

The IDBM Book

20 / 5

The IDBM Book 20/5

Edited by Valeriya Azovskaya, Isa Ines Vaittinen & Mikko Koria

Layout by Valeriya Azovskaya

Published by IDBM Programme, Aalto University

Printed by Unigrafia

Helsinki, 2015

CONTENTS

8	<i>Foreword</i>	
10	<i>20 years of IDBM: learning from unique experiences</i>	
13	<i>The IDBM community</i>	
	Faculty reflections	
	IDBM Klubi	
	<i>Interview with Noora Salonoja and Mikko Kutvonen.</i>	
	<i>"The history of Klubi"</i>	
	<i>Interview with Paula Harjula, President of IDBM Klubi.</i>	
	<i>"The best part of IDBM is the people"</i>	
	Klubi activities	
22	<i>Industry projects 2014-2015</i>	
	· Wärtsilä. 3D print the future	
	<i>Interview with Tero Hottinen, Wärtsilä.</i>	
	<i>"The history of collaboration with IDBM projects"</i>	
	· CERN. Re-imagining the future of Europe with science and fiction	
	· Sitra. Change Day SUOMI	
	· Toyota. Creative garage	
	· ELL-i. Open-source community building and communication	
	· Havuu. Navigating a world of changing work	
	· Kemira. Moving forward in service sales	
	· Mitsubishi Electric. Envisioning HVAC systems in the future of residential housing	
	<i>Interview with Toshiya Yoshida, Mitsubishi Electric.</i>	
	<i>"Collaborating in the IDBM industry projects for the first time"</i>	
	· Ahlström. Reinventing water purification in Tanzania	
	· Tikkurila. Lights and colours	
	· Unicef. UniWASH: Fulfilling Children's right to proper sanitation	
74	<i>IDBM industry project, information for partners</i>	
77	<i>Course portraits</i>	
	'Creative Teamwork'	
	<i>Interview with Minna Särelä, Design District Helsinki.</i>	
	<i>"Not all innovations should be technological"</i>	
	'Special Project'	
	<i>Interview with Ines Vaittinen.</i>	
	<i>"From idea to business"</i>	
84	<i>Course descriptions</i>	
90	<i>Second year in IDBM</i>	
	Greetings from Jordi Vinaixa, ESADE Business School	
	<i>Interview with Sooa Hwang and Ian Janes.</i>	
	<i>"Double degree at ESADE"</i>	
	Greetings from Yongqi Lou, Tongji University	
95	<i>Master's theses</i>	
98	<i>Industry projects 2010-2013</i>	
107	<i>Selected publications</i>	

WELCOME TO IDBM!

Twenty years, close to a thousand participants and two hundred projects, five full master's years and a lot of dedication from very talented people bringing things together – it was time to make The IDBM Book 20/5.

We wanted to tell the story of what we do, how we do it and why it is important, showcasing the program, this year's projects and activities, and looking back a bit on past years.

This book is the opening of a whole new series, aimed at raising awareness of IDBM, Aalto University, our interdisciplinary approaches and collaboration with our diversity-driven expert community, and the benefits that all this offers to industry.

As the editorial team, we tried our best to bring this book to life. It took a unified community effort, with many people helping us along the way and we are very grateful for their kind support and assistance.

Please, celebrate with us and enjoy reading!

Mikko, Ines & Valeriya

*Dear Reader,
we would like to invite you to the world of IDBM, where creative young minds meet professional excellence to create unique value and learning.*

This book is designed to give an insider's view of the programme that bonds together people with very different backgrounds and knowledge, forms strong connections between industry and academia, and provides opportunities for future innovators to grow and find their own way to professional excellence.

We look at the structural features of the program, explain how design, business and technology fit together to create extraordinary value, how students work together and gain new knowledge and hands-on experience, what it means to be a team player, and how to operate in a multicultural and interdisciplinary environment.

International and local Finnish companies work with IDBM to explore and solve open-ended challenges to create new opportunities and rethink design and technology-driven business. Through the case projects, we show how collaboration works within the community that gathers together industry, students, alumni, professors, and the university as a whole.

The book outlines the key IDBM course offering in design, business and technology and lists the industry projects and thesis work done in the last five years. We have also added a selection of research papers to illustrate the type of on-going knowledge creation that the community engages in across a wide range of topics, the common denominator being the use of design to create value.

The IDBM team

20 YEARS OF IDBM: LEARNING FROM UNIQUE EXPERIENCES

Educating innovation producers

The International Design Business Management (IDBM) programme was set up in 1995 as an interdisciplinary response to industry needs. Wealth is increasingly created in the spaces between specialisations, and society and businesses are calling for excellence in producing innovations and for professionals who can connect the dots between good ideas and the market. The future professionals from IDBM help to design unique constellations of new products, services and businesses, through joining strategy, business intelligence, and resources in interdisciplinary ways to create solutions with high added value.

Engaging in dense collaboration

The programme is built on deep collaboration and complementarity between industry, research and learning. Major industrial partners participate in the programme every year, reflecting the reality on the ground. The programme core includes an eight-month learning-by-doing industry project, with small interdisciplinary teams of business, design and engineering students, coached by multidisciplinary faculty

and expert industry tutors. Project work is undertaken with multinational corporations, large and small local companies, international and national organisations and start-ups, and the teams develop new product, service and business concepts for the real world.

Structuring learning

The first year courses deal with creative teamwork and leadership, innovation management, design in business, interdisciplinary product development, business modelling, branding and market communications, and the second year studies are structured around electives, exchange and thesis work. Cross-cutting subjects, such as project management, design and systemic thinking, communication and presentation skills are embedded throughout. The programme caters widely to the professional development in the areas of research, management, consulting, and entrepreneurship. Students graduate from the two-year (120 ECTS) master's programme with degrees in design, technology or business, depending on their background. The programme has double degree tracks with Tongji University and ESADE Business School, in addition to extensive university-wide exchange programs.

Working towards diversity

A focus on the master's level studies creates the possibility for each student to apply both a disciplinary background (sometimes with extensive work experience) and the interdisciplinary collaboration into solving open-ended challenges within the programme. The programme is global and multicultural, blending and transforming local and supranational influences into unique modes of co-existence and diversity. The aim of the programme is to create an understanding of and an ability to reconfigure to suit the tools, practices and mental models of other disciplines, to be able to choose between applying mono-, multi-, inter- and transdisciplinary methods and approaches to suit each and every situation.

THE IDBM COMMUNITY

For me, the IDBM programme started out as a master's programme and quickly evolved to being a place to call home. Here learning is not limited to the boundaries of the classrooms – knowledge is especially shared between the students themselves. It is the fluid and flexible nature of IDBM which allows students to direct their own learning in the direction most interesting for them, and in the process, sharing this knowledge with the community.

Ines Vaittinen, IDBM student, 2013

For me, what I remember most is the camaraderie we had in our class. I actually associate the taste of Finnish coffee with the breaks we would take between classes, and the last time I was back in Helsinki it brought back memories of the jokes, stories and debates we shared.

Ian Janes, IDBM student, 2013

The IDBM programme is not just about intensive studies and multidisciplinary, multicultural work experience. It is about the vibrant community, made up of a diverse group of people who share a desire to co-create together. The students, faculty and industry partners all bring their own expertise and perspectives, helping to shape the IDBM programme, and the community as a whole, into an entity which is constantly evolving and keeping up with change.

IDBM Klubi is founded on the same principle of knowledge sharing and bringing varying disciplines together. It embodies the spirit which unites all IDBMers, giving them opportunities for new challenges and insights, and for having a lot of fun together in the process.

FACULTY REFLECTIONS

Being a member of the IDBM community gives me a unique glimpse into the future of design management. Collaborating with the talented and creative group of students from different disciplines and different parts of the world is a positive challenge to understand the next generation's needs and wants at work. In the future, there will be four to five generations working shoulder to shoulder, meaning that deepening the understanding between disciplines and generations is essential for any organisation to succeed.

Anne Stenros

It is a privilege to design the minds of young talents together with our corporate partners. In IDBM not only individuals, but also teams learn together about idea management, foresight, creating scenarios and prototypes, conceptualising and other tools and methods that are key to successful and efficient creative work.

Pekka Berg

It has been exciting to participate in recruiting talented students from almost everywhere in the world - with different cultural backgrounds, genders, and even ages - and to see how newcomers start to build mutual and common understanding in co-creation processes of IDBM. 1 + 1 = really 3!

Matti Vartiainen

IDBM = DESIGN + TECHNOLOGY + BUSINESS = ART + SCIENCE + CRAFT.

IDBM is above all about the synergies to be gained through multiple perspectives, capabilities and interests. It's also about co-creating and validating insightful and imaginative ideas, and then having the courage and competence to help bring them to fruition. This is the founding and lasting idea upon which the IDBM programme was co-created in 1995. I'm proud and honoured to have been actively involved in the programme's development since its inception. Let's continue to learn!

Peter McGrory

The more complex our society becomes, the more crucial becomes fluent communication and co-creative problem solving by various experts. From my own engineering perspective, an IDBM-style approach is not only absolutely necessary, but also the best investment to make.

Kalevi Ekman

To me the IDBM programme has been an intellectual home for the last ten years; it has been a challenge and great pleasure to see how interdisciplinarity has shaped the use of design in business over the years, and how we always find new ways to rethink our everyday, every day.

Mikko Koria

IDBM Klubi is a student-driven community that unites IDBM students, alumni and staff from all schools of Aalto, as well as anyone who feels connected to IDBM, sharing the values of multidisciplinary and collaboration.



idbmklubi.com

WE ARE

making sure that students' voices are heard

a diverse community of driven people

just having fun together!

OUR GOALS

EXCHANGE knowledge and provide a platform for collaboration

BUILD a strong IDBM community

CONNECT students, alumni and the industry

Klubi's origins date back to the days before the IDBM major programme, when the name was a banner for an assortment of unofficial and informal student gatherings. But with the launch of the full IDBM master's programme in 2010 came a new impetus for a more organised student association, one that would ultimately become an essential part of the IDBM experience.

In this interview, two alumni from the class of 2010, Noora Salonoja and Mikko Kutvonen (Klubi's first official president), share their memories and speak about what IDBM Klubi means to them.

IDBM Klubi wouldn't be such a successful and vibrant community without the story behind it. Throughout the history of IDBM many students have been willing to merge the boundaries between studies and free time activities.

"We spent a lot of time together during the first year of our IDBM master – and it didn't feel like an ordinary study at all," recalls Noora. "It was challenging and we were very busy with our studies and projects, working long days at Design Factory, but at the same time we all had a lot of fun, enjoyed every minute and spent a lot of time together outside of school. It was very different at least to what I was used to in university."

At the same time that the IDBM master's programme was established in 2010, some students started to think about forming an IDBM student union or guild that could become a touch-point for alumni, current students and other parties. Their goal was to take 'Klubi' – up until that point a motley assortment of unofficial events and initiatives – to a new level, making the community attractive to a wider audience and building a platform for gathering the community together. The initial idea was based on the importance of cultivating the knowledge-sharing mind-set, which includes volunteer participation. As Mikko put it, "we decided to serve not only drinks, but also knowledge, and try to push Klubi to a new level, more professional and advanced."

Therapy Thursdays, the Inspire event and the Christmas party are some of the longer lasting projects that have brought many people together over the years. "Our major goal while organising these events was to continue cultivating relationships with alumni and we did our best in inviting very interesting guest speakers to come over and talk about fresh ideas related to leadership, teamwork development and other influential topics as well," Mikko explains. "I'm so happy to see that our ideas are still relevant and continue to serve the IDBM community. For many guest speakers it was a very fruitful experience as well, because of the multidisciplinary structure of IDBM and the people involved in the process."

Noora agrees. "We had so much fun and a lot of things were happening during our IDBM studies. I think for the future it would be very interesting both for students and alumni to come together, and not only for casual hangouts – although this is important too, of course! We need to exchange the knowledge and ideas about professional paths that everybody is taking, support and offer help for current students who are trying to figure out their own way. It would be very beneficial for everybody to create some common understanding of how anyone in IDBM can utilise the knowledge that we've got during IDBM studies and to help other people to find their way to professional success."

The current President of IDBM Klubi, Paula Harjula shares her ideas about the community and her personal motivations to boost the IDBM spirit.

Paula is an active IDBM Master's program student with academic background in Business Administration and Social Sciences and work experience in marketing and project management. In her working life, Paula had been trying to overcome the communication barriers between different business functions, and became interested in design thinking.



I think the **best** part of IDBM is the people. I believe the **people** aspect should be emphasised more – there is so much potential in bringing together such a diverse group of driven people. I want to do my part in unleashing that potential through developing IDBM Klubi as an organisation and by building bridges between IDBMers and the rest of the world. Lately, for example, company relations have started to take off nicely, which is great!

How do you see your role?

I see myself as a connector. I want to engage more people and more first year students in Klubi Board, which also means

I spend a lot of time “just” communicating. I’m a second year student now, so having Juho Kinnunen (a first year student) as Vice President has been very valuable and the collaboration has been just great. Together we are building and maintaining connections between IDBMers, alumni, companies and other stakeholders. Luckily, it’s not a one-woman show – the whole team is doing their part to push us to the next level.

What’s the best way to join the team?

Everyone is welcome to take responsibility in the existing projects or use Klubi as a platform for their own initiative. Good

attitude is much more important than experience and expertise. In a student-driven community it is extra important that we maintain an atmosphere that focuses on learning new things, getting to know new people and having fun, rather than just executing. There are very few things that Klubi really must do: we can choose the things that we want to make happen.

How do you see the future of Klubi next year or even further?

We have a lot of plans and ideas: I hope that we can develop company relations

further and organise the IDBM School of Students, a day for peer-to-peer learning in the fall. But like my predecessor Oona Colliander said, every Klubi Board should make Klubi look like them. That’s what inspired me in the first place: there aren’t any strictly defined structures, rules or long traditions that we absolutely must follow. We are using some mature ideas and some new ones and building foundations for the future, but it’s up to the next ones to choose what they emphasise; which tracks they will choose to continue on and which ones they rebuild their own way.



Get together: casual events, picnics and hangouts. Initiate and welcome freshmen, as well as supporting the network of alumni and IDBM students.

- Aalto Party - bringing all people from different disciplines together
- Suomenlinna Picnic for IDBM students
- International Dinners
- IDBM Alumni Afterwork
- Aalto Vappu Mixrrr: Interdisciplinary Picnic @Kaivopuisto



Traditions and parties: remarkable events that unite all IDBMers: staff, alumni, researchers, students and our dear guests!

- 20th Anniversary ball
- IDBM XMAS PARTY
- Innovation Island @ Lonna



Therapy Thursday: bringing together IDBMers to share their knowledge and experience. Every evening has a topic that is highly relevant to the students' field of studies and professional development.

- Therapy Thursday #1: "How to succeed in client and partner relations" with Phil Lindberg from Tellybean
- Therapy Thursday #2: "Improv & Overcoming The Fear of Failure" with Jani Turku from IMPROVment
- Therapy Thursday #3: "From ideas into actions" with Saku Tuominen
- Therapy Thursday #4: "Friends, Drinks & Laughter" with Paul Westlake



Sport and fun: sport enthusiasts and team players are welcome!

- Lasertag battle
- Kaamos Beach Volley: 'Fight the darkness'



Company date nights: Building connections between the IDBM community and the professional world, getting to know the companies that operate in both local and global markets.

- Company Date Night with AVAUS Marketing Innovations
- Company Date Night with Futurice
- Company Date Night with Fjord

IDBM KLUBI ACTIVITIES

IDBM Klubi welcomes new active members and project managers flexibly throughout the year to join some of the existing projects or start a new one. Tell us what motivates you and whether you've got some concrete idea in your mind and let's get started! Do you have a vision for the future? Are you ready for the challenge? New students, old students (even alumni), minors, majors, designers, engineers and business experts – all are welcome to join our multidisciplinary community!



To receive IDBM Klubi's member newsletter and to join our events, become a member of IDBM Klubi by signing up at www.tinyurl.com/joinIDBMklubi

It is absolutely free!

For further information please contact us at idbmklubi@gmail.com

INDUSTRY PARTNERS

2014/2015


SITRA AHLSTROM WII-


TIKKURILA


MITSUBISHI
ELECTRIC
Changes for the Better


WÄRTSILÄ


NATURALLY MODULAR

unicef 


CERN

TOYOTA  KANSEI DESIGN
Industrial Design - Europe & S.E.

kemira

INDUSTRY PROJECTS

2014/2015

The IDBM industry project is the central practice-based learning platform for all IDBM master's and minor students. The projects are assigned by industry partners and run through the whole academic year. During the industry projects, student teams solve problems related to the development activities of their clients' global businesses. The project teams are multidisciplinary: each team has at least one member from each field of expertise (business, design and technology).

The combination of disciplines is at the heart of the industry projects. While the business component ensures a viable business perspective, the design component focuses on design thinking and the integration of design within the business, and the technology component ensures feasibility and a view on innovation management. Together, these perspectives support the development of the desired multidisciplinary and systemic competence.

This chapter provides a short overview of this year's industry projects and aims to offer insights into the initial project briefs, as well as the processes and outcomes of the student teams.

RESEARCH TRIPS

2014/2015

“In today’s world the development speed is constantly increasing. Having the capability to open-mindedly combine new things in a cross-disciplinary manner is a prerequisite to be able to stay on top of the development. The IDBM programme and its students have proven to be excellent partners for companies seeking support as they look into what transformational innovations could bring for them in the future.”

**Tero Hottinen, General Manager,
Business Innovation, Wärtsilä**

“Collaboration and partnership with IDBM has been extremely rewarding and useful because it has provided us with new, fresh and innovative insights and learning, and more importantly IDBM has challenged positively our way of thinking and doing. The uniqueness of IDBM is linked to its multi-disciplinary approach to problem solving, and its ability to link academic theories with practice and everyday problems of development programmes. Collaboration with IDBM has added value in many ways; it has for example allowed us to tap into skills and expertise that Unicef does not normally have access to, and we have been able to generate deeper knowledge and analysis on specific problems and their potential solutions that in long run can yield positive impact on children’s lives around the world.”

**Annika Launiala, Head of International
Advocacy, UNICEF Finland**

As a part of each industry project, the team is given a budget for project-related travel. This year teams have visited their industry partners’ facilities, participated in symposiums, conducted field research among local communities, and facilitated workshops abroad, to mention a few – with the class visiting more than 15 countries across four continents between them.



