

# A!

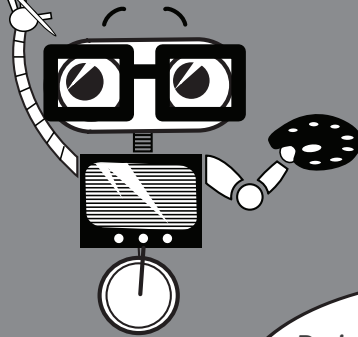
Aalto University  
Design Factory



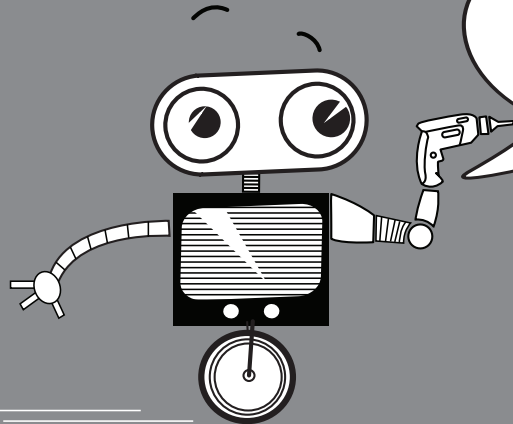
## *Aalto Design Factory Stories*

ANNUAL REPORT 2011-2012

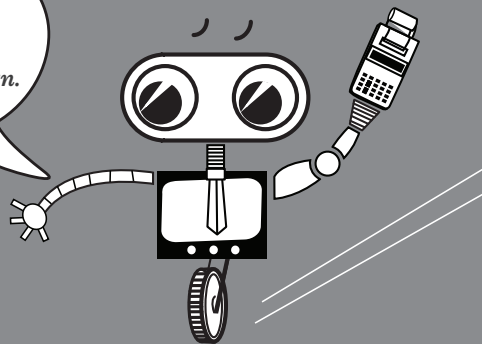
*Hi,  
I am PD-4U, a friendly defabot.  
I will guide you through the  
DF ways of working!*



*Design Factory is an experimental  
co-creation platform for education,  
research and application of product  
design, that utilizes strong  
industry-university connections.*



*We bring together  
all disciplines of Aalto  
University: Business,  
Engineering and Design.*



## *ADF Journey*

Like Aalto Design Factory, this report has also been a project - a journey through ADF's life from the very beginning. As you know, in projects, milestones are important. They force us to look back and forward, see where we have succeeded and what should be further developed. Now, in October 2012, ADF is facing its first big milestone and continuing the project with a fresh start. We call this the ADF 2.0. Due to this, in the annual report we are not only looking back the academic year 2011-2012 but also at the very first steps of ADF since 2008.

When writing this report, we definitely had fun! We were committed to the project from the very beginning and most of all, we learned a lot when working with different people and this new project. After all, ADF is an experimental platform where all of this is made possible. When you read on you will find out what this experiment means to the ADF community members.

The whole annual report team wants to thank everyone who have participated in this project by sharing their thoughts, producing content, providing inspiration and helping in all other ways!

Hold on tight and enjoy the ADF journey!

**TIINA & MARIA**  
CONTENT & DESIGN POWER DUO



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## *The most important people*

Aalto Design Factory as a concept already has some mileage. Every vehicle has an obvious need for annual maintenance, but sometimes even a more thorough refit is necessary.

In addition to the efficiency and quality indicators included in this report, an external productivity evaluation exercise of Aalto Factories will take place during Fall 2012. We are eagerly waiting for the results, feedback and recommendations. To serve as a source of inspiration for the whole Aalto University community, the Factories should never lose the passion, curiosity, flexibility, courage and caring.

For the near future, Aalto Design Factory should take advantage of the international Design Factory network. Simultaneously, supporting the student-centric learning actions and practices on Aalto's campus is a first priority.

Professor David Dudley's open letter to Georgia Southern University community has received some publicity during the past weeks<sup>(1)</sup>. There is one sentence in his letter, where he states that the most important people at GSU: "...are not its president, nor its provost. Nor its other vice-presidents, deans, department chairs, advisors, staff members, or faculty members. The most important people here are our students, and when we forget that, we might as well turn off the lights, lock the doors, and go home."

I couldn't agree more.

**KALEVI "EETU" EKMAN /**  
JANITOR OF DF

(1) <http://class.georgiasouthern.edu/litphi/dd-openletter.pdf>

*Presenting ADF*

01

## *Year 2011 - 2012 in numbers:*

# 9500

VISITORS

# 3400

PAIRS OF SHOES PASS  
BY KAFIS WEEKLY

# 20000

CUPS OF COFFEE

# 80

"STOLEN FROM DESIGN FACTORY" TITLED  
COFFEE MUGS HAVE DISAPPEARED

# 38

BREAKFASTS AT DFFANY'S

# 20

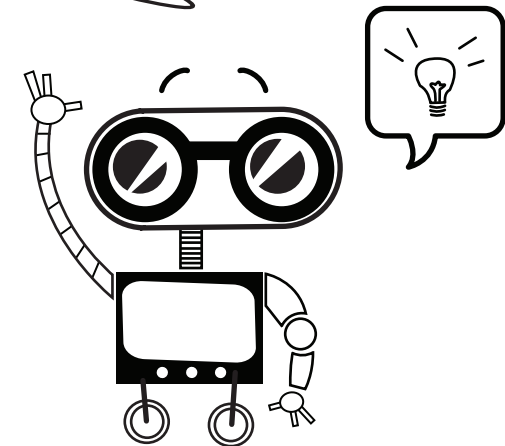
OTHER FOOD-RELATED, INFORMAL  
COMMUNITY EVENTS

# 13

THESIS WORKS  
PRESENTED AT ADF

*Expertise Value = hard x (soft)<sup>2</sup>*

*In addition to core competence we  
believe in soft elements, such as  
curiosity, hunger for learning,  
teamwork, passion and love.*





# ***ADF - English Dictionary /***

*Translating the language used at ADF in to proper English*

**AaltoES** = Aalto Entrepreneurship Society

**ADF** = Aalto Design Factory

**Ad hoc** = Improvised and unplanned meeting that can occur anywhere

**ATDF** = Aalto-Tongji Design Factory in China

**ARTS** = Aalto School of Arts, Design and Architecture

**Aquarium** = The place for researchers in the second floor

**Backstage** = Stage-like space at VG

**BIZ** = Aalto School of Business

**Breakfast at DFFany's** = Community breakfast buffet organized every Tuesday morning in Kafis

**Chief Barracuda** = Managing the ecosystem in the Aquarium

**Coffee** = The elixir of life which you get only from Kafis

**Defa** = Nickname for ADF, e.g. "I love hanging around at Defa"

**DF** = Design Factory: 1. When talking about the concept  
2. Shorter version of ADF

**DFRT** = Design Factory Research Team, ADF staff researchers

**Eetu** = The Janitor and director of ADF, Professor of PDP, Kalevi Ekman

**ENG** = Aalto School of Engineering

**Holiday** = 1. Open office space full of hot desks in the second floor  
2. Everybody needs one

**Hot desk** = A desk which anybody can use for a day, just choose your spot in the morning and leave it as it was when you arrived

**Hugging point** = Purple carpet in Kafis where you are supposed to hug the person standing there - hugging elsewhere is also allowed

**IDBM** = International Design Business Management Master's program

**Informal** = Normal way to operate, keeping things fun and relaxed

**Kafis** = The place for meeting people and getting coffee - functioning as a cafeteria, living room, dining room and kitchen - in the heart of ADF

**Lunch** = Most important meal of the day and preferably enjoyed with friends e.g. at Täffä, Dipoli, Tapiolan Pizza, Tervetuloa Grill or Kafis

**ME310** = Mechanical engineering 310, Global team based design innovation course conducted in partnership with Stanford and 12 other globally distinguished universities

**OIN** = Otaniemi International Network

**Palju** = Traditional hot tub in the Pool Office area

**P3BL** = Passion, Project and Problem Based Learning

**PDP** = Product Development Project- course

**PMC** = Project Managers Club for previous PDP project managers

**Powerkiss** = Company producing wireless charging spots for mobile phones - spots can be found at Kafis

**Sauna** = Sauna

**SDF** = Swinburne Design Factory in Australia

**SFC** = Sino-Finnish Centre in China

**Stage** = The biggest space at ADF

**Stranger** = Someone you should say "hello" to

**Studio** = Lecture and workshop space at ADF

**VG** = Aalto Venture Garage

**WDC** = World Design Capital

**Workshop** = Can mean anything from baking pizza to ideation with students and industry representatives

## Events 2011 - 2012

SEP	Venture Garage 2.0 Launch Aalto Party
OCT	Annual Report 2010 - 2011 Publication
NOV	ATDF 2.0 Launch & SFC 1st Year Jubilee "Transportation and Highway Engineering" Seminar with Tongji PMC Top Seminar: Testing in Product Development Swinburne Design Factory Opening Ceremony
DEC	PDP Christmas Seminar DFRT "ADF in the Eyes of its Community" Report Publication
JAN	Inspired by DF, Sun Deck Group Working Space Launch
FEB	Inspired by DF, TU5 Learning Environment Launch WDC Weekend Murjottelu Kickoff Event TEDxAalto University Event
MAR	"Six Hats and Lateral Thinking" Seminar by Mike Sproul New ADF spaces: Library, Aquarium & Holiday Office Launch ADF Open Doors Aalto in the Game Event
APR	eTextiles Workshop by ARTS & ADF Aalto Global Impact Workshop PDP Final Gala
MAY	PDP Gala Exhibition IDBM Final Presentations Design Research Workshop by Larry Leifer & Martin Steinert





# *Hugging point*

## *Community*

Design Factory wouldn't be anything without its community. Students from business, design and engineering, Aalto University's and partner universities' teachers, researchers, industry partners, Global DF Network and ADF staff are the members who bring the life inside the walls of ADF. Within and among the ADF community several courses, seminars, experiments, study and research projects, events and breakfasts are organized throughout the year.

