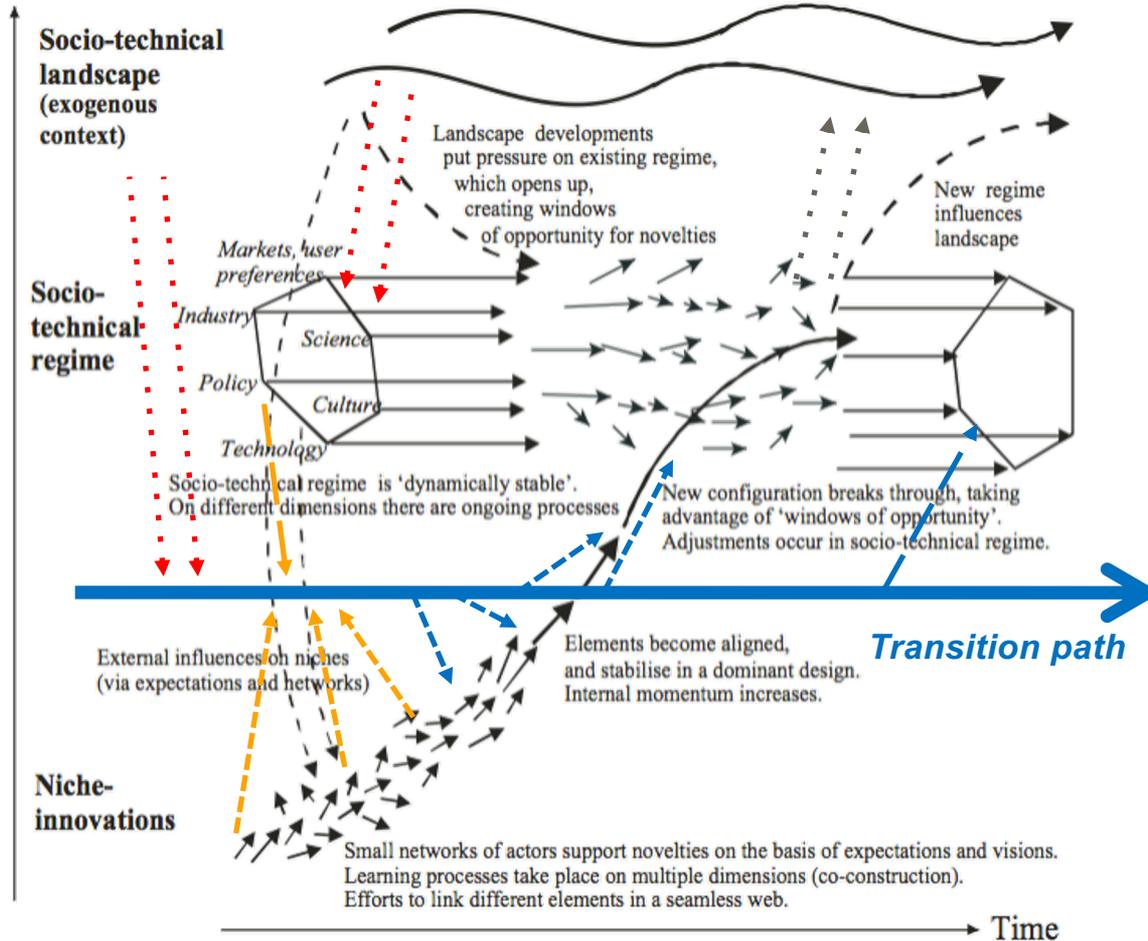
4th order: Environmental design and systems design