Field trips:

Approximately 15 countries and more than 30 cities



Research activities:

Field research, observations, interviews, workshops. . . .



Client meetings:

Visiting R&D units, factories and other premises



Attending conferences:

More than 10 events including nanotech 2015 (Japan), light symposium 2015 (Sweden), utility management conference (USA)

TEAM WÄRTSILÄ DEVELOPING A 3D PRINTING BUSINESS STRATEGY FOR OUR CLIENT'S SERVICE ENVIRONMENT



3D PRINT THE FUTURE



PROJECT BRIEF & GOAL

Wärtsilä has glazed their eyes on 3D printing and challenges our team to explore new business opportunities and business models that this technology could offer for Wärtsilä's business environment and service processes.

the development of both as well as evaluation of application fields. Furthermore the strategy should provide information how suggested business models will change over time with the development of the 3D printing industry.

Our goal is to provide Wärtsilä with a 3D printing strategy. It includes estimation of 3D printing feasibility and viability and



MEET THE TEAM



YALI CHAI

B.Sc. Network Technology
Master
Network Ecosystems
IDBM



CHRIS BAUMANN

B.A. Industrial Design
Master
IDBM



FANG HAN

B.A. Industrial Design
Master
IDBM



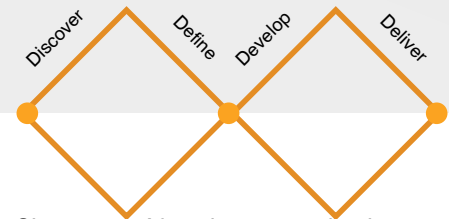
JUHO KINNUNEN

B.Sc. Accounting
Master
IDBM
Entrepreneurship

OUR PROCESS

Our team approached the brief in a collaborative and iterative double diamond process. With the help of our supervisor and IDBM alumnus Juhana Arkio, we started the project with numerous internal interviews in Finland and Netherlands.

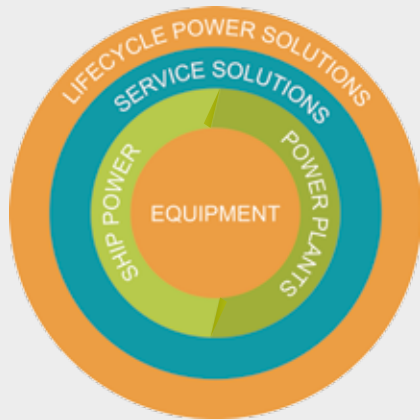
From the interviews, we built scenarios illustrating main challenges in the service environment. To better understand the latest 3D printing capabilities our team travelled to conferences in Japan and



Singapore. After the research trips, we collaborated in a workshop with Wärtsilä managers and directors to justify the scenarios and to keep on building solutions of possible business models. The team ideated further the solutions and agreed on structuring a continuous strategy, how 3D printing should be considered and implemented to Wärtsilä's service business environment.



Wärtsilä 46 Dual Fuel Engine

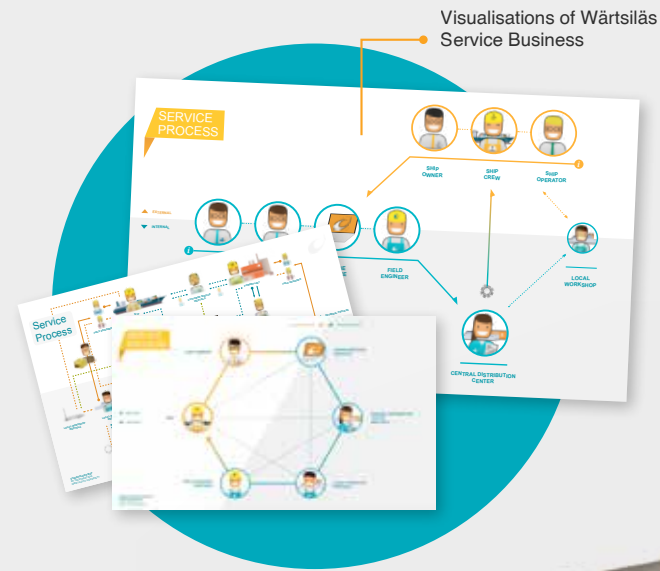


ABOUT WÄRTSILÄ

Wärtsilä is a global leader of complete lifecycle power solutions for the marine and energy market, reaching turnover of EUR 4.78 billion in year 2014.

The company has three main focus areas: ship power, power plants and service offering.

Wärtsilä is already using 3D plastic printing in their R&D activities, but as a highly innovative company constantly striving for sustainable improvements, the company wants to learn more about 3D metal printing opportunities in manufacturing.



3D printed steel by EOS GmbH

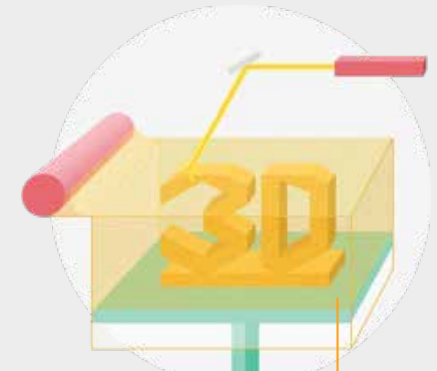


3D PRINTING

3D Printing, also known as Additive Manufacturing, is a manufacturing process. Although the first machines were produced already in 1980's, the industry is currently growing rapidly.

According to IHS Technology the industry is estimated to grow seven-fold from USD 5 billion into USD 35 billion by 2020.

Moreover, while prices are decreasing, the quality and speed are all the time improving which makes 3D printing hyped to be even the next industrial revolution.



Laser Sintering uses powder material and laser ray

CONTACT:
Yali.Chai@aalto.fi | cb@wearekoba.com
Juho.T.Kinnunen@aalto.fi | whatthefranc@gmail.com



Wärtsilä is a global leader in complete lifecycle power solutions for the marine and energy markets. The company has a long history of collaboration with IDBM. Tero Hottinen is the General Manager of Business Innovation and has been in charge of the industry project collaboration with IDBM for the last two years. In this interview he shares his experience and interests in this partnership.

How would you describe Wärtsilä?

Wärtsilä is working in a global marine and power plants markets. Essentially, anything that can be found in a ship can be provided by Wärtsilä, with the exception that we don't build the ships themselves. We are also providing life-cycle services to support and maintain our products and assist our clients. As a dynamic global business enterprise we are aspiring for transformational innovation, looking to the future and for that we're happy to utilise IDBM expertise and use its services to help our company to scratch the surface on certain new areas that could be interesting for us in the future.

This year was the third industry project in which Wärtsilä has participated in – the first project in 2010 and now two more in 2013 and 2014. What can you say about these projects, is there a linkage between them?

The projects don't really have a direct linkage between them, but of course after getting the result after the first year of working with the IDBM team we were able to see from the industry point of view what kind of topics could be worth pursuing.

The IDBM project for 2013/2014 year was conducted in strong collaboration with another Aalto programme, 'PDP'

[Product Development Project], even though their approach and results were somewhat different. We asked the IDBM team to tackle more conceptual business concepts that would help to see how the life of our field service engineers could be enhanced over the years, keeping in mind new technological challenges that today's industry and digital era are bringing to our field in a long term. For this year's project, we decided that the possibilities offered by 3D printing are very interesting, both for our customers and Wärtsilä itself, and with the help of IDBM we are exploring a few concepts that might encourage us to think how to bring our business to a new level by experimenting with different business models and scenarios for 3D printing technology.

What are your expectations in terms of evaluating the industry project's outcomes, and how are these outcomes further implemented after the end of the project?

Our collaboration with IDBM is working in a way that we are not expecting an outcome that might be implemented immediately. The result that we are expecting is more about building up the internal understanding of what certain changes in emerging technologies – and bringing new innovations on

board – could mean for us in the future. This kind of research always requires multidisciplinary expertise and teamwork, and we know how difficult it is to bring experts from different fields together and let them work on the same topic, looking from different perspectives and challenging each other for the sake of better results. That is why IDBM fits very well with our need to build a picture of what the future could look like when it comes to emerging technologies and new business innovations.

In your opinion what is the role of the designer and what can they contribute to the topic?

Designers are a very important part in building the understanding towards the usability needs that customers typically have. It used to be that our end users were all highly skilled engineers, but nowadays this is not always the case, there are more and more generalists. So the usability of the products and the UX solutions are consequently more important for our business. Designers' expertise is also valuable when we are aiming to fill the gap between our products, our solutions, and the customer themselves by understanding the hidden needs of our end users and building the same knowledge and experience platform that would be convenient to use for both parties.

What was the most memorable idea or insight which you have gained from the IDBM student teams?

There are so many, especially the scenarios that we've got from previous years' projects. This year's project surprised us with the strong cases in

relation to 3D printing, and helped to crystallise for us how close we really are to that moment when the landscape of manufacturing technology will be changed. Nowadays we are more and more able to go digital and it's very important to conceptualise those changes and take into consideration the future challenges that it might bring to our company and our clients, for example in logistic systems, so that we feel we are prepared for this future transition.

In your opinion, what makes Wärtsilä projects valuable for the students in terms of the practical knowledge they can gain from this collaboration?

It's very important for us that students that are working on a project will understand our business and industry in general and our experts are able to provide this context and background for future research. Students get real insights about how the company and the industry work, and learn how to collaborate throughout the project to get solid results. They are supported at every stage of the project and from our side we are not just providing the brief, but due to our genuine interest we're actively participating in the project work by guiding the work, giving feedback, and providing important and useful information for it. So on the IDBM side we have an open-minded, enthusiastic student group, and on the Wärtsilä side we have our experts, who are willing to provide all necessary information for the current project. I think it's a perfect combination to build something concrete towards the future.

RE-IMAGINING THE FUTURE OF EUROPE WITH SCIENCE & FICTION

Large Hadron Collider, particle accelerators, the Higgs boson... Don't worry if it's all Greek to you, it's just physics! We're a team of four, three Finns and one Greek: Sannamari the physicist, Heini the architect, Otso the industrial designer and Pericles the marketer. We're working with IdeaSquare, an experimental innovation facility of CERN, to rethink public engagement in science.

If you don't know it (but don't want to admit it either), CERN is the renowned European research organisation in Geneva, Switzerland, studying particle physics, trying to understand how the universe was formed, and doing plenty of other extraordinary stuff.

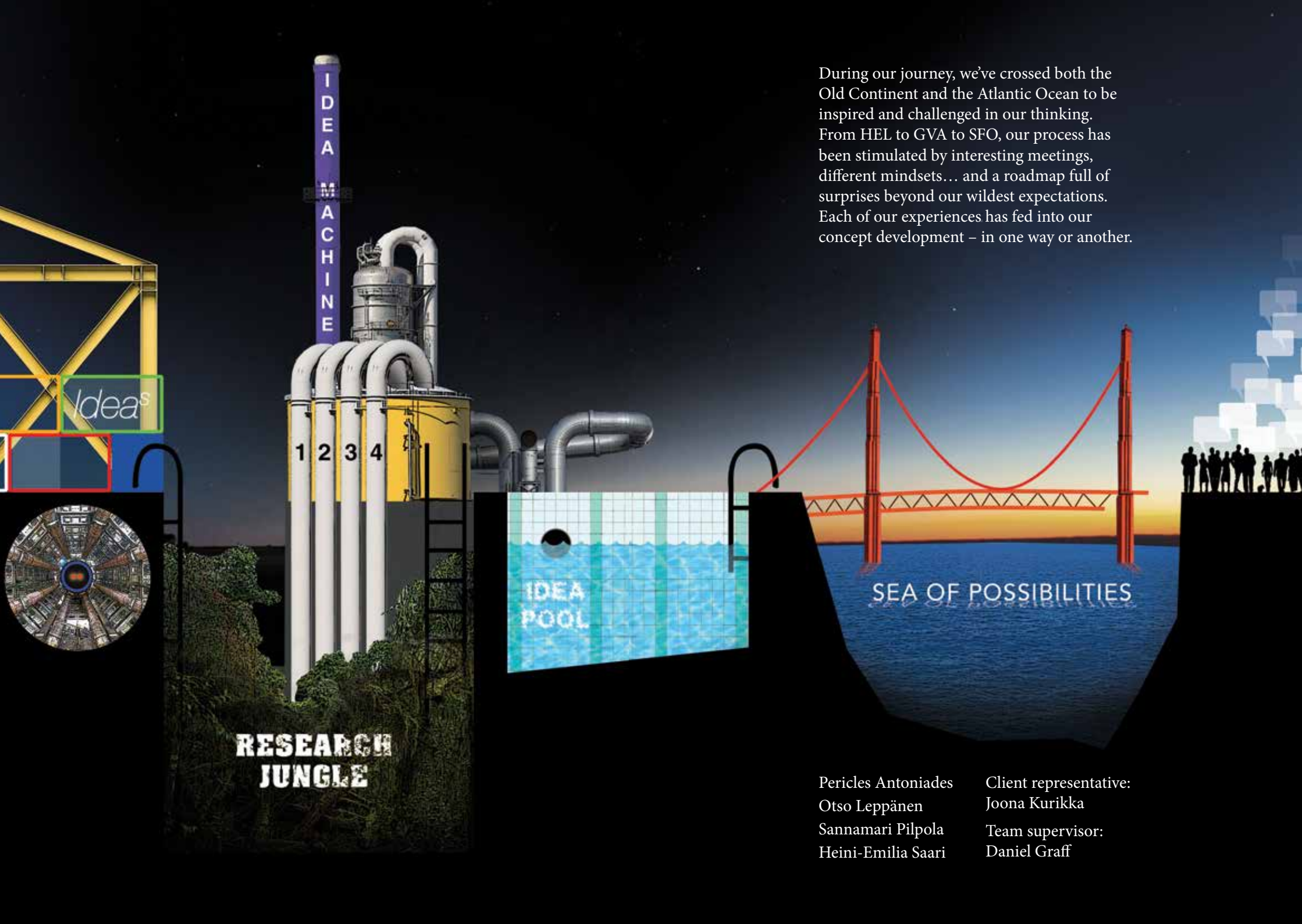
In case you're wondering who's behind all this amazing research, the answer is simple: you are. I am. We all are. For the price of a single cup of coffee per year, each citizen in the 21 member states funds this impressive set of projects.

Our aim is to design a virtual platform to bring together young Europeans and CERN researchers to inspire one another with science fiction. "But why sci-fi?", you might ask. Well, in order to really think beyond what science can do today, we need to get everyone's imagination running wild.



Idea^s





During our journey, we've crossed both the Old Continent and the Atlantic Ocean to be inspired and challenged in our thinking. From HEL to GVA to SFO, our process has been stimulated by interesting meetings, different mindsets... and a roadmap full of surprises beyond our wildest expectations. Each of our experiences has fed into our concept development – in one way or another.

**RESEARCH
JUNGLE**

IDEA
POOL

SEA OF POSSIBILITIES

Pericles Antoniadis
Otso Leppänen
Sannamari Pilpola
Heini-Emilia Saari

Client representative:
Joonas Kurikka
Team supervisor:
Daniel Graff

CHANGE DAY SUOMI



Change Day is a social movement in healthcare sector that was started in 2013 by NHS in Great Britain and it has spread all over the world. The main idea in Change Day is to enable and inspire workers to change their work culture and environment towards being more efficient, open to initiative and customer-centered.

Our brief from The Finnish Innovation Fund Sitra was to find out, **would the Change Day -concept work in the Finnish context, what should it be like and is it a suitable tool for enabling change. Our mission was to pilot the Change Day Suomi in the South Karelian social and healthcare area, Eksote, and collect data for launching a national Change Day in Autumn 2015.**

Team Change Day



Kristiina Tergujeff



Teresa Moorhouse



Jan Pakarinen



Marja Jaarinen



How it works

Change Day invites everyone involved with health and social care to share their ideas and act on them. Inspiring others to take small actions will make a big difference. People can share their ideas for change at a physical event or online by leaving a handprint.

Making a difference

Change Day Suomi inspires people to create small changes, creates discussion and brings people working on similar issues together.

For leaders: Proves that change is most efficient when people at all levels are involved



For the general public: Better practices lead to better care



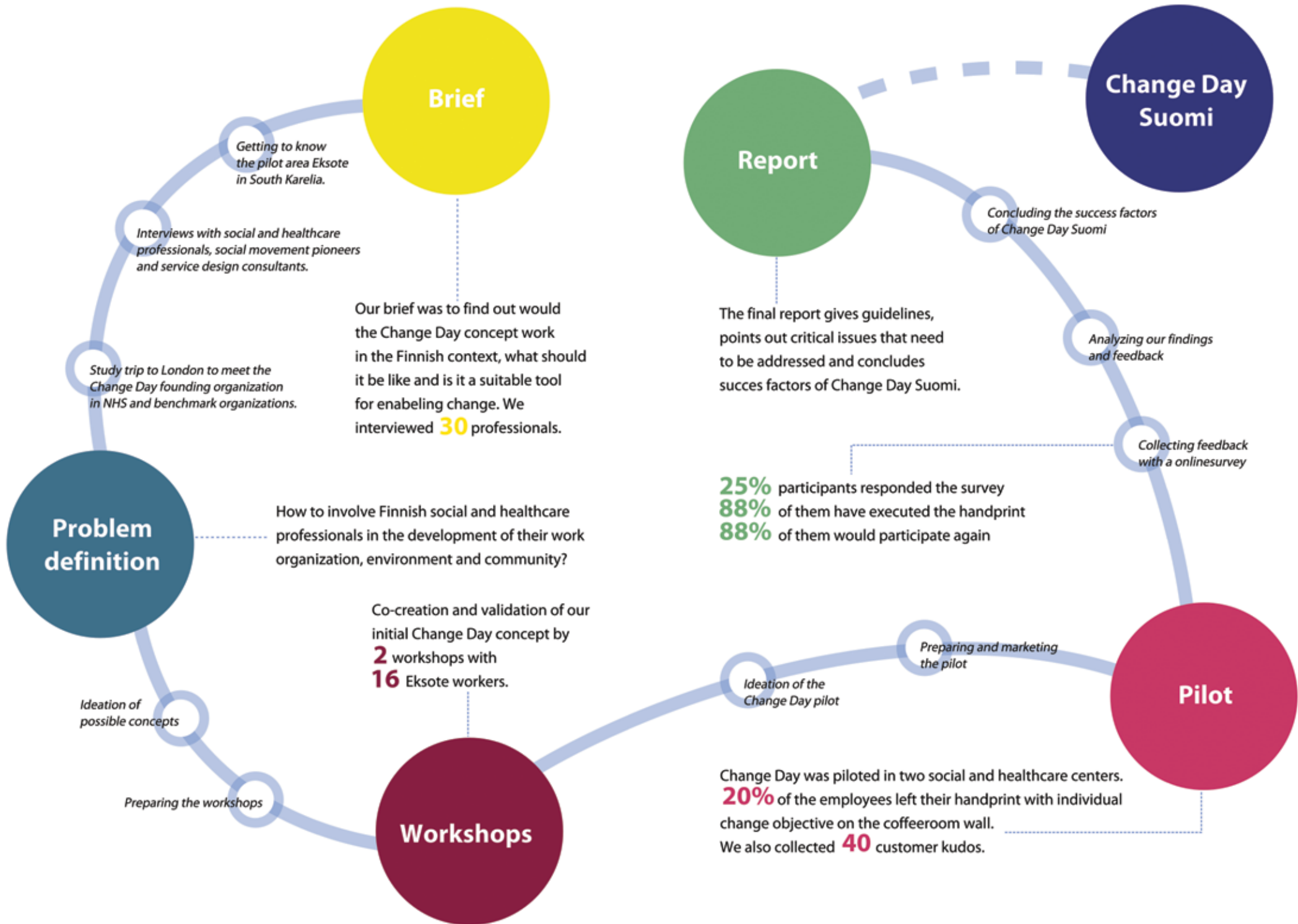
For professionals: Offers a chance to think about what could be different and share those ideas



Why it matters?