ADF is like a second home where it is allowed to have fun, experiment, fail fast and learn, ask help from others, be openly curious, inspire by example, be proactive and take initiative.

You will survive in this colorful ecosystem just fine if you remember one thing – at the Design Factory students come first.

# 02



*In the year 2011 - 2012 ADF community consisted of:*

500

INTERDISCIPLINARY STUDENTS

20

TEACHERS AND PROFESSORS

5

RESEARCH GROUPS

31

ADF STAFF MEMBERS

4

COMPANIES

21

FOOD RELATED INFORMAL COMMUNITY EVENTS

*"The breakfast gave us a chance for team building as well as promoting the project."*



## ***Breakfast at DFfany's***

The tradition of having breakfast together on Tuesday mornings at ADF was renewed during the year 2011-2012. Earlier the organizing responsibility was only in the hands of OIN and the ADF staff members but this time the responsibility was divided among the PDP teams, so each team got two turns during the year.

Our PDP team, Beyond Basil, organized the breakfast in March 2012 and during the last week of PDP in April. As we had only two chances to organize the breakfast and a team of 11 members, the workload for each person was quite small. We divided the tasks; some did the shopping, others prepared the food and almost everyone joined in the actual serving. The breakfast gave us a chance for team building as well as promoting the project. Besides giving the hottest updates on our product development process to the ADF community, we also used the opportunity to get feedback from the visitors, for example choosing the color range for our final product. For the last breakfast we were even able to get a sponsorship from Kesko (that cooperated with our PDP sponsor Biolan). This allowed us to take the final PDP breakfast to the next level and attract even more people who were craving for the most important meal of the day.

Part of our PDP team would join the weekly breakfast almost every Tuesday during the year. We even fixed our weekly meetings on Tuesday mornings to get a chance for catching up unofficially before the actual meeting and also giving extra energy to work longer before lunch. For us the ADF breakfast has been more than just a chance to make new friends and have a happy start for the day. We hope to meet you over breakfast also in the future - whether it is at ADF, ATDF or SDF!

**KAROLIINA PARHIALA & KRISTIINA LAINE /**  
PDP STUDENTS, TEAM BEYOD BASIL, BIOLAN

*“Design Factory isn’t just a center of teekkari -culture but more like a home for all types of motivated people who create a culture of their own - a Design Factory and Aalto culture.”*



## Get a factory experience – get DF’d!

My first experience of Design Factory was in 2010 when I started the Product Development Project. It was a compulsory course for industrial design students and it meant long travels to Otaniemi many times a week. I had heard positive feedback about the course but Otaniemi wasn’t the most attractive or welcoming place.

Design Factory turned out to be a very encouraging study environment. It is such a multicultural community where you don’t feel like an outsider. At Design Factory you feel welcomed to a mixture of nationalities as well as the different cultures of the three Aalto campuses. In the summer of 2012 I started to work at ADF and I roughly knew what to expect. Design Factory isn’t just a center of teekkari -culture but more like a home for all types of motivated people who create a culture of their own – a Design Factory and Aalto culture.

Aalto Design Factory is all about socializing, getting motivated and learning from each other. It has an important role of teaching people about the fields of Aalto: arts, science, business and technology. Only by understanding each other’s fields it’s possible to truly appreciate each other’s work. As an former, skeptical Taik -student I would like to encourage everyone to get their own Factory experiences. Get into the Factories, find yourself working with well-motivated people and get DF’d!

**SAANA TIKKANEN /**  
MURJOTTELIJA AT ADF IN THE SUMMER 2012

*“Around 30 people from IDBM squeezed into the tiny kitchen. Everyone was busy cooking and tasting strange foods from different cuisines and sharing stories and cultures with each other.”*



## Not only interdisciplinary but also international

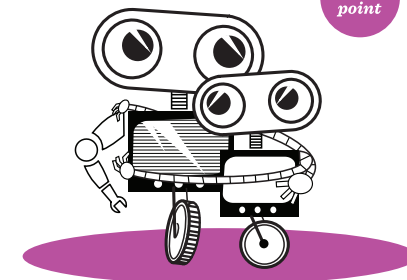
Design Factory is definitely a universal setup. All the gaps disappear once you step into it. We IDBMers enter through participating in the courses held or organized at the Design Factory. But what we’ve done is much more than just seminars and workshops.

For example, our national dinner party in Kafis after the first intensive week has become a classic event in IDBM community. It’s a bright Friday afternoon, around 30 people from IDBM squeezed into the tiny kitchen. Everyone was busy cooking and tasting strange foods from different cuisines and sharing stories and cultures with each other. It’s the first time that we came together like a big family. For me, this is also where and when our 2012 IDBM community initially started. Because after that point you would always meet some IDBMers who would be making brunch or desserts with friends or team members.

After the first intensive semester, now everyone has their own plan for the future. But wherever we go, there is an intersection which always welcomes us back, called “Design Factory”.

**ZHOU LU /**  
IDBM STUDENT

*Hugging  
point*







## ADF 2011 - 2012 Refurnished and redesigned Spaces

The biggest change during the past year has more or less been a working culture change. We are moving step by step towards a mobile working environment. First, the staff gave away their assigned working desks, and after redesign of the open office, the researchers also gave away their assigned working desks. Nowadays, no one has an assigned desk and storage is centralized.

This change meant that people had to organize and get rid of a lot of old stuff. Cleaning is a good and free way to start something new. I think there lives a small hoarder in each of us - we all love to collect papers and miscellaneous files. But we need to keep in mind that this is a constantly changing environment and it takes time to learn the new ways of working. Time will tell whether this succeeds, but at least it is a fresh start, with less stuff.

In the beginning of 2012, ADF's open office was redesigned and renovated into three different activity spaces, which support a more focused, quiet working environment. The Library works as an entrance space, lowering peoples voices, before entering Aquarium and Holiday working spaces. The Holiday, is a space where people cannot be disturbed, because they are on their "holiday" and not available. The Aquarium space is designed to bring research transparent and accessible for students and other ADF community members. A Chief Barracuda is looking after the rules and other research species, so that the ecosystem of research aquarium will not be threatened. All ADF books are now collected to the Library so everyone can access them.

Also a new ergonomic meeting room and private working room was introduced in partnership with the Salli Saddle chair. All of these spaces are designed to be open for all, so everyone can try different working environments during day.

**ESA "ESMI" SANTAMÄKI /**  
CHIEF OF SPATIAL DESIGN

## Spatial changes 2008 - 2012

*We've said that our spaces are constantly changing, and this has been happening from day one. Some of the spaces might look different every month, only few spaces haven't changed or developed. Can you guess what these spaces are?*

*We've had the biggest changes in the Lobby but even bigger enhancements, attempts, failures and developments have been carried out in Puuhamaa. Its function has nevertheless remained the same - a transformable team working space. One special activity in our spaces took place in the summer 2009 when the TV-show Project Runaway was filmed in Puuhamaa and Studio.*

*While visitors and users might think that our spaces are so different every time they come here, the main philosophy or main activities within ADF spaces haven't changed from day one. Only new activities have been introduced and hundreds of experiments and failures have been carried out. Sure, the spaces look a bit different, but content is the same as it was when we opened the doors for the first time. The lobby is still a place to meet people, work, have fun and sleep, even when there is a 30-meter long tree lying on the floor.*

*People often ask us - what has been the largest failure or mistake during these years of ADF development? The answer is quite simple: We have been so busy developing many projects and running all around the world spreading the love that we haven't had time to carry out decent documentation. Our documentation is in the form of pictures, videos, stories, memories, tv-shows, interviews and over 30 000 inspired people. I think that is better than nicely packed document pile. Maybe ADF doesn't need documentation but let's see what the ADF 2.0 brings. Meanwhile, we will keep on experimenting.*









## ***Inspire – Creating a city festival by learning by doing and having fun***

INSPIRE 2012 was a one-day city festival organized by a bunch of bold and passionate IDBM students. On Saturday the 26th of May, the Old Customs Warehouse at Katajanokka was full of excited people - those who were already living their dreams and those who wanted inspiration to live their dreams!

Thanks to Design Factory and its super helpful staff we managed to keep our hands-on approach when organizing the festival. Whether it was about baking cupcakes for Restaurant Day in Kafis' cosy kitchen, organizing photoshoots in one of the meeting rooms or filming a teaser video, we always found ourselves at Design Factory. Learning by doing. And having fun.

INSPIRE is about exploring and sharing; about provoking people to live their dreams and show what is possible when you dare.

Be passionately curious.

**ELINA LAMMINTAUSTA & JEMINA LEHMUSKOSKI /**  
IDBM STUDENTS

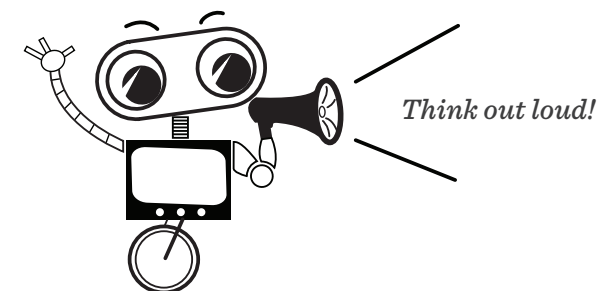


## ***Supporting, training and having fun!***

The Project Managers Club organizes events and training to support students who have taken the responsibility of managing and planning project work. We work with Aalto staff and students and offer our support by lending our knowledge and time to help in training the new PDP managers. The main activities of PMC aim to support the student project managers and their community.

Perhaps the most prominent event during the year is the PMC Top Seminar where we invite interesting speakers to tell about their experiences. The highlights of the year are the smaller events and evenings with good discussions and delicious pizza. A PMC event can be anything, but at its best it's something supportive and above all FUN.

