The Tiny Book of Post-its

STUDIO SAJO

Through the spring of 2020 our small team of engineers, designers and business students carried out a study project under PBL South Asia on sustainable development and waste management. We're called **Studio SaJo.**

Our project, which revolved around solid **waste management** issues in the area of Samdrup Jongkhar in **Bhutan**, was a huge learning experience not only in the vast world of waste science, but in collaborating across disciplines, cultures and continents.

We were able to immerse ourselves into **long-haul project work, human centric design** and **interdisciplinary collaboration** in a way that few of us had before.

The Tiny Book of Post-its is a synopsis of the journey we were on throughout the spring. It follows the structural phases of a typical design process, and in proper workshop-fashion - is completely covered in post-it notes.

Above all, it's here to highlight the process we went through, and to remind us of the people whose presence made our endeavor possible, the experiences we gained, and the learnings we were able to take home.
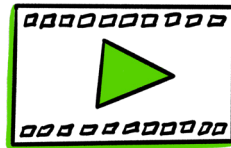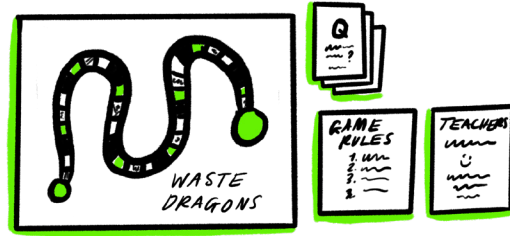
Enjoy!

Overview of Project Assets / Deliverables
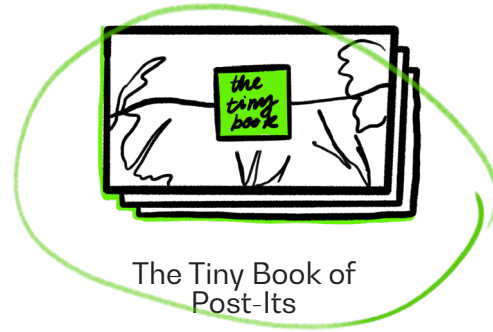
The Tiny Book of Post-Its

Mid-Review + Final Presentation Videos

Printable Boardgame on Waste Management Education, Question Cards, Game Rules, Teacher's Instructions
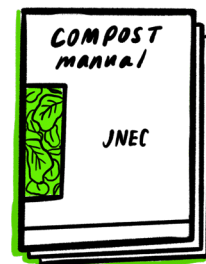
WASTE DRAGONS

GAME RULES

TEACHERS

WASTE

Waste Journey Presentation

STUDIO SAJO
PBL PROJECT DOC

Project Document

INSIGHTS + SUGGESTIONS

Insights + Suggestions for Samdrup Jongkhar Municipality

COMPOST manual
JNEC

Compost Manual for JNEC

Project's continuous online presence on Instagram, @studiosajo

dear diary

5 x 5 Monthly Diaries from team members

You're still here? Great!

The Tiny Book of Post-Its is a handbook that is visual, first and foremost. For the sake of simplicity and ease of digestion we've left much of the information heavy things out. If you want to better understand the details, depth and data that went into our project and its completion, we suggest you check out our **Project Document,** or any of our **Project Assets** (all listed on the opposite page).

As mentioned before, The Tiny Book is a peak into the structural design phases we underwent through during our 5-month long journey. Even though the book is chopped up into seven evenly spaced, clean-cut phases, most solution-driven processes are rarely that straight a line. Undertakings of this magnitude are, quite frankly, messy, and involve lots of circling back to earlier phases, jumping over and under exercises and sometimes even forgetting the design process altogether.
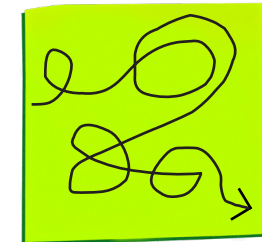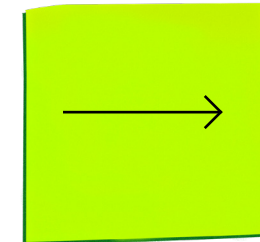
Process expectations vs. reality

That being said, use this handbook as a hesitant guide at most, or a nice-to-flip-through booklet about a university project at best. If you wish to use it in an exemplary manner, be our guest, but modify everything and anything to your project's unique needs and to your heart's desire!