Social and healthcare professionals are facing increasing pressure and expectations from the government and the general public. Budgets are getting tighter and the need for good care is increasing with an aging population. The professionals need an opportunity to have their say in what needs to change.







Brief

"How to create shared experiences between generations by building together?"

Project frame

Toyota's ecosystem, the entity of factors and the main aspects that we are dealing with in our project.

TOYOTA

Our client Toyota is the world's biggest carmaker by volume. It is one of the world's most valuable brands. (Interbrand, 2014).

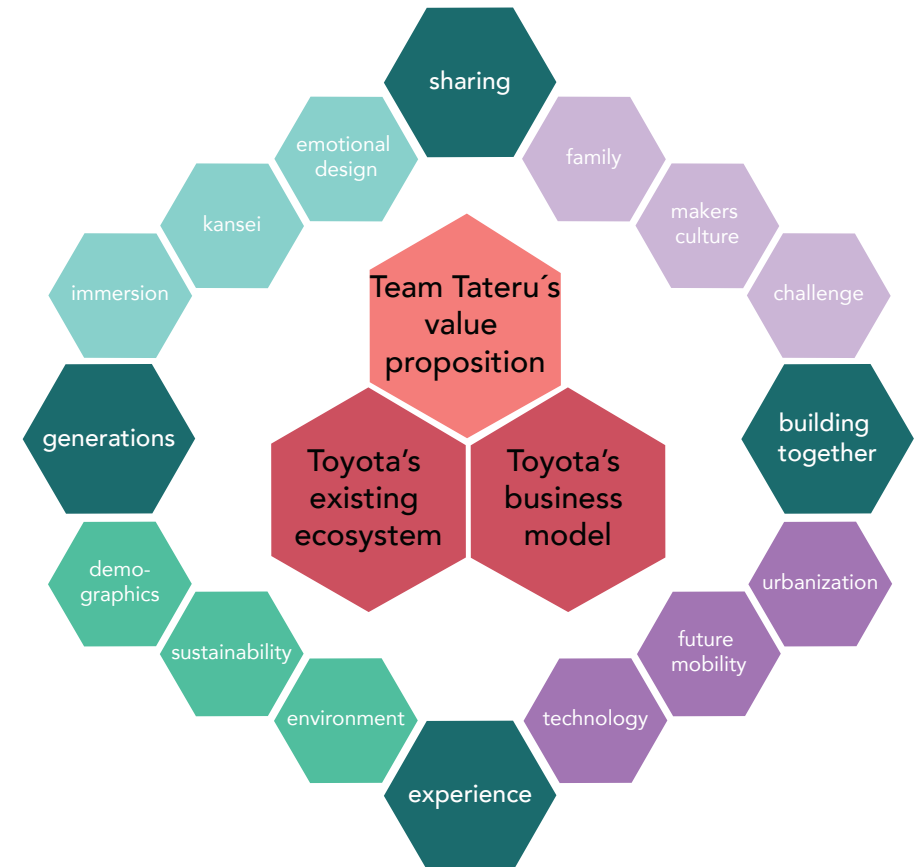
Toyota's vision is to lead the way to the future of mobility. The company values sustainability and innovation. (Toyota website, 2014).

We are working for Kansei Design Department, which is a part of Toyota Europe's R&D organization.

Team Tateru



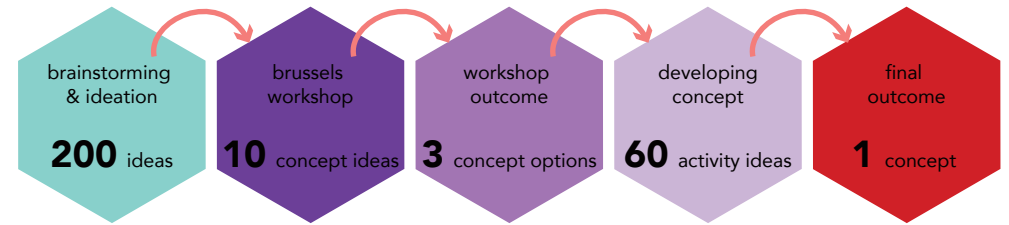
Team members: Emmi (BIZ minor), Karoliina (DES major), Krisjanis (ENG major), Mikko (DES major) & Philip (DES minor).



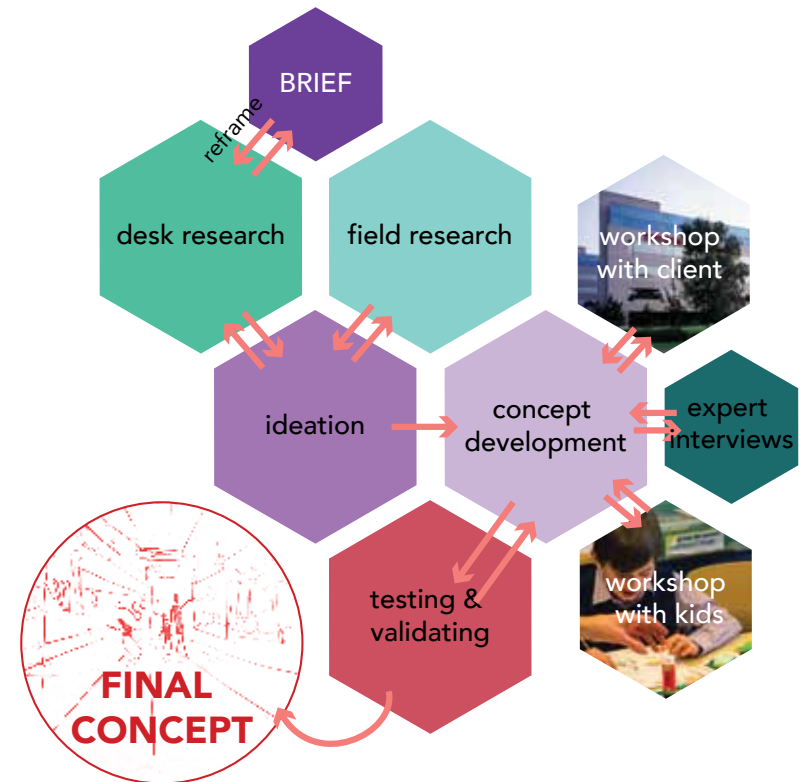
Tools & methods



Expand & focus cycle



Process



Anssi Laurila | School of Business
Hai Sun | School of Science
Julia König | School of Arts & Design
Yebyul Kim | School of Arts & Design



SUPPORTING ELL-I CO-OPERATIVE TO CREATE A VIBRANT OPEN-SOURCE COMMUNITY & FACILITATING ITS COMMUNICATION.

ELL-i is an open source hardware and software platform currently focusing on Power-over-Ethernet (PoE) devices. Its long-term aim is to create a master level system, which connects and controls various devices related to the Internet of Things. ELL-i has a technological, people-centred and ecological mindset.

ELL i co-operative is located in the premises of Open Innovation House of EIT ICT Labs in Espoo, Finland and has its assembly in Helsinki Hacklab. Around ten active members make up ELL i's core team. The EU-funded, non-profit co-operative aims to extend its developer community in order to create an open source platform, which attracts companies to apply it.

PROJECT BRIEF

IDBM students from Aalto University were asked to support the company to approach new customer segments so that the company will get a step closer to being able to license ELL-i technology.

In the course of the project the topic "communication and popularisation" turned out to play a crucial role for ELL-i's future and therefore was defined as the superior topic for the project.



*Community building
&
Communication*

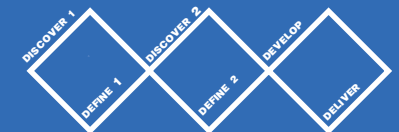


Power-over-Ethernet is a technology, which allows to transmit both electric power and data with only one Ethernet cable. By connecting individual devices every device is able to communicate with each other, make decisions and take actions.



GENERAL PROCESS

The IDBM team applied a triple diamond model in the process. The first phase served to define the project topic, the second phase was used to dive deeper in various research topics and define the concept topic and the third phase dealt with the concept development.



PROJECT PROGRESS

The team joined the weekly meetings with the client to understand ELL-i's objectives and mindset. Moreover, the students visited Helsinki Hacklab, joined an internal Hackathon as well as the demo presentation of ELL-i technology. The IDBM team organised workshops with ELL-i co-operative to define its operation model in more detail.



Meetings

Tools

Workshops



PROJECT OBJECTIVE

The IDBM team decided to create a guideline, giving an outlook on various approaches how ELL-i could improve its communication skills regarding future customers and become more popular with community members. Part of this guideline will be a preview of ELL-i's web presence.

Study trip



Visits



Navigating a world of changing work

Havuu is a start-up focused on modular space solutions using wooden products for open and flexible office environments. Based in Helsinki, Havuu is a small business with big ambitions and has a rapidly changing product and project catalogue. Our objective is to find international business opportunities for Havuu and help them to build a globally recognised offering.

Research in a nutshell



14 meetings
21 professionals



90
survey replies
of workplace
pros and cons

8

days research trip in Japan



March 18th - 26th in Tokyo

Friday feedback
Manager of the week
Creative chaos



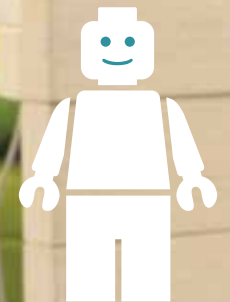
21 hours
spent on
airplane

43 h

spent on public
transport to
Design Factory

WORKSHOP
TOWARDS
A WORK
LIFE
UTOPIA

with 15 visionary
office users



6 visits in innovative
workspaces

Co-ba, FabCafe, Egg Japan,
Kokuyo Worksight, Microsoft, Yle



countless
post-its

HAVUU[®]

Team



Päivikki Kolehmainen / FI
Product Design



Junmei Lu / CN
Management



Taru Mikkola / FI
Marketing



Sebastian Nemeth / AU
Software Development



Yifan Zhang / CN
Industrial Design

Our journey

“Sometimes, it’s tricky working with a start-up. A big challenge has been how fast Havuu and their business focus has been changing. Our focus had to switch accordingly. We’ve had a lot of freedom, which taught us how to deal with a lot of uncertainty.”



“We travelled to Tokyo to compare Finland’s innovation culture with one of the most traditionally established business places in the world. We found more in common than we expected.”



“The preparation of 3D prints, scenario images, mood cards and Lego for the workshop at Tokyo iSchool helped produce great content and insights.”



“We’ve seen how creativity isn’t a skill or qualification but comes from anybody, anytime given the right situation.”



“We all learned a lot about creating meaningful connections within the team, with the client and also with the network of people who contributed to our work.”

Themes and insights

Living labs, future centres and co-working spaces are built in busy city centres to connect companies with potential collaborators.

The power of freelancers is being recognised and accepted.

Office layouts are starting to resemble urban planning with different functional areas divided in zones and neighborhoods.

Chaos in creativity and innovation is being embraced.

The shift in work culture and workplaces is something more globally pervasive than any potential niche or mass market. Work as we know it is changing. Between home, office, work and life the boundaries are blurring.

The biggest question is how is Havuu going to navigate this storm?

Kemira

530 interview hours
7 onsite visits

countries

7 company representatives

2 conferences



Janne Palovuori
Anna Savisaari
Shanshan Chu
Yuntao Zhu
Iman Asadi

THE TEAM



Janne Palovuori
Industrial Design



Anna Savisaari
Information & Service Management



Shanshan Chu
Corporate Management



Yuntao Zhu
Industrial Design



Iman Asadi
Software Engineering

THE CLIENT

Kemira is a global chemical company established in 1920 in Finland. Kemira serves water intensive industries to improve their water, energy and raw material efficiency in three categories: Pulp

& Paper, Oil & Mining and Municipal & Industrial. Besides chemical products, Kemira provides Control and Monitoring (C&M) solutions to measure, analyze and optimize process efficiency.

THE BRIEF

“Move forward in service sales”

Until now, Kemira’s C&M services have been offered freely with chemical sales. The team’s challenge was to identify new potential business opportunities for C&M, and to de-

sign a desirable and sustainable data-driven service offering for the municipal market in the US to move forward in standalone service sales.

THE PROCESS



Frame

Identified
Kemira’s renewed strategy, capabilities, ecosystem & challenges

Benchmarked
competition, legislation, business models & water usage



Research

Visited
water and wastewater facilities & management conferences

Interviewed
decision makers, experts & researchers



Ideate

Defined
relevant stakeholders

Brainstormed
to build idea pool

Categorized
potential business areas



Develop

Developed
initial concepts

Evaluated & iterated
final concept

Chose & proposed
new service offering

Transforming

CONTROL & MONITORING
into a desirable and sustainable
SERVICE BUSINESS

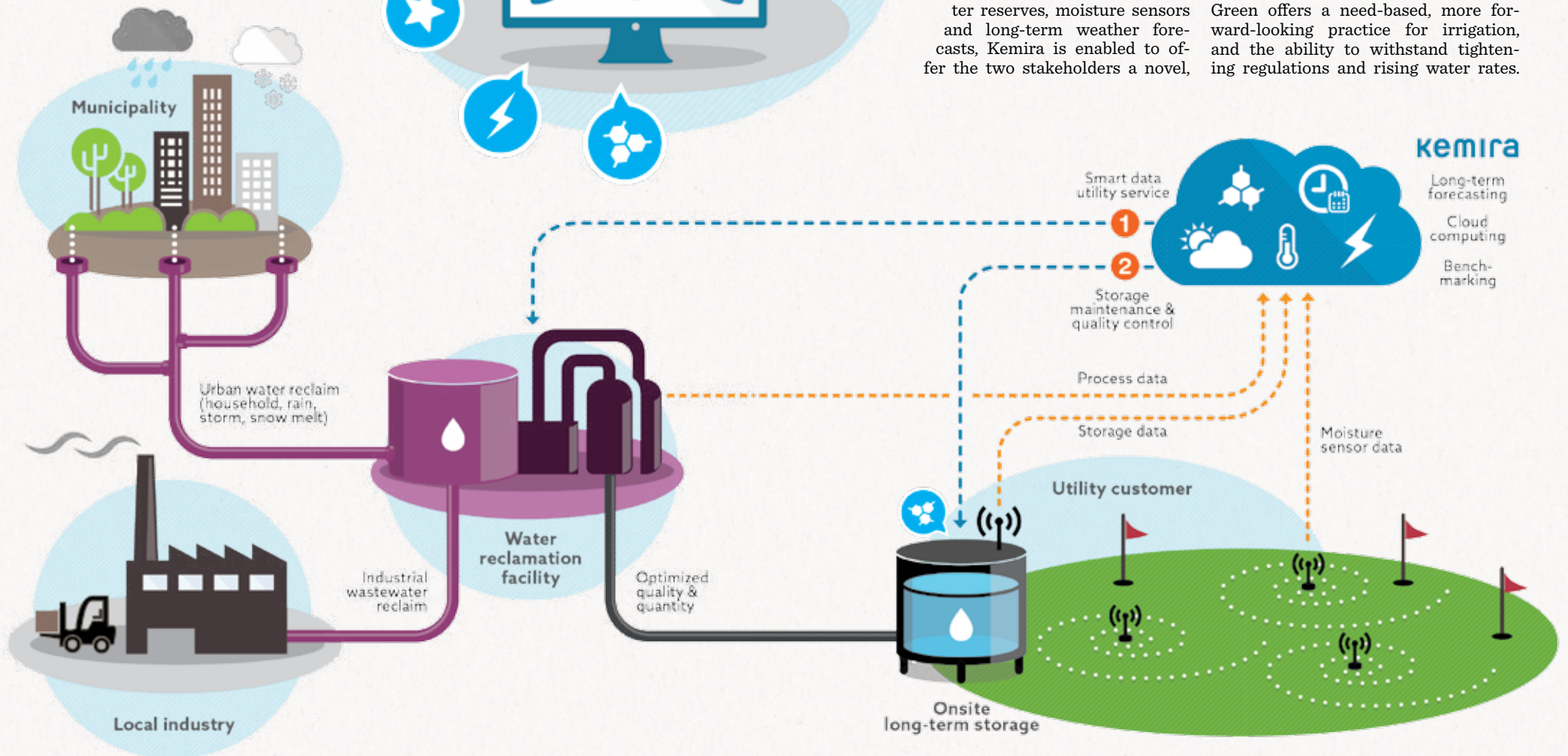
THE OUTCOME

Kemira GreenGreen service utilizes big data and smart technologies to monitor and optimize the flow of reclaimed water from treatment to irrigation to answer three key questions:

When to treat and to distribute water?

How much is needed?

Of what quality?



With the service, C&M expands to two new business areas besides treatment process optimization: water storage management and smart irrigation systems. This approach answers to the needs of two major stakeholders: reclaimed water providers and their largest customers using water for irrigation purposes.

By extracting and analyzing data from water treatment and distribution process, water reserves, moisture sensors and long-term weather forecasts, Kemira is enabled to offer the two stakeholders a novel,

meaningful C&M service with the ability to evolve in use.

