

A!

Aalto University
Design Factory

DESIGN FACTORY

ANNUAL REPORT
2009-2010



A large yellow triangle graphic that spans the width of the page. It is oriented with its base at the bottom and its apex at the top center. The triangle is composed of two lines meeting at a point at the top center, with the lines extending downwards and outwards to the left and right edges of the page.

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WELCOME TO DESIGN FACTORY!

As one of the three Aalto University 'factories', Aalto Design Factory supports the development and change towards a passion-based, student-centric learning culture. In addition to boosting learning experiences and outcomes, Design Factory's operational environment also aims to improve the quality and impact of research results. By definition, Design Factory is an experimental co-creation platform for education, research and application of product design – where 'design' has a broad meaning.

The second academic year of Design Factory has shown that there really is interest in the core idea of Aalto University, and especially its practical applications. In other words, plans for the future are important, but so are the showcases and evidence showing that change is truly proceeding, day after day. At this point, almost 15 000 visitors – students, teachers, researchers and numerous parties from outside of the academic world, both national and international – have been experiencing Design Factory. Many have participated in courses, workshops, seminars or other events and brought their own contribution for development as well. Even more importantly, we have acknowledged the increasing interest towards developing Factory-inspired ideas in other departments and institutions of Aalto, as well as in some external organizations. Right now, there is a lot of energy in the air!

Based on passion

Often it is a problem that something works in theory, but not in practice. When thinking about the future development needs of Design Factory, the challenge is more or less the opposite. Many things work in practice at Design Factory. However, we are not always sure if they will also work in theory – or even what the theory should be. What are the elements of Design Factory that could be transferred and applied in another organization, place and culture, by different people? For successful knowledge transfer, some more effort will be needed for research and modeling of the whole Factory concept. The new Aalto-Tongji Design Factory (p. 26) in Shanghai has already been an extraordinary learning experience in that sense.

At Design Factory, the students always come first. Signs of their passion are visible: working late nights, commitment, ambitious goal setting. Passion is a beautiful word, usually used when describing inner fire, love, pathos or torridity. However, it can also mean suffering, inconvenience, tribulation, sorrow, ache or pain. Both of these sides are always present when designing, learning or the development of something new is taking place. At Design Factory, our aim is not only to light the fire, but also to give as much support as we can when the hard times come. You'll never walk alone at Aalto Design Factory!

Looking forward to continuous co-creation with you,



Kalevi 'Eetu' Ekman
Professor, Factory Director



MISSION

A passion-based co-creation platform

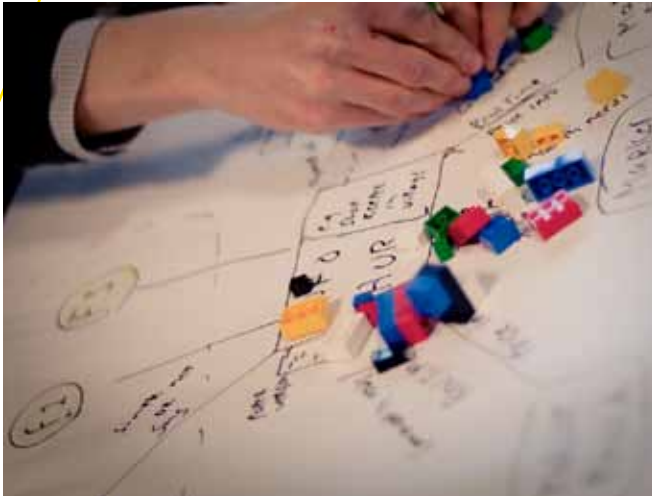
Design Factory develops creative ways of working, spatial solutions, and enhanced interdisciplinary interaction to support world-class product design in educational, research and practical application contexts.

Design Factory aims to develop a passion-based student-centric learning culture for Aalto University.

It hosts visitors from all parties, who are interested in practical applications of problem-based learning philosophy and hands-on activities that support theoretical studies.

Aalto University's Factories?

Design Factory, Media Factory and Service Factory are platforms that combine the expertise of the different Aalto University schools in the fields of product development, media and services. The Factories are designed to facilitate new forms of collaboration in an environment where academic teams, researchers and students work together with companies and communities.



OUR WAYS OF WORKING

“All you need is love, design, engineering and business.”



THE PLACE

A testbed for creativity

**Open
24/7**

Design Factory, located in Otaniemi, Finland, is a mental and physical environment of over 4000 square metres, enabling creative work, knowledge sharing and experience exchange. The physical premises are designed for flexible use with free interaction and prototyping made as easy as possible. Spaces can be easily modified and rearranged for various set-ups and different purposes of use. The overall layout of the Factory encourages open communication and spontaneous encounters.

In 2009-2010, Design Factory expanded into a new building, later to be known as the Aalto Venture Garage (p. 20). In addition, the environment has gone through other transformations. It can be said that Design Factory will never be entirely ready – but it is not supposed to be, either. Design Factory is a constantly developing platform, shaped by the passion, expertise and contribution of its users.

Prototyping facilities

Design Factory provides the tools for various phases of prototyping, from legos and CAD to metal, paint and woodworking. The Factory is also equipped with an electrical workshop. Product development can be completed all the way from ideation to final prototyping at Design Factory premises.

Room for lectures and seminars

Design Factory offers facilities for large scale events, such as lectures, seminars, workshops and exhibitions (p. 34). The versatile meeting spaces within the Factory also enable dividing a large audience to work in smaller workshops.

Teamwork spaces

Design Factory houses both formal and informal spaces for team activities, such as brainstorming, team building and meetings. The diverse spaces include a small movie theatre, a room filled with beanbag chairs and an open kitchen, a central meeting point and the heart of the building.



“People are proud to be a part of this community.”

