



Aalto University
School of Arts, Design
and Architecture

Sustainable design S12

Course overview & deliverables; Final group work status check

Friday 31.5.2024

Agenda

9:15–10:00 Course overview & deliverables

- Recap of course contents
- Revisiting course deliverables
- Group work status check
- Final presentations on Monday (3.6.)!

*Use Zoom chat and/or course Presemo for commenting/feedback
(<https://presemo.aalto.fi/sud2024>)*

*After 10:00, we can still arrange final group tutoring if needed.
Otherwise, use the remaining session for independent work in groups...*

Course contents' & deliverables – a recap



Aalto University
School of Arts, Design
and Architecture

Course sessions & contents

Sustainable design course contents:

1st part: Basics of sustainability in design:

- Mon 22.4. (Jeti, A Grid) – Intro to course & sustainability
- Fri 26.4. (Jeti, A Grid) – Multi-level design model: Positioning design strategies
- Mon 29.4. (Jeti, A Grid) – Tools to guide product design and certify performance
- Fri 3.5. (Jeti, A Grid) – Communicate sustainability with design

2nd part: Sustainability assessment and redesign:

- Mon 6.5. (Computer class, Maarintalo) – Sustainability research: Edupack & materials
- Fri 10.5. (Jeti, A Grid) – Assessing sustainability
- Mon 13.5. (Jeti, A Grid) – Redesign & communication of improvement
- Fri 17.5. (3 rooms, Otakaari 1) – Assessment & redesign presentations

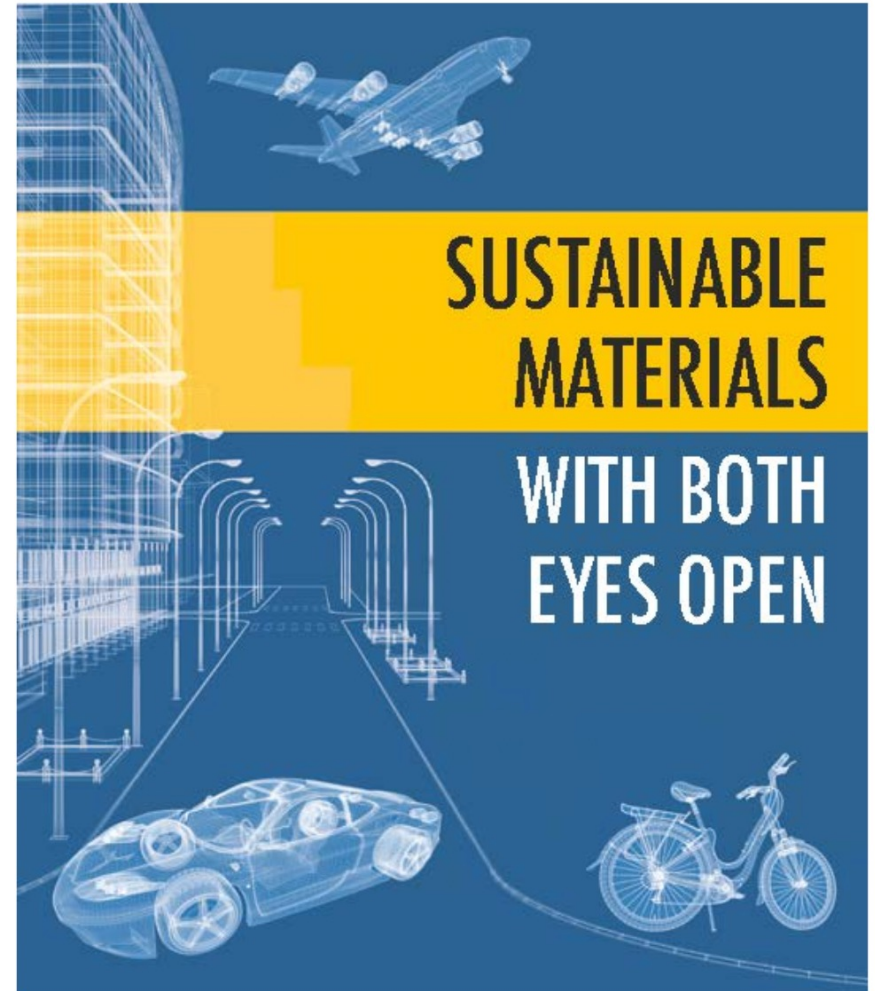
3rd part: Conceptual design exercise in groups:

- Mon 20.5. (Jeti, A Grid) – Case work kick-off
- Fri 24.5. (Jeti, A Grid) – Case work continues
- Mon 27.5. (3 rooms, Otakaari 1) – Interim check & tutoring sessions for groups
- Fri 31.5. (only in Zoom) – Final deliverables check-up & tutoring session
- Mon 3.6. (M134, M240, U119, Otakaari 1) – Final presentations (3 rooms)
- Fri 7.5. (no class) – Finalize diary & course feedback, independent work

Main course reading:

*Allwood, J., & Cullen, J. (2010).
Sustainable Materials - with Both Eyes
Open*

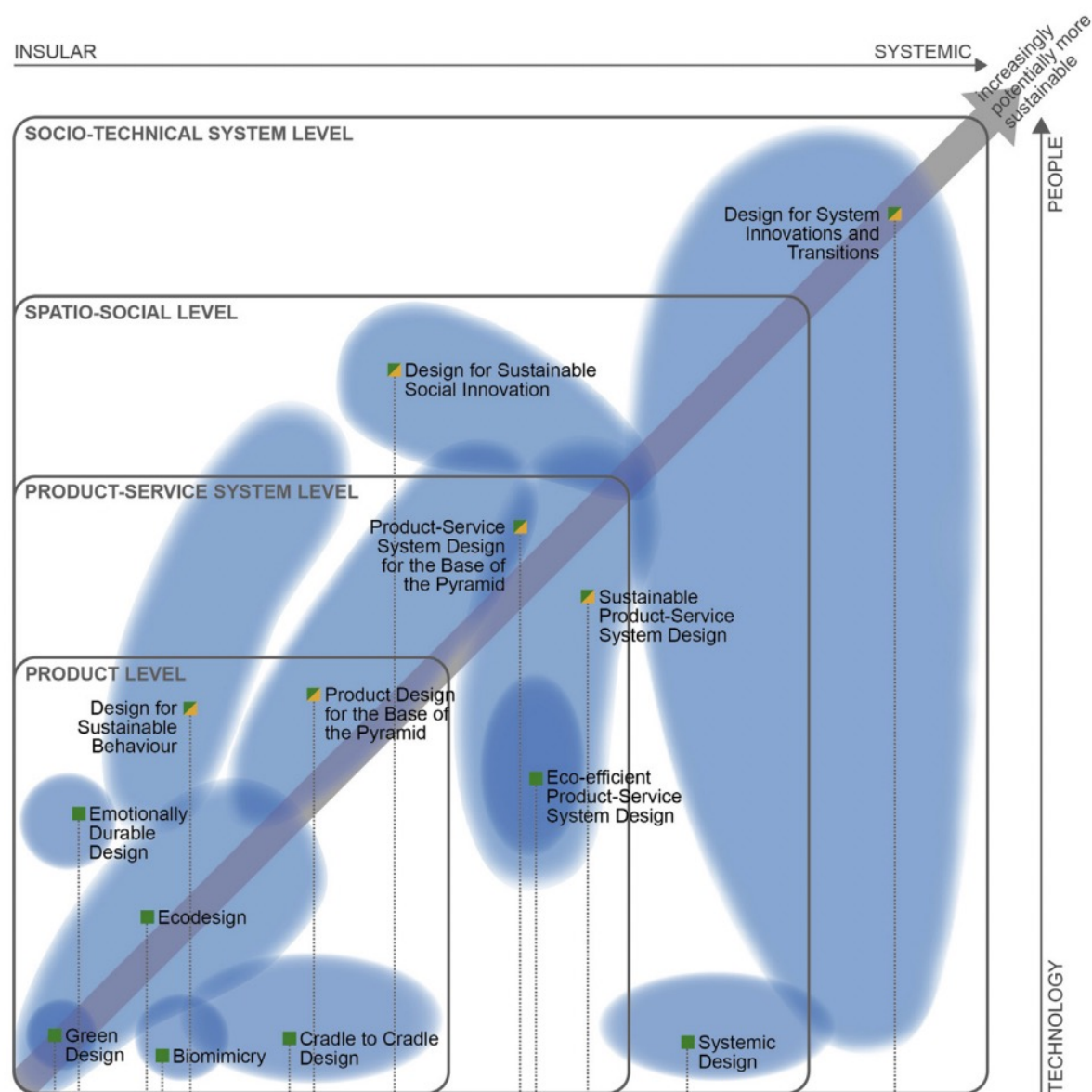
- Handbook for sustainability for materials use in design
- Carbon footprints; Energy efficiency; Ecodesign strategies
- Materials in focus: Steel, aluminium, cement, paper, plastics



