HOW TO USE THIS BOOK?

Congratulations and welcome aboard! You are about to start your Master Class journey. The book you hold in your hands is the University of Helsinki Master Class workbook. The purpose of this book is to support you during your Master Class journey. It will guide you through our approach and the guiding principles, goals and methods of Master Class. It also helps you to understand the Master Class process and gives you concrete tools, tasks and tips for working as a team and developing your solution.

Please note that the tasks in this book are not part of your course assessment, but are simply there to help your own thinking process.

Challenge, Experiment, Solve & Share - and Enjoy!
INTRODUCTION – CO-CREATING CHANGE

Master Class is

What will you learn and how you will learn it?

Master Class Criteria

Master Class Approach

• Shared value ...................................................... 8
• Impact .......................................................... 10

Methods: How do we co-create sustainable change?

• Co-creation ...................................................... 11
• Design thinking ................................................... 12
• The Human-centered approach, or empathy ...................... 13
• Your thoughts, ideas and reflections ................................. 14

MASTER CLASS PROCESS

CHALLENGE

• Outcomes ....................................................... 22
• Task: Expectations, input and commitment ......................... 23

Meet and Greet

• Outcomes ....................................................... 26
• Task: Choose your challenge .................................... 27

Team building

• Outcomes ....................................................... 28
• Task: Map your team's potential .................................. 29
• Task: Communications and community building .................. 29
• Tips: Team building .............................................. 30
• Tools: Efficient teamwork ......................................... 30

Poster Clinic

• Outcomes ....................................................... 32
• Task: Working Paper ............................................. 34

Science Camp

• Outcomes ....................................................... 36
• Tips: Your own fan moment? ...................................... 37
• Task: Communications and community building .................. 37
EXPERIMENT

• Outcomes ....................................................... 42
• Are we solving the right problem? ........................... 43

Boot Camp

• Outcomes ....................................................... 44
• Co-creation rules ................................................. 45
• Tools: The “Yes, and” protocol ................................. 45
• Tools: The Canvas ................................................ 46
• Tools: 5 ways of proofing your idea ........................... 49
• Tools: How to develop solutions ............................... 50

Independent teamwork

• Task: Your idea in a nutshell ................................. 53
• Tips: Help is available! .......................................... 53

Workshop on Scaling and Experimenting

• Outcomes ....................................................... 54
• What is an experiment ......................................... 54
• Seven reasons to experiment .................................. 55
• Task: Scaling Plan ............................................. 55

Fieldwork

• Outcomes ....................................................... 56
• How to design a successful experiment ....................... 57
• Tips: Communications and Community Building .......... 57

SOLVE & SHARE

• Outcomes ....................................................... 60

Solve Clinic

• Three-minute pitch outline .................................... 64
• Task: Envision your impact .................................... 65

Final Pitch

• Tips: Communications and community building ............ 67
• Your thoughts, ideas and reflections .......................... 68
• Meet the Master Class winners of 2013–2015 .................. 70
• Meet some Master Class alumni ............................... 73

WHAT NEXT?

MASTER CLASS PARTNERSHIP

INTERESTED? CONTACT US
INTRODUCTION

MASTER CLASS CO-CREATING CHANGE

OUR APPROACH, GOALS, METHODS AND GUIDING PRINCIPLES.
A CO-CREATION PLATFORM FOR GENERATING NEW IDEAS, SOLUTIONS, SKILLS AND KNOWLEDGE.

A CHALLENGE-BASED LEARNING EXPERIENCE FOR FORWARD-LOOKING MINDS FROM ACADEMIA, THE BUSINESS WORLD AND SOCIETY.

AN INSPIRING PARTNERSHIP PROGRAM FOR ADOPTING NEW WORKING TOOLS AND INNOVATION APPROACHES AND BUILDING A VISION FOR THE FUTURE.
Master Class is a multidisciplinary, challenge-based University of Helsinki program for students, young researchers and professionals.

The unique program serves as a co-creation platform for developing sustainable, hands-on solutions to real-life challenges defined together with a partner organization. In addition, the participants absorb and process new knowledge and an inspiring approach to problem solving and teamwork.

Master Class combines academic skills, research and collaborative problem solving. The program brings together a group of people from different backgrounds and their expertise to jointly discover and produce something new. Master Class opens the door for you to our partner organization’s operations, as well as their challenges, problem solving, future vision and research and development activities. You will also get to know their staff – as well as your fellow Master Class participants and a number of other experts and visionaries working on the same issues.

University prepares you for your career and life. The goal of Master Class is to give you ideas, skills and tools for finding your footing and making the best of both.
TEAMWORK
MENTORING
EXPERIMENTING
DESIGN THINKING
CO-CREATION
MULTIDISCIPLINARY APPROACH
First and foremost, Master Class will equip you with problem-solving skills and confidence in your own abilities and potential. We believe that an academic background combined with a hands-on, game changing attitude is key to solving the wicked problems our planet and society is facing, as well as the smaller-scale ones. Cooperation between academia (students and researchers) and business creates wide-ranging insight, new ideas and new solutions.

Challenge, Experiment, Solve & Share: the Master Class process enables learning by thinking and doing. The Master Class problem-solving process is built upon analysis, ideation and experimentation, and it can be applied to almost any issue. The process is also built upon open interaction. You will be joined by some 40 master’s students and professionals from our partner organization and other organizations, and in addition to that you will be helped by a group of mentors and other experts. Every participant is equal, and every participant will shape the process and outcome. We believe that informal bonding, chats and banter are just as important as the “official” events in the Master Class program. So be open, active and interact with the people around you!
DURING THE NEXT 4 MONTHS YOU WILL:

1. Gain expertise and a deeper understanding of your own skills and knowledge.

2. Get a solid understanding of the theme and challenges of the program.

3. Absorb the model of challenge-based problem solving.

4. Get familiar with experimenting and learn to design and conduct experiments.

5. Learn to formulate user-based solutions to different problems using design thinking tools.


You will also practise pitching and presenting your ideas. At the end, each Master Class team will present their solution to one of the program’s challenges.
MASTER CLASS
CRITERIA

A WINNING SOLUTION SHOULD BE:

1. Human-centered or anthropocentric, which means that it is designed with people and their problems in mind and that it meets their needs, benefiting society.