B412 – The bar

Due to the increasing amount of large-scale events held at Design Factory, **Seos** (p. 16) was asked to design a new bar for Design Factory's lobby area in spring 2010. Since its opening, the B412 (“before twelve”) bar has served for a number of meetings, seminars, accidental encounters, catering events and ad hoc cocktail parties, giving one more reason to enjoy the Design Factory surroundings and bringing together academic knowledge and professional know-how.

Project Runway at Design Factory

In June-July 2009, eccentric designers and beautiful models could be spotted running around the Factory on a daily basis. The Finnish adaptation of **Project Runway** TV competition (Muodin huipulle) was shot at Design Factory during the summer. Airing on Nelonen, the reality show featured aspiring fashion designers who competed in each episode for the most brilliantly designed garments. Design Factory's versatile working spaces were modified to appear in the show for instance as the official runway and sewing room.



A designer's perspective:

“Balancing with the needs of our versatile inhabitants is the key challenge in Design Factory's spatial design. Our guideline is to build a non-sterile environment which encourages people to use and modify it. No one wants to study in monument-like spaces that lack affection and inspiration.

The fundamental driver in Design Factory's spatial design process is finding activities and functions that enable spontaneous meetings among its different users. Having fun while working and encouraging people to disengage during the working hours can sound a bit weird for some, but the pros outweigh the cons.

More importantly, Design Factory is a place where students and industry partners feel and show respect for the place. People are proud to be a part of this community.”

Esa-Mikko ‘Esmi’ Santamäki
chief of spatial design



LEARNING

The hallways and working spaces of Design Factory are packed with students throughout the year. Aiming to build a new passion-based learning culture for Aalto, Design Factory is constantly buzzing with students. On the physical side, the Factory provides students with easy access to all materials, tools and equipment to realize visions through prototyping. On the intellectual side, Design Factory encourages all students to challenge themselves, have the guts to try new things and let ideas fly.

The second academic year featured all the core elements of Design Factory's philosophy – passionate studying, hard work and having fun. Both interdisciplinary as well as subject-specific courses of the new Aalto University were hosted at Design Factory. Design Factory was Aalto's homebase for a multitude of courses related to innovation, design and product development.



Classroom Rules at Design Factory

1. Think out loud
2. Roll up your sleeves, and learn by doing
3. Need some help? You can ask anyone
4. Remember that only the sky's your limit
5. ... but safety comes first.

LEARNING

Courses at Design Factory



Product Development Project

The interdisciplinary Product Development Project (PDP) course is aimed at students of engineering, industrial design or business who are interested in product development of investment or consumer goods. The intensive one-year course comprises of completing a project sponsored by manufacturing companies that search for innovative cooperation with the next generation of product developers.

Participants: 127

Credits: 10

In 2009-2010, altogether 13 prototypes were successfully completed. Course participants included students from the three Aalto schools, but also from the Indian Institute of Technology Kanpur, Massachusetts Institute of Technology, Rhode Island School of Design and Kungliga Tekniska Högskolan.

The final solutions, prototypes, were presented to the public at the Product Design Gala held at Design Factory on 23.4.2010.

Projects 2009-2010:

Aqua sponsored by ABB

RePack sponsored by Kone

plugi sponsored by Ericsson

viaNokia sponsored by Nokia

WaveCure sponsored by Philips

MODZ sponsored by Bloomjack

WeatherWay sponsored by Vaisala

What the Wall sponsored by Destia

Ball Express sponsored by Outotec

Lovespark sponsored by Powerkiss

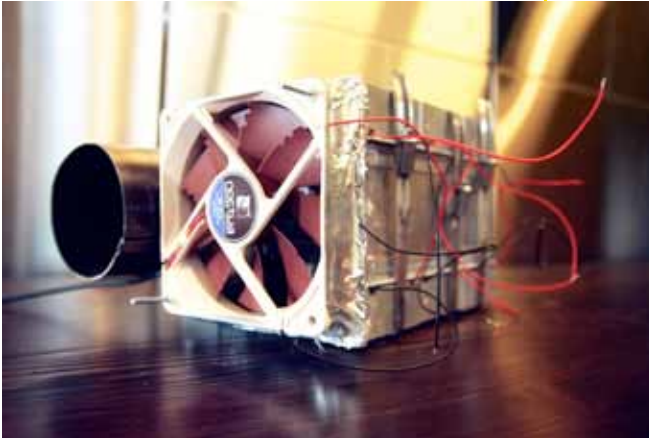
Kipinä sponsored by Jalasvirta / Seos

GoWash sponsored by JUJU Innovations

Sense sponsored by Forest Cluster / VTT



"Working in interdisciplinary teams ensures that you learn just as much from your team members as you do from your teachers."



The Kipinä project developed a thermoelectric generator that turns waste heat directly to electricity without moving parts.



BallExpress, sponsored by Outotec, developed a ball charge system for grinding mills.



A student's perspective:

"The difference between learning at Design Factory and learning with the more traditional methods is radical. It's not just the ways of working— prototyping and making your ideas come to life instead of working with hypothetical scenarios – but also the spirit of this place. Students learn wholeheartedly because they are given the freedom to develop all ideas. Help is provided to find solutions even for the most extravagant concepts.

What is more is that learning takes place in so many forms. Working in interdisciplinary teams ensures that you learn just as much from your team members as you do from your teachers. The open atmosphere and the license to speak to strangers help you conquer unfamiliar territories, and unparalleled results are achieved by building on each other's strengths. Even as a business student I've found my place in the heart of the Otaniemi campus. All projects require the expertise of students from each of the Aalto schools."

Päivi Oinonen

Aalto University School of Economics

International Business, IDBM

Lovespark Product Development Project 2009-2010

LEARNING

Courses at Design Factory

Stanford ME310 Design Innovation

Mechanical Engineering 310 (ME310) is a MA-level course exploring the Stanford Design Process. In one academic year, students from around the world work in close collaboration to develop and implement innovative solutions to real-world design challenges posed by corporate sponsors.