Multi-level focus in sustainable design:

Ceschin, F., & Gaziulusoy, I. (2016). Evolution of design for sustainability

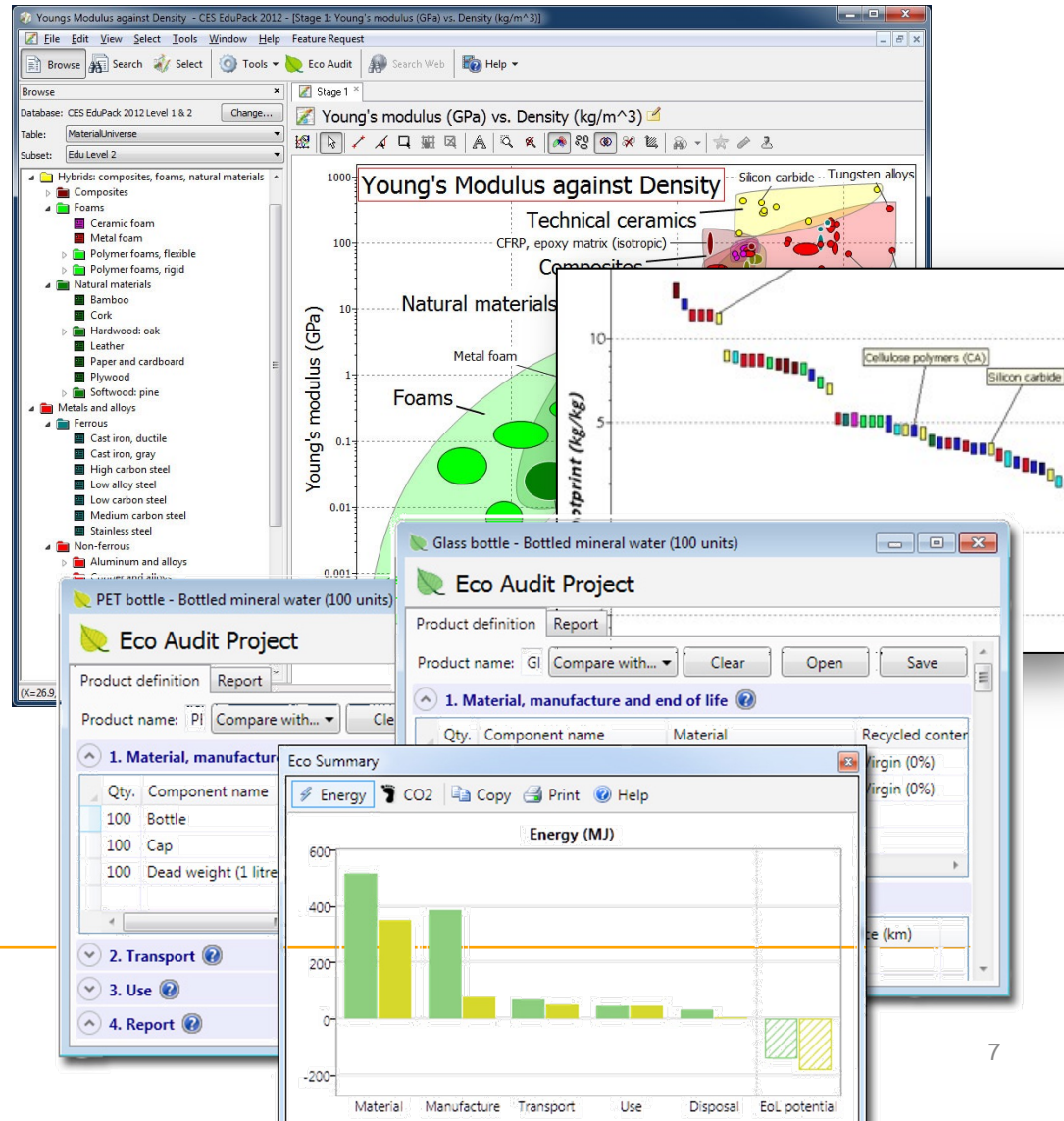
- Finding strategies for sustainable design action
- Empowering actors
- Connecting actors and actions together for sustainability transitions



Assessment of impacts with databases and numbers:

Ashby et al. (2013). *Materials and Sustainable Development — a White Paper*

- *Using data depositories for assessment and comparison of sustainability impacts*
- *Identification of material impacts, scales of consumption & production*
- *Including social impacts*



Group work – conceptual design exercise with a thematic focus:

- *Focus material themes: Biomaterials, Concrete, Plastics*
- *Groups identify a sustainability challenge within a given material theme, and ideate a design concept as a solution*
- *Outcome can be a redesigned product and/or service-system, a communications campaign, or even some organizational/policy development*



Course assignments and grading

- **Independent assignments (30% of grade evaluation):**
 - Personal carbon footprint calculation (for session 2) (P/F)
 - Labels and product standards for sustainability (for session 3) (P/F)
 - Communicating sustainability (for session 4) (grade 1–5)
 - Assessment and redesign exercise (for session 8) (grade 1–5)
- **Project work in groups (30%)**
 - Group work with conceptual design case (sessions 9-12) (grade 1–5)
- **Learning diary (40%):**
 - Writing personal learning diary (throughout the course) (grade 1–5)
 - Please note that the language can be either English, Finnish or Swedish!
- *Detailed descriptions and evaluation matrix available at MyCourses!*

Independent assignments

- **Make sure you have submitted all independent assignments!**
- Labels and product standards for sustainability (for session 3) (P/F)
 - Search for and select two labels for sustainability, describe their background and context of use, and upload as single file (e.g., PDF)
- Communicating sustainability (for session 4) (grade 1–5)
 - Select one product/service that communicates sustainability effectively, interestingly or in a contraversial way, and upload a single file (e.g., PDF) with images and short paragraph (~200words) of communication and meanings related to sustainability
- Assessment and redesign exercise (for session 8) (grade 1–5)
 - Select a product/material/service and perform a sustainability impact assessment, then propose redesign ideas to tackle sustainability pain points, and communicate in a digital poster and 3-min pitch uploaded to MyCourses
- **Also, please fill in general course feedback at the end** (link delivered in email)!

Learning diary

- **One main component in course deliverables and evaluation is the learning diary (40% of grade)**
 - Learning diary consists of roughly week-based reflections that are each around one page long texts, plus possible images
 - Altogether the learning diary should be 5-7 pages in length
= some 1600–2000 words in English
 - Weekly reflections are described in detail in MyCourses (and on next slide)
 - In the text, you should connect to session topics, and also readings and exercises
 - Although the mode of text can be of personal reflection, aim into academic format with proper referencing to sources (course readings, other materials)

Learning diary

- **Weekly reflections:**
- **Reflection 1 (week 1):** Where do you see change coming from – regulation, business & design, consumers & values, science & technology
- **Reflection 2 (weeks 1-2):** What level is most important? How are levels connected?
- **Reflection 3 (week 2):** Think about your own product choice and those of the fellows students. What/how and how they communicate about sustainability? What is greenwashing in visual language?
- **Reflection 4 (week 3):** How comprehensive understanding and knowledge offered by Granta Edupack to guide sustainable design action? Reflect on controversies and contradictions (i.e., challenges in the process) from a design perspective.
- **Reflection 5 (week 4):** Reflect on assessment and redesign exercise results: What kind of feedback did you get on your redesign presentation? Did the audience understand your idea? What about other presentations?
- **Reflection 6 (week 7):** How did your group work turn out? Why? How would you improve the concept? Consider also other groups' outcomes, what was most interesting in them?
- **Finalize your learning diary:** Structure your diary according to reflection questions 1–6. Try to also cover how your thinking has changed during the course when editing and finalising your reflections.

Group work status check



Aalto University
School of Arts, Design
and Architecture

Conceptual design exercise in groups

Sustainable Design 2024 course's last part (sessions 9–13) focuses on a conceptual design exercise done in groups:

- In the group work, you work together in 4–6 student groups to identify a sustainability challenge within a given material theme, and then ideate and propose a design concept as a solution
- The outcome could be a redesigned product and/or service-system, or a communications campaign, or even some organizational/policy development
- Focus themes: Biomaterials, Concrete, Plastics; See material resources in MyCourses!
- Groups work independently, create some group for communication, agree on roles!
- Group work continues sessions 9–13, **presenting outcomes on next Monday 3.6.**