2. Innovative, original and creative, leveraging for instance new forms of communality, digitality and partnership networks.

3. Based on scientific information and research.

4. Feasible and scalable, or presenting a path from a small idea to the verge of world-changing solutions. How can the change affect 100,000 people instead of 10?

5. Interesting from a commercial point of view.

6. Well designed and well presented.
SHARED VALUE

One of the cornerstones of the Master Class approach is the concept of shared value, created by professor Michael E. Porter and Mark R. Kramer in their article “Creating Shared Value”. They introduced the idea in Harvard Business Review in 2011 (Jan/Feb 2011). Shared value stands for business that encourages a sustainable lifestyle. It is based on identifying wicked problems and the needs that consumers have relating to them. The concept of shared value brings societal problems together with the core of business. Economic value is created in a novel way, which responds to social challenges and changing needs. The value created is shared between the company and society.

The concept of shared value provides businesses, NGOs and governments with a new way of utilising market-based competition mechanisms for cracking social issues. A company can create shared value in three ways:

1. By creating new products and services that are compatible with social problems and needs.
2. By redefining its whole value chain, for instance by solving environmental issues associated with it and adding value by doing so.
3. By creating and strengthening clusters in local economics, thus enhancing the company’s competitive conditions and the local community at the same time.
Added value has nothing to do with charity, responsibility reports or sustainable development programs. It is a new way of doing business. The concept surpasses traditional corporate responsibility models. Instead of just setting limits on the damages the company causes, its innovation capability is actually used for advancing social good.

For the rest of society – universities, NGOs, the government and decision makers – the idea of shared value offers new kinds of partnership models with businesses and possibilities to boost the solving of social issues. Civil society and NGOs can focus on their main goals and benefit from new partnerships. The government and decision makers, in turn, can encourage the private sector to invest in solving social issues.

For universities, shared value can mean new partnerships that produce common good through developing local economies or utilising scientific findings. Understanding and further developing the concept of shared value in a university context also gives students, researchers and other staff the opportunity to understand their own social impact and the ways of using it – without forgetting the opportunity of creating new businesses.
IMPACT

Research contributes to society and the economy in various and often tremendous ways. However, the impact, or benefit, of research for society is hard to measure and at times the impact is only evident after decades, or even a longer period of time.

Concrete, practical solutions that are based on, weighed or tested against scientific findings or research can have a direct, immediate impact on its end-users or society.

Every single solution created during Master Class has different impact potential. We encourage each team to engage in analysis and work to boost the potential societal and economic impact of their solution. The tools include direct interaction and collaboration with different stakeholders, and importantly, with the end-user(s). The big questions are: How does the solution change its user’s life? How does the solution change and benefit a single community, your hometown or the planet?
METHODS: HOW DO WE CO-CREATE SUSTAINABLE CHANGE?

CO-CREATION

Master Class is built upon co-creation, experimentation and learning by doing, which will be embraced throughout the program. This means that you will read books and articles, process the contents by writing papers and posts, participate in seminars and do teamwork — but in an exceptional framework that seeks to engage different stakeholders in the process, during which we will seek hands-on solutions to large-scale, complex problems.

Co-creation brings together different parties and their expertise to jointly produce a mutually valued outcome. In the case of Master Class, these will include students, researchers, representatives from our partner organization, mentors, facilitators, experts and our stakeholders. We will work together in an open manner using the “Yes, and” protocol (see page 45). To ensure that we stay productive we also adhere to a set of co-creation rules (see page 45).
DESIGN THINKING

A method or process for practical and creative problem solving, design thinking involves building up ideas, with few or no limits on breadth during the brainstorming stage. The design thinking process first defines the problem and then implements solutions, always with the needs of the user demographic at the core of concept development. This process focuses on finding needs, understanding, creating, thinking and doing. At the core of this process is an emphasis on action and creation: by creating and testing you continue to learn and improve your initial ideas. Because design thinking is iterative, intermediate solutions are also potential starting points for alternative paths. This includes being open to redefining the initial problem.

There are different versions of the design thinking process. What they all have in common is the framing of the problem, asking the right questions, creating lots of ideas, testing them out and choosing the best one.

The methods of design thinking can include, for example, interviewing, creating user profiles, benchmarking other existing solutions, creating prototypes and mindmapping.

If you would like to know more about design thinking, check out what is happening at Stanford’s d.school or at IDEO!
THE HUMAN-CENTERED APPROACH, OR EMPATHY

A human-centered approach is a framework that develops solutions to problems by involving the human perspective in all steps of the problem-solving process. In other words, instead of organizations, the focus is on individuals – their problems and needs. Human involvement typically takes place in observing the problem within its context, brainstorming, conceptualizing, developing, and implementing the solution. This may sound tricky and theoretical but it is all about learning and taking inspiration from real people and their lives. And how this is done? By talking to them, by observing them, by involving them. By empathizing and understanding. Fairly simple and lots of fun!
In the coming decades, increasing urbanization and the growth of the middleclass will put a strain on natural resources and environment. There will be a growing demand for metals and minerals, and this makes it crucial to optimize resource usage and build a circular economy as well as decouple wealth and ecological footprint. To achieve this, collaboration between different stakeholders is essential.

The multidisciplinary Sustainability Master Class focuses on sustainability in the metal and mining sector. The program is designed for students, young researchers and professionals who are interested in new approaches to innovation in mining and CSR, as well as learning by doing and co-creation as tools for building a vision and concrete solutions for a sustainable future.

The program is organized in collaboration with Outotec.

The program tackles issues such as social impacts and the social license to operate in the mining industry, the integration of sustainability into business decisions, disruptive business models as well as technology transfer and leapfrogging. During the four-month-long program, multidisciplinary teams explore, analyze and challenge the topics and create new solutions to specific problems (re)defined as part of the process.