**PETER TAPIO /**  
PMC MEMBER OF THE BORED



*Keep the community tight, but ensure open knowledge sharing*



## Students come first

Our main idea is to help students, startups and other community members in many ways. Especially for the students, the most important help and support is our people. There is always someone who can give advice and help in various problems concerning design, product development, production and material supply. We support people to try out new things and experiment on their own.

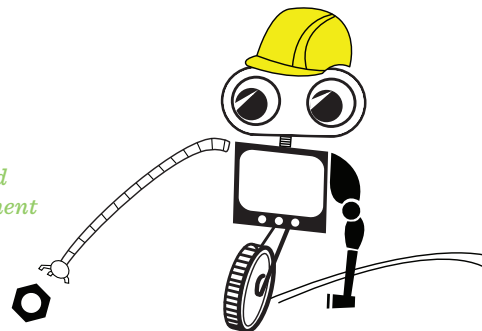
In the 2011-2012 school year, the largest course which has consumed most of our hours has been PDP. The 14 project teams employed us with all kinds of questions and technical manufacturing problems. I must say that the students' own initiative and passion to learn has been remarkable! Our support and encouragement combined with the teams' own responsibilities have brought up wonderful results, as could be seen for example in the XWOS Vaisala project.

Not only PDP students but also other students, especially international ones, have utilized the DF services well. We have done moulds for glass-blowing, topographic models, various machine parts and electronics for both individual students and groups. Workshops held for external people have clearly increased and also many ADF located start-ups have kept the service team busy. The Aalto Satellite project, thesis projects and courses have received considerable support from the ADF's Service team.

Big thanks to the Service team for their efforts!

VESA SAARIJÄRVI /  
MACHINE SHOP MANAGER

*Provide encouragement and  
practical support for development*



## Service team at your service since 2008

*The ADF Service team was founded as Design Factory started its operations. In the beginning we roughly knew what we were going to do but we found our direction over the years.*

*The Service team has the expertise as well as the facilities to electronics and mechanical work. All together we are four people in the machine shop and three in the Electroshop. Since 2008, the Service team has grown through the guys at the Electroshop and one additional assistant. Then, in 2010, we added a model-maker master craftsman to our team. With these resources we have supported hundreds of projects during these four years. The NC machine tools have been running ca. 6000 hours yearly.*

*In addition the Service team has taken care of tool and material supply and maintenance and we have improved our supply based on students' needs and our own experience. If we are lacking some tools or machinery, we use our networks and knowledge to guide the students to another place in Aalto or industry where they can find the necessary tools. For us it's not necessary to have everything at ADF as we can get help from others as well. This way we can also introduce the students open mindedly to other people and laboratories in Aalto. At the Design Factory we also deal with everyday issues like changing light bulbs and cleaning the coffee machines.*









## *Education*

"Innovation by interdisciplinary co-creation. Change is the goal!"

During the year 2011 - 2012 about 10 courses with 500 students from different backgrounds were organized at the Design Factory. We worked with numerous Aalto teachers on co-developing their courses and experimenting with new ways of learning. Most teachers have continued developing their teaching after the experiments were conducted at ADF.

# 03

## Education at ADF:

# 10

COURSES DURING 2011-2012

# 500

STUDENTS PARTICIPATED

# 1 200 000

KM OF TRAVELLING IN THE  
INTERNATIONAL PROJECT COURSES

# 2500

HOURS OF PROTOTYPING ON  
CNC MILLING MACHINE

# 48

PROJECTS WERE PERSONALLY  
ASSISTED AT THE ELECTROSHOP

# 3500

STUDENTS OF DESIGN, BUSINESS AND ENGINEERING  
ACTIVELY INVOLVED IN DIFFERENT ACTIVITIES IN 4 YEARS

*"The final outcome usually  
remains unclear throughout  
the project but as we often say,  
what really matters, is the  
journey."*



## ADF as an experimental platform

What I knew about the Product Development Project and Aalto Design Factory before this course was completely different from what I know now. What I have learnt is difficult to explain in terms of typical learning outcomes, basically this course allows us to work on a real product development project and all of its aspects including human, technical and economical. I could say that I am still learning from the course.

As a student and a professional, I understand the ADF platform as a space where both the academic and professional world come together. This cohesion is created in order to find practical and innovative solutions for companies and their everyday problems.

What does this mean? Ongoing company projects, their representatives, professors, researchers, experienced and skilled industry professionals, enthusiastic ADF staff members and students are mixed together in this experimental PDP cocktail. The result perhaps is unpredictable but excellent raw material is guaranteed. The final outcome usually remains unclear throughout the project but as we often say, what really matters is the journey.

In this case, it is all about the eight month journey and the people you travel on this journey with. ADF is the glue that puts the spaces, resources and know-how of every individual together. Companies explain their problems and students give their best, as simple as that, as beautiful as it is.

**IÑIGO FLORES /**  
PDP PROJECT MANAGER, TEAM XWOS, VAISALA



*“The global student teams prototype, test and iterate in order to develop and implement innovative solutions to real world design challenges.”*



## **ME310 - global team-based design innovation**

Mechanical Engineering 310 (ME310) is an interdisciplinary course for Master-level students from all Aalto schools. During one academic year, the course teaches students how to use design thinking and the Stanford/IDEO design process in product development, concentrating on practice-based learning. The global student teams prototype, test and iterate in order to develop and implement innovative solutions to real world design challenges posed by multinational corporate sponsors. The final proof-of-concept prototypes are typically featured at the Stanford Design EXPE each June in California.

Finland-based 310ers have always called Design Factory home. However, this unique course almost came to an end when it was discontinued at Aalto for the 2011/12 academic year, and perhaps beyond. Determined not to lose 310 forever, many alumni, prospective 310 students and the ADF community rallied together to create the SaveME310 movement to show Aalto's administration the true value of the ME310 experience.

At its heart, SaveME310.com is a web-based collection of student stories and project profiles that show not only the energy and passion of 310ers, but also emphasize the course's long-term effect on our way of thinking and learning. As a result, we are delighted to announce that ME310 is back and rolling at Aalto starting in the fall of 2012!

Applications for the Class of 2012/13 will open in July. For more information go to <http://me310.aaltodesignfactory.fi>.

**TUOMAS SAHRAMAA, HARRI TOIVONEN, MIKELIS STUDERS /**  
SAVE ME310 TEAM

## **Experimentation - the art of trying things out in real life**

Experimentation is the art of trying things out in real life - building it, acting it or testing it on others. PDP had many of these moments during the past year. Ideas ranging from travel safety gear to building automation and container lifting cranes were tested and further developed. The whole course is closely tied into testing and the realization of ideas. With so many different projects we were able to see many things succeed or fail during the journey to build the final prototypes and demonstrations.

Other than prototypes, we are also developing methods of learning for practical product development. This wasn't just any other year of PDP. The honest and constructive feedback from the students and sponsors were useful for further development of the course. Now, we the course staff, are better prepared for coaching the next round of PDP - once again.

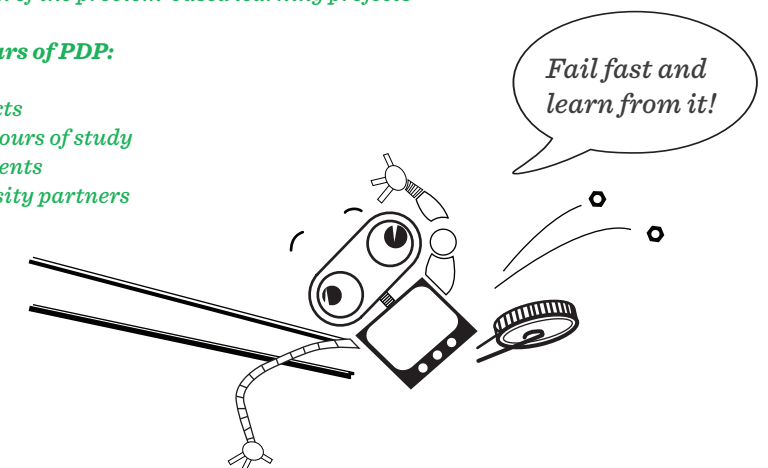
**PETER TAPIO /**  
PDP PROJECT ASSISTANT

### ***In Fall term 2011 of PDP:***

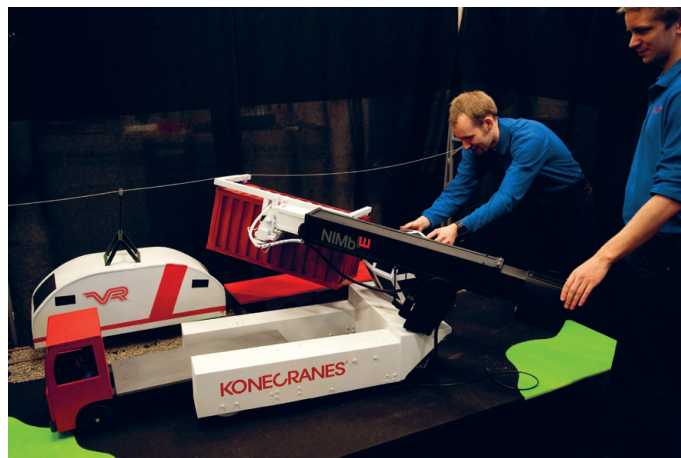
- 14 new projects started
- 147 students (114 of them from Aalto University)
- Students from 17 different nationalities
- 33 international distant team members
- 9 universities from around the globe participated
- 220 000 EUR external funding was raised to support the realization of the problem-based learning projects

### ***In four years of PDP:***

- 168 projects
- 350 000 hours of study
- 1550 students
- 11 university partners









*“Opekumppani-program was founded to provide personal mentoring for Aalto teachers willing to develop their courses using ADF as an experimentation platform.”*



## ***Passion-based learning and teaching experimentations***

ADF staff members have experimented with different ways of bringing teachers together to share experiences, learn from each other and gain support and recognition for developing the pedagogical culture and practices in Aalto University.