Participants: 27

Credits: 25

Six interdisciplinary projects were completed in 2009-2010. The final prototypes were featured at Stanford's EXPE Design Experience in June 2010 in California. Design Factory was the homebase for the course's Finnish teams.

A student's perspective:

"Design Factory made me a better team player by letting me try, fail and pick myself up again. The Factory is by far the most stimulating learning environment I've seen in Finland."

Ville Sundberg

Aalto University School of Science and Technology
Information Networks

Stanford ME310 Design Innovation 2009-2010





LEARNING

Courses at Design Factory

Aaltoliike Project

Aaltoliike is an interdisciplinary pilot course focusing on innovative product design. Students work in small teams of three or four on designing a product. Particular attention is paid to packaging, concepts, brand-building and marketing. The course emphasizes contemporary solutions and interaction with the society and its phenomena. Course attendees jointly create a product selection for the "Aaltoliike store", which is updated annually. Students combine their competences to produce more comprehensive, functional and marketable products.

Participants: 30

Credits: 15

More Aalto courses 2009-2010:

Contemporary Topics on Knowledge and Competence Management

Creative Sustainability

Doctoral Course on Innovation

Global IPR Realization Race

Health Technology Microbiology

Interdisciplinary Product Development

International Design Business Management

Interaction Design and Evaluation

Kuinka luodaan ison vaikuttavuuden innovaatioita?

Managing Change and Innovation

Managing Sales

Methodology and Scientific Communication

Real-Estate Management

Strategic User-Centred Design

Teollinen muotoilu tuotekehityksessä

Visualization of Geographic Information

3-6 cr

20-30 cr

5 cr

10 cr

3-5 cr

5 cr

30 cr

8 cr

4 cr

6 cr

3-6 cr

6 cr

5 cr

9 cr

5 cr

5 cr

Other education 2009-2010:

Introductory lectures of the Department
of Design (School of Art and Design)

Student projects of the Textile Design
Program (School of Art and Design)

Supplementary courses of the
Centre for Urban and Regional
Studies (School of Science and
Technology)

Tu-53.1390

minor program

Tu-22.Z

Kon-41.C

Ke-30.4320

Helsinki Summer School

minor program

T-121.5450

Kon-41.4004

21E90000

Tu-91.2510

A-36.4400

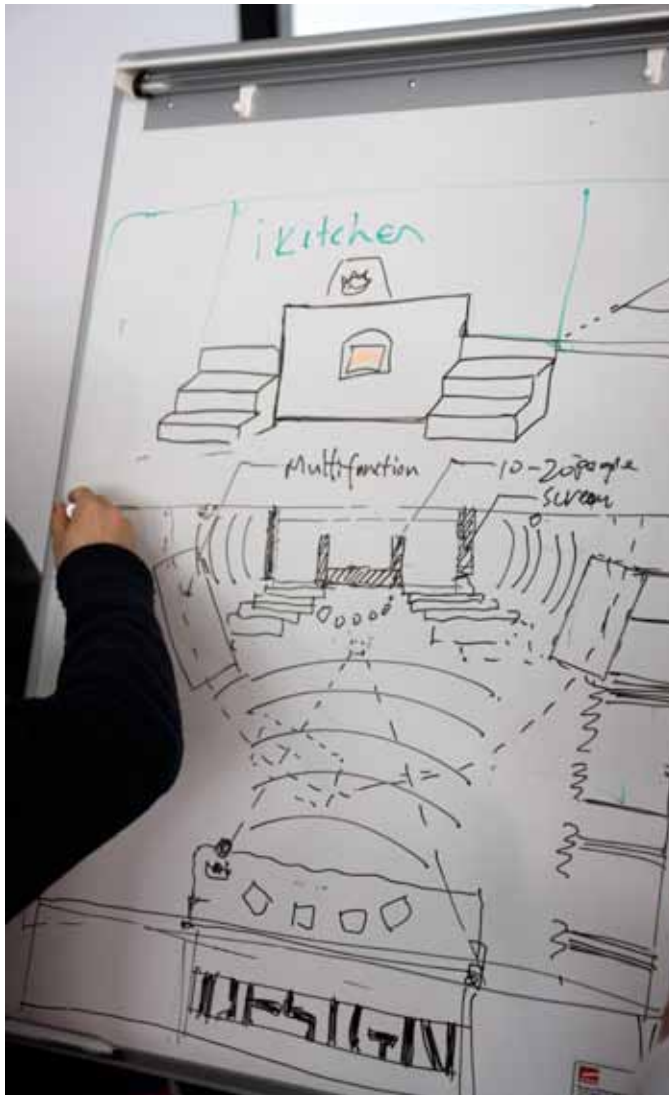
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Design Factory warmly welcomes new Aalto courses, teachers and students to come and see what could be done together!



Opekumppani – Pedagogical support for Aalto teachers

In May 2010, Design Factory launched a new teaching development program called Opekumppani. The program offers Aalto University's teachers theoretical and practical support in order to encourage continuous development of teaching practices. Opekumppani provides teachers with:

- the pedagogical knowledge base of a Master of Education
- additional work force and support in planning, executing and evaluating a teaching and learning session
- information of Design Factory as an experimental platform of co-creation and of its teaching philosophy
- Design Factory tools and spaces for one day.

Opekumppani includes three meetings and a teaching session that fits into teachers' regular teaching program. New Opekumppani partners are taken in throughout the next academic year.



BUSINESS

Co-operation with companies is innate to Design Factory. As a new kind of environment that brings together students, researchers and businesses, Design Factory is made for finding, incubating and realizing new ideas. Companies get an opportunity to interact with students and gain new perspectives to their business.

The academic year 2009-2010 was groundbreaking for Design Factory's business collaboration. Design Factory offered a home for a new kind of business hub, Aalto Venture Garage (p. 18), which emerged from the passionate and entrepreneurial-minded Aalto students. As Venture Garage moved next door with an aim to catalyze world-changing start-ups, co-operation flourished in many other ways with the following companies.