The University’s entrepreneurial community, Helsinki Think Company, and Demos Helsinki take part in facilitating the process, and a group of mentors and hand-picked experts support the teams in their work from start to finish.
Outotec designs and delivers technology and service solutions for processing minerals and metals, for water treatment, and for producing energy from biomass and waste. Outotec’s long-term vision is to offer sustainable solutions that take into account both people and the environment. So far they have been successful. In the year 2016, Outotec was ranked as the world’s third most sustainable company (Corporate Knights, Global 100 Index, 2016). Nevertheless, there are several challenges Outotec and the whole mining industry face in the future.

Outotec’s customers include businesses who are investing in new processing plants or modernizing their existing plants to increase the profitability of their operations, improve their resource efficiency, or reduce their emissions, energy consumption or fresh water use. In line with their mission targeting the sustainable use of the Earth’s natural resources, Outotec works to optimize its customers’ return on investment with minimal ecological impact.

Outotec operates globally, with offices or operative units in 32 countries, including its headquarters in Finland. They sell products and services to over 80 countries. Approximately 54 percent of Outotec’s sales are generated in emerging markets.

Outotec has joined Master Class in order to gain from the unique combination of a multidisciplinary approach, a mix of students, researchers and professionals and co-creation methods that enable open dialogue and interaction. Outotec is confident that together these can create new thinking that will help them find solutions.
PROCESS

CHALLENGE, EXPERIMENT, SOLVE & SHARE
1. CHALLENGE
6 WEEKS
UNDERSTANDING, ANALYSIS AND TEAM BUILDING

1.1 MEET & GREET
Understanding the big picture and the Master Class challenges.

1.2 TEAM BUILDING
Teams form around challenges.

2. EXPERIMENT
6 WEEKS
(RE)DEFINING THE PROBLEM, IDEATING, CREATING AND TESTING YOUR SOLUTION

2.1 BOOT CAMP
Two days of ideation, prototyping and proofing: teams explore and develop their solution.

2.2 WORKSHOP ON SCALING & EXPERIMENTING
One day of facilitated team work.

3. SOLVE & SHARE
2 WEEKS
FINALIZING YOUR SOLUTION AND SHARING IT WITH THE WORLD

3.1 SOLVE CLINIC
Teams finalize their solutions.

3.2 FINAL PITCH
<table>
<thead>
<tr>
<th></th>
<th>1.3 POSTER CLINIC</th>
<th>1.4 SCIENCE CAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Each team creates a Master Class working paper and poster on their challenge.</td>
<td>Analysis of key issues and research on the challenge.</td>
</tr>
<tr>
<td></td>
<td>2.3 FIELDWORK</td>
<td>Running an experiment.</td>
</tr>
</tbody>
</table>


CHALLENGE

UNDERSTANDING, ANALYSIS
AND TEAM BUILDING
Challenge is the first part of the Master Class process. The starting point is the challenges our partner organization and the University’s researchers have defined together beforehand. We will now present you with a variety of complex issues and concrete challenges that need solving. Your task is to delve deep into these challenges in order to understand them before you start finding novel, multidisciplinary solutions for them. The first step is to enrich your academic understanding of the problem so that you can decide how to approach it with your Master Class team.

We encourage you to challenge yourself, other people and a number of things regarded as general truths. You can do this by yourself, or with your team that will be complete right after the Meet and Greet kick-off event. Enjoy, interact and bond with the people around you. Master Class is all about learning by doing together.

**OUTCOMES**

- Understanding the big picture and the Master Class challenges
- Becoming a member of the Master Class community
- Building your own team and approach to your challenge
Master Class is about to start. Reflect on and articulate your own specific goals, interests and abilities. What do you wish to get out of the process? What is important to you? How much are you willing and able to invest in it?
"MASTER CLASS CHANGED THE WAY I THINK: WITH A SELECTION OF GOOD TOOLS, IT IS POSSIBLE TO BUILD, TEST AND IMPLEMENT NEW IDEAS.

THE PROGRAM MENTORS WITH THEIR DIFFERENT BACKGROUNDS WERE JUST GREAT: TO BOUCE IDEAS OFF THEM, DISCUSS AND GET FEEDBACK WAS SUPERB."

2015-16 MASTER CLASS PARTICIPANT
"AT FIRST WE DISCUSSED OUR GENERAL KNOW-HOW: EMPLOYMENT HISTORY, HOBBIES, NETWORKS AND OTHER USEFUL SKILLS WE HAVE GAINED OUTSIDE ACADEMIA.

THEN WE PUT ALL THAT TO USE IN OUR GROUP. THIS PRACTICE WOULD WORK AT UNIVERSITIES AS WELL – STUDENTS AREN’T JUST BLANK SLATES."

2014 MASTER CLASS PARTICIPANT
How do you get started? Well, it is usually a good idea to get to know the problem you will try to crack and meet the people you will work with to get there. During the kick-off evening you will get to meet your fellow Master Class participants, representatives of the partner organization, the mentors and the University people behind the program, as well as the other facilitators. The Master Class process, methods and goals will be introduced. Our partner will introduce you to their operations, as well as to the challenges and their context. The introduction to the topic takes place in the form of a lively debate: a group of experts will tackle the most topical issues related to the Master Class theme and everyone can (and should) take part in the discussion.

This is also an event for one-on-one discussions and mingling, so you will have a chance to share and bounce your ideas around and tell others why you chose to participate in Master Class. At the end of this session you can choose your own Master Class challenge that you will crack over the next few months.
CHOOSE YOUR CHALLENGE

Take notes on your thoughts and the things you learned during this session. What were the most interesting insights? What was completely new to you? What inspired you? Was there something that you did not quite understand?

Which challenge do you choose? Why that one?
1.2 TEAM BUILDING

You now have the essentials for successfully starting the Master Class journey: a challenge and a team. After the Meet and Greet, the Master Class teams will advance to their first independent teamwork phase. Take time to get to know your team: these are the people who you will be spending a fair amount of time with over the coming months.