Core Team from Aalto University

The project is the fruit of a 5-month long collaboration between students, mentors and university personnel all hailing from various backgrounds. Here is a quick peek into the people who were most integral to Studio Sajo 2020.

Matleena Muhonen
SGT Studio Coordinator, Lecturer in Landscape Architecture

Matias Heino
Mentor, PHD in Water and Environmental Engineering
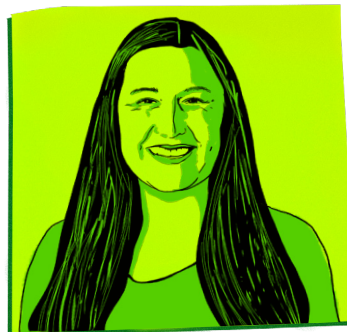
Helmi Korhonen
MA student in Creative Sustainability Design

Gaspard Del Marmol
MA student in Creative Sustainability Design

Félizia Zhang
BSc. student in Environmental Engineering

Daniela Tapprest
MSc. student in Creative Sustainability Business

Mona Fritz
MSc. student in Creative Sustainability Business

Core Team from The Royal University of Bhutan

Jigme Namgyel Engineering College (JNEC)

Phurba Tamang
JNEC Teacher / Team Mentor, Civil Engineer

Lobzang Chopel
Civil Engineering student

Karma Choden
Civil Engineering student

Lakshmi Sharma
Civil Engineering student

Nima Dorji
Civil Engineering student

Namgay Wangmo
Civil Engineering student

With special thanks to:
Andu Dukpa, Hemlal Bhattarai, Ngawang Chojey, Riina Subra, Avinash Dhital and Olli Varis + **countless others who made the project possible.**

Overview of Design Process

1. Research   2. Emphatize   3. Define   4. Ideate   5. Prototype   6. Test   7. Deliver

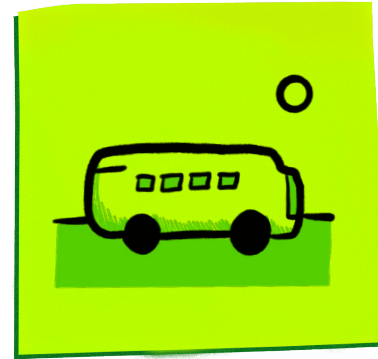**What should we know beforehand? What are the limits of our project?**

Expert Interviews

Gaining in-depth knowledge, understanding and insider tips through meeting people who are experts in the field.

Fieldtrips

Visiting locations that help you understand the big picture.

Academic Research

Creating the backframe for the project by utilizing multiple sources. For the culmination of our research process, see our **Project Document.**

Risk Analysis

Mapping out possible risks and challenges, alongside their severity before embarking to the field.

Counting tally before embarking on our fieldtrip to Ämmässuo

Waste Journey mapping at the undergraduate center at Aalto University

Meeting at the Finnish Ministry of Foreign Affairs, hosted by Harri Kämäräinen

Experts We Met

Harri Kämäräinen (Roving Ambassador of Finland to South Asia, Finnish Ministry of Foreign Affairs)
Christoph Gareis (Operational Manager of Biowaste Treatment at Ämmässuo Eco-Industrial Centre),
Suvi Runsten (Managing Director at EcoChange Ltd.)
Elsa Rintala (Environmental Expert at Kierrätyskeskus, Helsinki)
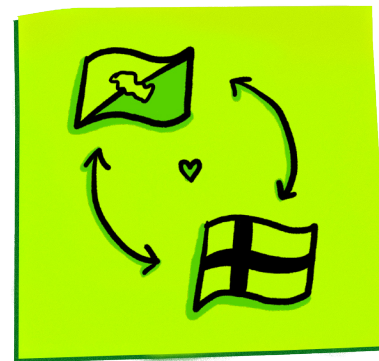Johanna Laaksonen (Engineer specializing in waste management, SGT-Mentor)

