

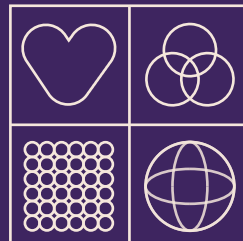


Aalto Design Factory

Annual report

2021 - 2022

Within your hands you hold a glimpse into the life at Aalto Design Factory over the Academic Year 21-22. We would also love to have coffee with you in Kafis and share the stories behind these numbers! :)





COMMUNITY

The Aalto Design Factory community is often described as one big family, and the people here are defined to be our best asset. That reflects the ADF spirit well – the interdisciplinary community of students, staff, researchers and companies is the heart of Aalto Design Factory.

At ADF, we always say that “safety comes first”, and that has held true throughout the pandemic, through our close adherence to safety regulations. By emphasizing safety, we managed to provide our community an environment which supported learning, experimentation, and collaboration activities that would have been impossible to implement in a fully remote environment.

While the year started with a strong emphasis on hybrid activities, the lessening restrictions along the year gradually filled the corridors, workshops and Kafis – the community kitchen – with diverse learners. By the end of the academic year it was almost impossible to distinguish that this year had started under pandemic conditions!



59



**STAFF MEMBERS IN
THE COMMUNITY**

16



**START-UP PARTNER
COMPANIES**

15600



**SOCIAL MEDIA
FOLLOWERS**

THE COMMUNITY IN NUMBERS

As people flocked back to Aalto Design Factory over the year, the importance of taking care of our beloved home was emphasized. Luckily we have coffee to take care of the community and the community to take care of Aalto Design Factory! Below, you can see some metrics on what the community did and what – or who – kept it going!



12 New staff



59 Total staff in the community



66 ADF tours



1610 Space reservations



13 230 Cups of coffee consumed



5200 Bottles recycled



1300 Masks handed out

SOCIAL MEDIA OUTREACH

Aalto Design Factory actively utilizes different social media channels, such as Facebook, Instagram, Twitter and LinkedIn. As Instagram and Facebook are used to share all kinds of DF-related information, Twitter and LinkedIn have more specific target groups. The numbers below describe ADF's social media activities further from the academic year of 2021-2022!



Facebook

7222 Current followers

62 Posts this academic year

852 Reactions

32166 Reach



Instagram

2190 Current followers

83 Posts this academic year

1943 Reactions

25384 Reach



Twitter

6191 Current followers

20 Tweets this academic year

5628 Profile visits

16 464 Impressions

94 Mentions

PARTNER PLAZA

Over the pandemic, we were fortunate to be able to support many start-up partners that had critical prototyping needs. Despite the various restrictions, this resulted in an increase of prototyping oriented start-up partners. On the other hand, our numbers also show the society's awakening to work from home. That said, these practices are reflected in the decrease of the office space including in-house partnerships. Overall, despite the pandemic years, the start-up involvement at DF is at similar levels as pre-pandemic, which is of course a positive indicator for the Otaniemi innovation ecosystem!