OUTCOMES

- Building an efficient, committed team
- Understanding how teams work
**TASKS**

**MAP YOUR TEAM’S POTENTIAL**

Meet with your team. Go through the following set of questions:

What kinds of skills and knowledge do you have as a team?

What kinds of skills and knowledge are you lacking?

What strengths do you have in the team?

What motivates you?

What do you want to get out of Master Class?

How much time and effort are you prepared to put in?

---

**TASKS**

**COMMUNICATIONS AND COMMUNITY BUILDING: TAKE A PICTURE**

Present your team and answer the question: Why are we the best possible team to solve this challenge?

Do this in a picture and post it on Instagram. The photo and its caption should illustrate your team’s strengths and interests.

The picture will also be posted on Master Class’ Facebook page and blog.
TIPS

TEAM BUILDING

Your team is your most valuable asset during the Master Class process. This is why you should take a moment or two to focus on team building and making sure everyone is on board.

• Organize an informal evening or a small trip together with no other goal than getting to know each other.
• Agree on specific teamwork days such as Work Together Wednesdays.
• Agree on which digital teamwork tools you will use (Slack, Trello) to be most efficient.
• It might be a good idea to start a WhatsApp chat or Facebook group for communication as well.

TOOLS

EFFICIENT TEAM WORK

Try to avoid having too many people working on the exact same thing. Here are some suggestions on how to organize your work more efficiently:

1. Share responsibilities. Appoint one person to take notes, one to make conclusions on your discussions, and another to make sure you stick to your schedule and make progress.

2. Write post-it notes. What is the question you are working on? Write down as many answers as possible on post-it notes. Group similar answers together.

3. Choose your path by voting. Do not get stuck on the first stage of ideas. No matter whether the idea is initially good or bad, you can always develop it into another direction!

4. Divide your team into subteams that work on different subareas.

5. Define the roles within your team: team leader, recorder, timekeeper, encourager. Think about what else do you need? Decide which roles will be rotational.
"THE INTERDISCIPLINARITY HAS BEEN AWESOME.

EVERYONE IN OUR GROUP HAS A DIFFERENT AREA OF EXPERTISE.

WE’VE CHALLENGED EACH OTHER AND AT TIMES HAD SOME VERY HEATED DISCUSSIONS."

2013 MASTER CLASS PARTICIPANT
This 2–3 hour workshop is a chance for your team to work together on your Master Class Working Paper and Poster. In other words, now you will focus on researching and analysing your challenge. The Master Class mentors and facilitators, as well as other experts will be there to guide and assist you with any questions or problems you might have.
<table>
<thead>
<tr>
<th>TITLE</th>
<th>TEAM NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUMMARY: WHAT IS THIS CHALLENGE ABOUT</td>
<td>KEY CONCEPTS</td>
</tr>
<tr>
<td>HOT TOPICS, KEY QUESTIONS AND EXCITING FINDINGS FROM DIFFERENT FIELDS</td>
<td>KEY STAKEHOLDERS</td>
</tr>
<tr>
<td>SOURCES</td>
<td></td>
</tr>
</tbody>
</table>
The Working Paper allows you to familiarize yourself with the issues and research surrounding your challenge and helps you redefine your understanding of it. The idea is that your team zooms out to see the big picture before you can find your own angle, and then focus, zoom in and eventually find your solution. Furthermore, the Working Paper allows you to put your academic skills and knowledge into action, as well as utilize and expand your academic networks.

As a team, write a short (3 to 5 pages) academic text that combines your team members’ disciplinary backgrounds and helps in understanding the challenge and its context through academic research.

1. Review research related to your challenge. From which points of view has the subject been looked at previously? What are the key findings? What is yet to be known? Remember to take full advantage of your team’s multidisciplinary backgrounds!

2. Comment on the key stakeholders: Who shares the challenge? Who is affected? Who can be part of the solution?

3. Compile a bibliography.

4. Prepare to present your Working Paper summary in a Master Class Poster at the Science Camp (see the outline below).
"BOTH THE GROUP AND THE MISSION ENCOURAGE QUICK DECISION-MAKING AND SOLUTION-CENTRIC ACTION."

2013 MASTER CLASS PARTICIPANT
When was the last time you had a discussion with a top researcher or someone whose views you usually see on the news or in the national newspaper? The Science Camp brings together Master Class participants, top researchers and experts. Together you will work to broaden and deepen your understanding of the challenge. The Science Camp is also an open event and works as a window to Master Class for outsiders.

The Science Camp starts as a closed event in which Master Class participants present their research posters. Your team will receive feedback from top researchers and mentors relevant to your topic.

After this the Science Camp is open to the general public. Keynote presentations will be followed by discussion. The event is informal and collaborative, and showcases top research on the Master Class topic as well as the participants’ expertise.

OUTCOMES

- Background research for your problem definition
- Feedback on your team’s poster
COMMUNICATIONS AND COMMUNITY BUILDING: WRITE A BLOG POST AND SPREAD IT

At this stage you need to start building a community around your idea. If you manage to find people who care about your idea you will get a tremendous amount of encouragement, insight, ideas, networks and partnerships. Your community will also support you as an audience for your final Master Class pitch.

Write a blog post describing your research and insights so far: what has surprised you, what have been the most interesting findings, etc. Use language and style that your community will find engaging. The Master Class Captain will publish the post on our Master Class blog. Your job is to spread the blog post on social media channels relevant to your community.

As a team, discuss the following questions:

Who could be interested in your topic?

Who do you want to reach?

What do you want to tell them?

What is the best way to reach them?

TIPS

YOUR OWN FAN MOMENT?

Who would you like to see among the keynote speakers? Are there people you would like to invite to the audience?

Let the Master Class Captain know and we will do our best to get them there. Or, contact them yourself. You now have a great excuse!
EXPERIMENT

(RE)DEFINING THE PROBLEM, IDEATING, CO-CREATING AND TESTING YOUR SOLUTION
Your team is about to set out on a path that leads from analysis to ideation, exploration and testing – in the real world. You will move from academic research into the world of design thinking, co-creation and experimenting. You have explored your challenge and now you will define your problem, use your heads and hands to solve it, with a strong focus on the end-user and impact. You will test your concepts and ideas together with your stakeholders. You will learn to co-create in an open process.