KONE

KONE is a global manufacturer of elevators and escalators and a supporting partner of Design Factory. KONE regularly uses the the Factory's creative spaces for developmental meetings and events. The company is also involved in various student projects, including the annual sponsorship of one Product Development Project (p. 10). In June 2009, KONE held its regional managers' committee in Design Factory, gathering its entire global managerial network to Otaniemi, Finland.

Nokia

Nokia is a multinational manufacturer of mobile devices and a collaborating partner of Design Factory. In 2009-2010, Nokia held various seminars and events at the premises. Nokia is also working closely with students in the Product Development Project, for instance.

Veturi

Veturi Venture Accelerator, residing in Venture Garage, works with passionate entrepreneurs and researchers to translate innovative ideas into growth companies.



Powerkiss

Powerkiss develops wireless charging solutions, converting basic furniture into smart energy platforms. The fundamental idea behind wire-free charging is to ease everyday life and make the world more user-friendly and environmentally sound. Powerkiss, founded in 2008 and residing in Venture Garage, now has its products available and being used in various locations in Finland.

Seos

Seos is a sustainable design and research company residing in Design Factory. Founded in 2007, Seos has to date completed various projects for clients such as Nokia, Nordea, Comptel, Jalasvirta Group and Foundation for Finnish Inventions. Seos specializes in sustainable design and pre-design research that helps companies develop better and more sustainable products.

Bravo Media

Bravo Media is a multimedia, communications and PR company specializing in higher education institutions and residing in Design Factory. In 2009-2010, Bravo Media and Design Factory collaborated in the implementation of Aalto-Tongji Design Factory (p. 26).

A company's perspective:

“Design Factory is definitely the best place in the world to be for a company of our kind. Due to Design Factory’s creative ways of working and the amazing people, it is superbly fun to work here. The atmosphere is joyful but hard-working, and the place agilely combines educational expertise, research and business life.”

Ville Taajamaa
CEO, Bravo Media



Sustainable collaboration at Helsinki Design Week

Together with the Design Factory community, Seos organized a workshop about the future of sustainable urban living at the Helsinki Design Week’s Hot Potatoes event in September 2009. A selected team from Seos, Decode, Powerkiss, Product Design Research, students and staff designed and facilitated the workshop, exploring new and daring sustainable solutions for urban environments. The one-day event gave a taste of what the Design Factory spirit, methodologies and know-how are like to visiting architects, students, designers and project managers from a wide range of countries.

BUSINESS

Aalto Venture Garage

Sparking entrepreneurship

In 2009, Venture Garage started as a grassroots initiative by a group of students and entrepreneurs at Aalto University. They saw the need for change in the entrepreneurial ecosystem in Finland. Luckily, the 700 square meter industrial hall next to Design Factory was empty. The hall's interior design was composed of grey concrete floors and walls, the building had no heating, and one could truly hear a pin drop on the floor.

Today, Venture Garage occupies the whole warehouse. The transformed community space is aiming to become a hub where entrepreneurs throughout the Baltic region get support and work together to grow their businesses. Venture Garage is a central meeting point for the Helsinki startup scene with weekly events.



Bootcamp

Aalto Venture Garage runs a growth entrepreneurship program, Bootcamp, four times a year. During Bootcamp, the most potential startups build up their product and test their ideas with the coaching of the top serial entrepreneurs and investors. The winners receive 5000 euros in seed funding, exclusive coaching and workspace in the Garage as they become Garage Startups. Bootcamp is free and supported by Aalto University.

Summer of Startups

Summer of Startups is an entrepreneurship program by and for students. It is a collaboration effort between Helsinki's different student entrepreneurship societies hosted at the Aalto Venture Garage. Altogether 35 students from 10 different universities took part in the Summer of Startups during summer 2010.



“Teams at Venture Garage are co-operating – they are working on each other’s ideas and challenging them. It’s all about sharing and team building. Openness and collaboration are the key themes at Venture Garage.”

Kristo Ovaska

co-founder of Aalto Venture Garage and
Aalto Entrepreneurship Society



“Venture Garage has been a great place to work. It has provided opportunities to push ideas further with the help of enthusiastic entrepreneurs and coaches.”

Teemu Yli-Hollo
CEO, AudioDraft



BUSINESS

Murjottelu program

Summer trainees for companies

Murjottelu is an interdisciplinary trainee program of Aalto University. It helps companies to recruit the most suitable trainees and students to find challenging internships in their own field of study. The internship takes place in a company as part of a working team consisting of two or more students from different fields of study – business, technology and design. The typical working period is 2-4 months during the summer.

Through Murjottelu, the knowledge and expertise of the students of Aalto University are combined. Murjottelu thereby offers companies fresh ideas and new working methods. At the same time, Murjottelu gives students a chance to work with challenging tasks and gain work experience. Students also get to apply learnt theory into practice while working in an interdisciplinary environment.

"Murjottelu is about completing larger projects than usual as a collaborative team. A Murjottelu working pair can actually get a lot more done compared to two individual summer workers."

Heidi Auvinen

Murjottelu Coordinator 2009-2010



Murjottelu companies in summer 2010

ASAN Security Technologies, Cembrit,
Design Factory, Eaton Power Quality,
Ensto, Fujitsu Services, GE Healthcare
Finland, Ideapoiju, Koskisen Oy, Luovi,
Metso, Nokia Siemens Networks and
Savox Communications



RESEARCH

“A wide array of thinkers and doers”

Research is one of the three cornerstones of Design Factory's activities. In addition to its own research team (p. 24), Design Factory hosts several other groups, projects and companies engaging in research. The working environment offers a dynamic platform to form and participate in different initiatives. The interaction and the different forms of collaboration between the groups yield fruitful results. All groups and projects embrace the co-creative philosophy and apply a hands-on approach in their work.