16 Partner Plaza companies



2 Community



10 Prototyping



4 In-house

START-UP PARTNERS ACADEMIC YEAR 2020-2021

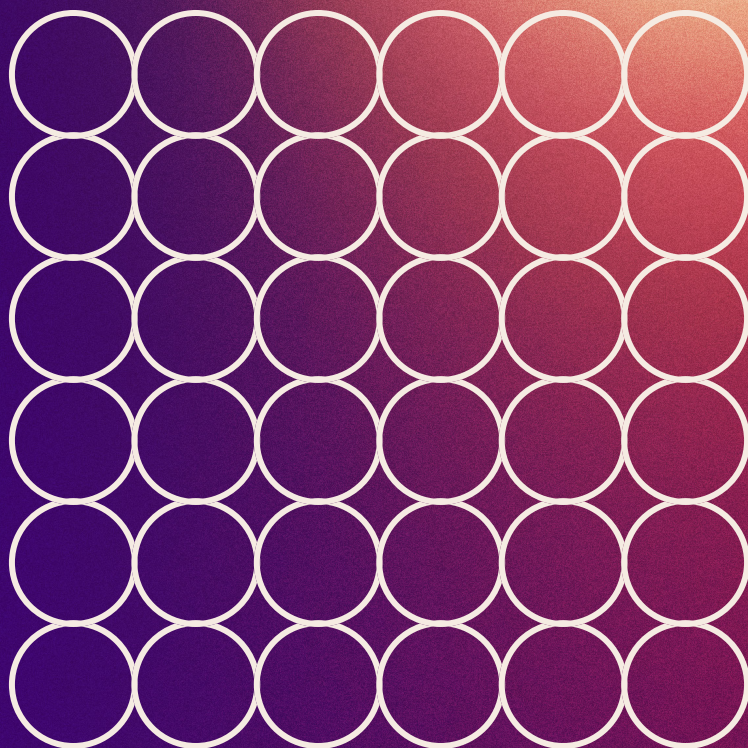
- Addcomposites Oy
- Amucin Oy Ltd
- Aurora Propulsion Technologies Oy
- BroadBit Batteries Oy
- Caidio Oy
- Epiheart Oy
- Hyperion Robotics Oy
- Luke (Natural Resources Institute Finland)
- Mehta Heino Industries Oy
- Si6nal Oy
- Sitedrive Oy
- Surgify Medical Oy
- Teraloop Oy
- Urban Mill Renovation Platform
- Viima Aerospace Technologies Oy



8 New Partner Plaza companies



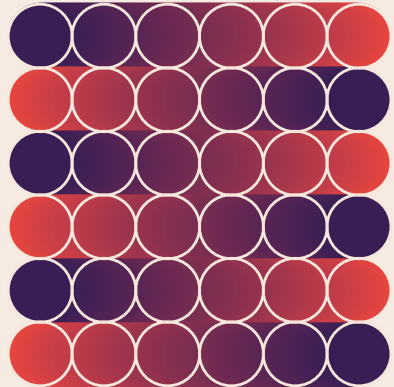
44 Partner Plaza entrepreneurs



EDUCATION

Aalto Design Factory was originally built around an idea to create the best possible environment for supporting product design education. Nowadays, Aalto Design Factory is a home base for a vast variety of student activities and interdisciplinary courses that are not solely focused on product design, but for example combining mathematics and arts.

During the academic year 2021–2022, we have slowly moved from primarily remote to hybrid to primarily in-person activities. Furthermore, by the end of the academic year the corridors showed little to no signs of the restrictions under which the year started.



20



**COURSES HOSTED
AT DF**

1422



**HOURS OF MACHINING
WITH MILLS AND LATHE**

1470



**SPACE RESERVATIONS
AT DF**

HOSTED COURSES

- PDP Product Development Project
- Ajantila
- Methods in Early Product Development
- Saavutettava muoto – kokeiluja selkokielisestä visuaalisesta viestinnästä
- Väline: Koodi
- Visuaalisen viestinnän muotoilun kandiseminaari
- IDBM Industry Project
- Product Analysis
- Monialainen teknologiakasvatus
- Networked Partnering and Product Innovation
- Tiimiopettajuus teknologiakasvatuksessa
- Termodynamiikka ja lämmönsiirto
- Pack-Age
- Design Thinking & Advanced Prototyping
- Designing an Electronic Device for Business and Production
- Service Design Tools for Creating Change
- Innovations in an Age of Constant Change
- ADD Basics – Additive manufacturing: from idea to business
- Mechanical Engineering in Society

LAB & WORKSHOP UTILIZATION

Our lab staff works hard, sometimes long into the night, to help our students and start-ups to bring their ideas into reality! And it shows in the numbers as well: for example just the CNC milling machines alone tallied up an average of over 7 hours of machining per workday!