The process will lead you from your defined problem to solution 1.0. Experiments and further development will then lead you to solution 2.0.
ARE WE SOLVING THE RIGHT PROBLEM?

The starting point for finding a good – or great – solution is finding a shared understanding of what the problem is. In other words, framing the right problem. The design thinking process provides us with the tools to come up with the clearly defined problem you will address. The key is to understand the context and the people or users that you will identify in the process. You will need to develop a synthesis of the information you have gathered so far. By using these insights it is possible to formulate the problem statement that will drive the rest of your design work.

If you have a too general or broad problem, you will get predictable solutions because each person will have their own abstract understanding of it. As a result, the people working to solve the problem will end up talking about slightly different matters surrounding it, without really connecting with each other or coming up with any solutions. Conversely, the more specific your problem, the more interesting and concrete solutions you will find.

A good way to identify a well-formulated question is that it immediately evokes 2 or 3 ideas. Write different versions of your problem down on post-it notes, then choose the best one as a team. Vote if necessary!

A GOOD PROBLEM STATEMENT:

Provides a focus and framework for the problem

- Inspires your team
- Helps to formulate the criteria for evaluating competing ideas
- Empowers your team to make decisions
- Captures the hearts and minds of the people you meet
- Helps you find your target group. In other words, it saves you from the impossible task of developing concepts that are targeted at everyone

REFERENCE: INSTITUTE OF DESIGN AT STANFORD, DESIGN THINKING PROCESS GUIDE
The Master Class Boot Camp is where the serious fun begins! The boot camp will take the teams to one of the University of Helsinki’s research stations, or somewhere far away from our everyday circles, where teams can really concentrate only on their projects. It is guaranteed to be the most intensive part of the process. With the help of our boot camp facilitators and mentors, you will now finalize your problem definition and jump into finding a solution.

Two days and one night away from home might seem like a big commitment, but it is a great investment for your future. The lessons on co-creation and the use of design thinking tools can be applied to any problem-solving process for the rest of your life – at work or at home. The design thinking approach is extremely useful for any career (or higher purpose in life!) that you might have in mind.

During the boot camp your team will test your hypotheses, consider the viability of your solution, get to understand your stakeholders and work on partnerships and resources as well. The method is constant prototyping, iteration and proofing.

---

**OUTCOMES**

- A crystallized problem
- Solution 1.0
- Community building
- An action plan for next steps
**4 CO-CREATION RULES**

Master Class co-creation workshops are based on these simple rules:

1. Develop your thinking through action – Do not argue over plain ideas!
2. Search for value in your solution.
3. Prototype, proof, iterate – build a test version, try it on users, design a new solution based on the feedback you receive – and start again.
4. Develop and test your ideas openly with people instead of in secret and based on your feelings only.

**TOOLS**

**YES, AND -PROTOCOL**

The “Yes, and” protocol was first developed for improvisational theatre. The protocol suggests that a participant should always accept what another participant has stated (yes) and then expand on the same line of thinking (and). In the Master Class context, the “Yes, and” protocol means you should never criticise your team members’ suggestions but instead build on them. If you see any pitfalls or problems in their ideas, express them by pointing out what needs to be considered if that particular path will be taken.

THE CANVAS

At the boot camp you will be introduced to a canvas: a huge piece of paper that resembles a form. The canvas encourages you to look at your challenge in multiple creative ways. The canvas will help you to:

• Divide your challenge into manageable chunks.
• Look at the issues surrounding your challenge from multiple angles.
• Document your thoughts and ideas

Canvas is not an exam paper:

• The questions on the canvas can be interpreted to mean whatever your team decides them to mean.
• The idea is not to write down correct answers but to continuously document your progress.
• It is okay to leave random marks and make a mess on the canvas.
• You do not need to answer all the questions.
• The canvas sections are numbered, but you do not need to fill them in in order. Write things down as you go.
• You will run out of space. Use post-it notes!
CANVAS - AN EXAMPLE

OUR SCALING PLAN

OUR NETWORK,
RESOURCES AND PARTNERS

OUR SOLUTION
2.0

OUR VISION OF
THE SOCIETAL BENEFIT

WHAT INNOVATIVE AND
RADICAL ARE WE OFFERING?

IMPACT AND MEASURING CHANGE
"I'M USUALLY BAD AT TELLING OR DOING SOMETHING THAT IS INCOMPLETE. I TEND TO WANT TO THINK THINGS THROUGH.

MASTER CLASS’ CONCEPT OF EXPERIMENTING AND DEVELOPING IDEAS WAS A VERY WELCOME CHANGE IN MY WAY OF THINKING."

2013 MASTER CLASS PARTICIPANT
5 WAYS OF PROOFING YOUR IDEA

1. Benchmarking: What kind of solutions are already available? How do they work? What is missing? Which aspects of them work well?

2. Make a phone call. Call someone who represents your target audience or someone you wish to partner with. Listen carefully to what they have to say. Remember that you can always use your mentors and their networks!

3. Use the Internet. This can be done by asking a question in a tweet or a Facebook update, for example. Bear in mind that your audience is limited! You can also conduct a survey or write a blog post asking for feedback. These can reach surprising audiences!

4. Arrange a meeting. Present your idea (a visualisation or imitation, like a picture or a post-it version of a website) and ask for feedback. Listen carefully. This can be done wherever, for example on the street.

5. Make a trip. Visit a relevant environment for your concept and observe how people there live. Think about how your idea would work in this place. Share your idea and ask for feedback. Listen.
TOOLS

HOW TO DEVELOP SOLUTIONS

ITERATE = To iterate literally means to say or do something again or again and again. In the design process context it stands for a cycle of repetitions and improvements, which in the end lead to the desired result.

PITCH = A short introduction speech in which a team presents their prototype and proof of concept (see below) and tries to sell an unfamiliar audience on these ideas.

PROOF = The process of demonstrating that something is true. Proofing shows that there is a need for your concept.