For example in Spring 2010, a research-based Opekumppani-program was founded to provide personal mentoring for Aalto teachers willing to develop their courses using ADF as an experimentation platform. The practical pedagogical support provided has received positive feedback and led to more extensive developmental efforts among the participants in their own working environments. The teachers experimented with e.g. problem-based project works and methods such as prototyping and exhibition walk-throughs at the ADF premises.

By providing the Aalto University teachers an opportunity to get to know the Design Factory ways of supporting pedagogical development, the spreading of a new passion-based learning culture throughout the University as well as its strategic partners is ensured.

On average, the courses developed in collaboration with ADF in 2011 were over 100-student courses in the field of technology.

**MARIA CLAVERT /**  
EDUCATION DEVELOPMENT EXPERT

## **Pedagogical development activities at ADF 2008 - 2012**

*In 2011, the focus of the pedagogical development activities of ADF shifted from supporting individual, active teachers in utilizing ADF as an experimentation platform towards enabling wider co-development activities among the teaching faculty.*

*Pedagogical co-development was supported by establishing an open forum, Opefoorumi, for sharing experiences and best practices among all Aalto teachers and students in an informal atmosphere. After gathering monthly at ADF premises for a year, the forum was adopted as a part of the pedagogical activities offered by the Aalto University Strategic Support for Research and Education. Simultaneously a pedagogical change agent program BE Butterfly Effect was established at ADF. The one-year program provided a selected group of experienced teachers peer support in developing the teaching culture and practices in Aalto.*

*In line with the teaching experimentations conducted at ADF, the systematic pedagogical development activities were extended with internationally transferrable DF workshops in order to open up new avenues for advancing the collaboration between ADF and Aalto-Tongji Design Factory in China. In the workshops, the Tongji teachers designed interdisciplinary and multicultural teaching experiments suitable for their own teaching environment utilizing elements from the ADF ways of working. After the workshops, a pedagogical three-year training program was established between Aalto and Tongji Universities in 2012.*



*“The goal was to improve students’ collaborative knowledge construction instead of plain information delivery during lectures.”*



## ***New ways of thinking about learning***

ADF offers an environment for experimenting new ways of teaching and learning supported by both adaptive space and pedagogical coaching. Some of the Spring term courses, co-developed with ADF, were two first year lecture courses in the degree program of chemical technology which were restructured around the project work. The goal was to improve students’ collaborative knowledge construction instead of simple information delivery during lectures.

Planning of the learning process was supported by the ADF “Opekumppani”-program and ADF also offered an inspiring environment for group work for around one hundred students participating in each of those courses. ADF provided frames for new learning experiences which improved the interaction between students and between students and teachers by enabling different ways of working. Although the first attempt of project work in groups was not solely successful, it was clear that it supported understanding and applying instead of memorization of details. Based on the student feedback, some of the students liked the project-centric way of studying and also felt it supported their learning and understanding. However, some of the students did not like the project approach, mostly due to problems with their timetables and insufficient instructions and guidance, which of course will be improved in the coming courses.

**KATI VILONEN /**  
TEACHER IN BIOTECHNOLOGY AND CHEMICAL TECHNOLOGY

*“Industry Project is a real life assignment for a sponsoring company that a multidisciplinary team of four students undertakes for one academic year.”*



## ***Aalto’s multi- and crossdisciplinary Master’s degree program***

The IDBM program is a joint teaching and research platform which cuts across all of Aalto University’s schools. The program aims to train professionals for key roles through emphasizing the importance of design as a competitive factor (design thinking), the link with technology and a concrete business model. The key offering of the program is the Industry Project. It is a real life assignment for a sponsoring company that a multidisciplinary team of four students undertakes for one academic year.

In the last years the IDBM program has seen many changes; in 2009, IDBM was selected by Business Week Magazine as one of top 9 design business programs. In 2010, IDBM celebrated its 15-year anniversary and the Master’s Degree was offered for the first time. The Industry Projects have also seen changes, becoming more diverse geographically and in topic. For 2011- 2012, IDBM had projects with partner organizations from the public and private sector, with NGO’s in different countries like Uganda, Mozambique, Japan, Germany, Switzerland and Peru, as well as with several top Finnish companies. All of these organizations included partners in the paper, technology, communication, automobile, beauty and healthcare, energy, furniture and creative industries.

**RODRIGO CERVANTES MENDEZ /**  
IDBM PROJECT MANAGER



*“Projects apply problem-based learning philosophy and connect theoretical studies with hands-on exploring and solving of real-life problems.”*

## ***Aaltonaut – rethinking Bachelor’s studies***

Aalto University wants to explore, to what extent Bachelor’s studies could be reorganized, in order to completely fulfill the requirements of the degrees in Technology, Business, or Arts and Design, while enabling space for interdisciplinary learning experiences.

The first pilot of Aaltonaut will start in Fall 2013. The personal study plans will be composed of both existing courses as well as of brand-new learning projects. Those projects apply a problem-based learning philosophy and connect theoretical studies with hands-on exploring and solving of real-life problems. The new courses will be taught in English in order to also allow exchange students to participate the studies.

Aaltonaut students will be strongly encouraged to carry out an exchange study period at one of the selected partner universities. The Aaltonaut internship program with industry and other partner organizations will help the students in developing their professional skills.

The Aaltonaut project team consists of Professor Kalevi “Eetu” Ekman and the Development Expert Maria Clavert from Aalto Design Factory. During the Summer 2012, an interdisciplinary student team including Hannes Kallioinen (ENG), Saana Tikkanen (ARTS) and Tapio Melgin (BIZ), assisted Eetu and Maria. Development of the Aaltonaut-project can be followed at [aaltonaut.aalto.fi](http://aaltonaut.aalto.fi).

If you are interested in actively participating in developing the studies or teaching in the courses, or would like to participate in the studies, please contact Eetu or Maria.

**MARIA CLAVERT /**  
AALTONAUT PROJECT MANAGER







## **UNICEF and academia working hand-in-hand**

When someone is told they have big shoes to fill, they know that there is a big challenge ahead of them. 10 months ago I jumped into very big boots as my journey as project manager for the Aalto-UNICEF Finland PDP started.

My part of the story began in June 2011 when I became employed by ADF to work on the Aalto-UNICEF collaboration; hence I was involved in Uganda in sourcing the case for the Aalto-UNICEF project. The unanimous decision with UNICEF Uganda and Finland was that WASH (Water, Sanitation and Hygiene) was the case to focus on since it is one of the largest barriers of healthy lives and education for the children of Uganda. WASH covers the journey from the source of water, means of transportation to the point where the water is consumed, how it is consumed, user behavior during and after usage of the latrines, and human waste management.

The ingredients included 15 students with 8 different nationalities from 3 universities from around the world and all together they represented 5 disciplines. These students joined forces in a project that was the first of its kind in many ways. This was the first time UNICEF had involved academia to this extent in their mission towards social innovations and the first time that PDP and IDBM collaborated on the same project.

In order to create a sustainable innovation, in the long run we needed to understand the context as well as possible and not only create a tangible product but also focus on the intangible aspect that make the products fit to the current system. The main ingredients for the success included the field-research trips to Uganda and the four team members from Makerere University in Uganda.

Together, the passionate teamwork and dedicated students came up with 4 products that could be locally produced and a Clean School concept, all of which turned the attitude towards hygiene upside down to promote good hygiene through educational actions in the school.

**IRENA BAKIC /**  
PDP PROJECT MANAGER, AALTO-UNICEF FINLAND







## *Research*

In addition to the in-house research supporting the development of the ADF platform, the Design Factory hosts a lively research community with a multitude of research agendas and approaches. This community consists of both visiting and permanent individual researchers and research groups, most importantly MIND, 4d-Space, DesignROI and Product-Design Research. Research that is carried out at Design Factory drives great impact beyond the academic field and ties in close relations with industry partners.

The following pages showcase some of this research providing a glimpse of the multitude of research activities taking place at the Factory. More information on the individual research groups and their activities can be found Design Factory's website.

# 04



## Research by the ADF staff in academic numbers 2008 - 2012:

7

DISCIPLINES REPRESENTED  
AMONGST ADF RESEARCHERS

131

THESES SUPERVISED

12

PUBLICATIONS IN PRODUCT DESIGN  
AND DEVELOPMENT

6

PUBLICATIONS IN  
ORGANIZATIONAL STUDIES

4

PUBLICATIONS IN  
PEDAGOGY AND EDUCATION

3

PUBLICATIONS IN  
MANAGEMENT



## Users in socio-technical change

The Users and Innovation research group INUSE is a cross Aalto University research group that creates in-depth knowledge on the role of users in socio-technical change. Our work focuses on user and designer practices, co-design arrangements, user innovation communities and pathways of user contributions to innovative products. Two members of INUSE, Pia and Samuli, reside in ADF.

During a real-life, lead-user project of redesigning an online teaching and learning service for the national broadcasting company Yle, we created a collaborative design analysis technique "Participatory 3D modeling" to address the need to reveal what elements comprise a product or service for different stakeholder groups. We have experimented and further developed the P3DM in various design situations. Much of the work in INUSE has to do with lead users and user innovation. Lead-user identification being the most difficult part of lead-user methodology, we have developed and tested an integrative search strategy labeled "Mountain-eering" in the context of green energy.