1422 Hours of machining with mills and lathe



128 Hours of water jet cutting



147 Hours of welding



76 Circuit boards made with Bantam Tool



1578 hours of 3D printing



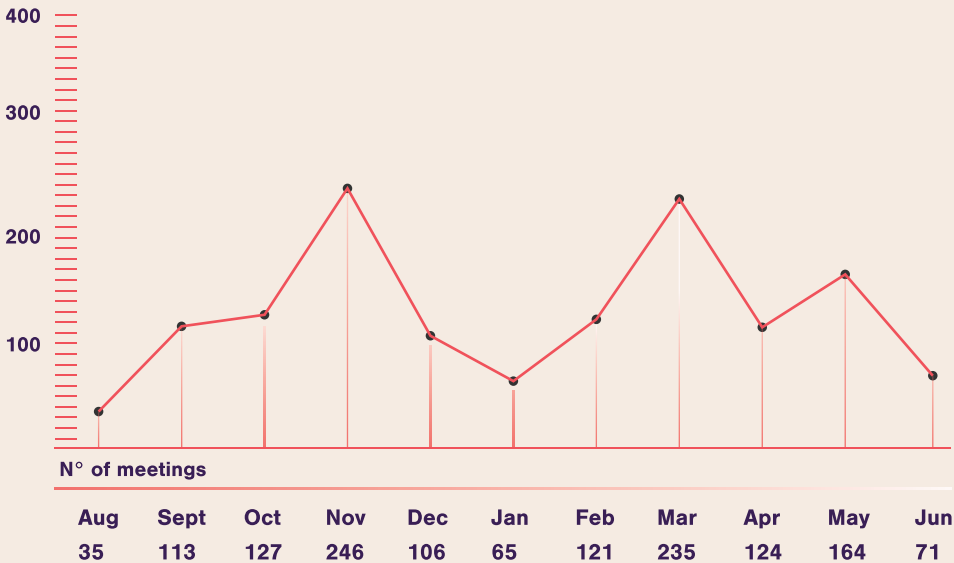
20 Courses hosted at DF



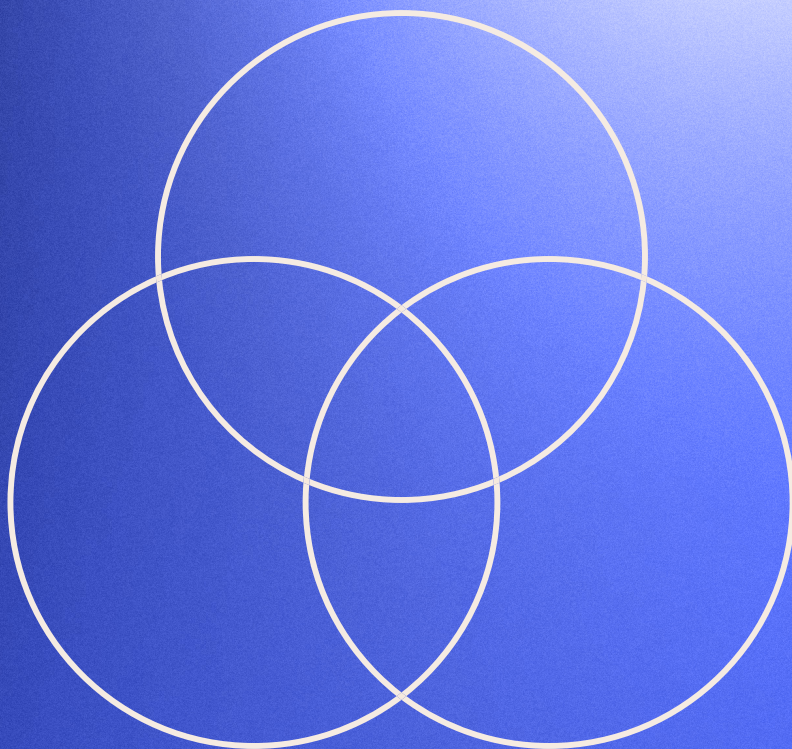
1009 Students on courses hosted at DF

SPACE UTILIZATION

"While virtual tools like Teams, Zoom, and Miro are great for online work, nothing really beats meeting physically when working on wicked, creative, and ambiguous problems. This applies as well when trying to come up with something that really has an impact on the world and combining the perspectives of various disciplines and backgrounds." . Below you can see a graph of all the meetings, workshops and events hosted at Design Factory!