PROOF OF CONCEPT = A demonstration that describes the problem your idea will solve, shows that someone is suffering from this problem and that they want your solution for it. The proof of concept needs to be developed together with the users and customers.

PROTOTYPE = An early model built for testing and improving the concept. A prototype explores features such as appearance, materials and design. Prototypes can take the form of 3D models, illustrations, drama, comic strips or paper models, for example.
“I LOVED HOW WE COULD CHALLENGE EACH OTHER IN THE TEAM AND NO ONE TOOK IT PERSONALLY.”

2014 MASTER CLASS PARTICIPANT
INDEPENDENT TEAMWORK

After the boot camp, the Master Class teams will go through a period of independent work. You will continue iterating, proofing and developing your concept. To be successful, you will need help from numerous people. Be bold and creative in who you contact.

The previous years’ Master Class teams have consulted, for instance, university professors and high-level experts, as well as high school students, Kela customers and staff, the 4H association and so on.
**TASKS**

**YOUR IDEA IN A NUTSHELL**

Before the workshop on scaling and experimenting, prepare:

- A three-sentence wrap-up of your team’s idea.

- A pitch deck with two slides: one describing the problem, the second one describing the solution.

- Your team’s greatest insights from the boot camp.

- A description of your benchmarks and proofing activities.

**TIPS**

**HELP IS AVAILABLE!**

1. Remember that there is support available for your team. Facilitators and mentors are there for you.

2. Do not hesitate to contact an expert: this could be a Master Class mentor, your professor or an expert you know from a relevant field. This is a great way to gain insights, hands-on advice, etc., that will enrich the academic part of your work.

3. Take advantage of Think Company’s facilities in different campuses.
2.2 WORKSHOP ON SCALING AND EXPERIMENTING

How to grow and test your solution? During this one day workshop, we will look into scaling and experimenting. First, you will learn how to grow small solutions into big ones: instead of reaching ten people, how could you affect the lives of 100,000 people? Then we will focus on experimenting and you will develop your team’s preliminary experiment plan. While you’re there, you will gain valuable insight into how to design, conduct and evaluate a successful experiment and how companies use this approach.

WHAT IS AN EXPERIMENT?

Experimenting is about trial and error – and about learning and generating change. It is also a critical tool for innovation. Experimental approaches break up complex challenges into smaller entities suitable for piloting at the user or grass-roots level. Experiments help generate innovative solutions that can improve services and products, cut red tape, or even revamp decision-making procedures and foster job creation and entrepreneurship - i.e. reform the whole of society.

The purpose of experimenting is to have the users or the target audiences take part in the development process to ensure that they are involved in the planning and developing of the service or product. A good approach is to focus on so-called “early adopters”. These individuals have the problem we are trying to solve, are aware of having that problem and are actively looking for a solution. They are more likely to be willing to help by trying out our solutions and giving us feedback.

OUTCOMES

- A draft of your experiment
- Ideas for possible partnerships
SEVEN REASONS TO EXPERIMENT

1. You cannot plan complex new things only on paper.
2. Experiments turn assumptions into understanding.
3. It helps identify and solve problems that might come up unexpectedly.
4. It helps decide whether the service or product is necessary or functional.
5. It enables testing if the solution or a part of it works before it is implemented more widely.
6. It accelerates development.

SCALING PLAN

- What is your goal and what do you want to achieve with your solution? What is your ambition level? Where would you like to be in 5 or 10 years’ time?

- How, with whom, and at which stage will you implement, distribute, duplicate and scale the solution so that it can bring about a major change?
You have already produced a draft plan for your experiment. Now your team will focus on finalizing and implementing the plan – in other words, running your own experiment. Keep in mind that the best experiments are often the ones that are simple, easy to implement and focus on individuals, observing and recording their responses. Be creative: often the “what-if” approach produces the best outcomes. Remember that you cannot fail when experimenting as you will always learn something that helps you validate your solution.
HOW TO DESIGN A SUCCESSFUL EXPERIMENT?

1. Set clear goals. What is the purpose of the experiment? What kind of information do you want to gain?
2. How will the experiment (in very concrete terms) enhance the development of your solution?
3. Name your users or clients and their needs that the solution will respond to.
4. Use research and validated data, as well as the best practices when planning and conducting the experiment.
5. Identify your partners and define their roles: what do you need from them?
6. If you need funding for your experiment, who could you contact?
7. Ensure that you learn from your experiment. For instance, make sure you measure things that are relevant to your goals, engage the right people and communicate the results.
8. Make sure you also measure indirect feedback (e.g. how many people answered the questionnaire, how long did people spend on your website, what did they click on?).
9. Document all your proofing efforts with photos, videos and blog posts.
10. Be active and clear when communicating how the experiment was done.

TIPS

COMMUNICATIONS AND COMMUNITY BUILDING: REMEMBER YOUR HELPERS

During the experiment stage you will rely on input from various people including mentors, experts, friends, relatives and potential future business partners.

• Remember to thank them!
• Invite them to follow your journey on social media and by participating in events!
SOLVE & SHARE

FINALIZING YOUR SOLUTION
AND SHARING IT WITH THE WORLD
You have come a long way! This is the last stage of your Master Class journey. The goal is to perfect your solution into a feasible, easily communicable format. This is the part of the process when the teams move from fieldwork to the final stretch of intensive teamwork, with the focus on finalizing the concept, storytelling and presenting. Reflect back on the process and the different stages of it – what was your team’s original idea, how and why did it change, and where are you now? If need be, engage with your networks for words of wisdom and guidance.

OUTCOMES

• Your Master Class solution
• A great presentation
• Ideas for possible next steps

A solution is not a solution before you share it with the world. In Master Class you get to do that by giving a final pitch. You will practice and get feedback on your presentation and communication skills – and you will overcome the fear of climbing on stage with a microphone in your hand!
"DURING OUR JOURNEY WE WERE ENCOURAGED TO FIND AND USE RESEARCH PAPERS ON OUR SUBJECT. THAT MADE ME UNDERSTAND HOW ACADEMIC KNOWLEDGE IS INTERTWINED WITH DEVELOPMENT WORK AND HOW USEFUL IT IS."