**PIA HELMINEN & SAMULI MÄKINEN /**  
RESEARCHERS, INUSE

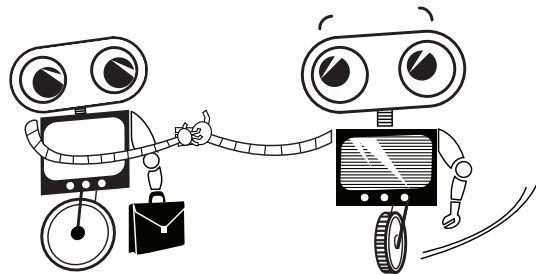
*“Research has strong presence in courses, events, workshops, and other activities taking place at Design Factory.”*



## ***Understanding the dynamics of the ADF platform***

The in-house research at Design Factory aims at producing knowledge to benefit the continuous development of the Design Factory platform. As one of the main efforts in 2011-2012, the ADF researchers conducted a reflective study to understand how Aalto Design Factory is perceived, experienced, utilized and developed by its community members: Aalto and ADF teachers, students, researchers, and other staff members. The study was composed of interviews carried out with 51 community members, supplemented with data from 177 interviews conducted in other projects and observations of interaction at the ADF Kafis. A report summarizing the findings of the study can be downloaded from the Design Factory website.

**MIKO LAAKSO /**  
ADF STAFF RESEARCHER



*Attract people with helpful and proactive attitudes*

## **Research to benefit the development of ADF 2008 - 2012**

*Research by the staff of Design Factory has aimed to provide a theoretical base and inspiration for the development of ADF concept and activities. Research has a strong presence in courses, events, workshops, and other activities taking place at Design Factory, with the aim of transferring the accumulated knowledge in to practice. In addition to providing knowledge that is utilized in development work, the majority of research has been conducted on the various stakeholders of the community, in order to provide tangible benefits already in the early phases of research.*

*Thus, the ADF community members have been provided with opportunities to reflect on their development work and receive incentives and support for experimenting with new approaches. The research has been largely qualitative, with interviews as the main source of data. Numerous community members have participated in various types of interviews, often multiple times. During 2008-2012, the participants have included:*

*70 students  
35 entrepreneurs  
26 corporate product developers and designers  
58 teachers  
13 researchers  
37 other professionals, such as Aalto staff members*

*In addition, data has been collected in various feedback sessions, development workshops, observations, questionnaires, experiments and exercises. The results drawn from this data have been embedded into the development work of the ADF community, and have also been published in a wide variety of academic outlets.*





## Communicating the value of design

In October 2011, Design ROI research project embarked on a journey of communicating the value of design. The project aims to develop a tool for the Finnish Design agencies to communicate the value of design to their customer segments qualitatively, and where applicable, quantitatively. The concrete outcomes of the project include a seminar paper, written report, presentations in various design events, Design ROI casebank and a prototype of the Design ROI tool. Design ROI is an official WDC Helsinki 2012 project.

From the get go, it was clear that both the ways of doing and what was being done were novel. As the long-term objective of the project is to create a permanent change in the rhetoric of design and to improve the prerequisites of the sector to operate in, getting the word out and creating discussion on the topic have been integral to the project.

Gathering insight and collecting input from various sources have been one integral part of the research project. This has meant meetings with different industry experts and academic advisors, ideating sessions, conducting surveys and interviews and hosting workshops. Design ROI's "Framing the Question" seminar paper was accepted and presented in the Nordcode 2012 seminar.

The Design ROI research team has had the pleasure of picking the brains of the likes of Jaakko Aspara, Anna Valtonen, Dirk Snelders, Søren Petersen and Design Factory's very own research team. In addition to four workshops with design agencies and the representatives of their client companies, Design ROI project has also hosted a gingerbread decoration workshop for the DF community and an ideation workshop for Italian Farnesina Design Collection design delegation visiting Finland.

**HEIDI CHENG AND ANTTI PITKÄNEN /**  
DESIGNROI





## Experimentation drives the way to the strategic innovation



MIND has 2 agendas: To increase the level of ideas in to the level that challenges the industry and to lower the experimentation hurdle. In the past year, we have focused on the development of experimentation methods and tools. All together 60 conceptual experiments were done.

Some experiments had great success stories. Slow cashier, hidaskassa, was a reformulation of the cashier service for those who want to take it easy. It started with an experiment in K-Citymarket, and after a week, the shop requested to have it there permanently. Also the Best park of the world-project, done in Summer 2011, succeeded in developing a new service that took place in a Helsinki park in Summer 2012.

ADF functioned as a concrete testing environment for many experiments we conducted during the year. As examples a new nightclub concept, multi-home party club, was tested in the premises in September with over 100 visiting guests. In the Act Out of the Box Center-project, a service prototyping laboratory concept was developed iteratively to provide a concrete playground for rough and explorative service prototyping, which in our opinion is necessary when developing new value propositions. It was utilized in our own innovation cases and in prototyping workshops for entrepreneurs and student teams.

During the year we have worked with different lead-user groups; in KVPS-project with disabled persons to enhance their happiness in life, in several comprehensive school projects with students ages 7-16, to seed the idea of experimentation and "learning by doing", and with elderly people to create solutions to enable them to work longer. Aalto University students carried out a course about Licence to Act Differently in Spring 2012. Eight multi-disciplinary teams were solving industry-challenging topics set by our partner companies.

HENNA KÄRKKÄINEN /  
MIND

*Projects: Serve MIND, Act Out of the Box Center,  
Uxus, Lohaspack, KM-retail, Innopolis, Innokone*

*Selected social impact numbers of the year 2011:*

- 60 real life experiments
- 2 companies founded
- 1 new word in Finnish
- 4 appearances on the national TV
- 15 publications
- 3950 persons listening a MIND-speech

## MIND promotes acting differently 2008 - 2012

*During the four year time frame, MIND has been part of Design Factory community. The Factory has provided an inspiring environment for exploring and advancing experimentation which is one of the core elements of MIND's agenda to promote the creation of strategic innovations. ADF has been a testbed for defining and developing systems, methods and tools. For instance, in 2009, the GYM of MIND workshop methodology was established.*

*Since Summer 2011, MIND has had a space in Design Factory to develop an environment for lowering the threshold of prototyping particularly in the field of space-related services. This first prototype of Act out of the Box Center has enabled developing techniques, methods and tool kits to support explorative service prototyping. Also a company called Mindustry was established in 2011 to offer consulting services.*

*Since November 2009, MIND has licenced more than 1900 agents to promote acting differently in order to support people in challenging the status quo of the society to make it a better place. In the end of 2011 MIND-ers started to count their social impact in numbers as an experiment to concretize how a research group can impact the society also in other ways than just by publishing papers. The experimentation was successful - also other researchers in Aalto University will summarize their achievements in the form of social impact numbers.*





## *Companies*

One of the fundamentals of Design Factory is co-creation with companies. Design Factory is a platform where we support companies in embracing the potential the cooperation with Aalto University. In the year 2011-2012, four companies held their world headquarters at ADF.

Séos Design, Hookie Technologies, Zeta Design and booncon are part of the ADF ecosystem as they not only have their offices at ADF but also participate in courses, ADF events and share their passion, ideas and inspiration in Kafis over a cup of coffee on a daily basis.



## Collaboration with ADF and Companies 2011 - 2012:

# 4

COMPANIES  
LOCATED AT ADF

# 11

PARTNER COMPANIES

# 14

PRIME EXAMPLES OF MARKET  
READY PRODUCTS OUT OF PDP

# 15

COMPANIES BORN INSPIRED THROUGH  
PRODUCT DEVELOPMENT COURSES

# 5%

ADF COMPANIES GIVE OUT OF  
THEIR TIME TO THE COMMUNITY

# 48

CONCRETE IDEAS OF  
SPIN-OFFS CREATED AT ADF



## An experiment worth taking

Hello, my name is Lukas and I am from booncon, the youngest company at Aalto Design Factory. We moved in here last September and since then a lot has happened. When we came here we did not really know what we would expect as the whole Design Factory concept was completely new to us - we took this as an experiment.

The goal of our company is to create a new work environment for students, enabling them to work in their fields for real customers. We organize the projects, provide the infrastructure, bring the teams together and are responsible for the project management.

This way everyone involved gets to see what they would not have seen otherwise. In some way we let people have a taste of what it's like to be an entrepreneur. I think this fits perfectly to the philosophy of ADF, as it is to encourage people to take risks. We also bring together people from different fields which again is a goal of ADF.

The warm atmosphere here really helped us in achieving our goals. We also organized small experiments like the Pizza Factory (DIY-Pizza workshop @ Kafis) to bring people together and encourage exchange of knowledge while having fun.

LUKAS HAFNER /  
BOONCON



## Being a sponsor in a student project

PDP is an unique possibility for companies to work with students and get fresh ideas. As a sponsor, we don't want to give fixed problems to students to solve because we want to encourage the students to carry out the research themselves, figure out the main problems, stakeholders' different needs, technical possibilities and have them bring their own vision to the project.

The students provide a totally different perspective to the project, not only because they come from the outside and aren't tied up with the company's everyday life, but also because the teams are interdisciplinary. It is also interesting to see how some projects go on almost automatically and some need to be pushed forward a bit. I think the students should be active in maintaining the relationship, asking questions and setting up meetings with the sponsors. After all, the sponsoring company is the client and the students are the sellers.

The relationship and the activity in the cooperation relies a lot on the sponsors. For example, in the 2009-2010 school year we assigned two professionals in addition to myself to the project. We were all able to give different perspectives to the project. The cooperation was wonderful and the project manager at that time called me almost every week to keep everyone in the loop. Naturally, this type of cooperation required commitment from us too.

This year, I was particularly surprised how active a remote member could be in the project. I remember a similar instance one year when we had half of the team members from the Indian Institute of Technology in Kanpur. It was unfortunate that on that year, just before the PDP Gala the volcano in Iceland caused cancellations in flights and we couldn't ship their prototypes on time to Finland. Luckily, the team arrived just in time for the Gala after taking a detour.

As a space, ADF brings many benefits for these student projects. Compared to regular study places, ADF has a great atmosphere where people are relaxed with a good attitude. There is no need to be stiff and withdrawn!