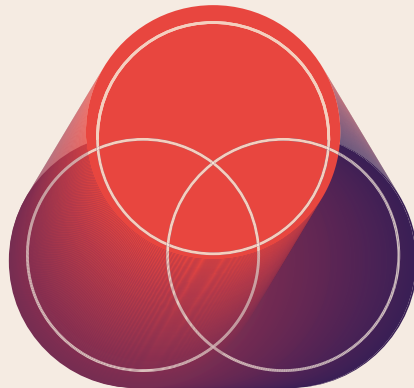
 **1470** Space Reservations at DF



RESEARCH

In 2021–2022, the Design Factory research team gained an assistant professor, two postdoctoral researchers and a doctoral researcher. We examined the practices and capabilities needed to co-create a positive impact, whether through engineering innovation or public service design. The research team worked closely with organizations, other academics and students from all sorts of disciplines. In addition to continuing our work on sustainable design and entrepreneurial actions during the pandemic, we started two new research projects: ATTRACT examines how technological innovations can be developed into societal applications in consortia of scientists, students and companies, and CREATNet took a deep dive into what radical creativity means in different fields.

DF also hosted the CreaTE (Creative Technology Education) research group, established during the 2021–22 academic year. The group focused on investigating multidisciplinary and creative technology education from early childhood to higher education, and still develops continuous learning in the field. The group combined the multidisciplinary technology education expertise of Aalto University (two doctoral researchers) with the learning and craft sciences expertise of the University of Helsinki (a university lecturer and two doctoral researchers). The group is committed to research-practice partnership in Opi! – Opitaan teknologiaa technology education program.



18

NEW
PUBLICATIONS



2070

LEARNERS
REACHED



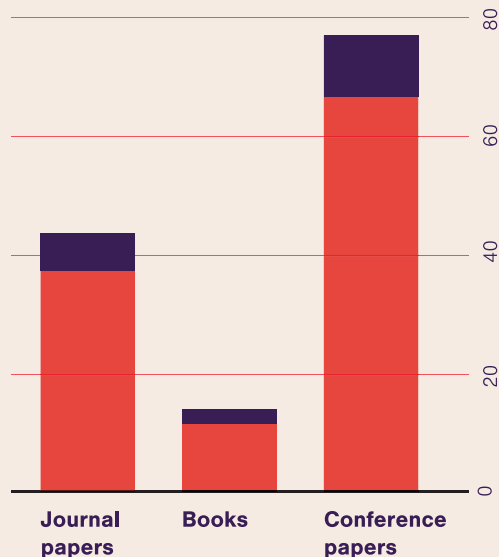
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NEW RESEARCH
PROJECTS STARTED

PUBLICATIONS TO DATE

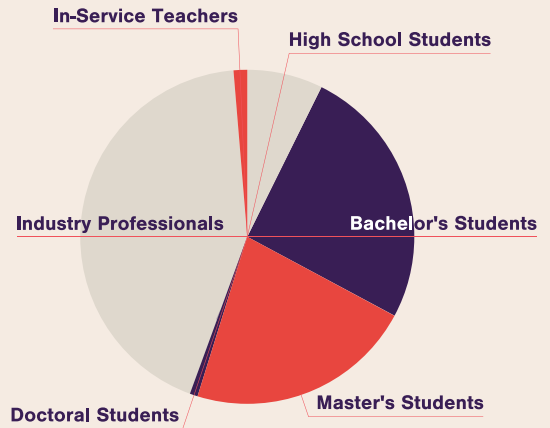
A lot of care and time goes into turning research results into academic publications. Each year helps us to amass a larger foundation of insights and understanding on co-creating impact. In June 2022, we celebrated two doctoral researchers in the community submitting their dissertations on empathy in product design to pre-examination. Congratulations Antti Surma-aho and Jie Li!