2014 MASTER CLASS PARTICIPANT
In this clinic you will continue finalizing your concept and start working on your final pitch. You will keep improving your prototype using ideation and co-creation tools. Finally, you will need to evaluate your solution and make strategic choices on its final format. The clinic will end in a pitching session where you will present your solution in three minutes. This three-minute pitch is the rehearsal version of the seven-minute final pitch.

THREE-MINUTE PITCH OUTLINE

1. Hi!
2. Tag / Punchline
3. Problem
4. Solution
5. Value = Paid / Made / Good for you
6. (€/Market/Competition/ People/Execution/Traction)
7. Ask
8. Thank you!

By Helsinki Think Company
ENVISION YOUR IMPACT

Write down a story that describes your team's vision. What is the impact you want to create? What is the small or large-scale positive change that will come about once your solution becomes a reality? Who will benefit from your solution?

What types of impact can you foresee: societal, economic, environmental, political, spiritual or something else? Also consider how the target users will find your solution and start using it. Are there some elements in your solution that you need to revise based on this exercise?
3.2 FINAL PITCH

This is your team’s chance to show what you are made of and take the prize home! You will bring the result of your Master Class process in front of the audience and judges in the Final Pitch – the last night of the Master Class program. Pitching is exciting, inspiring and interactive. You get to hear and see amazing ideas and the teams in action, as well as receive feedback on your team’s efforts and solution.
**TIPS**

**MAKING YOUR SEVEN MINUTES COUNT**

1. Crystallize your idea. This is your story, your promise, your groundbreaking and feasible solution. Tell it in one sentence.

2. Describe the problem your idea will solve. Prove that your concept is meaningful to the world and show that it has potential. Refer to your academic background research and the evidence gathered and produced while experimenting and proofing your concept.

3. Present your solution and explain how it will solve the problem you have identified. Use your proof of concept. Explain everything in a simple way: the audience needs to understand how your solution works and who it is aimed at.

4. Demonstrate that your solution is innovative and original.

5. Describe its impact in the long run.

6. Present a roadmap for the immediate future. What are the next steps and what do you need to proceed? Could the audience help you? Ask them to get on board.

7. Feed imaginations and impress the audience. Use visual and/or audio material (video, acting, photos, drawings, infographics) and remove unnecessary text. If you use slides, try to limit them to max 10-12 slides. One point per slide is usually enough.

8. Practice! Be fluent and charming and ooze “I know my stuff!” confidence. Pitching is like theatre: know your lines and you will not freeze. If need be, you can use a keyword list.

9. Keep your head up and face forward. It is easier to build a connection if you stand close to your audience.

10. Believe in your message, show your enthusiasm and enjoy!

---

**TIPS**

**COMMUNICATIONS AND COMMUNITY BUILDING:**

**SEND INVITATIONS!**

You have received invaluable help from several people to get here. Please make sure you invite them to see your final pitch!

Share everything online for those who cannot make it.
KEKOKODIT
2013

KEKOkodit solves several issues at once: housing shortage, unused properties and youth at risk. The idea is that empty office buildings will be renovated into supported community housing. This will be done by young people at risk of marginalization, for other young people in a similar situation.

Young adults will be engaged and motivated to take responsibility of their own neighbourhood and community. They will be supported by peer mentors, young adults who have managed to break the marginalization cycle, and social workers.

SKILLS IN ACTION
2014

This is a career coaching concept in which foreign social work students run courses for immigrants during the summer. The aim of the courses is to help the immigrants recognise their potential and find employment. At the same time the students themselves will be employed, at least for the summer.

The idea behind the solution is that someone who recently moved to a new country is the best guide for someone who just arrived.

MIELENRAUHAAJAT
2015–2016

How to find help for your aging parents or grandparents who live far away from you?

The solution by Mielenrauhaajat is a network of service providers and an online service portal where you can find and book all the help and services for your parents in one place, such as a home help service, doctor’s appointments, or cleaning and hairdressing. In addition, friends and relatives can use the website to communicate with each other.

The shared calendar makes it easier to get organized, since everyone can see that physiotherapy has been scheduled but the doctor’s appointment is yet to be made.
"THANKS TO MASTER CLASS, I GAINED SKILLS IN CO-CREATION AND TEAMWORK THAT GAVE ME THE COURAGE TO APPLY FOR AN INTERESTING JOB.

I’M GLAD I DID – I GOT THE JOB."

2015-16 MASTER CLASS PARTICIPANT
"I WAS A MASTER CLASS MENTOR.

EVERY SESSION PROVIDED ME WITH LOADS OF NEW IDEAS FOR MY OWN WORK AS WELL."

JUSSI PAKKASVIRTA
HEAD OF THE DEPARTMENT OF POLITICAL AND ECONOMIC STUDIES
AT THE UNIVERSITY OF HELSINKI
MEET SOME MASTER CLASS ALUMNI

JANI VARPA
Member of the winning Master Class team, 2015-16, developing a company based on their Master Class idea.

“I participated in Master Class mainly because I was curious. I got to challenge myself, hear different perspectives and widen those of my own. We had lots of discussions during Master Class, which really improves argumentation skills.

After the class ended, we decided to take our winning idea – a website that rounds up companies that provide services for senior citizens – further and are now working on starting a company. That’s incredible because when we started, none of us knew anything about our subject.”

VENLA TOIVONEN
2015–16 Master Class participant, nowadays works at the University of Helsinki’s Institute of Behavioural Sciences

“Master Class was very well planned and executed. For the first time in my life I felt that I actually got something out of teamwork. The brainstorming sessions in particular were efficient and pushed our project forward. Master Class gave me more confidence and skills in project management, for example, that have helped me in my working life.

I recently applied for a job in an interesting research project at the university, which I wouldn’t have had the guts to apply for before. I got it.”

KALLE NIEMINEN
2013 Master Class participant, mentor, now works for Sitra.