Multilevel perspective to sustainable design – Socio-technical transitions

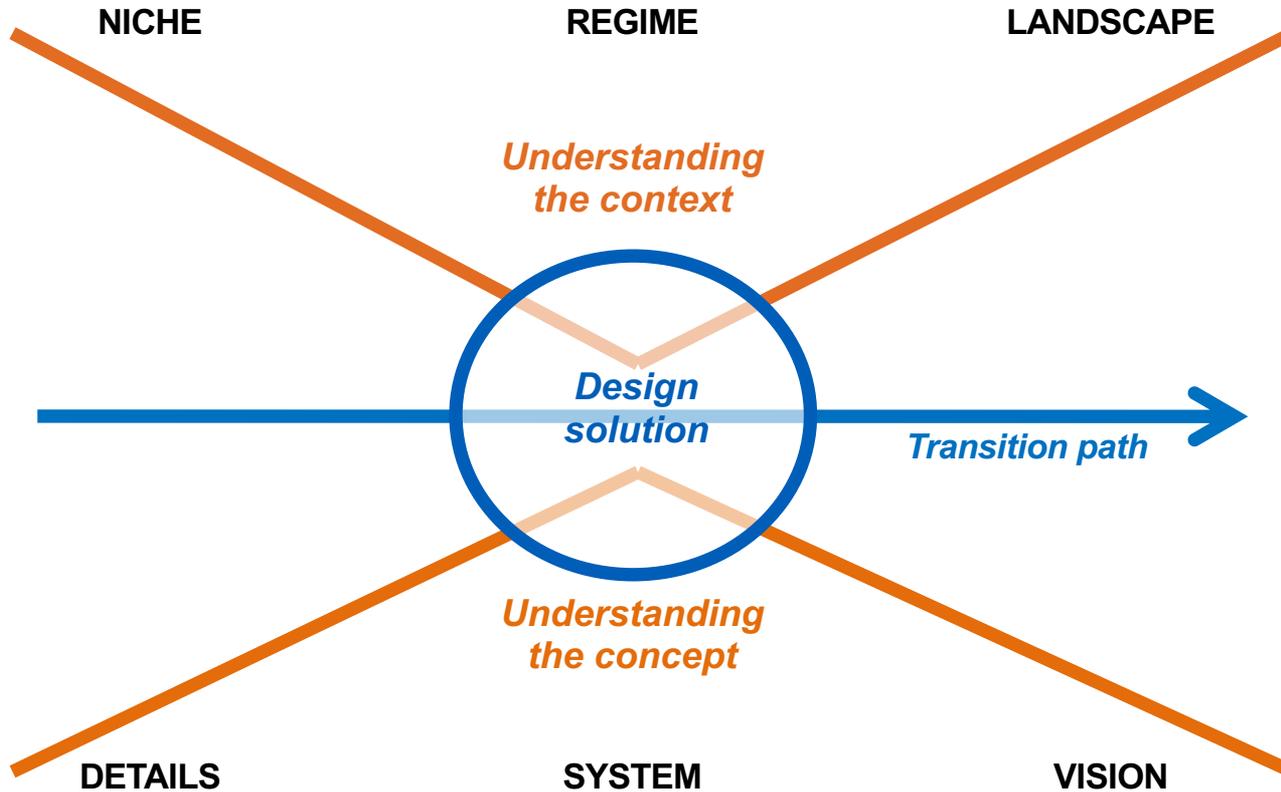


Design connecting levels of inquiry and action:



Source: Author;
Developed from
Geels (2011)

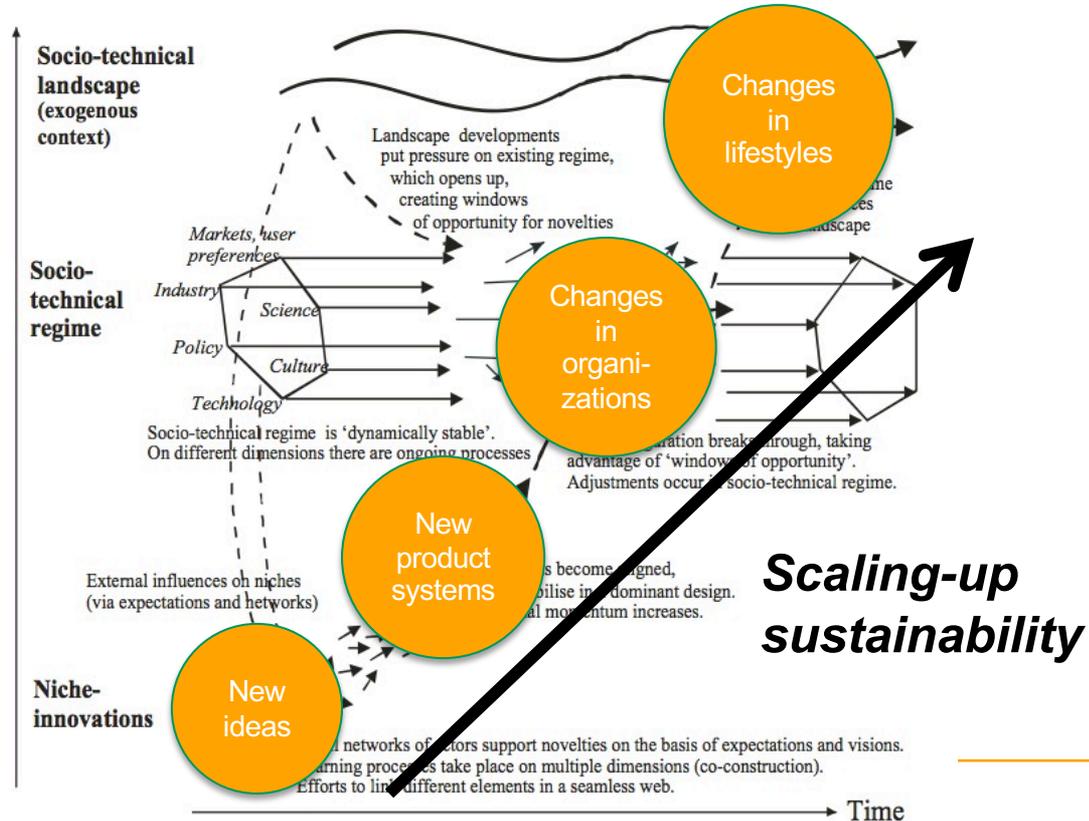
Design solution connecting different contextual dimensions:



Source: Author

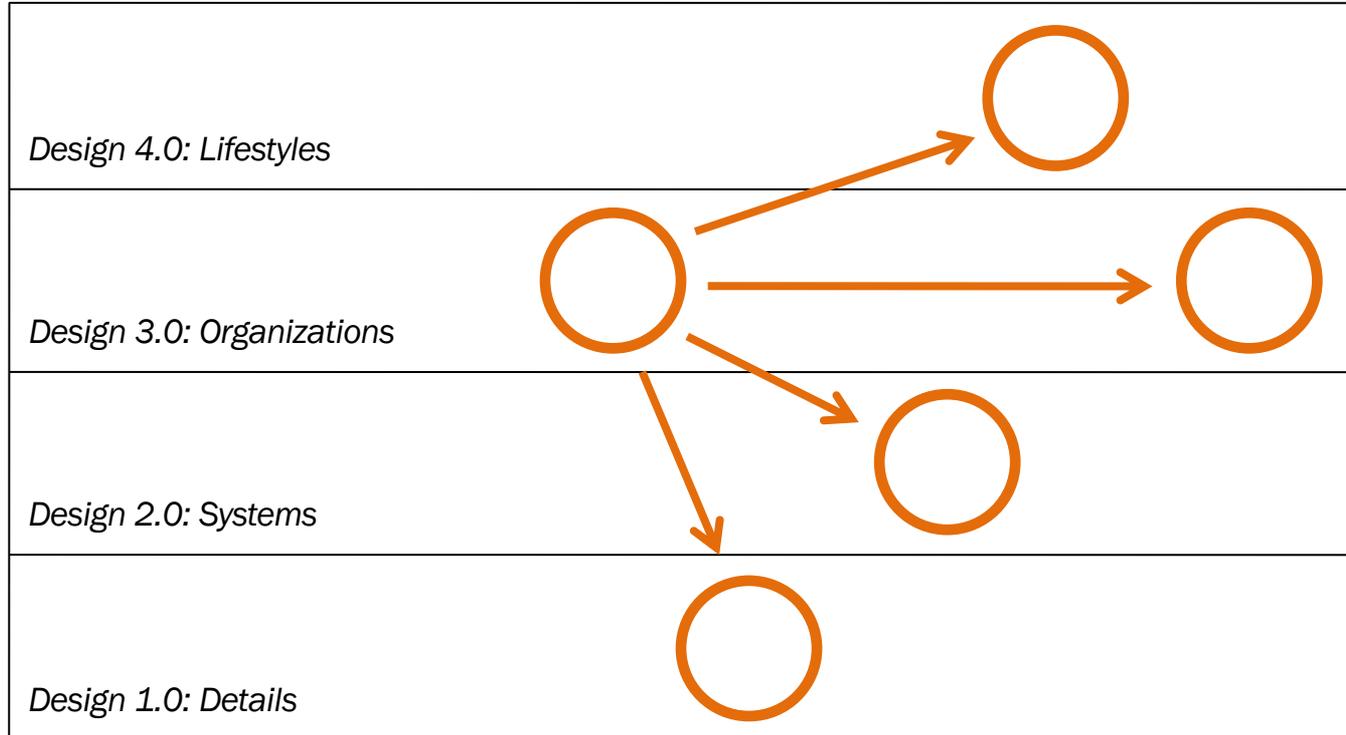
Design connecting with potential for scaling-up:

Scaling-up sustainability transitions within the socio-technical context:



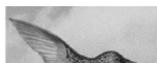
Source: Geels, F. (2011) Multi-level perspective on sustainability transitions

Design connecting several levels of design action and actors:



NICHE
**(New product-service
system innovation
ideas)**

MAINSTREAM
**(Product-service system
innovations in mainstream)**



Design connecting with social transformations

(2020 Finnish state design award to crowdsourcing service, and restaurant and cleaning day events design)

Yhteismaa ry:n ja Mesenaatti.me-joukkorahoituspalvelun perustajajäsenelle Tanja Jänickelle myönnettiin tänään 24.11.2020 muotoilun valtionpalkinto.

Ainutlaatuisen palkinnosta tekee se, että muotoilun valtionpalkinto myönnettiin koko Suomen historian aikana ensimmäistä kertaa palvelumuotoilijalle!



Tuomariston perustelut

Palvelumuotoilija, sisustusarkkitehti Tanja Jänicke (s. 1968) on yhteiskunnallisesti merkityksellisiin hankkeisiin erikoistuneen [Yhteismaa ry:n](#) ja [Mesenaatti.me-](#)joukkorahoituspalvelun yksi perustajajäsenistä.

Hän on yhdessä kollegoidensa kanssa kehittänyt mm. yhteisölliset Siivospäivä- ja Illallinen Helsingin taivaan alla -kaupunkitapahtumat sekä Nappi Naapuri ja Kokeilun paikka -verkkopalvelut. Jänicke toimii myös luovien alojen yritysten ja tekijöiden sekä näiden palveluita hyödyntävien julkisen sektorin toimijoiden kouluttajana, konsulttina ja sparraajana.

Hankkeet joita Jänicke on ollut toteuttamassa ovat innostavia esimerkkejä uudenaikaisesta, perinteisiä raja-aitoja rikkovasta luovasta työstä, joka etsii vastauksia yhteiskunnallisiin kysymyksiin muotoilun menetelmiä hyödyntäen. Niiden yhteisenä nimittäjänä on osallisuus – jokaisen oikeus elää itsensä näköistä elämää, vaikuttaa itselleen tärkeisiin asioihin ja osallistua yhteisen hyvän tuottamiseen ja jakamiseen.

Palkinto on kunnianosoitus kaikille meille

Koko Yhteismaan ja Mesenaatin tiimi on innoissaan asiasta. Vaikka palkinto myönnettiin Jänickelle henkilökohtaisesti, niin pitää Jänicke sitä kunnianosoituksena koko perustajatiimin yhteiselle 7-vuotiselle ponnistukselle:

Tämä kalustesuunnittelijana, sisustusarkkitehtina ja rakennuttajakonsulttina 20-vuotta toimineen Jänicken ja yhteiskuntatieteilijä Pauliina Seppälän sekä yhteiskuntatieteilijä ja WEB-kehittäjä Marko Tannisen kolmikko on tehnyt uraauurtavaa palvelumuotoilutyötä Suomessa.

"Olemme yhdessä hypänneet muotoilemaan jotakin, mitä ei vielä edes ollut olemassa; tunnistanee yhteiskunnassa puutteita tai tarpeita ja lähteneet pelottomasti ratkomaan niitä", toteaa Jänicke.

Tämänkaltaista yhteiskunnallista palvelumuotoilua on aivan mahdotonta toteuttaa yksin.

Multilevel focus for design

Multilevel perspective adapted to design:

“The role of designers is broadening, from the creators of physical arte-facts to the potential role of facilitators of complex societal change processes. To support the widening role of the designer, there is a need for a design supportive model.”