In 2009-2010, the following research groups and projects gave their contribution to the Design Factory community.

Product Design Research

Product Design Research group focuses on product design and development activities. It has its background at the Department of Engineering Design and Production at Aalto School of Science and Technology.

Last year centred on the Pienen ja keskisuuren teollisuuden ideat innovaatioiksi (PKII) –project, which focused on problems and their causal dependencies faced in the product development operations of small and medium enterprises. Consequently, a workbook for continuous participatory development of product design and development operations for small and medium enterprises will be published in fall 2010.

PDR is moving on to new projects, such as the Creative Practices in Design (LUTUS), which examines creative practices and their foundations in design. The project also aims to generate an impact in academic education by identifying approaches for universities to educate creative professionals to better meet their upcoming challenges.



Innope

Innope is a research project in which the Lead User methodology is tested on a real product development case – Opettaja.tv. Opettaja.tv is an online resource portal developed for schoolteachers by the Finnish Broadcasting Company YLE. In 2009-2010, Innope developed a method called Participatory 3D modeling (P3D) that can be used to learn how users and designers perceive a product, making visible the differences between these two perceptions. P3D was a great success and was thus utilized in other projects and companies as well.

4D-Space

4D-Space project of the Multidisciplinary Institute of Digitalisation and Energy evolves and designs systems that support everyday interactions in-between people and their surrounding spaces. During the past academic year, workshops and service prototyping sessions have been carried out in a shopping center context. In addition, 4D-Space has studied and exploited social media as means of customer understanding and interaction.

4D-Space currently has a demo corner at Design Factory's lobby. The space utilizes the Elsi capacitive floor mat, which locates the user and thus enables adaptive localized lighting, sound, heating and cooling condition control. The demo space is also equipped with a capacitive touch screen table that visitors can use to control some of the area's operations.

MIND – Managing Industry-Changing Innovations

MIND is a project of the multidisciplinary Decode Research Group. It is a national venture that builds a prototype of a world-class innovation mechanism around the core of Aalto University. MIND brings together the 'movers and shakers' of the public and private sector with researchers and students to generate strategic innovations.

The MIND opening ceremony on 22.9.2009 brought 160 participants to Design Factory. Since then, MIND has continued the License to Act Differently project (p. 33). The past year has been a breakthrough year for MIND, as the first Gym of MIND saw its daylight in December 2009. The Gym brings the metaphor of a gym to the training of management skills and innovation techniques. Among Gym customers have thus far been Nokia, Finnish Consulting Group, Aalto University Executive Education and Stala.



A researcher's perspective:

"As a researcher, I can say that working at Design Factory can be best described as chaotic. You never know what is going to happen next, you never know who you're going to run into – simply put, you can almost never plan ahead. It's absolutely fantastic! Every day is different from the others. While this can be also nerve-wracking from time to time, at the end of the day, the people and the atmosphere are all you can ever dream of."

Matti M. Hämäläinen
One of the Lucky Ones
Product Design Research



RESEARCH

Design Factory Research Team

Translating knowledge into practice

Design Factory's own research team, DFRT, explores the central ideas of the Design Factory philosophy, supporting the development and transfusion of the passion-based co-creation and learning platform. During the academic year 2009-2010, DFRT focused on analyzing idea development paths and developing interventions for supporting the development work of teachers.

The development paths of several different types of ideas were tracked and analyzed, in both private and public sectors, to reveal how the surrounding environment can support or hinder development progress. Specifically, the focus was on proactivity, time-related attitudes, leadership practices, and cultural dimensions.

Much effort was spent on translating research knowledge into practice. Two concepts were developed to support teaching development within Aalto University. The established Ope-kumppani program (p. 15) provides an easy and enticing way to start developing one's teaching, whereas the Butterfly Effect concept aims to impact work environments to better suit long-term continuous development. The BE will be piloted in 2010. In addition, the group aimed to walk the talk themselves, implementing several new co-creation practices and methods in their own work. For instance, each weekly team meeting is now started with a quick prototyping session.

DFRT 2009-2010 in numbers:

7 research team contributors, representing
7 academic fields
46 working months
6 published scientific papers, 1 scientific article in press
2 media articles, 4 manuscripts prepared
2 research cases analyzed