- Previous publications to date
- New publications 2021–22



RESEARCH-BASED TEACHING ON INNOVATION, PRODUCT DEVELOPMENT AND DESIGN

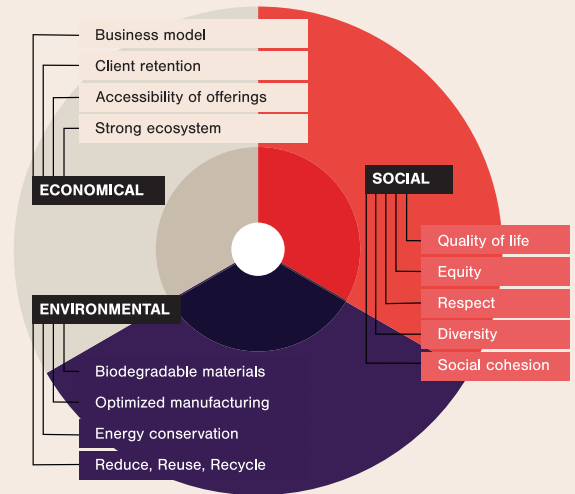
Research at the Aalto Design Factory places an emphasis on translating findings into teaching within and beyond Aalto. In addition to running 5 courses, the researchers in the community are active visiting lecturers and co-teachers. For example, we developed a course for applying design thinking to develop new circular economy opportunities and industry case studies on the societal linkages of engineering opportunities.



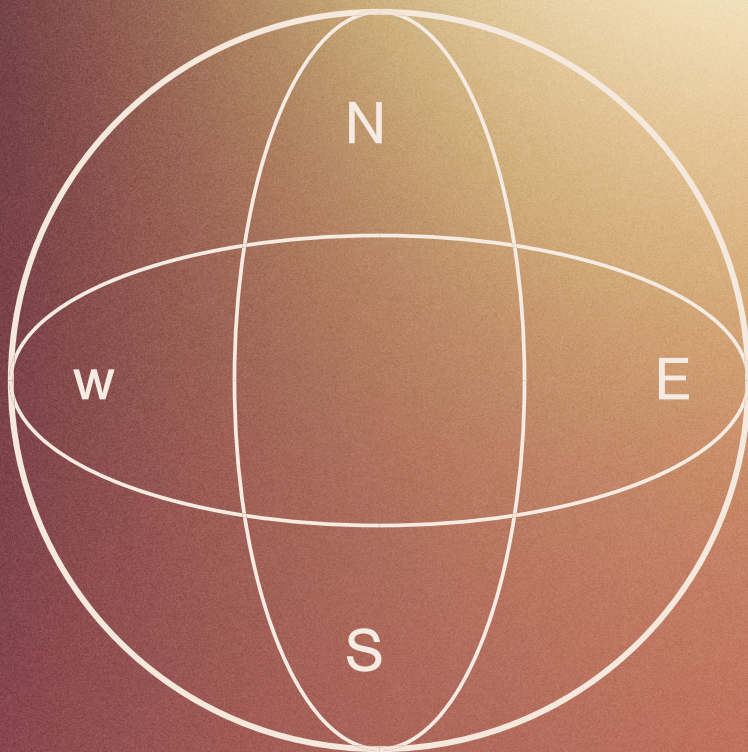
2070 Learners reached by the research team in the academic year 2021-22

DESIGN+ SUSTAINABILITY

One of the research projects we did in 2021 investigated how 101 Finnish organizations leveraged design. We found 4 common types of value, with design supporting customer-centricity, exploration, new business creation and collaboration. Environmental sustainability was commonly coupled with design, but social sustainability and economic sustainability were as of yet still more limited in their integration in the organizations.