As a customer of Kemira GreenGreen, with optimized treatment, scheduled distribution and long-term storage of reclaimed water, the utilities are able to distribute their energy consumption more evenly throughout the year, and to release their treatment capacity for serving households during drought when demand is at peak.

For the customers of the utilities, GreenGreen offers a need-based, more forward-looking practice for irrigation, and the ability to withstand tightening regulations and rising water rates.



CASE MITSUBISHI ELECTRIC

Re-thinking the role of design in a traditional manufacturing industry

Almost 150 years ago an ambitious Japanese entrepreneur Yataro Iwasaki saw opportunities in overseas commerce and founded a ship building company. As a spin-off came a factory that first made electric motors for ocean-going vessels, which then transformed to a growing manufacturing company. Today this company is known as Mitsubishi Electric – a global “giant” operating in the manufacture and sales of electrical and electronic products and systems used in several fields and applications.

In the future, Mitsubishi Electric aims to become the leading green company. Just like any other leading industrial manufacturing companies, Mitsubishi Electric needs to respond to the new challenges and demands that arise from global megatrends and developments such as urbanisation, climate change, lifestyle changes and geographical shifts in economic power. What are the next opportunities for the ambitious? What will drive change in the industrial manufacturing industry? Can design help a traditional manufacturing company renew itself?

PROJECT SCOPE

Mitsubishi Electric joined the IDBM programme to map new opportunities for living environment systems in Europe. The client brief was to “envision heating, ventilation and air-conditioning (HVAC) systems in residential housing in 2030 and beyond”.

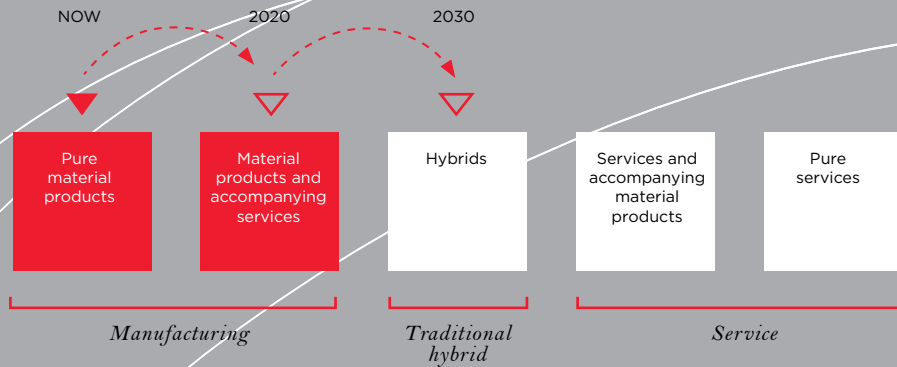
The company’s current offering is the venerable heat pump which provides a clean and efficient supply of heat to domestic and residential buildings. However, the project allowed the team to look beyond the current offering into any other potential systems for tomorrow. When the heat pump technology matures as a product, Mitsubishi Electric should have the next innovation ready to maintain their competitive edge.

Answering the brief requires an understanding of the megatrends, technological developments, user needs and expectations that shape the future living environment.

“Envision heating, ventilation and air-conditioning (HVAC) systems in residential housing in 2030 and beyond”



POSITIONING - *Good-Services Continuum*



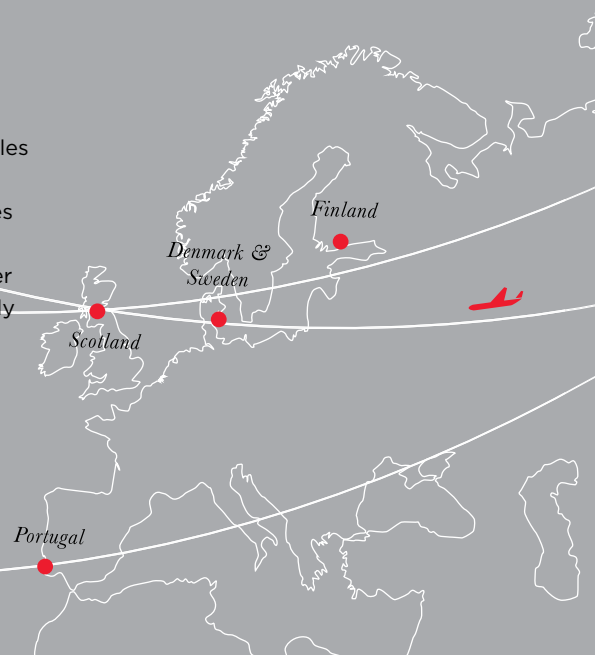
MULTIDISCIPLINARY TEAM



Combining the role of services in manufacturing industry

FIELD WORK

To gain first-hand experience of the actual living circumstances and lifestyles in different contexts the team sought accommodation in real people's homes in three different locations in Europe. The apartments were selected to cover a wide range of house types and family structures. Geographical locations were chosen on the basis of EU ErP Directive climate zones: cold (Denmark & Sweden), moderate (Scotland) and warm (Portugal).



METHODS AND TOOLS

Different design methods and tools were used to gain an understanding of the multiple stakeholders of the HVAC industry, other stakeholders and users, and for ideation and design. In addition to different houses and habitats the team observed the cultures of the cities from large-scale urban planning to building design and to small-scale products. The goal for the observation was to compare the different areas and to note any major differences in how people live in different parts of Europe.

- In-Depth Interview
- Personas
- Scenarios
- Rapid Cultural Calibration
- Brainstorming
- Empathic Design
- Service Safari
- Customer Journey Mapping
- Service Blueprint
- Business Model Canvas

Mitsubishi Electric is one of the world's leading manufacturers of a wide range of electrical and electronic products. An IDBM industry partner for the first time, this year Mitsubishi Electric is involved in a project focused on technology and design for realising a greener society.

In this interview Toshiya Yoshida discusses his experiences of the industry project collaboration with IDBM.

Toshiya Yoshida is a Design & Marketing Manager within the Corporate R&D section at Mitsubishi Electric. Currently he is working on market research and open collaboration with experts in Europe. With a background in product design Toshiya Yoshida was first introduced to the IDBM programme while visiting Aalto University's Arabia campus with visitors from one of Mitsubishi Electric's laboratories in Japan.

What are your expectations from this collaboration and what are the main benefits?

The students will offer a unique European perspective, and fresh ideas that will stimulate and influence our engineers and designers and potentially lead to an expansion of Mitsubishi Electric's products and solutions in the future.

In regard to the brief you have provided to the students, what was your interest in this particular topic?

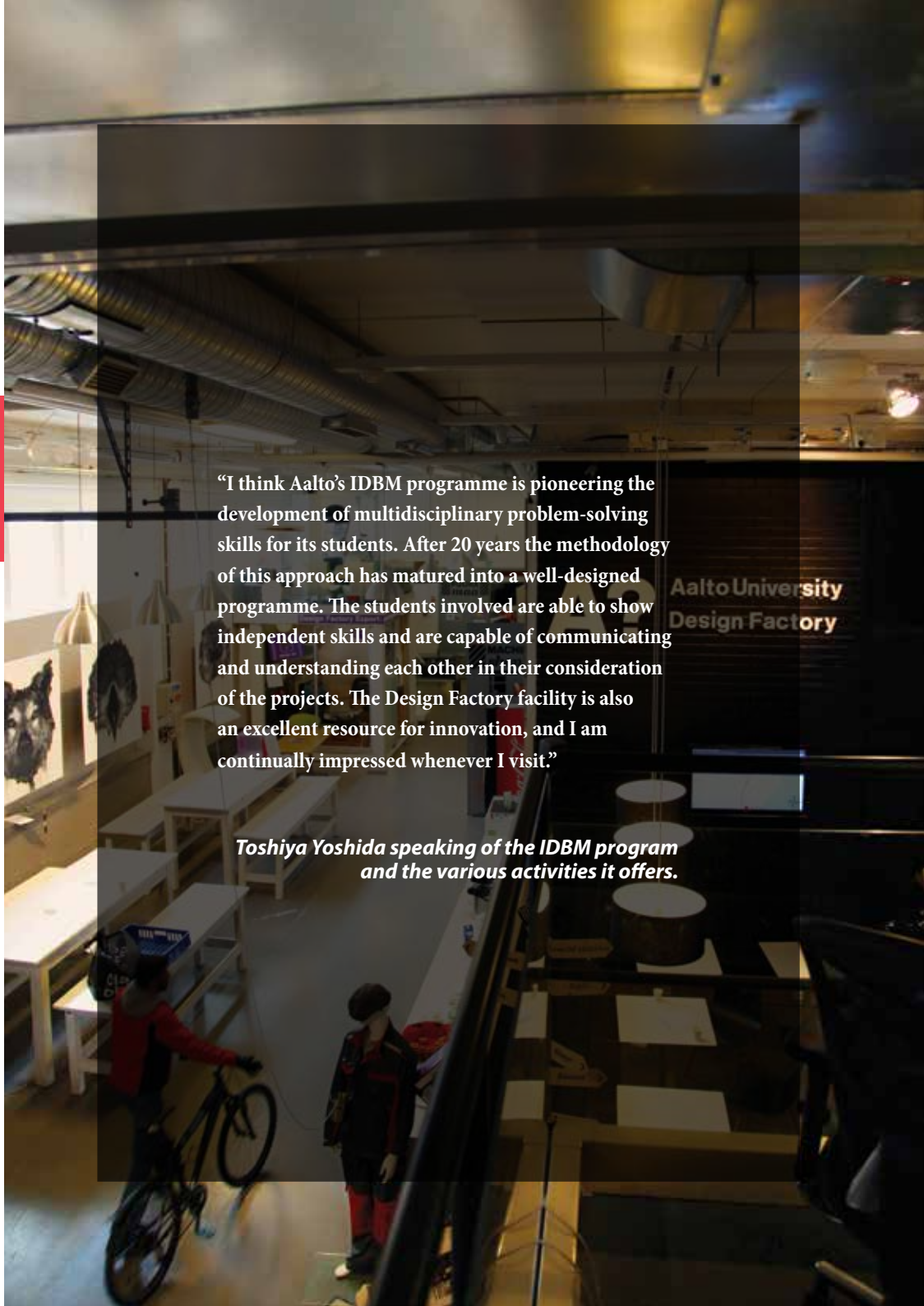
It is my hope that the theme of designing future HVAC (Heating Ventilation and Air Conditioning) systems for the European region will stimulate the students to solve more complex issues that we face when designing these types of systems, including engineering, design, as well as European climate and cultural aspects.

Is this type of collaboration a common practice for Mitsubishi Electric R&D Centre Europe? What is your plan for implementing the student's project results?

We currently do some collaboration projects but we are always looking to expand this type of activity. In my opinion, by including more people in the early stages we will create a better outcome for the project.

What would you say is unique about IDBM?

A multidisciplinary approach to problem solving can produce solutions that can be applied to real-world problem solving. We are pleased to be involved in developing these kinds of solutions for future technologies.

A photograph of the interior of the Aalto University Design Factory. The space is a large, open-plan area with a high ceiling, exposed ductwork, and industrial-style lighting. In the foreground, a person is riding a bicycle. In the background, another person is standing near a table. The text is overlaid on the right side of the image.

“I think Aalto’s IDBM programme is pioneering the development of multidisciplinary problem-solving skills for its students. After 20 years the methodology of this approach has matured into a well-designed programme. The students involved are able to show independent skills and are capable of communicating and understanding each other in their consideration of the projects. The Design Factory facility is also an excellent resource for innovation, and I am continually impressed whenever I visit.”

Toshiya Yoshida speaking of the IDBM program and the various activities it offers.



AHLSTROM

NANOMAJI

Reinventing water purification in Tanzania

For hundreds of millions of people around the world, access to potable water is a daily struggle. A new nanofiltration technology produced by Ahlstrom might change this. How might we combine technology, business and design to bring this disruptive filtering innovation to the growing number of people who are in desperate need of better purification solutions?



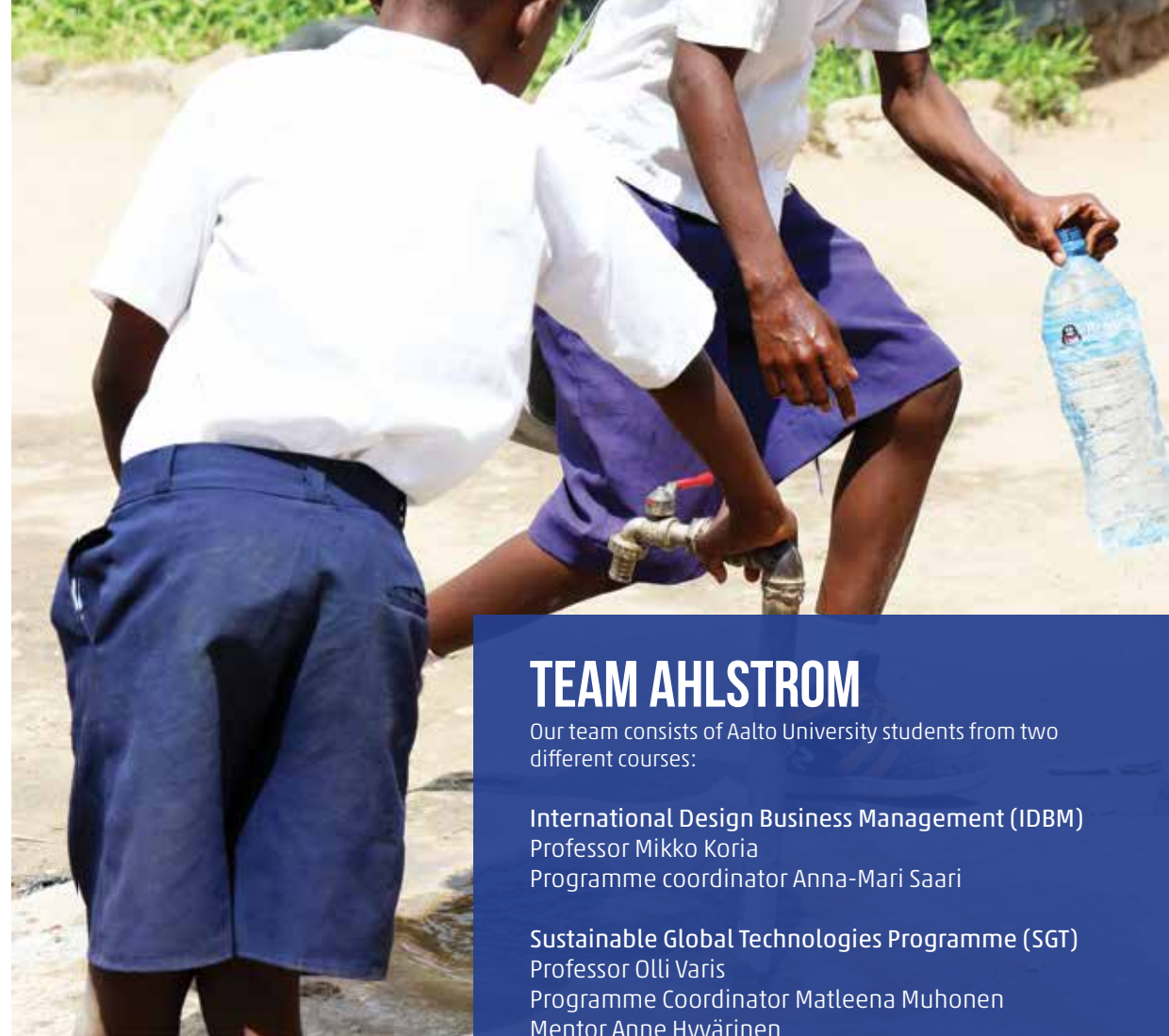
Every day you open your tap knowing that fresh and clean drinking water will come out. What if that wasn't the case? What if that water was contaminated and you would have to boil it before drinking? Or what if there was no water at all? This is the reality for more than 2 billion people around the world (BoP Innovation Center, 2011).

One of the main parts of this project was to visit Dar es Salaam, the most prominent city in Tanzania with a population of around 5 million people, in February 2015, to feel and understand how people manage to live with scarce and contaminated water.

21,6 million people in Tanzania don't have access to safe water

38,8 million people don't have access to adequate sanitation in Tanzania

10,000 children die every year from diarrhea due to unsafe water



In Dar es Salaam, people going around with buckets and jerry cans filled with water is a very common sight. As the infrastructure of the city is unable to keep up with the urban overcrowding, selling and transporting water has become a significant business. The problem is that most of this water is contaminated or becomes contaminated during the transportation. As the water is unsafe, the locals use charcoal for boiling it and thus making it safer to drink. But charcoal is problematic: besides being increasingly expensive, the use of charcoal leads to health, safety, and environmental issues. Needless to mention, boiling doesn't remove all the harmful contaminants from the water that might cause adverse health effects in the long-term.

The main goal of this project is to create solid solutions to this fluid problem. Ahlstrom's Disruptor® technology has several technical advantages and competitive pricing, allowing the creation of efficient, convenient, affordable, and desirable filtration products for the base of the pyramid market. The focus is to develop an achievable and scalable solution to a complex problem, while ensuring desirability, technical feasibility and economic viability.

TEAM AHLSTROM

Our team consists of Aalto University students from two different courses:

International Design Business Management (IDBM)

Professor Mikko Korja

Programme coordinator Anna-Mari Saari

Sustainable Global Technologies Programme (SGT)

Professor Olli Varis

Programme Coordinator Matleena Muhonen

Mentor Anne Hyvärinen



Xia Liang (Business)



Fabiano Brito (Engineering)



Sanna Puhakainen (Business)



Jymy Parhiala (Design)



Annaleena Hämäläinen (Design)



Tsui-Fan Tseng (Business)



Meri Nihtilä (Biochemistry)



Miina Rautiainen (Engineering)



Arturs Alsins (Engineering)



Emma-Sofie Kukkonen (Design)



Salvador Hernandez (Architecture)



LIGHTS — AND — COLOURS

THE OBJECTIVE

to provide information and ideas for Tikkurila to design a solution for designers & architects to assist them in picking the right colour in a world where the nature of artificial lighting is changing.