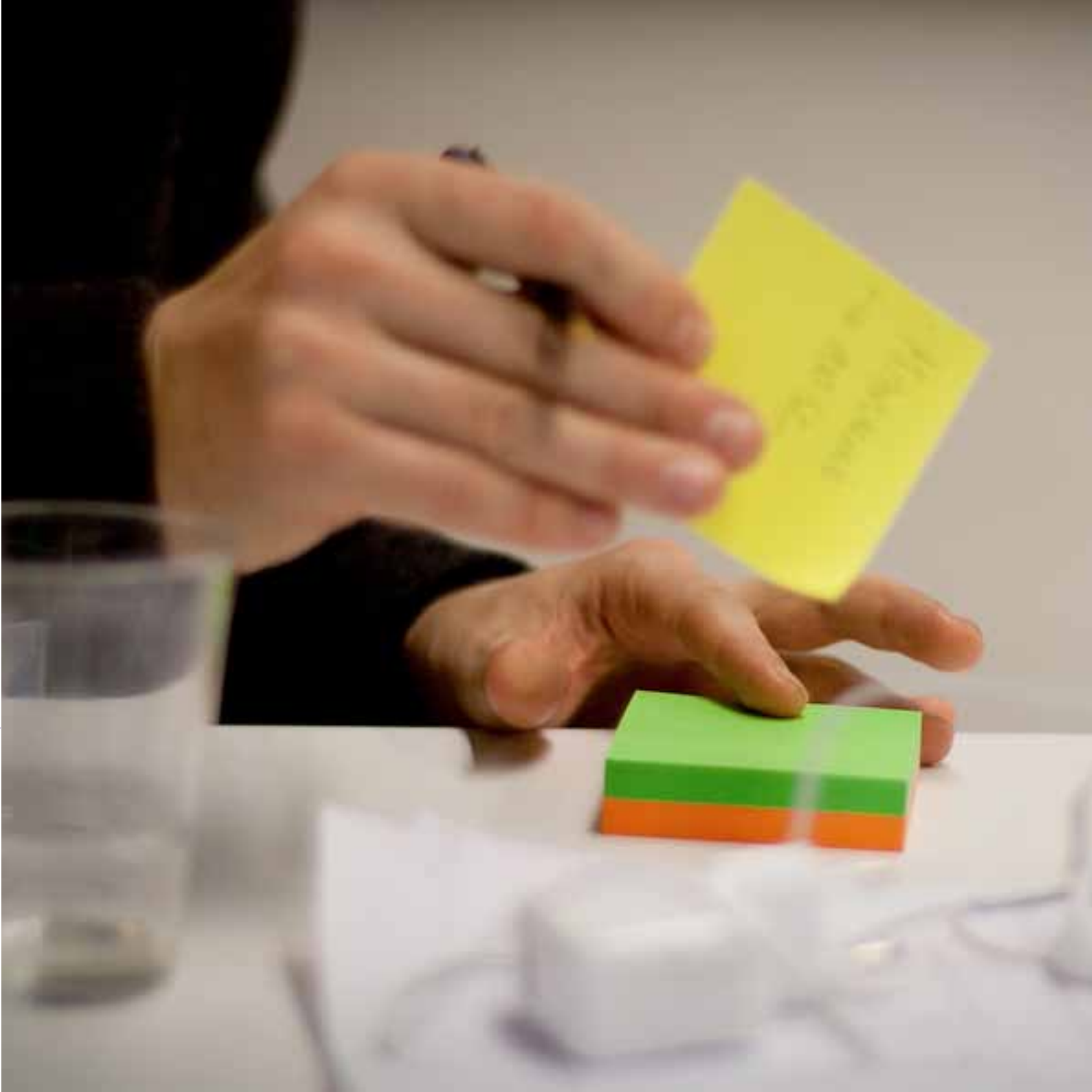
A researcher's perspective:

"What I love about Design Factory the most is its humane attitude. We're all believers in the positive potential of people, and anyone can make an impact here – regardless of official status, age or background. Design Factory has attracted a wide array of thinkers and doers from varied backgrounds, providing an enriching environment to develop ideas in. As such, it provides great opportunities to study development skills and will. It also functions as a test bed, allowing researchers to test and develop their ideas, and thus reach the next iteration round faster compared to many traditional environments."

Tua Björklund
head researcher
Aalto Design Factory Research Team



2 development and training concepts developed
3 seminars developed and organized
4 theses guided
7 networks or working groups participated in outside of ADF
9 seminars attended
9 new working practices adopted



AALTO-TONGJI DESIGN FACTORY

In 2010, Design Factory spread the idea of love, engineering, design and business across the Finnish boundaries. A new Design Factory, built on the philosophical and spatial principles of Otaniemi's Design Factory, was established at the campus of Tongji University in Shanghai, China. Like most extraordinary things, the collaborative project between the two universities proceeded rapidly during the spring. After a spring of hectic construction and preparation work, Aalto-Tongji Design Factory was opened for use in May 2010.

Creating Sino-Finnish interaction

Aalto-Tongji Design Factory is a collaboration platform of Aalto and Tongji universities. The 1000 square meter environment brings together people from Finland and China by creating interaction between different disciplines – from universities, companies and the society. The heart of the project is to create new ways and approaches for fields of business, design and technology to meet.

Aalto-Tongji Design Factory enables and inspires interdisciplinary co-creation, interaction and learning between students, teachers, researchers and industry of the two universities and respective nations involved. Aalto provides the know-how and part of resources for implementing the pilot programs of the new Factory. Tongji provides the spaces, local administrative and academic assistance as well as contacts to local stakeholders. Aalto-Tongji Design Factory is the first phase in the process of building a Sino-Finnish Center.



"I have been in Shanghai for some time now and I really love it here. Everything is so darn difficult and fun at the same time. Long lasting nerves and big smiles gets a lot done anyway. It feels so cool to not just be as tourist but to actually have to do some crazy busy work. I wish that all of you can experience something like this... if you haven't yet."

George Atanassov
Aalto-Tongji Design Factory project team



*January
2010*

A memorandum of understanding signed by the presidents of Aalto and Tongji universities

*February
2010*

Professor Lou Yongqi visits Aalto & Aalto-Tongji Design Factory Workshop & Gala in Otaniemi

*March
2010*

Core project team from Aalto to Tongji

*April
2010*

Construction and renovation

*May
2010*

Aalto-Tongji Design Factory Opening Ceremony 25.5.2010

The event attracts lots of visitors from Shanghai World Expo and some top-level Finnish guests.

*June
2010*

A live video window between Design Factory's Otaniemi and Tongji campuses opened

*Autumn
2010 →*

The first joint activities begin through courses, seminar series and industry projects. The first Double Degree Master's programme is planned to begin in 2011.



AALTO-TONGJI DESIGN FACTORY

Design Factories in the future?

Inspired by the enthusiasm and interest by which the Design Factory concept has been received around the globe, joint projects with different universities are being planned. In these projects, Aalto Design Factory's ways of working will be implemented and tested in different environments and cultures in collaboration with partner universities.

These joint projects hope to further develop and expand the Design Factory concept – all in the name of **love, design, engineering & business**.





Aalto on Tracks – An extraordinary experience

“I had an extraordinary experience in May 2010 when I was part of the organizing team of Aalto on Tracks, AoT. Students planned and organized a project which took 82 people from Aalto University community with a private train from Helsinki via Siberia to the Shanghai World Expo 2010. The train was almost like Design Factory on tracks. Interdisciplinary workshops, lectures and case study exercises were collaboratively organized. The goal was to show Aalto University and Finnish education to the world.