What is life like here? How can we best help?
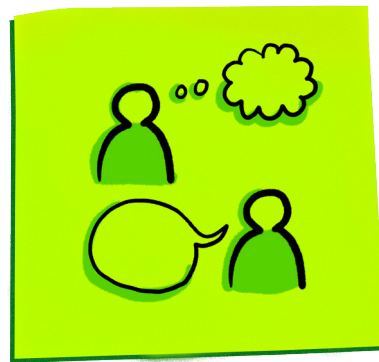
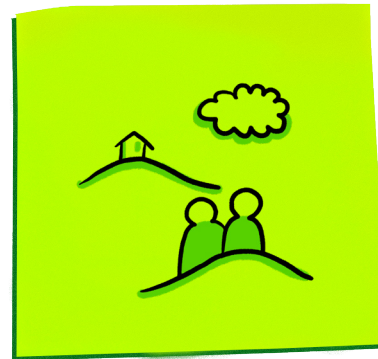### User Workshops + Interviews

Interviewing and engaging with locals to understand their unique perspectives, needs and opinions.

Field Visits

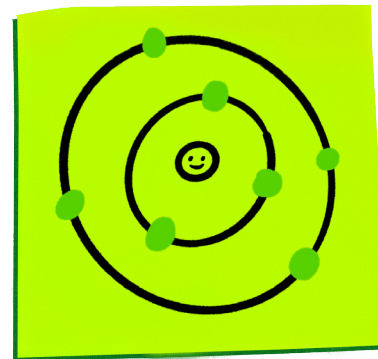Visiting locals where they work, live and spend their time to better understand the local context.

Cultural Exchange

One of the most enriching parts of the PBL-experience. Build and connect with your partnering team, make lifelong friends and get immersed in a foreign culture.

Stakeholder Map

Mapping out stakeholder groups alongside how integral they are to your project. Can be found in **Project Document.**

First draft of Stakeholder Map from February

User workshop and interviews with local teachers

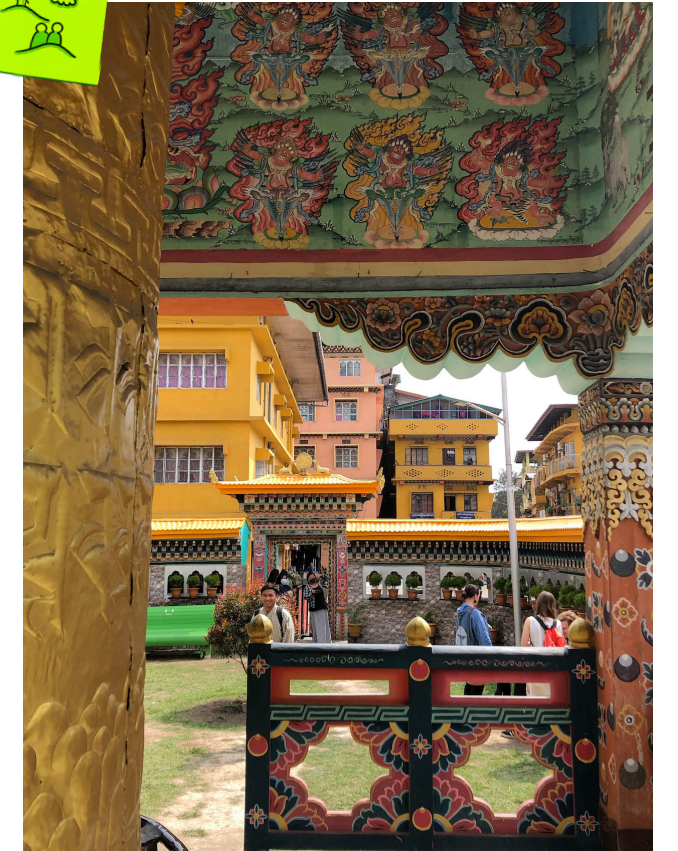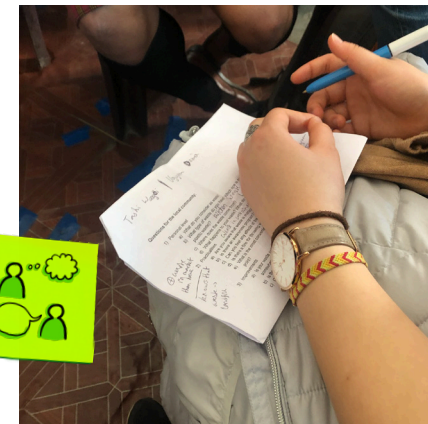Interviewing waste pickers at Matanga Landfill