Team



VIORICA MILEA
Romanian

Bachelor of Computer Science and Math from Ovidius University in Romania



ZHEN CHEN
Chinese

Bachelor of Science in Human Resource Management, postgraduate: Business Administration from Tongji University (Shanghai)



RASMUS SAVANDER
Finnish

Bachelor of Science in Economics from Hanken School of Economics. Major in Marketing, minor in Strategy & Experience Design



SAANA TURUNEN
Finnish

Bachelor of Culture and Arts in Interior Architecture from Lahti Design Institute, Architectural Draughtsman



LAURI VIRKKUNEN
Finnish

Bachelor of Culture and Arts in Packaging and Brand Design from Lahti Design Institute, Bachelor of Social Sciences from University of Helsinki

Client Bio



Within 5 years Tikkurila wants to grow its revenue from roughly 650 million € to 1 billion €.

mainly from
PROFESSIONAL AND INDUSTRY
segment

↓
our target group:
DESIGNERS AND ARCHITECTS

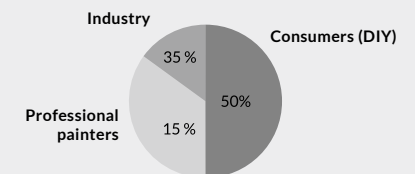
Many of Tikkurila's consumer markets are saturated and the real potential for growth lays in the professional and industry segment.

Tikkurila OYJ, is a Finnish manufacturer of paints and lacquers. Tikkurila was established in 1862 and has since offered a broad range of decorative paints for consumers and professionals for surface protection and decoration, growing into one of the leading paint & lacquers manufacturers in eastern and northern Europe. Tikkurila's brands include, among others, Tikkurila, Beckers, Alcro, Teks, and Vivacolor. The most important markets are Russia, Sweden, Finland, and Poland, which account for more than 80 % of Tikkurila's revenue. Tikkurila is considered to be a market-leader (in decorative paint) in Finland, Sweden, Russia and the Baltic countries, and was listed on the NASDAQ OMX Helsinki in 2010.

KEY FIGURES / 2014:

- Established in 1862
- 12 production facilities in nine countries
- Revenue EUR: 618.4 M
- EBIT: EUR : 64.2 M
- Personnel at year-end: 3,142

Market segmentation *



*management estimate

Process

TECHNOLOGICAL RESEARCH

We have attended specialized seminars about lighting and interviewed lighting professionals together with online research. We spent a lot of time getting to know all the complex elements of lighting such as e.g. colour wave length, CRI (colour rendering index). This led us to the conclusion that, the fast change in lighting technology makes the standardization of artificial light measurements difficult, thus being an impediment for many painting companies to adapt their products to the new artificial lighting sources.



IDEATION

We then continued with the ideation workshop. We listed the discovered problems and grouped them into categories, after which we formulated possible solutions and ideas. This, on the other hand, would generate more value for both the professionals and for Tikkurila. We managed to produce a total of 43 ideas, from which we filtered out seven ideas to develop further. Tikkurila's managers decided to adopt three of the seven ideas for further internal development and tasked us with combining the last four into a holistic concept.

- 1.
- 2.
- 3.
- 4.

"You can't explain lighting, you need to see it."

One lighting designer in Stockholm
Light Symposium 2015

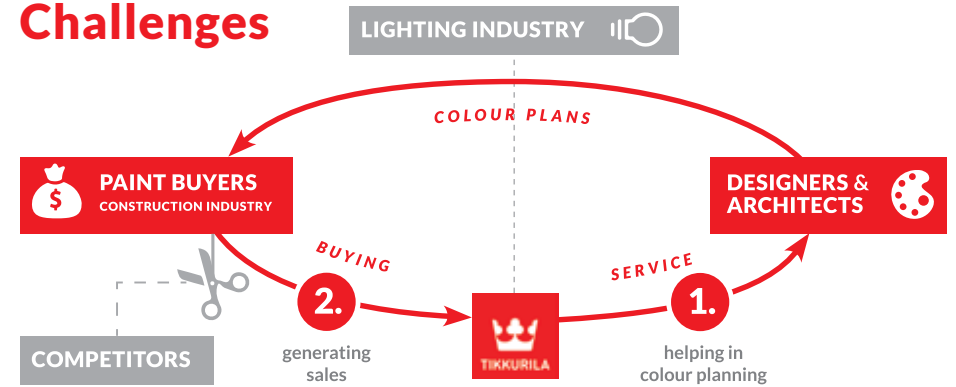
CUSTOMER ANALYSIS

As mentioned in the challenge, our mission was to affect designers and architects to influence sales in the buying sector. We therefore started to analyse our target group by doing an online survey complemented with in-depth interviews and office visits. This gave us insight into the professional sector, particularly about the needs and job tasks of architects and designers, the level of knowledge about lighting and general information about the construction process. When attending the Light Symposium in Stockholm we also, perhaps surprisingly, identified a huge communication gap, and a clear tension, between architects and lighting designers.

CONCEPT DEVELOPMENT

During the concept development phase we utilized service design tools like user personas and customer journey maps, in order to ensure that our solution solves the challenges of our target audience in the best possible way. We also spent a significant amount of time on prototyping, e.g. a co-creation workshop where we engaged designers and architects in testing and improving the final concept.

Challenges



Besides being a manufacturer of paints and lacquers, Tikkurila also offers a great range of product-based services for both professional painters and consumers. These services are meant to support Tikkurila's sales.

The aim of our project was not only to create a valuable service for designers and architects (1.) but also to see to that this solution would have a positive impact on Tikkurila's paint and lacquer sales (2.).

Within the consumer sector the paint buyer is usually the same person who uses the services. In our case, however,

the service user is not the one actually buying the paint. Our challenge was thus to influence the constructors' buying decisions through assisting designers and architects in their colour design process. This means that we simply needed to make sure that the efforts which are put in towards architects and & designers generate sales 'in the other end'.

Outcome

We propose a three-fold solution for Tikkurila in order for them to grow their share in the professional segment and tackle the challenges brought forth in the brief. An online educational platform (1) will provide useful information for designers and architects, in order to assist them in the design process, especially when designing with light and colour. This educational and informative online platform will also drive users to the main element of our three-fold solution: the office concept (2.). This agile tool, to be used in an office environment, is essential for our project since it is meant to help architects and designers in the design process itself. The office concept will also seamlessly incentivize



designers and architects to recommend Tikkurila-branded paint lines designed for all types of lighting circumstances (3).



UniWASH

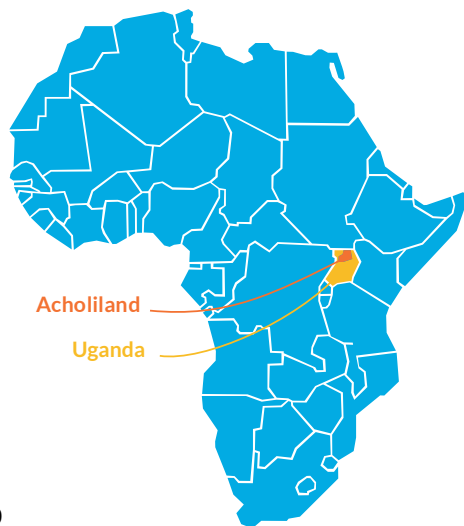
Fulfilling Children's Right to Proper Sanitation



UniWASH is a 3-year project run by UNICEF Finland, the country office for the world's leading children's rights organization. UniWASH brings together UNICEF, academia and the private sector to develop human rights-based water, sanitation and hygiene (WASH) innovations for Ugandan school children.

The project targets Acholiland, a region that is recovering from a 20-year long civil war and a severe humanitarian crisis. Primary schools in the area lack resources and struggle to fulfil children's right to adequate sanitation during their school day.

The multidisciplinary project team of 30 students from Finnish and Ugandan universities spent a total of five weeks in rural Acholiland to better understand the realities of the unique context. We engaged with the locals



in workshops, group discussions and in-depth interviews, building a comprehensive picture of the local ecosystem and the WASH challenges people face in their daily lives. Some of the key root causes to the identified challenges included:

- Filled-up dry toilets - high student-to-toilet stance ratio
- Sustainability of behavioural change
- Low levels of participation and sense of ownership
- Lack of funds on all levels of society

Our proposed concept, **a holistic model for utilizing human waste-based fertilizer in farming**, tackles these underlying problems in order to create positive, sustainable change. We aim to increase WASH knowledge and participation in communities, secure livelihoods for Acholi people and improve children's access to safe, functioning toilets during their school day.

Our team

- Joonas Ala-Karvia
- Yuan Cao
- Derek Chan
- Vytautas Gudaitis
- Vilma Hämäläinen
- Pilvi Iso-Markku
- Saila Kivilahti
- Linda Sivander

Human-Rights-Based Approach

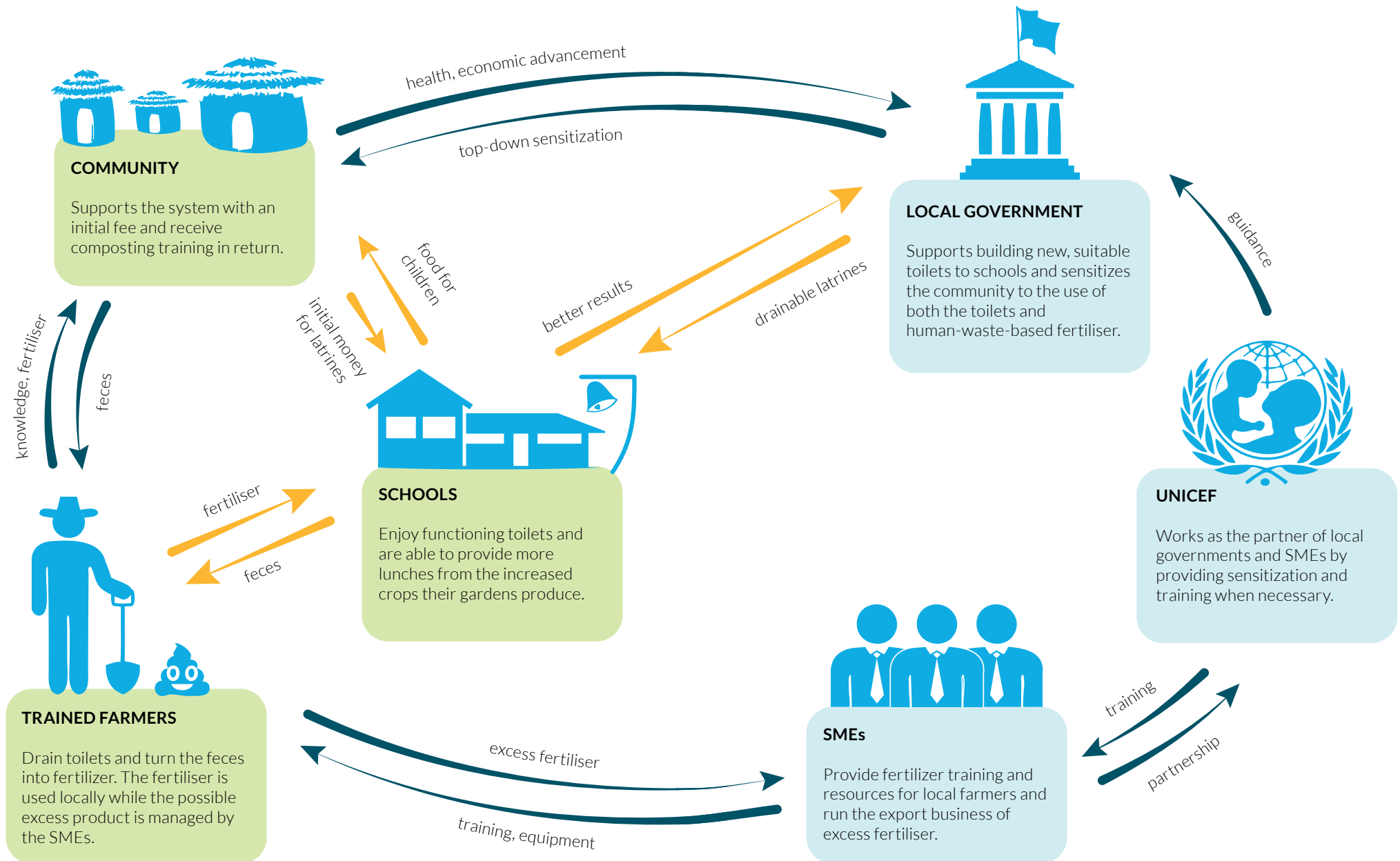
The Human-Rights-Based Approach (HRBA) is a conceptual framework for human development that team UniWASH uses as a part of their innovation process. HRBA as a method means that we...

- Are culturally sensitive to the context we work in.
- Recognize that lasting, positive change cannot happen without empowerment.
- Strive to build capacity so that people are empowered to do things for themselves and claim for the fulfilment of their rights.
- Include children in every step of the process using participatory methods.
- Understand that the process is as important as any result created.



OUR CONCEPT ECOSYSTEM

What it takes to turn human waste-based fertilizer into a sustainable, life-fueling business.



Since 1995, over 150 successful projects have been completed in IDBM, for over a 100 leading Finnish and international companies and organizations.

American University - Philips - UNICEF - Toyota - Rovio - KESKO - Suunto - RAY -Konecranes - NSF Telecom - Panasonic Design HQ, Germany - Volkswagen HQ, Germany - Outokumpu - Fazer - YLE - Procter & Gamble - NOKIA - KONE - Wärtsilä - Microsoft - Panasonic - Neste Oil - Finnair - Fiskars - Metso - Helsinki City - Iittala - FinPro - Stora Enso - Sanoma - Martela - Polar Electro - AsoKodit - Finavia - TeliaSonera - Vaisala - Advansis/Rambol - Pentagon Design - Väino Korpinen - There Corporation - Fashion Export - TEKES - Services for Global Collaboration - VIP Research Project - IDBM 2.0 - HRM Partners - VTT BMH Technology - NCC - Kumera - Viestivä Pakkaus - Innohome Standford - Salo Area Development Center - Sentica Cavia - Kaupallinen Tila - 24 Living - Ruuki - Sentica Finnsonic - Virke - SRV Westerlund - Lapponia International - Innospa - Incap Furniture - Mobidiag - Lowe Partners - Design Network - Asperation - Helkama Bica - Honkarakenne - Piironen - Network - Honka - Rannila - Satama Interactive - Skanska Kodit - Design Forum Finland - Perlos - WoodFocus - Stala - Turenko - Helkama Velox - Benefon - Grundfos - Naps Power Systems - Oras - Tulikivi - Control Express Finland - Isku - Koistinen Kantele - Keravan City - Virke - Tervola Town - E&D Design - Valmet - Mk - Trsemer - Linen House - Raute Wood - HPY - Sääntti - Handicap Equipment - Borealis - Valmet - Kemira - Valmet Paper Machines - Metra - Juhani Risku Architect Company - Exel - Teleste Communicaions - Lapponia House - Piironen (Arena) - Vivero - Hackman - Manner - Reima - Introdex Qonsalt - CENTRO University - University of Sao Paulo - CITE Madera, Peru - Open Innovation Forum - University of Sao Paulo - Helsinki University of Art and Design - Helsinki University of Technology - Chemical Industry Federation of Finland - Panaphonics - Ministry of Science Vietnam - FinPhys - Planar

**Discover design as a competitive factor
Get new cross-cutting ideas
Meet the teams of the future**

IDBM INDUSTRY PROJECT

information for partners

What are IDBM Industry Projects?

The IDBM projects aim to develop new business value through uniting the best practices of industry and academia in design, technology and business.

Why should I partner with IDBM?

The projects join the best knowledge and practices of companies with new insights from talented, global and multidisciplinary master's students to co-create the cutting edge solutions of design and technology driven business of tomorrow.

How does the IDBM Industry Project work?

A multidisciplinary team of 4-5 students from design, business, and technology work over a six-month period with company staff, assisted by senior coaches

from academia, to research and seek new solutions to the business challenges set by the sponsoring companies.

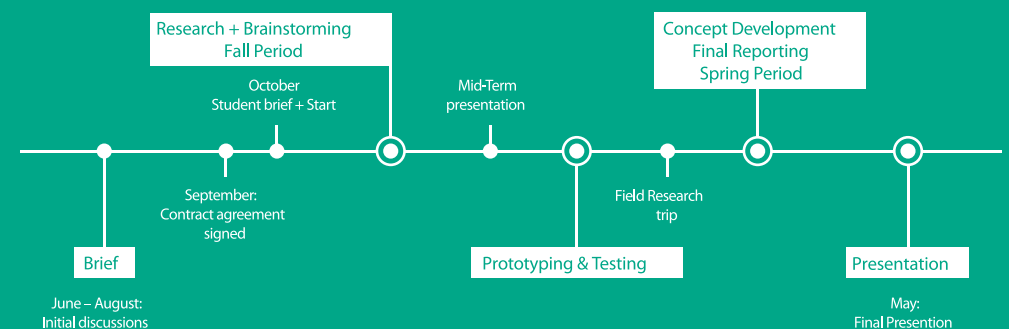
What do I get from the projects?

Since 1995, projects have dealt with customer, market and user needs and design-driven innovation, developing new business, product, service and communication ideas, insights, models, concepts and identities. The intellectual property belongs to the sponsoring company, and on need the projects may have non-disclosure agreements.

What is the timeframe?

The length of the project is eight months. Specialised seminars, workshops, research and studies may also be developed around the projects if needed.

The schedule for the Industry Project



“Being part of an industry project and working with IDBM students was a very fulfilling experience for our company. The dialogue and meetings with the teams and their supervisors were highly appreciated. It was easier to follow up the milestones and we also got another perspective to our business landscape. It is extremely valuable to have an external opinion, ‘out of the box’ thinking, a fresh academic as well as practical touch to clarify our market message and communication. And that is something that the IDBM programme is very good at. We think the uniqueness of IDBM is in its multidisciplinary approach and close co-operation with the companies while tackling their challenges. We’d like to congratulate IDBM on its anniversary and wish the programme luck as it continues doing a great job, maybe even expanding its proposals and stepping further into a business opportunity.”

Marko Hentilä,
Co-founder & CEO, NSF Telecom

“From the company perspective I think the main strength of IDBM is versatility. It brings together so many viewpoints which evoke an atmosphere that is innovative and encouraging and international. It’s really awesome that IDBM has managed to create a platform for collaboration between students and different businesses and it is exactly that type of exchange of ideas and resources that Finland or any other country needs. I think it is so positive that IDBM is international from students and companies’ perspective and many study programmes could benefit a lot by learning from IDBM.”