**ARI HÄNNINEN /**  
PROJECT MANAGER AT KONE CORPORATION

## Collaboration between a multinational company and a university 2008 - 2012

*The collaboration with Kone and ADF has long roots. Many of the present employees at Kone have studied in Otaniemi and have been Eetu's students. The positive outcomes and great results have kept us hooked to ADF and PDP year after year. We jumped in early on and wanted to be a part of the ADF experiment!*

*ADF as an experimental platform inspires our work. Those of us who have worked in DF projects before are already a part of the community and know how to 'talk to strangers'. On the other hand, for those who have recently become familiar with ADF, our own meeting room at ADF works as a great home base. With this KONE office we can also provide working spaces for our PDP teams and get overall visibility in this Aalto's experimental community.*

*From our point of view the students do valuable work in the projects. In PDP we usually give the students flexible challenges which look to the future. Our teams have mapped out new technologies and have pushed us forwards to new experiments. Through PDP we get great students with fresh ideas and the students get challenging cases to solve.*

*I think it is important to bring the Aalto campus to Otaniemi and ADF closer to our product development. Visiting ADF really opens your eyes when you see all the possibilities you can have in a learning and educational environment. The ways of working, the dynamic atmosphere, openness, hands-on spirit, failing and learning as well as permission to experiment are all the things I want to bring into our culture as well. This collaboration challenges our existing working methods and forces us to stay dynamic and think differently. I believe that with this kind of openness you get the best results and you can do great things even in such a small country as Finland!*

**PEKKA KORHONEN /**  
DIRECTOR, ACCESS CONTROL AND INTEGRATED  
SOLUTIONS AT KONE CORPORATION





## ***Developing design stairs and living in the ADF ecosystem***

Zeta Design Oy is a start-up challenging the traditional stairs and railing market. Zeta Design joined the ADF community in March 2011. The 2011-2012 year has been all about product development and product launch for Zeta. Innovation is embedded into e.g. the stairs design logic into houses, integration with house designers, own models for elegant design & clever structure as well as outsourced manufacturing of modules. The company has developed the streamlined, frameless Zeta-stairs model and accompanied poleless glass railing system utilizing the ADF scene.

Product development progressed through pilot installations of the stairs at Aalto Design Factory and Venture Garage, working also as commercial showcases and leading into further commercial deliveries. The development was supported by brainstorming and mentoring sessions accompanied by students and ADF staff as well. Zeta was also a case in a R&D Management course. The cooperation has lead into the real commercial launch of the products mid 2012 at the Finnish Housing Fair (Asuntomessut) in 2 houses + our own stand at Habitare (Furniture, Interior Decoration & Design Fair).

**EERO VIRROS /**  
ZETA DESIGN



A background map of Southeast Asia, specifically focusing on Vietnam, Malaysia, and Singapore. Several pushpins are placed on the map: a cluster of four in the north (Vietnam), one in the center (Singapore), and a group of five in the south (Indonesia).

## *Global DF Network*

The Global DF Network consists of Design Factories that operate based on the same philosophy and principles and also provide similar familiar environments to operate in. Currently the Global network is present in Shanghai (Aalto-Tongji Design Factory), Melbourne (Swinburne Design Factory), and Finland (Aalto Design Factory).

Collaboration with Aalto Design Factory can vary from merely gaining inspiration from ADF in some way, to co-creation and co-development of joint Design Factories in order to fulfill and support strategic partnerships between Aalto University and the partner. The role of ADF also varies from providing help and support in co-creating with the local partner. Nevertheless, every partnership is formed in a way that best supports and fulfills the needs and aims of both parties.

In 2012, the Global DF Network gained presence in Delhi in the Inspired by DF India and in Fall 2012 we are expecting some very interesting news regarding the Factory Network expanding to Chile!



## Global DF Network

2

OTHER DESIGN  
FACTORIES ABROAD

>40

NATIONALITIES VISITED  
DESIGN FACTORY IN ONE YEAR

25%

INTERNATIONAL STAFF  
MEMBERS

48

"FACTORY GONE GLOBAL" BLOG  
POSTS DURING SUMMER 2012

692

VISITORS HAVE PINNED  
THEIR HOMETOWN

902

WEEKS SPENT BY AALTO COMMUNITY IN  
SHANGHAI SINCE ATDF ESTABLISHMENT



## Community building at ATDF

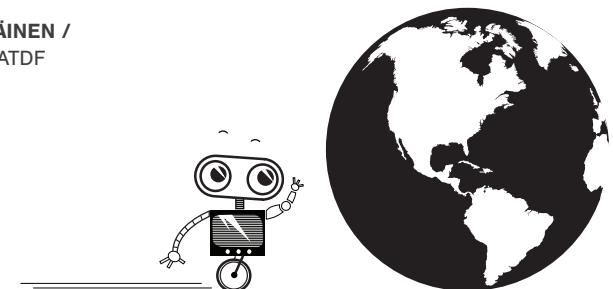
Aalto-Tongji Design Factory was established in May 2010, and so on...  
But let's focus on something more concrete than the boring facts!

The main focus areas for the academic year 2011–2012 were community building, education development and industrial collaboration. In order to build and activate the ATDF community, we launched the Sino-Finnish Centre Sauna Club and initiated the Aalto Ambassadors Program.

Education development took place in the several pilot courses at ATDF. The Visiting Lecturer Series "Contemporary Topics on International Design and Innovation" was a new, experimental initiative that was built on the foundation of a steady pool of world-class visitors to ATDF, who were invited to participate as speakers in the series. In Spring 2012, the Sino-Finnish Centre's Product Design and Innovation program was piloted in the form of one theoretical course, one project course, and one methodological course. The full scale program will start in Fall 2012.

Industrial collaboration intends to find new, revolutionary forms for bringing the university education closer to industry. Several successful examples have taken place, including a two-week Lifestyle Design Workshop with Marimekko and an Activity Park Design Program with Rovio and Lappset.

MATTI HÄMÄLÄINEN /  
DIRECTOR OF ATDF







*“The development of Design Factories aims to support the internationalization of Aalto University, creating more possibilities for international experiences.”*

## ADF Gone Global 2011 – 2012

During the academic year 2011 – 2012, the Design Factory concept spread to Australia, Chile & India. The Powered by-model was applied with Swinburne Design Factory and officially opened in November 2011 in Melbourne.

During Spring 2012, work towards Design Factory Chile in Santiago was started in cooperation with the local partners Duoc UC and PUC (Pontificia Catholic University, Chile). The official kick-off for the DF Chile will be in November 2012, during the CUMULUS-conference in Santiago. Like Swinburne Design Factory, the Powered by-model will be applied with Design Factory Chile.

A new, interesting initiative was also launched in Delhi, India during Spring 2012. Design Factory India is the first phase in developing Design Village, a new Design University set to be opened in 2014 in Chandigar, India. Design Factory India, runs and operates under the Delhi-based Architecture company Archohm. It is running a PDP-type project course that attracts the top students from all over India to work on projects given by both Indian and foreign companies. Design Factory India is Inspired by Aalto Design Factory.

The first ever Global Design Factory week will be organized in October 2012, when Aalto Design Factory celebrates its 4th anniversary. This annual event will start in Finland and will bring together people from the DFs around the world to share ideas, experiences and experiments from different contexts.

**VILJAMI LYYTIKÄINEN /**  
HEAD OF INTERNATIONAL OPERATIONS

## ADF Export 2008 – 2012

*Through the PDP-course, the first steps in international cooperation were taken already before the launch of Design Factory and the Global Design Factory Network. Initially in PDP, the students and faculty shared ideas and experiences of how to best support interdisciplinary project work. Then in Spring 2010, the international collaboration was taken to a whole new level through the establishment of Aalto-Tongji Design Factory in Shanghai. ATDF, the second Design Factory in the world. This marked a whole new model for university collaboration in the world. It has been benchmarked by several stakeholders ever since its opening.*

*The development of Design Factories around the globe aims to support the internationalization of Aalto University, creating more possibilities for international experience for Aalto students and faculty. But perhaps even more importantly, the process of developing Design Factories around the globe produces another level and context for what ADF is all about: experimenting, learning, continuous development and co-creation with local partners.*

*Three different cooperation models have been formed to develop new Design Factories with international partners: In partnership with, which is applied with chosen strategic partners of Aalto University, Powered by for those who are willing to launch their own Design Factory supported by ADF, and Inspired by for those who get inspiration and ideas from ADF and are willing to provide ADF with recognition for this.*

*The pinnacle of experimenting in international collaboration will be in October 2012, when ADF celebrates its 4th anniversary. International Design Factory Week will gather stakeholders from the DF Network in Finland to share experiences and ideas, and to co-create ADF2.0.*





## ***Swinburne experiments with a research-lead model***

Swinburne Design Factory (SDF) was launched in November 2011 as the first Factory established under the 'Powered by' model. Sitting across the five faculties of Swinburne University of Technology, SDF is rewriting the well-established slogan 'All you need is love, design, business and engineering,' by adding ICT and social sciences into the mix. The first half of 2012 has seen the gradual building of solid foundations to create a Design Factory with a strong research focus. SDF is the first Factory to bring research to the forefront of industry engagement, experimenting with different models to allow project sponsors to gain access to the expertise of Swinburne's researchers in addition to design-powered innovation.

The launch of SDF took the Design Factory concept from a partnership to the Global DF Network. Swinburne is actively building relationships with both Aalto and Tongji Universities, hoping to contribute by carrying out extensive research collaboration between Factories, a feature of the network.