Field Visit to Samdrup Jongkhar Initiative's HQ

Field visit to the Chokyi Gyatso Monastery

Touring relevant locations on campus

Visiting and interviewing people at Samdrup Jongkhar town

Visiting and interviewing workers at the Matanga landfill

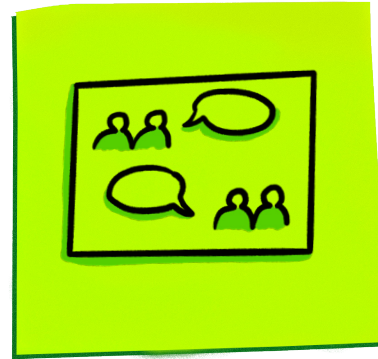Teambuilding and immersing ourselves into Bhutanese culture

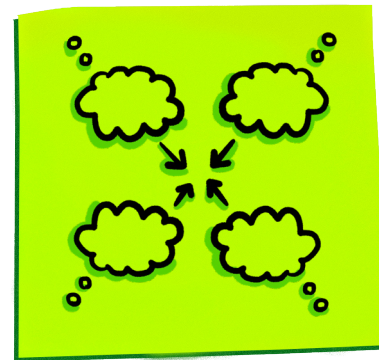**What have we learned? How should we move forward?**

(Re)defining Objectives

Setting goals and timelines that better reflect the reality and perspectives you've gained by meeting with locals.

User Mapping

Creating user profiles of people you've met and interviewed. Helps understand individual roles and needs in the community.

Synthesizing

Combining and arranging team member's insights, findings and notes. Looking for strongest ideas to take further.
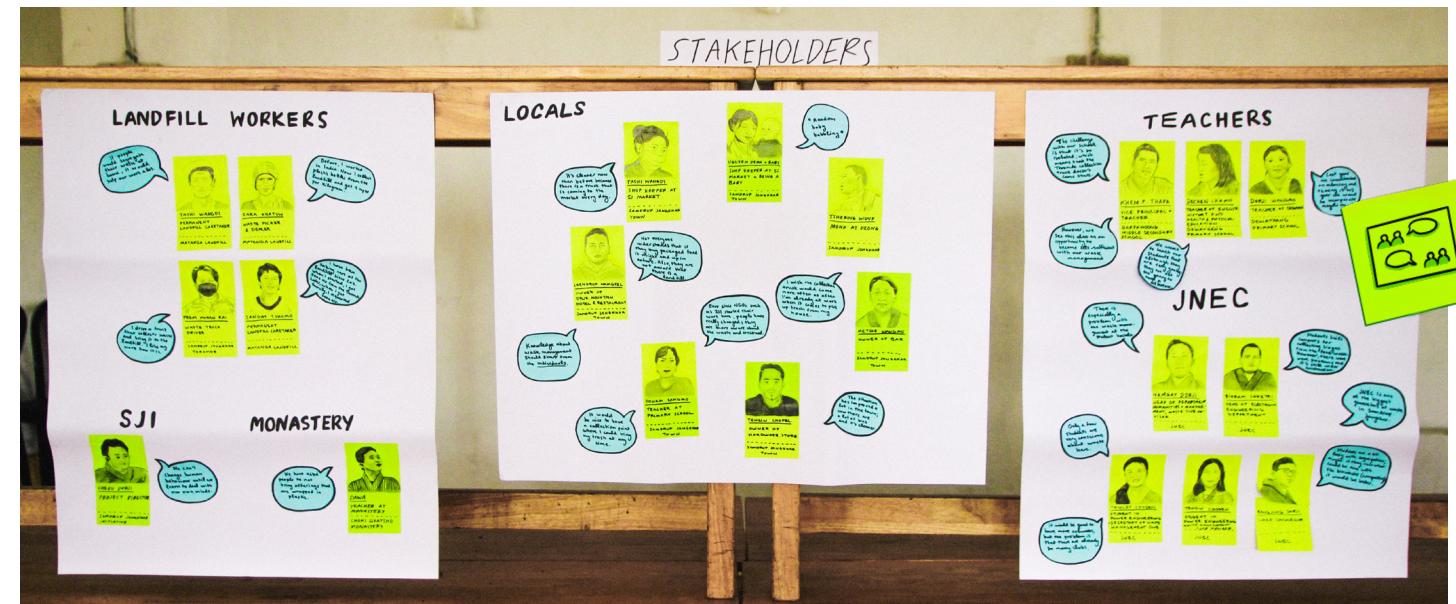