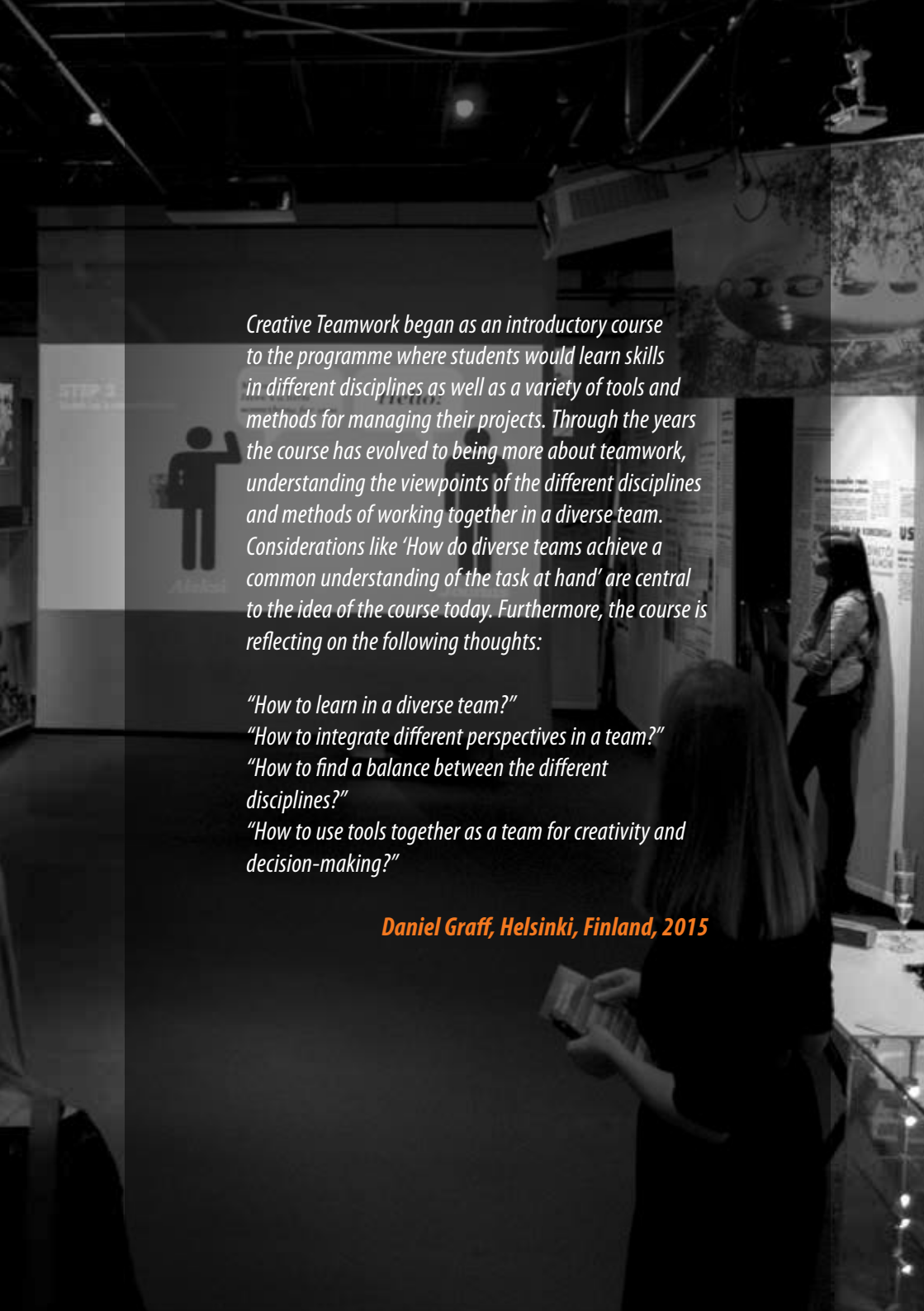
Minna Särelä,
Executive Director, Design District Helsinki

COURSE PORTRAITS

This chapter provides an overview of two courses from the first year of IDBM studies, and aims to provide a better understanding of the unique way of learning in IDBM. Two courses have been selected to illustrate ‘the IDBM way’: the authentic approach to knowledge sharing in IDBM.

First, the ‘Creative Teamwork’ course, taught by Daniel Graff, has been running since the first year of the IDBM master’s degree programme, five years ago. Each year, IDBM studies begin with this course that includes project work in multidisciplinary teams, thus involving students in the learning-by-doing principle right from the start.

Second, the ‘Special Project’, facilitated by Mikko Koria but run together by the students themselves, was realised for the first time this year. This course has been designed to be run by the students, for the students, and will continue to evolve through the years through a process of ideation, testing and iteration. The benefits of the multidisciplinary student body are highlighted here in the form of peer-to-peer learning and knowledge sharing.



Creative Teamwork began as an introductory course to the programme where students would learn skills in different disciplines as well as a variety of tools and methods for managing their projects. Through the years the course has evolved to being more about teamwork, understanding the viewpoints of the different disciplines and methods of working together in a diverse team. Considerations like 'How do diverse teams achieve a common understanding of the task at hand' are central to the idea of the course today. Furthermore, the course is reflecting on the following thoughts:

"How to learn in a diverse team?"

"How to integrate different perspectives in a team?"

"How to find a balance between the different disciplines?"

"How to use tools together as a team for creativity and decision-making?"

Daniel Graff, Helsinki, Finland, 2015

The Creative Teamwork course includes a two- or three-week project realized in collaboration with a client company – in this year's case, Design District Helsinki (DDH).

In this interview Minna Särelä, the executive director of DDH, and an IDBM alumnus from 2003, shares her experiences from this year's project with the IDBM student team.

Can you tell us about the project?

In terms of internal project goals for the association, the purpose of this project was to collect feedback from the members of Design District Helsinki and gain new insights. Associations exist to serve their members well and to make sure that all members are heard. The IDBM students gave us a deeper understanding of this aspect through their research. Additionally, the project also focused on gaining new perspectives on how to develop the association and to be inspired by ideas of the students who are able to look at the situation from the outside with a fresh perspective.

What does Design District Helsinki look like today?

As an association, we have two goals: first, to enhance the collaboration and networking of design and creative fields in Helsinki, and second, to promote Helsinki and especially

the southern part as a hub for design and creativity. We have about 200 members who range from the fashion and beauty segments to galleries, cafes, restaurants and hotels. Central to all of our client businesses is the design driven approach, as they are all design-led businesses. Also, all of our clients have a physical presence in Helsinki in the form of a shop or a restaurant, so DDH is also considered a local network that has a physical form.

Are you happy with the results from the IDBM students?

Yes, I like the result as it included a wide variety of ideas on many different levels. As well as a final walkthrough presentation at Päivälehti Museum we were also given a detailed report explaining more of the ideas and in more detail. Some of the ideas are quite easy to implement while others are more conceptual and futuristic, tackling the bigger picture. The focus of the report provided to us by



the students was perfectly in line with the purposes and strategy of DDH.

Which concepts were easy to implement in your opinion?

The ideas that students developed won't go old anytime soon, so we will be coming back to this report many times and I hope that many of the ideas will be continued in some form. One concept which I still keep fresh in my mind was about creating a network for

considering some alternative practical models that include different businesses' involvement and levels of collaboration. It would be very interesting to look at different concepts and propose how the association can find the funding for those based on the type of the project. For example, for technologically advanced concepts and projects we can apply for Tekes funding, and so on. These kinds of guidelines and practical business models will help us to take the ideas further.

"Practical, simple solutions. This is something that I would like to emphasize here in general – not all innovations should be technological. We need some innovations that we can implement in our everyday life right now and sometimes the best innovations are just very simple ideas that no one really thought about."

DDH members by letting them know each other better through small notes, exchanging gifts and visits. We haven't done it yet, but it is something that we would like to continue on at some point. It is a very simple and 'down to earth' suggestion, however this is an important starting point for seeing results in a shorter term. Another concept, 'Pölli' has already been tested by us, however there were some practical issues – for example, weather conditions and city regulations on what can be placed on the street. It is possible to realise, we just need to develop it further, keeping in mind all practicalities. From the longer-term projects we have also been discussing the touchscreen idea, this is something interesting for us in the future.

What might be the way to make these projects real?

As a next step for us it would be extremely valuable to look into the ideas which included a more practical point of view. We are

Are you interested to continue the collaboration with students?

That's a great idea! Our members are very different, and there are many who would be willing to collaborate in terms of getting honest feedback and understanding about their businesses and offerings. If there are students who are interested in collaboration with our members or association in general, we would be happy to discuss it.



The IDBM programme is often collaborating with IDBM Klubi on several joint projects and events. This year, IDBM Klubi was given the unique opportunity to participate in the creation of a new course for the first year IDBM students of the program.

Ines Vaittinen, a member of IDBM Klubi Board responsible for education and faculty relations, took the leading role in facilitating the joint creation of the course. In this interview Ines shares her ideas behind the course.

How was the idea for the course born?

“When asked to bring forward ideas for a 3-credit course I decided to take on a design-driven approach and to involve the students themselves in the design of the course. The process consisted of several discussions with old and new IDBM students, a collection of their ideas and several rounds of iterations of what the course could entail. Finally, the conclusion was clear; IDBM students are very driven, entrepreneurial, and have a lot of great ideas. The special project course is dedicated to the ideas of the students themselves, allowing them to work on their own initiatives and developing them into something viable.”

What was this year's special project about?

“This year's theme ‘from idea to business’ formed the basis for the course which started with the pitch of an idea and ended with the pitch of a business proposal. The checkpoint discussions in

between were arranged in the form of group discussions where the collaborative efforts of the students were utilised in developing the business cases of the projects together.”

Any future plans for the course?

“Special Project is going to continue to evolve throughout the years. The next edition will continue to focus especially on the collaborative efforts of the students in the form of peer-to-peer learning. As well as having a lot of great ideas, the multidisciplinary IDBM student body also offers a variety of knowledge and skills, and the course will continue to facilitate shared learning between the students.”

Idea Studio

We ♥ Creation

Sebastian Nemeth
Juho Kinnunen
Junmei Lu

Vilma Hämäläinen
Zhen Chen

1

In IDBM, our greatest strengths are our interdisciplinary people, our hands-on approach and our exhilarating culture. We developed a concept for a platform to match teams of students to small, short-term projects and get paid. By giving companies access to passionate, creative-thinking students, cutting-edge capabilities and a workshop experience designed in ‘the IDBM way’, countless opportunities are created for students and industry alike.



Yuan Cao
Shanshan Chu
Liang Xia
Saaramaria Somppi

2

‘Eye Jewelry’ is a start-up that 3D prints jewelry, which customers can design themselves using a simple app. The team is working on developing their business concept to better fit in the Chinese context, as well as to refine their marketing strategy in China.

E AALTO HOUSE

Krisjanis Karkls

3

Aalto E-house is a concept for fully energy-independent family housing. First, it is energy self-sufficient, and secondly it is affordable for families with low to medium budgets. The first fully functional 1:1 mock-up prototype will be built in Latvia, and will be used as a springboard showcase platform for further business expansion. The idea is to start offering this product to the Baltic market first, with a possible expansion to the Nordic markets.



COURSE DESCRIPTIONS



Multidisciplinary studies

All core IDBM courses use a multidisciplinary approach and are connected to each other.



Aalto University joint platform

Studies are conducted in all three Aalto campuses, familiarising the students with the different environments and using all the facilities that Aalto offers.



Collaboration with industries

Hands-on practice is a crucial aspect of every course. Through collaboration with industry partners the projects provide a learning-by-doing approach to the courses.



Master's and minor studies

All IDBM master's students follow seven core courses during their first year of studies. Minor students in IDBM follow a minimum of two courses, and also participate in the industry projects.



The first year course offering of IDBM studies consists of a core set of studies in design, business and technology. The courses support learning across the three fields, as well as offering guidance for the ongoing industry projects. While some courses are directly linked to the industry projects in terms of their deliverables, other courses may include a project of their own. The courses each provide a set of knowledge and skills for the students to adapt and apply in their industry projects, as well as in future projects and professional life.

The courses are split between the three campuses of Aalto University: the School of Technology in Otaniemi, the School of Business in Töölö, and the School of Arts, Design and Architecture in Arabia.

CREATIVE TEAMWORK

Daniel Graff

The IDBM programme kicks off with the intensive Creative Teamwork course. The aim of the course is to provide an introduction to the IDBM programme and a set of skills to manage the industry project later in the year. The cornerstone of the course is a very intensive and short industry project through which students should learn the fundamental knowledge and skills for multidisciplinary and multinational teamwork. After the module the students should have gained an initial understanding of various practices in business, design, and technology, and explored various cognitive approaches. Students will recognise the potential, as well as the limitations of design, technology, and business as competitive elements in multidisciplinary teams. To improve the learning process, students are introduced to a mindset of working and studying.

CREATIVE LEADERSHIP

Peter McGrory and Anne Stenros

Providing students with an introduction to leadership, design thinking and entrepreneurship, the creative leadership course includes a new brief about 'METHOD', a non-toxic cleaning products company. A learning-by-doing principle is applied as the students are divided into small multidisciplinary teams and introduced to a variety of methodologies in design thinking, including an overlying mindset. Learning is supported by theoretical insights and discussions as well as practical case-based examples.

Focusing especially on the value of design in innovation processes and entrepreneurial practice, this design-driven interdisciplinary approach helps to develop the creative confidence of the students for challenging leadership roles. The course concludes with final presentations at the KONE Headquarters in Espoo, Finland.

DESIGN BUSINESS MANAGEMENT

Mikko Koria and Kathryn Best

Focusing on design in business this course provides students with a mix of theoretical background in the form of lectures and practical understanding in the form of case studies. It provides emphasis into the different roles involved in businesses, from technological, design and management viewpoint. The students work in their own IDBM industry project teams researching the core elements of their client companies, their entire ecosystems and business practices while analyzing the different processes. As a final outcome students present a video showing their analysis of how the three elements of design, business, and technology, fit together. The final videos are presented to the client companies together with the midterm report from the Innovation and Project Management course.

INNOVATION AND PROJECT MANAGEMENT

Pekka Berg and Kirsi Polvinen

The Innovation and Project Management course provides students with skills, tools and methodologies related to the processes of innovation management and the different phases involved. Students are guided towards more dynamic creative work through the use of efficient methods in project and innovation management. Further approaches in idea management, scenario planning, Lego Serious Play, prototyping and conceptualizing, among others, are applied in a practical setting in the form of workshops. These workshops are designed for supporting the progress of the IDBM industry projects, and the final outcome of the course in the form of a midterm report is given to the clients as a conclusion of the research phase of the projects.

BUSINESS MODELLING AND MANAGEMENT

Mikko Koria

In order to create a detailed yet overall understanding of how successful businesses operate, students practice applying frameworks and management tools during this course. Aiming to provide insights into global business models, strategies and plans, this course also consists of a number of readings which strengthen the student's knowledge of the different types of business models and the ways in which these are being managed. The Business

Model Canvas is studied in depth and applied in the student's own industry project cases. Key frameworks and management thinking concepts are studied through a combination of class lectures, academic articles and team assignments.

INTERDISCIPLINARY PRODUCT DEVELOPMENT

Kalevi Ekman

In this course the special focus is on methods and tools that will help interdisciplinary teams in productive co-creation of products, related services and in common, competitive innovation concepts. The course has three main themes. First, the need for development processes and models is discussed, covering also project management and leadership, clarification of the task, conceptual design and brainstorming. Second, the techniques to take ideas further and to improve communication, e.g. sketching of ideas, low cost manual prototyping, more advanced prototyping, product sound design and working with electronics are introduced. Third, elements for building an understandable and powerful presentation are covered: writing a manuscript, embedding photos and videos in presentations, and pitching the idea. A team assignment is part of the course. The topic varies each year, but the main idea is to apply the learning from the various lectures and workshops into practice. The exercises may be organised with corporate partners, e.g. Nokia Siemens Networks, Nextbase, or Wärtsilä,

if proper challenges that fit to the scale and scope of the course can be identified.

BRAND DYNAMICS AND DESIGN

Oscar Person and Paulo Nicoletti Dziobczenski

The goal of the course is to introduce students in design to different approaches for branding and to deepen their understanding about the different roles design may play in the process of creating and materialising a brand. Special emphasis is placed on the expressive character of design and the ability of designers to transform and innovate upon the material touchpoints for branded activities. The course is organised around a practical design project. The focus of the project is to develop a brand strategy concept and showcase the design implications of the proposed strategy in a material production. This year, the students worked on case projects for Finnish National Gallery and Save the Children Finland.

SPECIAL PROJECT

Mikko Korja and Ines Vaittinen

Born from the collaborative efforts of the IDBM students themselves, Special Project is the first ever student-driven course offered by the IDBM programme. This course provides students the opportunity to work on their own initiatives, developing their ideas into planned and tested business proposals. Launched for the first time this year with a special theme "from idea to business",

the course started with an initial pitch of the idea to fellow students and ended with a pitch of a business proposal to business experts. Based on the idea of cooperative and peer-to-peer learning, Special Project consists of several facilitated discussions where students can comment on and develop each other's projects and progress throughout. Having provided the projects with a strong basis for further business development, many of these projects are planned to continue individually by the students well beyond the scope of the course.

I think what is unique about IDBM is studying a subject from three different angles - business, technology and design - with highly passionate people. For me, that was crucial for choosing the programme.

When studying, I appreciated the community between IDBMers, the tight connection to the staff and the "passion/initiative"-based approach to our studies.

Thomas Abrell, Alumni, 2010

The programme manages to bring together a truly and deeply diverse (as opposed to 'superficially' diverse) set of folks as a cohort, and provides a framework that helps create mental and physical spaces that are cosy and encouraging, yet push the participants out of their comfort zones.

Tushar Malhotra, Alumni, 2011



SECOND YEAR IN IDBM

Compulsory studies:

School-specific master studies: each school has their own specific requirements whether you are studying as a business, technology or art, design & architecture student.

Master thesis:

The master's thesis is a 30-credit research project carried out independently by the student. In their thesis, students usually research a topic related to their major, i.e., the field they take their advanced studies in.

Elective studies:

As elective studies, students can complete minor studies and/or take individual courses from other programs at Aalto University or other Finnish universities, or participate in an international student exchange program. Internships in Finland or abroad can also be included in this module.

Optional minor study module.

All students of Aalto University can choose a minor study, a minimum of 25 credits from another study program than their own.

Elective courses in Aalto Schools.

Elective studies are optional courses which students can choose from any of the Aalto schools, regardless of their study track.

Interdisciplinary Aalto courses.

Courses such as PDP, ME310, PACK-AGE and I2P are examples of multidisciplinary electives or minor studies offered by Aalto.

Exchange studies.