KEY AREAS OF DESIGN TOWARDS
SUSTAINABILITY



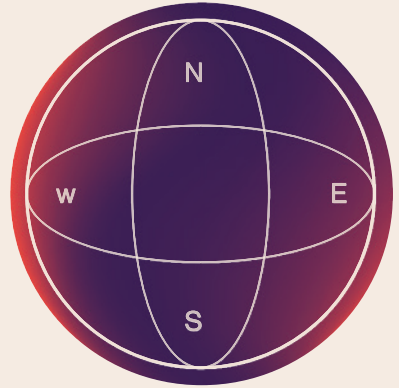


The Design Factory Global Network consists of 38 innovation hubs in universities and research institutions around the world. We are lucky to have an incredibly diverse group of very talented professionals, from the upper side of the world in Finland to the end of the world in Chile. But most importantly, the DFGN is a people-based network, where we are all on the same mission of reshaping and rebuilding the way education is done in the world.

This, by hosting workshops, events, and courses related to design thinking, interdisciplinarity and experimentation culture, is where we share the best practices and build collaboration projects together.

The DFGN has proven to be the support for many institutions around the world that are trying to challenge the way things are traditionally done.

We ask questions, we challenge each other, we propose solutions, we support each other's dreams, we are seen as the troublemakers and the weirdos, and most importantly: we are there for our students. And that is the only thing that matters, right?



38



**DESIGN FACTORIES
AROUND THE WORLD**

3



**DESIGN FACTORIES
ADDED THIS YEAR**

WORLD DESIGN FACTORY DAY (MAY 2022)

The World Design Factory Day (WD22) serves as an opportunity for different Design Factories to showcase the outstanding things they have been working on. It is also an opportunity for them to introduce the whole Design Factory network to their own communities. Through multiple events, we celebrate the community that we have built, as well as learn from each others' projects.



12 Hours of program



10 Special guests from DF Lab 101 2022



7 Events



100+ Sign-ups



5 Hosting institutions



3 Design Factories added this year: DF Stuttgart (GER), iCubo UDD (CHI), DF Nantes (FRA).

INTERNATIONAL DESIGN FACTORY FESTIVAL 2021 (OCTOBER 2021)

International Design Factory Festival is THE week we all wait for. The main goals of the week are to share the best practices, get to know each other and plan for collaborations. Together, we reflect on what we would like to achieve as a network, and build collaboration projects to impact our students.



5 Days



55 Events



1,000+ Participants



24 Design Factories attended



5 Time zone hosts



400 Temporary tattoos distributed



65 Hours of program



60 Hugging points



18 Hours of time difference

DF LAB 101

DF Lab started as the online version of our DF Bootcamp where participants used to spend one week in Finland getting immersed in the Aalto Design Factory culture and way of working. DF Lab allowed institutions to learn the basis of ADF and DFGN. Through intense training and workshops, we shared best practices, learned from each other, and participants developed an experimentation plan in order to build (or further develop) an innovation platform in their institutions.

DFGN 10TH YEAR ANNIVERSARY

On the 29th of November, 2021, DFGN celebrated its 10th anniversary! Multiple Design Factories celebrated it with their own communities where they offered cake, nice conversations and a cozy environment! We can not imagine how awesome the next years will look like. Any ideas?



3 Versions of DF Lab



16 Institutions



65 Active participants from 16 institutions



100+ Hours of program



50 Experts from different sectors



150+ Participants from local communities

CONTRIBUTORS THIS YEAR:

Klaus Castrén
Saara Savolainen
Joel Meneses
Felipe Gárate

Anna Kuukka
Tua Björklund
Maria Clavert
Shreyasi Kar

Erwin Laiho
Vesa Saarijärvi
Kanerva Mäkikoskela
George Atanassov

Editors in chief:

Klaus Castrén
Saara Savolainen
Joel Meneses

Art director:

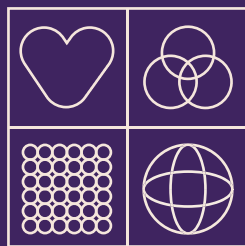
Joel Meneses

Social media:

Saara Savolainen
Anni Toivonen

Video production:

George Atanassov



KIITOS!