Opportunities + Challenges

Listing out identified opportunity and challenge areas and how they relate to your objectives.

Figuring out what we still need answers on

Presenting synthesized findings to our mentors

User map with hand drawn portraits of all interviewees from Bhutan. Presented at final exhibition.
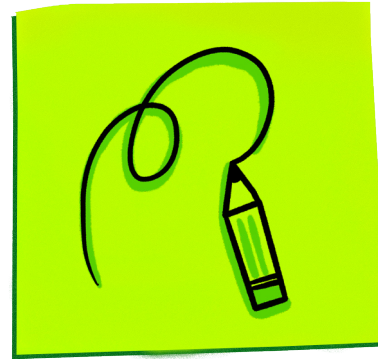
What could our solution be? How would it look, function and help?
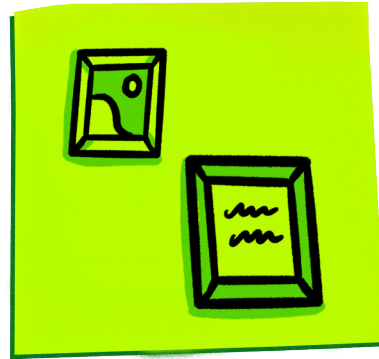
Benchmarking

Looking out for similar projects and initiatives that have gotten things right. Note that the local community might have some great examples already.

Sketching

Visualizing thoughts, planning out ideas and making rough drafts to help team-wide communication and creativity.

Ideation Workshops

Utilizing collective brainpower to braindstorm ideas and find solutions together.
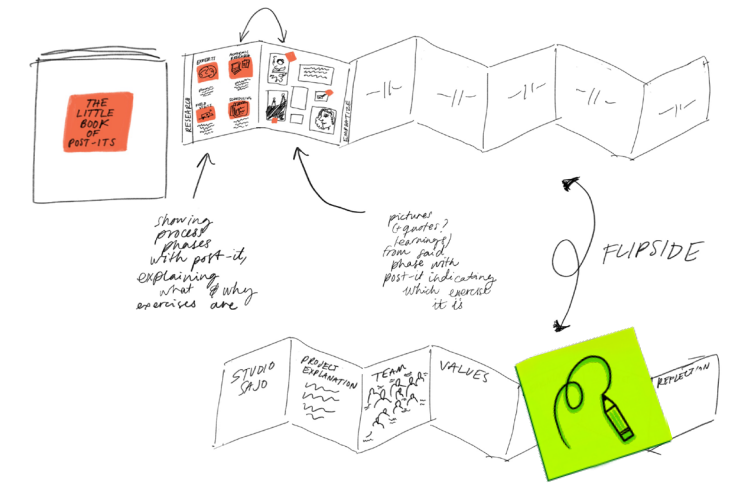
Sketches of compost presented at final exhibition
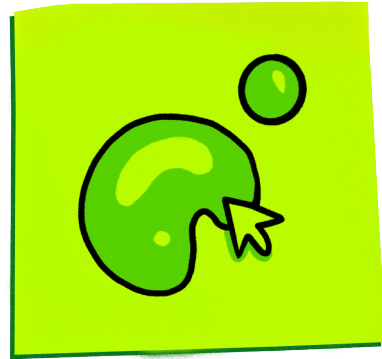