**PÄIVI OINONEN /  
THE SDF COACH**

### ***SDF year in numbers:***

- *Launched on 29 November 2011*
- *6 industry projects*
- *3 students involved in PDP projects*
- *3 research projects*
- *250 m2 of redeveloped space*
- *Weekly breakfasts and 5 open events*
- *Research and staff exchange*





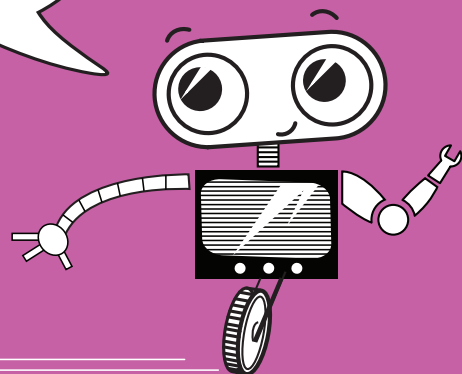
## *Projects*

What would a project be without projects? Projects born or supported by ADF vary from developing coffee payment systems in Kafis to implementing latrines in Uganda. The World Design Capital Helsinki 2012 year has had large visibility also at ADF as many WDC projects have been started or discovered at ADF.

# 07



*This is impossible...  
We host more projects than  
we even know! And after all,  
ADF is a project too.*



## ***Design Factory in collaboration with WDC***

To celebrate the WDC year, Aalto University created an extensive program called Living+ to create better, more sustainable living environments. Living+ contained over 30 projects, which makes Aalto University the largest single program contributor during the year.

Aalto Design Factory served as a base for many WDC events, as well as taking on the responsibility for several projects. Each one of ADF's WDC projects are experimental collaborations with businesses and other partners.

More information: [living.aalto.fi](http://living.aalto.fi)

**KAISA KIVELÄ /**  
WDC 2012 PROJECT COORDINATOR FROM AALTO

### ***The Design Factory WDC projects:***

- *Antenna Challenge*
- *Product Development Project Gala and Exhibition*
- *Dirikka! Kausaali*
- *The Finnish Design Business Association's first research project: Design ROI*
- *Wonderwater at Tian Hai*



## Encuentros // Kohtaamisia - WDCH2012 Service Design Exhibition in Spain

To celebrate the World Design Capital Helsinki 2012, the Finnish embassy in Madrid, the Instituto Iberoamericano de Finlandia and the CentroCentro exhibition space opened the Encuentros // Kohtaamisia exhibition in June 2012. The exhibition was designed and curated by Seos Design in collaboration with Aalto Design Factory.

Encuentros // Kohtaamisia exhibition explores the relationships of design, services and meaningful encounters in urban environments. This exhibition showcased some sixteen service design examples from Helsinki and the surrounding regions. The chosen examples explored different approaches to service design in the areas of culture, learning, mobility, well-being and communication. Some of these examples are still only ideas and some are in the developmental stage while some are already internationally recognized and established solutions.

Service Design is an emerging discipline, which by nature is co-creative, iterative and often user-centered. It is also a multidisciplinary activity that can be approached by a range of points of view. Service design aims to create new experiences for the individual while creating a repeatable process in an organized, yet flexible and human manner.

The Encuentros // Kohtaamisia exhibition opened on the 19th of June and is planned to last until the 16th of September at Palacio Cibeles, one of the most emblematic exhibition spaces in Spain. The Encuentros // Kohtaamisia exhibition also launched the new space Observatorio Ciudad 21, an international program through which CentroCentro wishes to diffuse good urban and citizen practices.

**ANTTI PITKÄNEN /**  
SEOS DESIGN, CURATOR OF ENCUEXTROS // KOHTAAMISIA







## Aalto riding the waves

Aalto on Waves was a student-driven innovation project where people from the Aalto community traveled by ship to Brazil. The aim of the journey was to create social impact through learning and collaborating on real-life challenges.

The idea started among former participants of Aalto on Tracks, who were inspired by the awesome spirit and experience of the journey. A lot of time was spent in random get-togethers to come up with the next epic idea. The ideas ranged from various means of transport to forming a new religion – talk about “out of the box” thinking! Once the idea of a transatlantic boat trip was developed and there were enough brave people to go for it, the team started to meet at ADF. Also new members from everywhere were invited and welcomed to the group as the aim was not to simply copy Aalto on Tracks, but to instead create a unique, new story.

The main driver of the project was to bring the Aalto community together, literally “under the same roof”, to break the silos of the different campuses and schools. Another aim was to create a one-of-a-kind learning experience for the participants, not only in an academic sense but also for life!

Aalto on Waves is a great example of what students are able to do with courage, will and passion. But we could not have done this without the support of Aalto, Ayy, ADF and numerous sponsors. The project was an experiment on something completely new and all 110 participants (and many other enthusiastic supporters) were able to bring their own ideas on board!

**NIINA GROMOV /**  
AALTO ON WAVES ORGANIZER

### **Facts about AoW:**

- November - December 2011
- 110 students, professors, researchers, companies and other members of the Aalto community by ship to Brazil
- Stopped by at 7 different cities
- 8 days spent on the sea between the harbors
- 11 courses and almost 30 workshops hosted
- 42 ECTS available in total

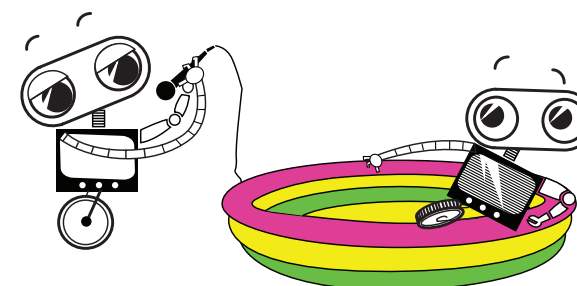


## Building group work space to K1

We knew how great it was to work at Aalto Design Factory, so we wanted to try how it would work out in our Konetekniikka 1 building as well. Esmi was asked to design Sun Deck as a group work space since there is no such space in the building. Because it would be just dull to just refurbish the space, we experimented with new elements in the context of group-work and added a social media component into the mixture.

At the time of Sun Deck’s opening we also released AaltoStudents Facebook group which works as a virtual meeting place and fosters interaction between people who would not otherwise meet each other. In addition to the project’s benefits for students, the Sun Deck team also helped ADF staff to define the “Inspired by Aalto Design Factory” concept as this was the first attempt to create such a concept. Just like Gandhi said: Be the change you want to see...in the engineering community.

**HEIKKI SJÖMAN /**  
SUN DECK PROJECT MANAGER



*Keep things informal, avoid hierarchies and bureaucracy*





*"We took the challenge to redesign the space and its usage for all."*



## Planning Sanomatalo's future in Alusta

Sanomatalo is a large media building located in the city center of Helsinki. Because it is meant to be a gathering spot for all citizens, we took the challenge to redesign the space and its usage for all. The Alusta-project was done in collaboration with ideation office 358 and Sanoma Group.

The first phase of the project was to open a store, service point, gallery, learning environment – or something in between, in Sanomatalo in August 2012. We had a team of 8 enthusiastic Design Factory students working for a month in Sanomatalo's open office called Alusta\*. In April and early May, they laid the foundation for further development by uncovering insights, making prototypes and preparing design principles of what Sanomatalo could be in the future. In late spring, the final layout of the store was done by professional architect Tuomas Siitonen and interior designer Katriina Lankinen. Renovation for the space was completed during the rainy summer months. By the time this report is out, the new flagship store "Kulma" is about to open in Sanomatalo - go and see the final results of the first phase!

\*Alusta = Finnish word meaning a foundation or to start over

**HARRI TOIVONEN /**  
SANOMATALO CO-CREATION PROJECT

## Impacting the world one step at a time

During Summer 2012, Aalto Global Impact and UNICEF were using the power and fresh minds of university students to help drive impact in rural Ugandan schools, directly through developing conceptual, tangible and localized solutions within the areas of WASH (water, sanitation & hygiene). Our team of 11 interdisciplinary university student researchers from 9 different countries took the challenge and settled down in Uganda for the summer.

When the team arrived in Uganda, we came with the intent to progress onward from the completion of the 2011-2012 IDBM and PDP course projects. More specifically, this meant re-visiting the prototypes and concepts focusing within the area of WASH which entailed the concept of Clean School and the products which were a water transportation device, a hand washing unit, enhanced latrine user experience and a remote monitoring system, all of which primarily focused within education. We ran several different types of creative, hands-on workshops with primary, secondary and vocational school students in Gulu, Northern Uganda. We wanted to utilize the creative minds of the children while educating them about the long-term benefits of practicing proper hygiene. Ultimately we utilized the rich, user-centric data gathered during our fieldwork to further develop our prototypes.

At the end of the summer we received exciting news that the team will now have the ability to further develop the UNICEF Innovation Center in Kampala to create a more open, innovative - learning and doing environment!

**ANDREW CLUTTERBUCK & MARI TERRIO /**  
AALTO GLOBAL IMPACT TEAM

*AGI Summer Implementation is a part of the Aalto-UNICEF collaboration and is an ongoing project within the Aalto Global Impact organization. The project is supported by ADF, Swinburne University, IDBM Master's program and the PDP-course. The collaboration between UNICEF Finland and ADF started in 2010.*









## *Statements*

Design Factory has been an exciting place now for four years and during our years we have had the honor to work with many different people. This section collects comments and quotes from some of our partners from the journey.