Multilevel Design Model (MDM) by Joore & Brezet (2014)



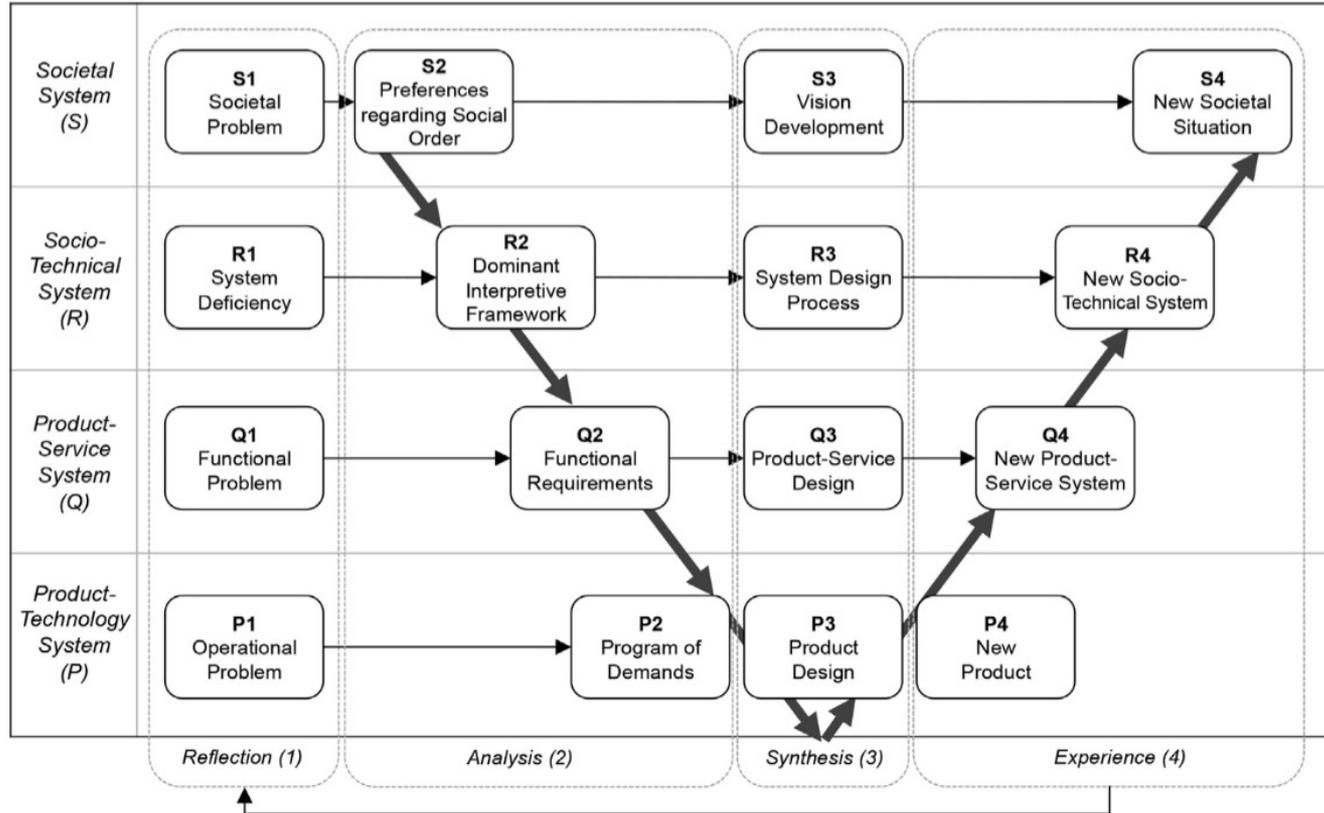
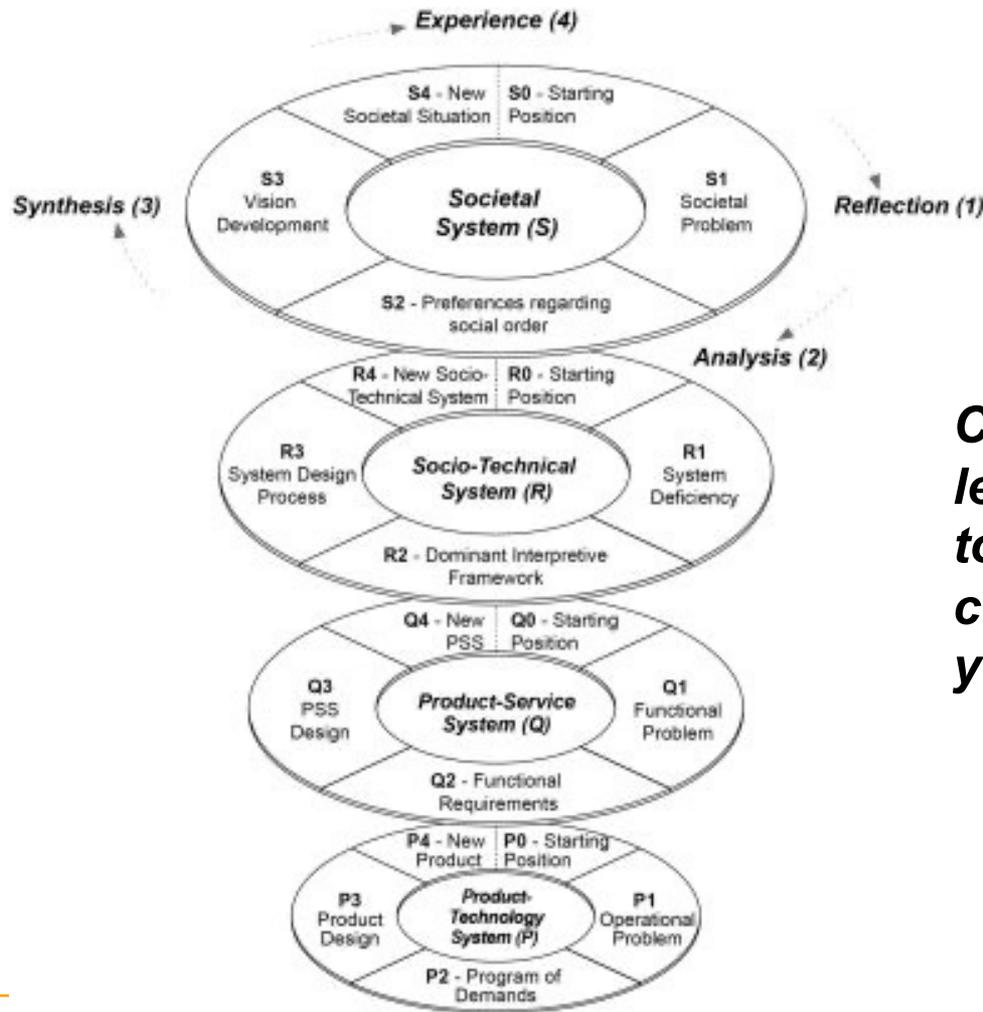