Ideation workshops with team

Ideation workshops with team
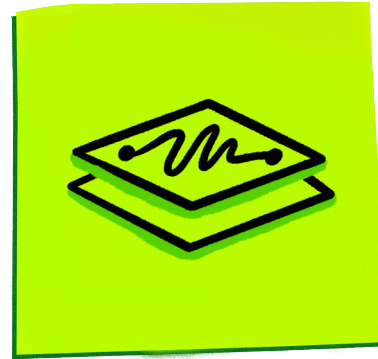

First sketch of The Tiny Book of Post-Its

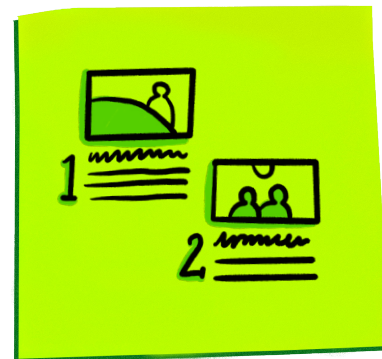**How can we convey our ideas in an understandable, testable way?**

3D Modeling

A great tool for making mockups, and for designing and visualizing your end product.
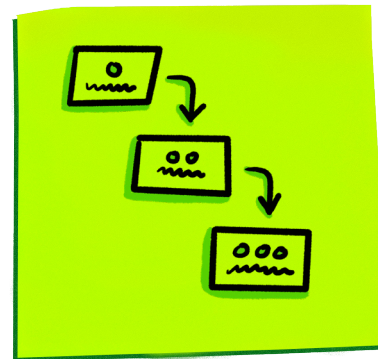

Paper Prototypes

Quick and easy-to-edit prototypes that can be interacted and played around with.
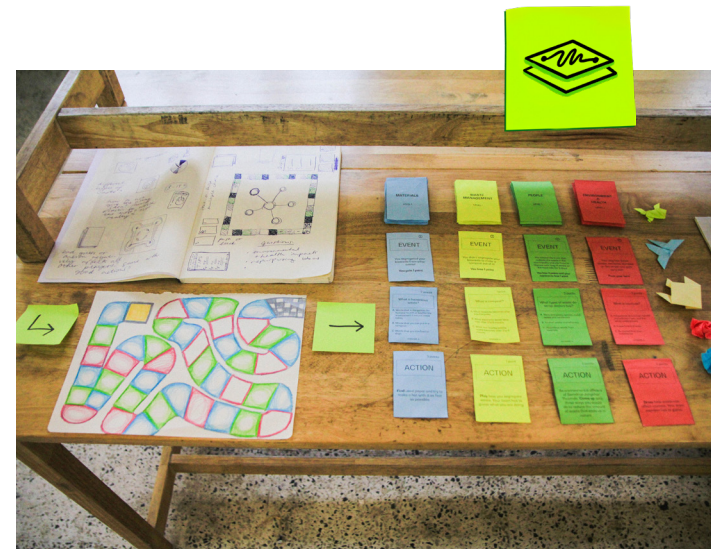