Aalto University provides students with an easy access to complete an exchange abroad. The schools offer exchange agreements with top universities globally.

Internship.

The placements usually last a minimum of three months, it is up to the student to organize their internship independently. Internship placements are not a compulsory part of IDBM studies.

During the second year, students are given a large degree of freedom in designing their studies. Electives and minors may be chosen freely from any of the schools which make up Aalto University – or another Finnish university, through the flexible study rights (JOO) system – allowing students to broaden or deepen their knowledge (or a little of both). The specific degree structure varies between the three schools, however the general structure is similar.

As well as being offered freedom of choice within Aalto University, students may also apply for exchange programs abroad. Students may apply for courses in other universities: Aalto University has exchange agreements with many different universities around the globe.

IDBM students also have the possibility of obtaining a double degree through agreements with one of two partner universities. The agreements allow students to obtain master's degrees from both Aalto and the partner university. IDBM has been collaborating with Tongji University (China) for a number of years already, and recently added a double degree with ESADE Business School (Barcelona) to its portfolio.

“When we were working on the design of the ESADE MSc in Innovation and Entrepreneurship (MIE) programme we looked for the best teaching/learning experiences on these two subjects available worldwide, and we found the Aalto IDBM programme to be a reference point in the field of innovation.

Since then we have done many things together. For example, we have set up a Double Degree IDBM-MIE, and made our students work in mixed (Aalto-ESADE) teams to provide innovative solutions to real company challenges (Internship Innovation Projects). Working with Aalto has always been a pleasure, not only for the proficiency of the Aalto faculty but also for the care, openness, and warmth the Aalto people have put into our relationship.

IDBM showed us that innovation sits on a three-legged stool, one leg is technology and science, another is management, and design is the third. The introduction of this third leg has to be credited to the Aalto programme, and they’ve been practicing it for the last 20 years. Congratulations!”

Jordi Vinaixa

*Programme Director, Master of Science in Innovation and Entrepreneurship
ESADE Business School
Barcelona, Spain*

During the second year of IDBM, students are given the opportunity to obtain a double degree with a partner university. After completing one year of study abroad in lieu of a minor, they receive a master’s degree from each university.

Based in Barcelona, ESADE Business School is one of the partner universities offering this opportunity for IDBM students. The exchange is designed specifically for students with a business background and consists of a one-year programme in Innovation and Entrepreneurship.

In this interview two students participating in this programme, Ian Janes and Sooa Hwang, are sharing their experiences of their year abroad.

Why did you apply to ESADE?

Sooa: “First of all, because of its good reputation. Also, I needed to improve my understanding of the business aspect in innovation. Third, it’s in Barcelona! I wanted to experience more of Europe.”

Have your expectations been met?

Sooa: “The main focus of our programme in ESADE is on entrepreneurs and start-ups. The courses are very focused on how companies can innovate themselves. It’s all about innovation and about surviving in this competitive environment. We are going through a lot of theory and the implementation of it, we also learn about intellectual property rights, for example. I’m looking forward to studying creative thinking and design management. It’s becoming broader now and that’s also very interesting for me.”

How is the programme constructed – are the course choices flexible?

Ian: “There are three trimesters at ESADE. In the first, everybody follows the same curriculum. For the second trimester you can choose between three different tracks: innovation management, entrepreneurship or intrapreneurship. The most flexibility comes in the third trimester, there are a lot of electives you can choose from.”

What was the most memorable course you have had at ESADE?

Ian: “Entrepreneurship’. In groups we had to come up with a business idea and then develop the business model using the lean start-up method. Getting out of the building and testing our assumptions with real customers was hard but really valuable. There was another class called ‘Creating and Capturing Value’ where groups were given 200€ and seven weeks to make a return. It was really about teaching us to sell, sell, sell.”

What are the similarities and differences between IDBM at Aalto University and MIE at ESADE?

Sooa: “One similarity is that they are both very practical, start-up oriented and up-to-date. But then in IDBM the studies are more about the process and in ESADE they are more about the outcomes, and the competitive spirit between the students is relatively high.”

Ian: “I found Aalto to be more diverse particularly with regards to people’s academic backgrounds – there are more designers and engineers at Aalto. Most students at ESADE, as you might expect, are from business backgrounds. It meant that there were some more creative approaches at Aalto. But at ESADE, I felt like tougher questions were asked about feasibility and viability when assessing students’ concepts. Aalto puts more emphasis on desirability and human factors, so the two programmes complement each other well.”

More and more people start to know that interdisciplinary teams are more innovative than mono-disciplinary teams, but how to improve the success rate of interdisciplinary ways of working is still a big challenge. The IDBM programme is not only one of the solutions, but also the most creative and fundamental one.

The IDBM programme helps a lot to break the walls of the university both internally (disciplines) and externally (interaction with industries, universities, NGO's, etc.). The problems of this era are no longer defined in disciplines. We need a new and robust research and education tradition to investigate and explore the issues involved in models of education as well as models of practice.

It is important to strengthen the cultural dialogue between the Western world and the non-Western world on design and innovation. It is also the time to rethink the value of non-Western culture for sustainability and for providing alternative measures of quality and performance that move beyond systems that require high energy consumption and high resource consumption. We hope that cultural diversity and sustainability could be the future topics during the collaboration between Tongji and IDBM in Aalto University.

My congratulations with the 20th anniversary!

Yongqi Lou,
Dean and Professor
at College of Design and Innovation,
Tongji University, Shanghai City, China

IDBM MASTER'S THESES

M.Sc. Econ.

Andreas Benker, 2013

"Creating value by incorporating design into the materials selection process. A material manufacturer's perspective."
Supervising: Prof. Mikko Koria

Anni Harju, 2012

"Design: The driving force behind intangible capital? Case Design Index companies."
Supervising: Prof. Mikko Koria

Anni Maria Hytti, 2014

"User-inclusive service design methods in the development of smart cities - The case of intelligent transportation solutions."
Supervising: Prof. Mikko Koria and Minna Suutari

Elina Lammintausta, 2013

"Consumer experience at lifestyle trade fair: study on themed space as experiential context."
Supervising: Prof. Mikko Koria and Elina Koivisto

Heidi Cheng, 2014

"International fashion trade shows as knowledge creation platforms for Finnish microenterprises."
Supervising: Prof. Mikko Koria

Inka Vettenranta, 2014

"Beyond borders: Supporting virtual communities of practice for creating knowledge with stakeholders - Case: Martela Oyj."
Supervising: Prof. Mikko Koria

Kaisa Pohtola, 2014

"Linking innovativeness and organizational ideation - Exploring the choice of idea generation tools."
Supervising: Prof. Mikko Koria

Laura Honkapirtti (nyk. Carnicelli), 2014

"Building Bridges - Creating a University-Based Entrepreneurship Ecosystem Case: EACH-USP Leste Campus in São Paulo, Brazil".
Supervising: Prof. Mikko Koria

Mari Terrio, 2014

"Examining Reverse Innovation and Collaboration: A Case Study in the Context of Uganda."
Supervising: Prof. Mikko Koria

Nina Kaijasilta, 2013

"The conceptualization of electronic Word-of-Mouth (EWOM) and company practices to monitor, encourage, and commit to EWOM - a service industry perspective."
Supervising: Prof. Mikko Koria and Ilona Mikkonen

Noora Salonoja, 2013

"Bridging the equity and entrepreneurial gaps in the Finnish fashion industry: a comparative case study of the Swedish, Danish & Finnish fashion ecosystems."
Supervising: Prof. Mikko Koria

Pekka Sihvola, 2014

"Multidisciplinary education - Impact on working career, case IDBM."
Supervising: Toni-Matti Karjalainen and Prof. Mikko Koria

Thomas Abrell, 2013

"The early stage of corporate venturing - activities and effectuation in a corporate context."
Supervising: Prof. Mikko Koria

Taru Kesävuori, 2013

"Service experience and service design in the infertility sector: A case study."
Supervising: Prof. Markku Salimäki

Velde Vainio, 2014

"Changing perception of value as a driver for industry transformation - case music industry."
Supervising: Toni-Matti Karjalainen and Prof. Mikko Koria

IDBM MASTER'S THESES

M.A.

Adalgisa Lira Santos, 2013

"Innovative Business Opportunities for High-Autonomous Vehicle. A user-centric oriented approach within Volkswagen A.G."

Supervising: Prof. Mikko Korja

Aino Hanttu, 2013

"Design Thinking as a Phenomenon - Design Thinking as a Contemporary Phenomenon and as an Object of Discussion."

Supervising: Prof. Pekka Korvenmaa

Ashkan Shabnavard, 2014

"Shifting to 'Big Picture' design? Discursive explorations of emerging design orientated towards social complexity."

Supervising: Prof. Susu Nousala

Avesta Omar, 2014

"Service design in information technology startups: Unpacking opportunities and challenges through three case studies."

Supervising: Prof. Peter McGrory

Hyunjin Kim, 2014

"Design thinking for corporate sustainability: A case study on the contribution of design thinking in corporate social responsibility."

Supervising: Prof. Oscar Person

Kathleen Pekkola, 2013

"Human factors of a Pleasure Boutique."

Supervising: Adj. Prof. Jack Whalen

Jukka Kortesoja, 2013

"Design management in a startup: A multiple case study on managing the visual product identity in 13 startup companies."

Supervising: Prof. Oscar Person

Junhan Wu, 2014

"User involvement in service design: A case study on designing a new service concept for cultural institutions."

Supervising: Prof. Oscar Person

Kuan Lun Lo, 2013

"Resolving the Design Challenge for National Electronic Vehicle Sweden_A comparative study on how insiders and outsiders perceive the brand style of SAAB."

Supervising: Prof. Oscar Person

Maria Kulse, 2012

"How to introduce Lean Startup process into a medium-sized IT vendor, namely Futurice?"

Supervising: Prof. Peter McGrory

Mikko Kutvonen, 2012

"Designing Unified Service Encounters: Case of Outotec Maintenance Services."

Supervising: Prof. Markku Saiimaki

Pouria Khademolhosseini, 2013

"Education and cognitive diversity: Assisting model for teaching about mental preferences."

Supervising: Daniel Graff

Pyry Valtteri Taanila, 2014

"Designing mass customization: A product configurator for a startup company."

Supervising: Prof. Oscar Person

Rashmi Borole, 2014

"Design probes for happiness."

Supervising: Prof. Oscar Person

Tony Esaias Dianoff, 2014

"Co-creating an engaging brief for packaging development: Case of a large confectionery company in Finland."

Supervising: Prof. Peter McGrory

Yue Zhu, 2014

"Open innovation community for cross-disciplinary research collaboration."

Supervising: Prof. Peter McGrory

IDBM MASTER'S THESES

M.Sc.Tech.

Abir Malik, 2014

"Identification of Idea Management Tools' Success Factors for Organizations."

Supervising: Prof. Matti Vartiainen

Anna Vavilova, 2013

"Marketing research within product development process for an innovation in firearms industry."

Supervisor: Prof. Kalevi Ekman

Elis Rytönen, 2013

"Strategic campus development of Aalto University - internal and international benchmarking of space resources."

Supervising: Prof. Kalevi Ekman

Eero Rautsi, 2014

"Co-Creating Value: Digital Health and Fitness Platforms."

Supervising: Prof. Peter Kelly

Faraz Khan, 2013

"Unlearning with a social enterprise. Case: LettuceBee Kids Pakistan."

Supervisor: Prof. Matti Vartiainen

Hussain Ahmed, 2014

"Applying Big Data analytics for energy efficiency."

Supervising: Prof. Matti Vartiainen

Jalle Nyberg, 2012

"Core Process Classification and Performance Measurement in Service Business."

Supervising: Prof. Paul Lillrank

Kalle Tiihonen, 2012

"Effectiveness of Agile Project Management in Large Projects."

Supervising: Prof. Karlos Artto

Maud Bocquillod, 2013

"Cultural Diversity in Global Virtual Teams along New Product Development Processes."

Supervisor: Prof. Matti Vartiainen

Nargis Guseynova, 2013

"Employee-driven innovation, unleashing creative potential of the employees on the cruise ship."

Supervisor: Prof. Matti Vartiainen

Povilas Valiauga, 2013

"Commercialization of High-tech Radical Innovations: Case Studies of X-ray Imaging Technologies."

Supervisor: Prof. Matti Vartiainen

Silvain Toromanoff, 2014

"Potential Benefits of Wearable Technologies on Preschooler Outdoor Safety."

Supervising: Prof. Matti Vartiainen

Tushar Malhotra, 2013

"Mobile Technology in Public Health."

Supervisor: Prof. Matti Vartiainen

INDUSTRY PROJECTS

Aalto Learning Centre

Team members: Jutta Leivonen, Valeria Gryada, Piia Näränen, Noel Lam Hau Yee, Marianne Kari

Creating a community that would inspire, encourage and motivate people to achieve new things at a new learning centre for Aalto University, where learning itself is redefined. A place designed not only for opportunities for work, but also to relax and play.

Kone

Team members: Thomas Abrell, Sanna Granö, Ismo Sutela, Pyry Taanila, Kaisa Takala

'A visual localisation project for the Shanghai market', aimed at providing a better understanding of the local demands. The final outcome consisted of trend mapping and visual guidelines for further development and implementation in Asia.

AsoKodit

Team members: Aino Hanntu, Laura Honkapirtti, Eveliina Ronkainen, Eelis Rytkönen

Initially briefed to create a new marketing plan for an existing online interior tool, the project expanded into an entire new vision for the company including a set of new concepts: 'The best living services for all stages of life.' The concepts were further developed and implemented by the client.

Wärtsilä

Team members: Sanni Lehtinen, Jonne Nyberg, Maria Kulse, Pia Flinck

In the first of the three industry projects realised in collaboration with Wärtsilä, the team created scenario concepts for implementing the WFC (Wärtsilä Fuel Cell) unit into different applications. As a final outcome the team proposed application of the unit into ports, small marine vessels and industrial greenhouses.

Services for Global Collaboration

Team members: Adalgisa Santos, Chi Zhang, Giulia Centoze, Ramsankar Muraleedharan, Tuuli Hakkarainen

Affordable diagnostics for Indian markets. Connecting Finnish and Indian diagnostic industries by visualising the complexity of both innovation ecosystems, guiding Finnish diagnostics companies through the Indian markets and enabling organisations to analyse different aspects of creating business, especially at the Bottom of the Pyramid.

There Corporation

Team members: Povilas Valiauga, Ashkan Shabnavard, Richard Thorneycroft, Annika Järvelin

Future development suggestions for the client's existing product for remotely controlling and monitoring energy consumption in real time, through the exploration of user experience opportunities of the product offering. The suggestions were created in steps of two-

years and again in five-years, explaining how the product may be used in the future.

Open Innovation Forum Vietnam

Team members: Joonas Kurikka, Antti-Pekka Raitisto, Noora Salonoja, Lee-Yen Yeo

How to measure innovativeness? The project created an iPad application tool for measuring the level of innovation of SMEs and start-ups in Vietnam while encouraging innovative thinking and behaviour among Vietnamese companies.

City of Helsinki

Team members: Taru Kesävuori, Aino Kiviranta, Mikko Kutvonen, Pauliina Mattila

How to improve teamwork in cross-organisational settings? The INNOSTE tool, created by this project, is a task-kit for supporting cross-organisational project work and aims at facilitating communication, understanding and trust.

Panphonics

Team members: Mari Terrio, Kolan Lo, Maria Salo, Lind Hasi, Mikko Illi

Commercialising the client's existing technology through the design of a prototype product offering a unique solution for decorating your home with fully customisable art and sound. The project was delivered complete with plans for future development of the product, concept, and the brand identity as a whole.

INDUSTRY PROJECTS 2010-2011

FinPhys

Team members: Yi-ta Hsieh, Nargis Guseynova, Iida Valin, Jouni Kaitala, Pouria Khadeolhossein

A design for a modular neuron detector proposed together with two alternative branding scenarios and a new brand image for the whole product family. The final product design was delivered together with a roadmap illustrating the product line in different time scales.

USP Brazil

Team members: Avesta Omar, Shi Yu, Susanna Björklund, Andreas Benker

This project was connected to the 'Costurando o Futuro' program established by the city hall of São Paulo, which aims at transforming the eastern part of the city into an industrial centre for textiles. The team presented several scenarios focusing on how to connect the different stakeholders together.

Pentagon Design

Team members: Maria Solovjew, Outi Martikainen, Dhir Amandeep, Elina Lammintausta, Gao Pingping

The core elements and nature of design consulting were at the starting point of this project. Looking five years into the future, the team was asked to generate alternative scenarios of Pentagon Design's future business models to support the company strategy process, including proposals of various value propositions for the company.

Ramboll Management Consulting

Team members: Petri Junttila, Heidi Hänninen, Kalle Salmenhaara, Elisa Pyrhönen

Strengthening the STI (science, technology, innovation) element of Finnish development policy lay at the core of this project. The team's field research on fostering innovation was used to build policy guideline recommendations to be handed in to the Ministry of Foreign Affairs in Finland.

Fazer Food Services

Team members: Anna Hämäläinen, Nedas Abaris, Mamiko Nagao, Maria Mikkonen, Maritta Toivola

Fazer Food Services, as the leading supplier of food services in Nordic and Baltic countries, sought for new ideas and concepts in the form of a project called 'the future lunch break and everyday eating outside home.' As a final outcome, new business opportunities in future lunch offerings were identified.

Forum Virium

Team members: Ainamo Antti, Hannamari Vahtikari, Zhou Lu, Anna Vavilova, Tushar Malhotra

Linked to the City of Helsinki projects on the World Design Capital 2012 programme, the client was able to offer an existing network of cooperation with the city, public sector and businesses, as well as citizens of Helsinki who participate in testing and developing their services. The team created a new service concept for a city tag and a network model for the different actors and possible business models for this operation.

Volkswagen

Team members: Ranjit Menon, Faraz Khan, Inka Vettenranta, Jasmin Honkanen

By 2018, Volkswagen Group aims to be the number one car manufacturer in the world, both economically and environmentally. This project challenged the students to contribute to Volkswagen's approach in the development and implementation of new mobility services that would address the needs of identified user segments.

Procter & Gamble

Team members: Pekka Pölkki, Kathleen Pekkola, Peta-Gaye Martin, Sakari Castrén
In order to create an emotional connection with moms around the world, this team was asked to create a number of concepts for saying 'thank you, Mom.' The aim of these concepts was to create a brand recognition for P&G and bridging the gap in awareness between Olympics.