Fig. 2. Multilevel Design Model (Linear representation).



Consider all levels and how to align/ connect them in your design



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Joore & Brezet (2014). "A Multilevel Design Model – The Mutual Relationship between Product-Service System Development and Societal Change Processes"; As an optional reading in MyCourses!

Design for Social innovation

Social innovation can be defined as:

- Product and process innovations with a social purpose (Hockerts & Wüstenhagen, 2010)
- Social enterprises, company-internal activities (social intrapreneurship) and business/social sector collaboration (corporate social innovation) (Boons & Lüdeke-Freund, 2013).
- A creative recombination of existing assets (Manzini, 2007, 2014)
- **Readings on social innovation:** Ceschin & Gaziulusoy (2020) Design for Sustainability, Chapter 9: Social innovation (in MyCourses)
- **Supplementary readings** (if you feel like it): Lucy Kimbell (2011) Rethinking design thinking; Joore & Brezet (2014) Multilevel perspective in design (in MyCourses)

Next week's sessions



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Next week's sessions: Tuesday 25.1.

Tuesday (25.1.):

Assessing and communicating environmental and social impacts

Teachers: Tatu Marttila & Shreya Sood

Lecture topics:

(Reading is optional, materials in MyCourses...)

- **Materials & sustainability impact assessment**
Optional reading: Ashby et al. (2013) Materials & Sustainable Development

Next week's sessions: Thursday 27.1.

Thursday (27.1.):

Case work – Idea presentations

Tutors and teachers present

Idea presentation format:

- The format is free (PPT or similar; short video & following short talk?)
- Each team has 5-minute slot, so the presentation needs to be pitch-like (+ 5 min feedback)
- In your presentation, briefly discuss your interpretation of the theme and challenge, and ideas that you'd take forward.
- Upload presentation materials to MyCourses before Thursday morning!

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

Mikko Jalas *(see external presentation...)*



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Thank you!

Continues on Tuesday (25.1.)...



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