Scenarios

Imagining ways in which your final solution could be used, maintained and implemented.
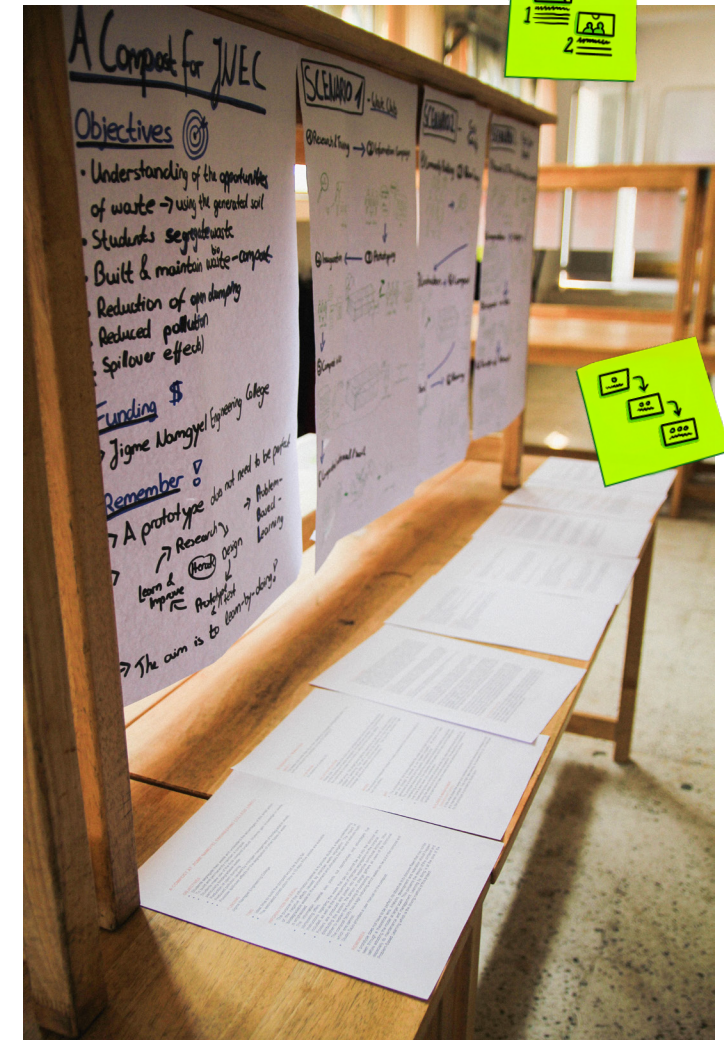

Storyboards

Used for explaining how processes would work step by step.

3d modeled compost proposal in mockup form, presented in final exhibition

Evolution of boardgame paper prototypes, presented at final exhibition

Scenarios and storyboards explaining the possibilities of a compost at the college campus. Presented at final exhibition
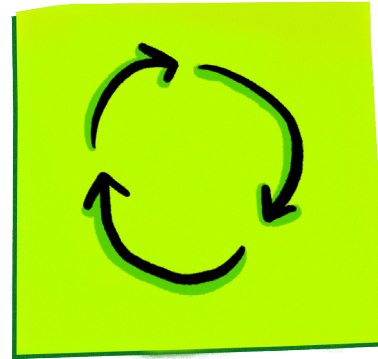
Does it work? What could we make better?

User Testing

Testing prototypes with possible future users to understand what works and what needs to be changed.

Iterations

You probably won't get it right on the first try, or the second. Remember to iterate your solution based on feedback you've received.

Presenting

Showing off your ideas and plans and asking for feedback.

Refining Product

Putting in final touches and iterations to finalize your product.

Exhibition setup at Jigme Namgyel Engineering College

Project presentations for a fully packed audience

User testing with local teachers using a simple paper prototype

Simple feedback gathering board at the exhibition

How do we ensure longevity? How do we communicate all we've achieved?

Handing Over Ownership

Making sure your solution is adopted and welcomed in the community, by ensuring a feeling of ownership.
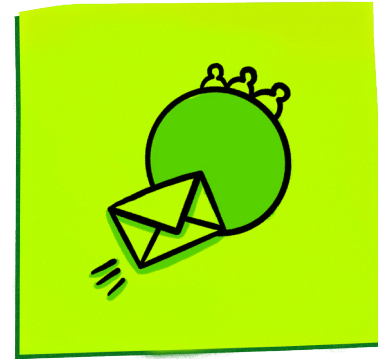
Final Delivery

Sending over all project assets to relevant stakeholders, delivering final presentations and giving thanks.

Documenting Process

Documenting your journey in an engaging and form-fitting manner. Should be done throughout project.

College campus main square and administrative buidling on our last day there

Entire team pictured together after our final exhibition

Reach us here:

Instagram: @studiosajo
Contact: helmi.korhonen(at)aalto.fi
SGT: matleena.muhonen(at)aalto.fi

sgt.aalto.fi

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