Gaius

Team members: Junhan Wu, Juha-Matti Kosonen, Anni Hytti, Tapani Honkavaara
Gaius Bathroom Solutions was seeking to lower customer barriers to purchase

earlier in the decision-making process, to find new market possibilities as well as improve customer experience. The team transformed their offering to a holistic one-stop-shop through a web-based, integrated customer platform combining customer communication with an easy-to-use design tool.

Yle

Team members: Huyn Jin Kim, Jenni Simanainen, Kaisa Pohtola, Gonçalo Moreira Neves

Supporting YLE in its mission of transforming their office spaces to new, innovative and interactive working environments, the team was involved in the idea creation process of this change in the company culture. The team's efforts in research, prototyping and benchmarking provided external support to the idea creation process.

Unicef

Team members: Panu Harju, Heikki Soininen, Lari Elovainio, Heini Salovuori

Beginning as a project of human waste disposal and management in schools this project identified problems which needed to be solved even before this burning issue could be addressed. The outcome of the project 'Clean School' is a three-phased programme, conducted through hygiene education campaigns in schools.

CITEmadera

Team members: Eero Hintsanen, Oscar Subirats-Kärkkäinen, Pekka Sihvola, Tiina Witikkala, Sun Huangying

Creating business models that promote the role of design and innovation as value adding propositions in the Peruvian furniture market. Created specifically for the Peruvian context the

INDUSTRY PROJECTS 2011-2012

final outcome was a suite of easy-to-use, convenient self-assessment tools, ready to be implemented by CITEmadera representatives or managers of the companies themselves.

Stora Enso

Team members: Maud Bocquillod, Nina Kaijasilta, Gao Xuezhi, Carolina Rebelo

The challenge provided by this paper and pulp manufacturer was replacing non-renewable packaging materials, such as aluminium and plastics, in premium products. The team concentrated on the cosmetics industry and combined technology and cardboard in a concept that enables end-users to personalise their own packaging to their needs and wishes.

Outokumpu

Team members: Sanghyun Ryu, Ville Immonen, Sami Paju, Kaisa Kuokka

The client, a global leader in stainless steel, has a technically demanding product range, thus requiring technical support when marketed and sold. The team proposed new models to conceptualise technical support services, consistent with the strategic aim to grow in Asia.

Panasonic

Team members: Jukka Kortesoja, Annukka Saikkonen, Justus Reinikainen, Jemina Lehmuskoski

In order to expand the home appliances product portfolio of Panasonic, the team was asked to focus on new product/service models for the next generation of connected home appliances. Meanwhile the project also aimed at gaining market share especially in Europe and the US.

Unicef

Team members: Arum Jeon, Alexandra Stadler, Heikki Marttila, Selim Özadar
Continuing from the previous project's efforts on the 'clean school' concept, this project further evaluated and elaborated on the concepts in terms of adaptability, scalability and sustainability. This resulted in the identification of the most feasible concept, the 'elephant tap' which then became the focus of the second project phase, where a production model was created.

NSF Telecom

Team members: Anders Brotherus, Gaurav Kulkarni, Linda Rajamäki, Silvain Toromanoff, Zejiao Feng
Eastern Europe as a region is following behind Western Europe in technological development and for example in usage of smartphones and broadband penetration. This project aimed at providing business opportunities to enter the Eastern European market through focused research and interviews, leading to five different directions for future growth strategies.

Stora Enso

Team members: Mohammed Zakir Hussain, Karoliina Pitkänen, Eero Rautsi, Minna Rundgren, JiaKun Wang
This project produced a new service concept for cosmetic products on the go, an application which provides customers with the best possible personalised cloud cosmetics experience. The ÉOLA service concept could possibly revolutionise travellers' experience and make travelling hassle-free.

Toyota

Team members: Kakeru Asano, Mikael Lehtonen, Otto Tierto, Theresa Berg, Victoria Vabre
This IDBM team was asked to create three scenarios for the future mobility in 2030 in the field of emission-free transportation in European cities. While respecting the various dimensions of the transportation ecosystem, the team provided concepts on the adaptability of various modes of transport.

Fluid

Team members: Li Huang, Jinhyun Kim, Helinä Lehtonen, Velde Vainio, Justina Vengraityte
Revealing opportunities for doing business and modes of cooperation within the music and gaming industry through a visualisation of the ecosystem, as well as creating a fluid business model for creating and capturing value. The final outcome of the project was developed in the form of an ideation card game, which helps people discover opportunities in these industries.

Qonsalt

Team members: Hailemariam Samuel, Jokinen Annu, Kempainen Mari, Pei Lin
Qonsalt, a web-based software start-up, asked the IDBM team for vital business and design guidance. As the company's strengths are in software development and programming, the team was able to assist them build a business around its existing service as well as branding and enhancing the user experience.

INDUSTRY PROJECTS 2012-2013

The Chemical Industry Federation of Finland

Team members: Prashant Coakley, Tomi Koponen, Katariina Kunnaton, Oliver Saarinen, Chao Zhuang
Although the chemical sector is one of the largest in Finland, it still suffers from an unfavourable image. Through the efforts of the IDBM team, the Chemical Industry Federation of Finland could get the building blocks to rebuild their image and engage more talented people to enhance its position in the global market.

Kesko Food

Team members: Abir Malik, Mirja Heikkilä, Shengjun Shi, Tony Dianoff
Kesko involved the IDBM team in looking for new, fresh, out-of-the-box ideas in order to create a roadmap for Kesko Food's mobile presence. The team used benchmarking and customer need evaluations in researching best practices and developing a mobile service concept including a relevant business case.

Rovio

Team members: Andreas Ahlbäck, Hussain Ahmed, Annakerttu Aranko, Rashmi Borole, Yue Zhu
The Fun City project is based on this new business where Rovio is part of their fans' daily lives through the use of fun ideas especially for public spaces. Concepts created through this project included the 'Feed Me!' Trashcan, Breakfast Bus, Playful Bus Stops, Hopscotch Zebra Crossing, Chameleon Subway and Whisper Tree, among many others.

Introdex

Team members: Andreas Pattichis, Arjun Kamath, Leena Leino, Nina Martin
Creating tools and solutions for smart phone users relevant to networking, utilising the opportunities allowed by social media. This project focused on project- and group-based teamwork offering for managing assignments and communication within working groups.

Volkswagen

Team members: Ahmed Elhaddad, Erika Ahlberg, Jukka Isosaari, Katri Ollila, Tatyana Chuzhanova
The car industry needs to adapt to a world where a vast suburban space exists between urban and rural areas and private car ownership is no longer the norm of transportation. Project InReach targets these needs of flexible and environmentally friendly car sharing services in a suburban environment.

USP Brazil

Team members: Oona Colliander, Jaakko Kalsi, Joose Väinölä
Universidade de São Paulo opened a start-up incubator with a social focus. The IDBM team was instructed to explore aspects of networking and connecting stakeholders together, financing the initiative, as well as promoting entrepreneurial spirit within the university and fostering collaboration.

American University

Team members: Sooa Hwang, Ilari Laitinen, Hanna Poranen, Alex Rodichev
Working together with a team from American University, the aim of this project was to create a pupillometer that could be used through a mobile application. The aim of the pupillometer is to address the need for an objective and non-invasive process for monitoring neurological and functional response, in order to make clinical decisions.

Centro

Team members: Eliana Henao de Sarpila, Jin Li, Robin Pohl, Alexandra Peth, Susanna Nuutinen
Centro offers creative higher education in Mexico City and asked the IDBM team to help extend their master's degree curriculum into something that responds to the needs of the creative industry. The team provided an overall view of the different perspectives, and delivered an outline of a master's programme curriculum.

Design Forum Finland

Team members: Paula Harjula, Riku Hänninen, Fernando Leon, Dao Quang Phuong, Maria Selyuta
'10 ways to grab opportunities through service design.' A project aimed at helping companies find opportunities in service design and applying them within their business contexts, promoting the competitiveness of design as well as enhancing the utilisation of design in the economy.

Kemira

Team members: Aleksanteri Heliövaara, Tuuli Itkonen, Henri-Jerome Pauwels, Elina Tarkkonen, Xinli Zhao
Discovering best practices for customer-focused innovation using an online flow map. The flow map identified some key steps for making the company and the mind-set of their employees more innovative and creative, while guiding the organisation towards more a creative and customer-focused future by allowing freedom, building trust and enhancing collaboration.

Konecranes

Team members: Akatsuki Ryu, Anni Vainio, Baine Ge, Katharina Schilli, Marcus Söderlund
Starting with a brief to develop new service concepts for Chinese market entry, the project was redefined to understanding market entry challenges as well as the needs of customers in the target market. The objectives were reached through a new information-sharing platform to connect the headquarters objectives, the Chinese organisations' operations, and the customers' needs.

NSF-Telecom

Team members: Erika Kontkanen, Sonja Meriläinen, Jesus Manuel Castro Felix
The main objective of this process was to expand NSF Telecom's business operations beyond current borders and industries. The team visualised NSF Telecom's offerings, developing a methodology to identify new business opportunities, testing it and eventually finding new business opportunities.

Ray

Team members: Anu Nokua, Igor Lobanov, Shiyang Weng, Elisa Patronen
The Ray 'First Timers' addressed the challenge of an aging and stagnant customer base, caused by negative attitudes towards the Association's products and customers, international competition and strict domestic legislation. Targeted research into trends and 'weak signals' lead to a holistic concept designed for both online and offline contexts.

Toyota

Team members: Valeriya Azovskaya, Ian Janes, Verna Kaipainen, Topi Tuomisto, Ines Vaittinen
In order to develop pleasurable mobility experiences for European youth in the year 2018, to strengthen the bond between users and the Toyota brand, the team combined two concepts ('Toyota DIY' and 'Toyota Roadtrip') with a holistic strategy to form closer relationships with younger European users.

Unicef

Team members: Tara Panthi, Gabriel Collins, Kati Pihko
The team invented a methodology for Unicef to localise products and services in order to increase the value of inventions made in other countries, and developed a scalable methodology for localised product and services development. The overall objective of the project was to create a methodology for the collaboration of Unicef, academia, and the private sector in a Ugandan context.

INDUSTRY PROJECTS 2013-2014

Wärtsilä

Team members: Otto Elonen, Pirkko Vuorilehto, Mukundhan Kulur Parthasarathy
Improve and create future service scenarios for Wärtsilä's business by first identifying current and future needs and then creating new service concepts and related business cases. The project aimed at improving the quality and efficiency of the company's service work and creating better service experiences for their customers.

Philips

Team members: Oona Hilkkamo, Miltiadis Kritsantonis, Santeri Sillanpää, Mari Sollman
Instructed to develop a new training concept for users of novel therapeutic MR-HIFU devices for a better experience. The team created service maps depicting the training process from both the customers' and Philips' viewpoint, creating a concept for an online learning platform.

SELECTED PUBLICATIONS



IDBM gave me a new perspective for my professional development. Through the IDBM program I was able to expand my knowledge from pure service design practices to business strategies and cross-functional management techniques that I think should be aligned to all innovation processes and design thinking as well. I learnt much more when I was surrounded by people with different backgrounds and different interests in their professional field. I think the IDBM programme is a benchmark and captures the essence of Aalto University. This is many people's dream that has come true, and I'm proud to be part of it.

Mikko Kutvonen, Alumni, 2010

As a discipline, I think IDBM is more like a mindset than pure academic frameworks and what-have-you. It's about asking questions, respecting users and their expertise, involving as many different people as possible and – no matter how cliché – thinking outside the border of a traditional box.

Noora Salonoja, Alumni, 2010

Benker, A. (2015). Design for Usability of Complex Medical Devices: Leading a Technology-Push Innovation Towards User Acceptance. *Journal of Design, Business & Society*, 1(1), 29–42.

Comi, A., Eppler, M.J. (2011). Assessing the Impact of Visual Facilitation on Inter-Organizational Collaboration: an Experimental Study. *Journal of Universal Computer Science*, 17(10), 1430-1454.

Comi, A., Bischof, N. & Eppler M.J. (2014). Beyond Projection: Using Collaborative Visualizations to Conduct Qualitative Interviews. *Qualitative Research in Organizations and Management*, 9(2), 110-133.

Comi, A. & Eppler, M.J. (2014). Diagnosing Capabilities in Family Firms: An Overview of Visual Research Methods and Suggestions for Future Applications. *Journal of Family Business Strategy, Special Issue on "Research Methods"*, 5(1), 41-51.

Ilonen, L., Wren, J., Gabrielsson, M. & Salimäki, M. (2011). The role of branded retail in manufacturer's international strategy. *International Journal of Retail and Distribution Management*, 39(6), 414 – 433.

Karjalainen, T-M. (2010). In quest of strategically meaningful and attractive forms. In Vihma, S. (ed.), *Design Semiotics in Use*. Helsinki: Aalto University School of Art and Design, 180-195.

Karjalainen, T-M.; Koria, M. & Salimäki, M. (eds.) (2011). *IDBM papers vol1*. Helsinki: IDBM Program / Aalto University.

Karjalainen, T-M. (ed.) (2012). *IDBM papers vol2*. Helsinki: IDBM Program / Aalto University.

Karjalainen, T-M. (2013). Visual brand narratives and cultural associations (Vaizdiniaiprekėszenklūnaratyvairikultūrinės asociacijos). In Jakaitė, K., Nida. *International Design Management Seminar and Workshop Papers*. Vilnius: Vilnius Academy of Arts, 26-33.

Karjalainen, T-M. (2014). The Dead Boy's Narrative Transmediated. In Polson, D., Cook, A-M., Velikovskiy, J.T. & Brackin, A. (eds.). *Transmedia Practice: A Collective Approach*, eBook. Oxford, UK: Inter-Disciplinary Press, 119-129.

Karjalainen, T-M.; Lehtonen, M.J. & Niipola, J. (eds.) (2014). *The Playing Finn: Stories on successful game development and music export*. Helsinki: Talentum.

Koria, M. & Salimäki, M. (2010). Design as an actor in multidisciplinary business development. Finnish Design Yearbook 2010. Helsinki: Design Forum Finland, 116-118.

Koria, M., Graff, D. & Karjalainen, T-M. (2011). Learning Design Thinking: International Design Business Management at Aalto University. REDIGE Review on Design, Innovation and Strategic Management, 2(1).

Koria, M. & Graff, D. (2011). Managing the Creative Mess: Handling Wicked Projects in the Creative Industry, Redige Review on Design, Innovation and Strategic Management, 2(3).

Koria, M., Graff, D. & Karjalainen, T-M. (2011). Facilitar los ecosistemas de innovación a través de la educación superior. La universidad Aalto y su International Design Business Management (IDBM). Revista Economía Industrial, 381, 35-42.

Koria, M. (2014). Muotoiluajattelu x 5: Teesit kansainvälisessä liiketoiminnassa (Design Thinking x 5: Thesis in International Business), in Miettinen, S. (2014). Muotoiluajattelu. Helsinki: Teknologiainfo Teknova Oy.

Laaksonen, L., Ainamo, A., Karjalainen, T-M. (2011). Entrepreneurial Passion: An explorative case study of four metal music ventures. Journal of research in Marketing and Entrepreneurship, 13(1), 18-36.

Lehtonen, M. (ed.) (2011) Doing Design Business in Japan: Experiences from Hirameki. Helsinki: Aalto University.

Lehtonen, M. (2011). Communicating competence through PechaKucha presentations. Journal of Business Communication, 48(4), 464-481.

Lehtonen, M.J., Junnila, M. & Koivisto, E. (2014) Pelitutkimuksen paikat, osa 2:Aalto-yliopiston pelitutkimuksen ja -opetuksen nykytila. Pelitutkimuksen vuosikirja:2014, 100-105.

Meslec, N., & Graff, D. (2015). Being open matters: The antecedents and consequences of cross-understanding in teams. Team Performance Management, Vol. 21 (1/2), pp. 6-18.

Rusko, E. ; Heiniö, S. ; Korhonen, V. ; Heilmann, J. ; Karjalainen, T-M. ; Lahtinen, P. & Pitkänen, M. (2011). Messenger Package – Integrating Technology, Design and Marketing for Future Package Communication. Final Report. VTT Tiedotteita – Research Notes 2586.

Santos, F.P. (2012). The semiotic conception of brand and the traditional marketing view. Irish Journal of Management 32, 95-108.

Santos, F.P. (2013). Brands as semiotic molecular entities. Social Semiotics 23(4), 507-516.

Santos, F.P. (2013). Design management and meaning (Dizainovadybairprasmè). In Jakaitè, K., Nida. International Design Management Seminar and Workshop Papers. Vilnius: Vilnius Academy of Arts, 35-39.

20th ANNIVERSARY GREETINGS

Where courage meets curiosity. That's the place to define your future. Thank you!

Nargis Guseynova, Alumni, 2010

G'day everyone! Super proud to be an IDBMer. 20 years, wow... I can only imagine where it'll be in another 20! For now, I'm happy to be involved with something that is, I think, definitely the future.

Sebastian Nemeth, IDBM student, 2014

Happy birthday, IDBM! You are now leaving the "teenager years" :-). Highly visionary to develop such an approach to education already 20 years ago. This sets IDBM at the forefront of interdisciplinary design management education!

Thomas Abrell, Alumni, 2010

Thanks, let's keep on rocking!

Jalle, Alumni, 2010

ACKNOWLEDGEMENTS

The editors have been wonderfully happy with the various insights, comments and support from the IDBM community.

We would also like to express our gratitude to the industry partners for their wonderful participation in the projects.

We would like to thank Daniel Graff, Minna Särelä, Noora Salonoja, Mikko Kutvonen, Paula Harjula, Sooa Hwang, Ian Janes, Tero Hottinen and Toshiya Yoshida for their contribution to the content of the book and for allowing us to quote their remarks.

Photo credits:

Akatsuki Ryu, Anna Vavilova and Valeriya Azovskaya

Copy editing:

Ian Janes

IDBM contact info

IDBM Program Director
and IDBM Director of School of Business

Mikko Koria

Tel. (+358 40) 3538 343

mikko.koria@aalto.fi

IDBM Director of School of Arts, Design and Architecture

Peter McGrory

Tel. (+358) 50 3036 543

peter.mcgrory@aalto.fi

IDBM Director of School of Science

Matti Vartiainen

Tel. (+358) 50 5553 380

matti.vartiainen@aalto.fi

IDBM Program Coordinator

Anna-Mari Saari

Mobile (+358) 40 353 8333

anna-mari.saari@aalto.fi

www.idbm.fi