Preparations for the trip took place entirely at Design Factory. Working on the project was effortless because the environment was filled with enthusiastic people. Every day I met excited people who wanted to co-operate with us. As everything was constantly evolving, it was as if good things appeared as the result of the building’s positive energy.

Our project ended up to be one of the most successful ventures ever accomplished by students, as far as I know. It gained a lot of publicity from the Finnish television broadcasters to the Shanghai Morning Post newspaper. AoT had also a significant role in the opening of Aalto-Tongji Design Factory. Just before the opening ceremony, people from our train took over the street leading to Aalto-Tongji Design Factory, making the street itself spring to life. This was done together with Tongji University students whom we were privileged to get to know and make lifelong friendships with during our time in Shanghai.”

Heikki Sjöman
Aalto on Tracks organizer

MADE IN DESIGN FACTORY

Showroom of projects

Bubbling under the regular cavalcade of learning, business and research activities is a variety of other initiatives, sparked by the passion and enthusiasm of Design Factory's habitants. Design Factory actively cultivates and promotes empowerment: anyone can go and create something new. In 2009-2010, the following projects saw their daylight.

Breakfast at DFfany's

Last year, Otaniemi International Network initiated a morning tradition: Breakfast at DFfany's. Every Tuesday and Thursday morning a kitchen fairy called **Melissa Arni-Hardén** conjured up a hearty breakfast of oven-fresh buns, porridge and coffee at Design Factory's kitchen. The breakfast was served with a side of serendipity and lucky coincidences. The 2 euro breakfasts became so popular, gathering 988 attendees in total, that the tradition is continued next year. You are welcome to join us!





Soita mummolle <3

Have you spotted this guerrilla group with a warm message in the streets of Helsinki? The campaign Soita Mummolle aims to sensitize people about the issue of seniors' loneliness by challenging people to act in first person – by calling your own grandmother. Communicative weapons are street campaigns, flash-mobs, guerrilla marketing and PR.

The initiative was originally a part of MIND's summer 2009 project held at Design Factory. Now the campaign is gaining momentum due to the promotion by

Stefanie Passera, a Helsinki-based Italian design student who works at the Decode research group at Design Factory.

Find out more at www.facebook.com/soitamummolle and help spread the love.

Project Sauna Savu – Where there's smoke...

... there's fire. Or at least hot, as in the case of the Sauna Savu project. These special Finnish saunas were constructed and set on fire at Design Factory's backyard. The modular saunas were designed by two Aalto students of architecture.

The structure of Sauna Savu is made of planks. The sauna is set on fire after construction. Burning the surface is an ancient way to make the structure durable against nature. In addition, it also gives the whole building its strong character.

The prototype of Sauna Savu was revealed for the first time at Habitare Fair in Helsinki, Finland in September 2009. Sauna also won the second prize in the Habitare Design Competition for architects and designers under the age of 35.



MADE IN DESIGN FACTORY

Showroom of projects

Crawler tractor goes pink

An old crawler tractor **DT-75**, originally from the Soviet Union, was gently washed and tuned at Design Factory premises in winter 2010. Eager students did not even mind the snow on the ground at the time, but washed and overhauled the magnificent piece of machinery by using the biggest tools available at Design Factory.

Today, the vehicle is in use as the mascot of the guild of mechanical engineering students. The grand old sport has a new pink look to suit its 3.95 m height, 2.24 width and 7480 kg weight.



Cell phone liberation!

Seos, in cooperation with Nokia, prepared and facilitated a phone liberation workshop for Aalto students in November 2009. The interdisciplinary, international student teams generated ideas and concepts for Nokia on how to activate consumers to recycle their old mobile phones. Hundreds of ideas and new concepts were produced to give insight on obstacles inhibiting recycling and their possible solutions.



Licence to act differently

The only way to change one's workplace is to do something about it. This is the message of the MIND group (p. 23). Last year, MIND guaranteed over 100 official licences for individuals to act differently. The aim of the project was to liberate and empower people to realize that no situation or practice at a work place is a dogma – everything can be innovated. Prototyping new practices at work can create unimaginable positive impacts. Do you dare to join these agents?



New tables for students to dance on

Student power can do miracles overnight. Fed up with the wobbly tables at **Servin mökki** – a legendary student restaurant and party space in Otaniemi –, students of mechanical engineering put their forces together to build new tables. New tables were considered crucial for the safety of the dancing student population, known to be keen on jumping on tables at academic celebrations.

It all started as a dream, but soon the project attracted volunteers, sponsors and the necessary workspaces at Design Factory. After some intensive building, sawing and drilling by the hard-working project team, 40 brand-new and firm tables were successfully put in place in January 2010.



EVENTS

In 2009-2010, Design Factory's brick walls witnessed several memorable events. As the first building of Aalto University, Design Factory had the honor to host a variety of Aalto events from doctoral thesis celebrations, lectures and seminars to student union parties, workshops and exhibitions. This broad cavalcade of events and visitors is the reason why one can never know who one might run into at Design Factory. Highlights from the past academic year are featured on the following timeline.

30.11. Finland's Country Brand Delegation Visiting

The top-level national delegation responsible for Finland's country brand, including chairman of the board **Jorma Ollila**, Nokia's **Esko Aho**, Marimekko's CEO **Mika Ihamuotila** and MEP **Lasse Lehtinen**, gathered at Design Factory for creative brainstorming.



7.9. Design Factory Wins a Safety Award

The academic year begun happily, as Design Factory won the annual **Finnsecurity's** safety award. The award was given to Design Factory for its long-term development and collaboration with safety-related issues.

3.10. Design Factory's First Birthday

Design Factory celebrated its first year of existence in October. The place and the community were officially opened to the public in 3.10.2008. However, the Factory concept is rooted deep in the work of interdisciplinary groups and programs, such as the Future Lab of Product Design and IDBM.