Groups and themes *(see email contacts in the MyCo announcement...)*

Biomaterials (Tutor: Anu)		Concrete (Tutor: Mikko)	Plastics (Tutor: Tatu)
<p>Group 1:</p> <ol style="list-style-type: none"> Alice Hart Biyu Zhang Darja Svidchenko Helena Massuda Garcia Fabian Fontanot Simon Mäki-Rautila 	<p>Group 4:</p> <ol style="list-style-type: none"> Nguyen Ngoc Thuy Duong Olli Majalahti Tetsu Fujimura Sayaka Kozawa Sofia Annika van Rijn Matylda Rakowska 	<p>Group 5:</p> <ol style="list-style-type: none"> Lewis Blake-Farkas Katalin Anna Dán Daryna Taushan Akanksha Bhat Katalin Réka Király Vibe Torgersen 	<p>Group 10*:</p> <ol style="list-style-type: none"> Venla Hämäläinen Vivian Katajainen Ella Nikulainen Vilma Viertola Katariina Jussila
<p>Group 2:</p> <ol style="list-style-type: none"> Elisa Roinisto Elvira Anna Margaretha Rak Erica Baker Laura Ruggeri Jussi Raasakka Lisel Ekarv 	<p>Group 6*:</p> <ol style="list-style-type: none"> Suvi Pelkonen Nina Knuutinen Enni Gröhn Ilona Koivisto Saija Airala 	<p>Group 8:</p> <ol style="list-style-type: none"> Alex Fagerström Anna Starck Camilla Mascher Dominika Herranen Mareike Petica Sari Majander 	<p>Group 11*:</p> <ol style="list-style-type: none"> Katri Kimpisalo Helmi Mäntysaari
<p>Group 3:</p> <ol style="list-style-type: none"> Cecilia Della Salda Le Bao Ngoc Magdalena Gliszczyńska Natalija Šapurova Henrik Jansson Anna Kiss 	<p>Group 7*:</p> <ol style="list-style-type: none"> Iina Lahtinen Janette Karppinen Salla Sopenlehto Sofia Huttu-Hiltunen Viivi Hirvikangas 	<p>Group 9:</p> <ol style="list-style-type: none"> Nikita Piekutowski Vaiva Telešiūtė Hugo Lebeda Petra Hanski Arnav Ghurde Joonas Rimpiläinen 	<p>Group 16:</p> <ol style="list-style-type: none"> Eeva Vuorinen Aleksi Poikkimäki Kristian Preznal Justine Mazars Lucas Jordi Lassenius
			<p>Group 12:</p> <ol style="list-style-type: none"> Aku Hanhijärvi Alizée Long Astrid Kajerdt Elina Saaresto Iuliana Fadeeva
			<p>Group 13:</p> <ol style="list-style-type: none"> Kia Hemmi Sonja Kainulainen James Chen Malhar Siddharth Shirur Stig Hansen
			<p>Group 14*:</p> <ol style="list-style-type: none"> Lassi Eemeli Kauhanen Kirsikka Poikkimäki Liisa Alina Perälä Valter Lyytikkä
			<p>Group 15*:</p> <ol style="list-style-type: none"> Minella Leppänen Aatu Venni Sakari Mäkinen Ella Kirjavainen Rasmus Mänty Ronja Viitajylhä
			<p>Group 17:</p> <ol style="list-style-type: none"> Anna Yli-Luukko Samuli Aaltonen Tytti Virta Mona Niemistö
<p>* Groups marked with a star can work in Finnish, however groups present their results in English.</p>			

Final presentations next Monday (3.6.)

Final presentations on Monday (3.6.) 13:15 onwards:

- Prepare presentation slides (PPT/PDF) and upload by Monday noon to MyCo (one upload per group)!
- You have max. 15 min, so it would allow quite thorough presentation on your outcomes
- In the presentation, discuss the challenge you identified within your material theme, reflect on your ideation process, and present your design concept for its solution
- Utilize approaches & strategies from the course (LCA and CO2 footprinting, ecodesign, system maps, service blueprints, etc.); Make slides comprehensible as a 'stand-alone' package; Also, add references and sources to materials, especially if you have been able to do further research!
- Make sure to have group members names in presentation slides; You can choose if all or just some of the group members are doing the talk
- Prepare a presentation talk (max. 15 min) that is then followed by discussion (5 min)

Final presentations next Monday (3.6.)

Classrooms & groups for final presentations on next Monday (13:15–16:00):

- **Biomaterials groups in room M240** (Anu) (= groups #1,2,3,4,6,7)
- **Concrete groups in room M134** (Mikko) (= groups #5,8,9,10,16; #11 submits a video)
- **Plastics groups in room U119** (Tatu) (= groups #12,13,14,15,17)

Tentative schedule for sessions:

13:15–14:20 3 x presentations (20 min slots)

14:35–15:40 3 x presentations (20 min slots)

15:40–16:00 Reflective discussion

If time allows, we will have a short reflective discussion on course contents and outcomes at the end!

Thanks!



Aalto University
School of Arts, Design
and Architecture