# 08



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*“Garage was, and is, inspired by Defa not only in spatial design but in community culture, weekly breakfasts, BBQs and pay-it-forwardness. Startup Sauna, the bi-annual venture accelerator program run at the Garage, as well as other projects have over the years benefitted tremendously from DF’s expertise, workshop facilities and the DF staff’s never-ending help, support and cheering.”*

*Charlotta Liukas / Team member, Aalto Entrepreneurship Society*

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*“Design Factory has proved to be much more than a platform for cross- and interdisciplinary product development learning and research. It has been an invaluable symbol of Aalto University spirit and it has been in many ways the role model in renewing the ways of working in a university.”*

*Hannu Seristö / Vice President of Aalto University*

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*“Without Design Factory, there would be no Aalto Venture Garage. DF has greatly supported the Garage is its beginnings.*

*DF is the big brother of Garage- as it has helped to pave the way for us to succeed. Like any family dynamic between siblings there are rivalries. But for the most part like any siblings, deep down there is great respect and admiration between the two organizations. The Garage would never have been here today if it was not for DF.”*

*Natalie Gaudet / Community Manager of Aalto Venture Garage*

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*“DF is a really great place for Ready Steady Go! Finland to have a desk at for the design-intensive and co-creation oriented project that it is. Even my program aim is to increase co-creation between public and private sector actors within the Finnish sports industry. DF provides a rich environment where you can share knowledge and best practices with other industry programs. There are also many interesting lectures and workshops all year round to participate in. Here you really get to know new, talented and interesting people. The future is in close view at DF.”*

*Karoliina Vilander, project manager / Lahti science and business Park and President, Finnish association of designers ORNAMO*

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*“I would like to thank all of you for your personal support and great contribution for this historical establishment of Design Factory! ATDF will be a new spirit of high education for Tongji as well as for the reform in China as whole, as you could feel at the atmosphere of the opening ceremony!”*

*Professor WU Siegfried Zhiqiang / Assistant President, Tongji University, Dean School of Design & Innovation*

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*“Design Factory has been a great platform for many student projects - inspiring facilities, helpful staff and random encounters with people from many fields. Aalto on Tracks hugely benefitted from the environment and it has been happy to see that the DF spirit has boosted Aalto on Waves and many, many other projects as well!”*

*Mikko Ikola / Aalto on Tracks organizer*

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*“If you want to make your ideas into reality, the only thing that you need is Design Factory and its community. With the support and encouragement of them we not only carried out the Wishbone, but we also created a new business around it and established our company Wish Bros. Inc.”*

*Tappi Honkavaara / Designer and Co-Founder of Wish Bros. Inc.*

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*“DF has inspired me from the very beginning of its existence. The way of co-creating, working hard and having fun at the same time is inspiring and more importantly hugely productive. For me, DF represents genuine love towards making things just a little better and making them better together. Science, Art, Culture and Love; these are the foundations for a meaningful life and creating a harmonic future together.”*

*Ville Taajamaa / Galactical Ambassador for Higher Education*

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*“Design Factory has become the place at Aalto to visit for international guests and delegations. DF bursts with energy and already from the doorstep you can feel the innovative, inspiring and international spirit of the place. DF leaves our visitors excited every time.”*

*Leena Plym-Rissanen / Aalto University's International relations,  
Manager of international campus*

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*“Breakfast at DFfany’s has been a welcoming source of rejuvenation after weekly Aaltoes Board meetings in 2012. The space has maintained its creative charm and has gathered a great community around it. Aaltoes and the Design Factory both aim to inspire so let’s keep working together to make a difference!”*

*Nils Paajanen / President of the Aalto Entrepreneurship Society*

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*“The pedagogical OpeForum concept was created at ADF during 2010-2011. OpeForum is an open gathering for sharing ideas about teaching and learning in Aalto University, and experimenting with various working methods in an informal, open-minded atmosphere. The forum was integrated with Aalto Teachers United (ATU) activities in Autumn 2011 and gathered six times during the academic year 2011-2012 at the ADF premises. ATU is a network for the Aalto teaching faculty supported by Strategic Support for Research and Education. The OpeForum concept will be continued in co-operation with Schools of Aalto University.”*

*Minna Vänskä / Educational Developer, Strategic Support for Research and Education in Aalto University*

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*“Design Factory ‘learning by doing, rapid prototyping and better to ask for forgiveness than permission’ culture has had a vital role in founding AaltoES and the whole entrepreneurial ecosystem in Aalto.”*

*Kristo Ovaska / CEO at Metrify.io, Founder at Aalto Venture Garage, startuplife and AaltoES*

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*“We are promoting continuous development in every day routines and encouraging people to challenge the status quo by doing things differently.”*



## **Aalto Design Factory grows and learns**

In October, our Factory celebrates its fourth birthday. Time has flown and many things have happened during this time including trials, errors, and lessons learned. As we are promoting continuous development in every day routines and encouraging people to challenge the status quo by doing things differently, we have decided to re-evaluate our own agenda and ways of working. Factories as projects allows for the possibility to experiment, develop and spread new ways of working around Aalto. Therefore, we have started a process to collect the knowledge accumulated, gather the best practices and define a most meaningful project for Aalto for the future time span over the next four years.

Aalto Design Factory's next step, called ADF 2.0, will be packed with even more ambitious goals, more aspiring people and more focused activities. ADF 2.0 will be building a world-class hub or community for Interdisciplinary Product Design in its widest meaning. Our aim is high, with the idea and goal of making Aalto known for its Interdisciplinary Product Design platform in Otaniemi, which produces the world's best product designers, successful and ambitious entrepreneurs and in general good people for life.

**JUSSI HANNULA /**  
ADF PROJECT MANAGER





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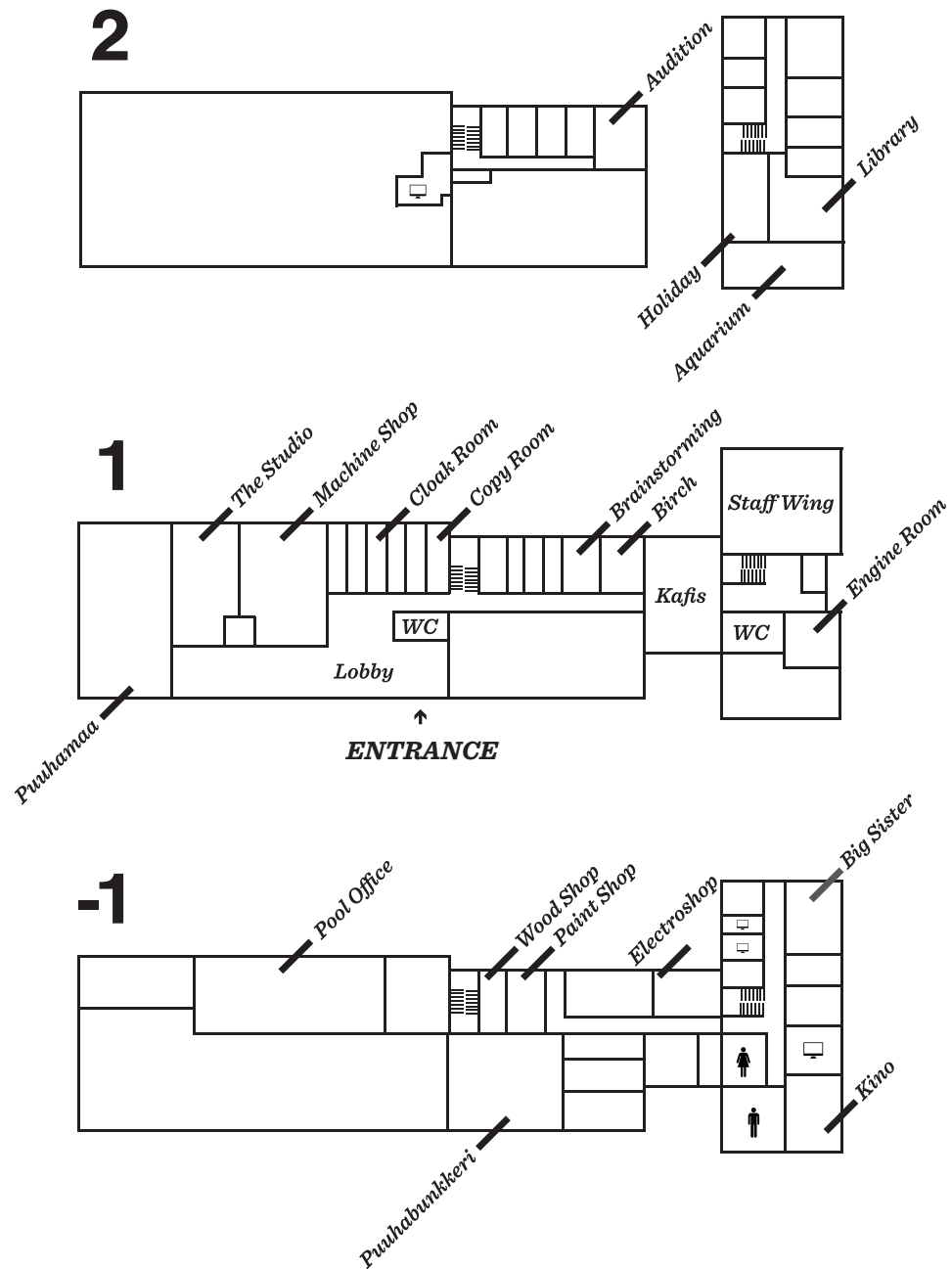
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## This is where we are located



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**Design Factory**

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## Special thanks to...



The annual report team wants to thank everybody and everything who have contributed in producing this publication: all writers for their texts, ADF staff & community for their support, advice, material and ideas, coffee & ice cream for our mental and physical nourishment and last but not least the Aalto Design Factory, which has provided us with the most inspiring, physical place to work in.

**TIINA, MARIA & NICHOLAS/**  
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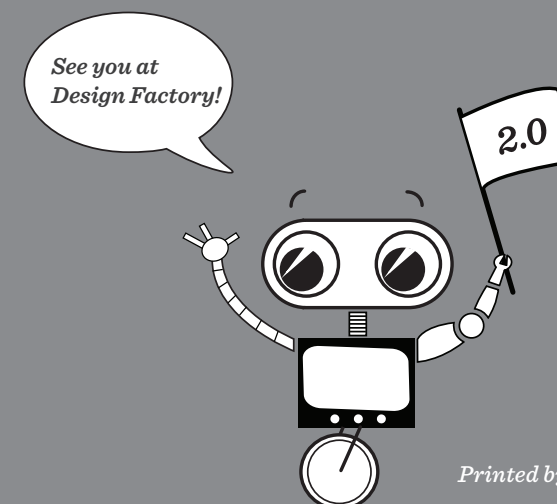
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