“We had so much fun with our group and became really good friends. We didn’t win, but that’s okay: the main value wasn’t in the idea but in the people behind it.

It was refreshing to step out of my own bubble and have discussions with people from completely different backgrounds. The main things I got out of Master Class were a great network and a new way of working. You learn so much more when interacting with others instead of listening to someone speak.

These things made me want to continue as a mentor.”
Master Class does not end at the grand finale. It is up to you how you wish to continue on the Learning by Doing track, with your team or by yourself. The University of Helsinki and its partners offer you a variety of different possibilities for taking your team’s idea and potential to the next level, or for looking for new opportunities.

1. Helsinki Think Company is the University’s entrepreneurship society for people who seek to cross the boundaries between research, activism and entrepreneurship. ThinkCo creates transformative action by combining real world problems, academic know-how and entrepreneurial action with an open multidisciplinary community. Check out their idea accelerators and inspiring events and join the open community of inspired people from all over the university!

2. The University Research Services also have their programs for researchers and research-minded grad students. Helsinki Innovation Services (HIS) takes care of IPR and can even help you licence your idea arising from academic basic research. Do not hesitate to ask for further information and their advice.

3. Could you take the next steps or even initiate something new with the Master Class partners – the partner organization, other teams or other inspired individuals? With the set of skills you have acquired during the program, you could also engage a new partner or generate new action with like-minded students or researchers. Test your ideas on real audiences and clients - it is easier for you if you find a partner that already has links to people you want to reach.

4. Keep up communication: use different channels to let others know about your idea. All it takes at times is just one right person.

5. There are also plenty of different entrepreneurship and start-up communities in the Helsinki area for meeting new people and developing your idea. Check them out – unless your Master Class partner already bought your idea and wants to develop it in cooperation with you!

Join the Master Class Alumni community and keep with updates from the university. Let your idea grow and come back any time.

WHAT NEXT?
OUTCOMES, EXPECTATIONS, INPUT AND COMMITMENT

Congrats! You completed the Master Class journey. How was it? What did you achieve, learn, experience? What did you get out of the process? What changed? What are your next steps?
Master Class Partnership

The University of Helsinki believes and invests in interaction with society. We constantly seek new ways to create new connections and collaboration with different stakeholders. Science and research are an essential tool for renewal and finding solutions to complex problems. Master Class brings students, researchers, and business and societal actors together in a way that generates new wide-ranging insight, ideas and solutions.

The Master Class partnership is based on the idea of shared value and building sustainable solutions that benefit the whole of society. Positive energy, the spirit of getting things done and enthusiasm are the characteristic experiences of Master Class for both the organizers and participants. Master Class is a process throughout which everyone participates and everyone learns – to rethink, to do and solve.

Each Master Class is designed in close cooperation with the partner organization. Master Class provides the partner with:

- A gateway to cooperation and interaction with students, researchers and other stakeholders relevant to their particular theme
- An inspiring way to develop working methods and get new tools for innovation
- A new way to receive input for business development
- A tool for building a future vision and strategy using a multidisciplinary approach and new information
- A living connection to future experts and their world views

Master Class started in 2012 as a collaboration between the University of Helsinki and LähiTapiola. Since 2013, three "Hyvä yhteiskunta Master Class" (Good Society Master Class) programs have taken place with a focus on the future of the welfare society. Some 130 participants, 30 mentors and a good number of experts have tackled issues such as the development of health and social services, public-private-people partnerships, safety and security in urban environments and how to create sustainable business models surrounding these issues.

The University of Helsinki’s goal is to further develop the program, engage new partners, involve a greater number of academics and give an ever growing number of students the chance to take part in the process.

Could your organization be the next Master Class partner? The University of Helsinki Community Relations would be happy to discuss your ideas and start building the collaboration.
JARI SUNDSTRÖM
MANAGING DIRECTOR, LÄHITAPIOLA
MASTER CLASS PARTNER 2013–2016

“The goal of Master Class was to seek solutions for the future challenges of welfare society. I think Master Class succeeded in combining the academic world and business in this important issue. It was amazing how committed and enthusiastic the students were. The aim for LähiTapiola was to bring forward the complementary role that an insurance company plays in building a sustainable welfare society. In addition, we searched for and gained new insight for strategy development, both for our experts and management. The well-planned process also enriched the ways we work and do business.”

THOMAS WILHELMSSON
CHANCELLOR,
UNIVERSITY OF HELSINKI

“Our responsibility is to put the academic knowledge and know-how of our experts to use across all sectors of society. We want to cooperate and open discussion on new ways to collaborate. Partnership models such as the Master Class program, which encourage different actors to discuss and come up with solutions for our shared problems are exactly what is expected from universities, and what we want to offer. Programs with LähiTapiola prove that partnering with businesses works well and is fruitful for a multidisciplinary university like the University of Helsinki.”

ANU PYLKKÄNEN,
HEAD OF CORPORATE RESPONSIBILITY, LÄHITAPIOLA,
MASTER CLASS PARTNER 2013–2016

“One of LähiTapiola’s corporate responsibility promises is to be active in local communities. The partnership with Master Class is fulfilling this promise at its best. Thinking about shared value benefits the building of Finnish welfare, as building a better future requires businesses, NGOs and civic society to all be on board. It is hard to see how issues that touch us all, such as the sustainability gap in public spending, demographic change, the polarisation of society, marginalisation of youth and the economic situation as a whole could be resolved without everyone participating. All sectors were involved in the Master Class program. Its enthusiastic and inspiring atmosphere is one good example of how to work on shared value to benefit everyone.”
INTERESTED?

CONTACT US!

Whether you are a representative of an organization keen to discuss collaboration possibilities, or an academic or student interested in the Master Class program, get in touch with us.

UNIVERSITY OF HELSINKI
COMMUNITY RELATIONS

yhteiskuntasuhteet@helsinki.fi
+358 2941 23385

FACEBOOK
Master Class - Co-creating Change

TWITTER
@masterclasshelsinki
#masterclasshelsinki

HELSEINKI.FI/MASTERCLASS