26.1. *Bottom of Pyramid Workshop*

A one-day workshop was organized to shape the possible future solutions for the Bottom of the Pyramid products and services – that is, the emerging consumer markets in developing countries. The workshop attracted 35 participants of different nationalities.

19.2. *BEST Case Competition*

The one-day case competition, open for all Aalto students, challenged teams to come up with creative solutions that answered to the what, where and why of Aalto University's campus dilemma. The competition was organized by the Board of European Students of Technology and held at Design Factory. The winner team represented BEST Finland in the international competition in Copenhagen.



6.2. *AYY Varpajaiset*

The first birthday party of Aalto University's new-born student union was celebrated at Design Factory. Attended by around a hundred Aalto students and other members, the evening included food, drinks, performances and live music.

9.3. *Women's Day Celebration*

Design Factory was the host to a celebratory evening on International Women's Day for the female alumni of Aalto University. The event gathered together around 130 people to listen to accounts of women's role in technology, business and art.

EVENTS

23.4. Product Design Gala

The annual final gala and exhibition of Product Development Project gathered over 600 visitors to Design Factory. The final products of the interdisciplinary project work were featured to the public in a festival-like atmosphere. Before, after and in between student presentations the audience took a closer look at the prototypes and posters. The Gala was also live-streamed to the Web.



23.3. Open Doors

Design Factory opened its doors in March to present the building and its activities to everyone interested, including Aalto students, teachers, company representatives, researchers and the press. The ongoing Product Development Course also showcased the developed prototypes.

26.4. Innovation Parliament

The opening and developmental session of the Finnish innovation parliament, initiated by the National Board of Patents and Registration of Finland, was a nationally impactful event focusing on developing an independent discussion and influencing forum for the Finnish innovation field. The parliamentary session included presentations and workshops.

29.4. Innovation Cavalcade

The students of three innovation-related Aalto courses showcased their work by giving their final presentations at Design Factory. The Innovation Cavalcade day was attended by sponsor companies, press and various interested visitors.



12.6. Powerkiss Product Launch

A world without cable spaghetti took one step forward in June. Powerkiss, an Aalto-based company developing wireless charging solutions, launched its new product family at Venture Garage.



17.6. Suomelle Voimia Discussion Session

The national event focused on how innovative research and activities can create new possibilities for the Finnish economy. The session was called together by the Finnish Minister of Defence, **Jyri Häkämies**, and speakers included Aalto University's president of the board **Matti Alahuhta** and president **Tuula Teeri**.

22.5. SoMeTime 2010

SoMeTime (Social Media Time) was an unprecedented collaboratively and transparently produced event. It gathered the most active Finnish social media users and influencers together to Design Factory. Held for the first time, SoMeTime event's key theme was mobile social media.



Photo by Timo Idänheimo

ACADEMIC YEAR IN NUMBERS

Design Factory's second academic year 2009-2010 was filled with activities and positive outcomes. To quantitatively illustrate this and the amount of love, energy and passion in the air of Design Factory is a challenge – but nevertheless worth trying. Some of these figures, such as the machine usage rates, are exactly correct. The others, like estimations of laughing rates, are the result of more creative estimation. Thus they require a healthy amount of humorous spirit and digestion.

General figures:

Number of visitors	9 000
Weekly average traffic at main entrance	1 700
Tours given around the premises	303
Languages spoken at Design Factory	33
Number of different nationalities at Design Factory	42
Number of times the word 'design' is uttered daily	468

Working like crazy:

Post-it notes used	18 251
Hours spent using CNC turning lathe	350
Hours spent using CNC milling machine	1 150
Hours spent using manual hand tools	infinite

Meals & memories are made here:

Cups of coffee consumed	12 234
Plastic bottles returned per year	3 600
Breakfasts at DFfany's (p. 30)	32
Working years spent having breakfast at DFfany's	0.8
Ideas produced when having breakfast at DFfany's	252

Together we can:

Average number of times a person laughs per working day	13
Hours spent in backyard pool parties	68
Hugs given and received	65 734

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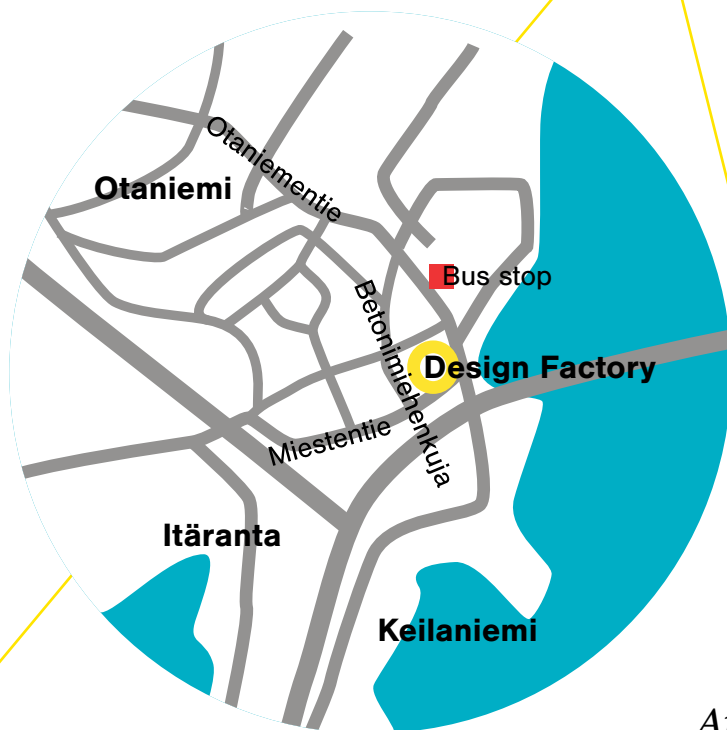
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