

# Innovator's Guidebook

*Intel Youth Enterprise Program*



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## - Intel Youth Enterprise Program

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Dear Innovator,

Thank you for having signed up to participate in the Intel Youth Enterprise program. We are very much looking forward to working with you during the workshop and we are excited to see what amazing innovations will come out of this challenge.

The world needs innovators and entrepreneurs to create solutions for today's problems. We hope that this workshop will be an opportunity for you to improve your entrepreneurial skills, to build a strong network of like-minded innovators, and inspire you to become a successful entrepreneur.

During the workshop we will provide you with a set of powerful tools to turn complex problems into great business opportunities. The Ideation Workshop is a training course for future entrepreneurs and social innovators. The program simulates the innovator's journey – all the way from problem identification to business pitch.

You will compete in temporary startup teams to; identify and select a specific social challenge -> do research to find and screen relevant technologies -> generate ideas and conceptualize a brilliant solution -> use visual communication and prototyping to pitch the idea to a professional jury.

The program is developed in collaboration between Intel and SPUTNIK5. The model has been thoroughly tested by participants in +7 different countries and approved by leading professors in the field of entrepreneurship and innovation.

# Ideation workshop Description

During the ideation workshop you will learn to understand the mindset of an entrepreneur and get a hands-on experience with the innovation process. The complex literature on entrepreneurship and innovation has been carefully condensed into an interactive curriculum that lets you be in charge of your own learning. By the end of the ideation workshop your team will have found an innovative solution to a social problem and created a tangible prototype of the idea.

## Learning

The need for entrepreneurs is continuously growing as competition gets tougher and the world becomes increasingly globalized. Whether you are starting your own company or innovating within an existing company, having an entrepreneurial mindset is the key to success. The goal of the Ideation workshop is to train your creative mindset and inspire you to become a great entrepreneur.

The program has the following focus areas:

- Identify business opportunities where other people see problems
- Understand social challenges and analyze the context
- Screen new technologies and quickly understand how they can be applied to solve a problem
- Use creative tools and techniques to generate great ideas
- Build new innovative business models
- Make rapid prototypes and use visual communication to create a great presentation of the idea.

# Structure

During the program you will go through the Six stages: UNDERSTAND, USER, TECH, IDEATE, PITCH and CONTINUE. Here you can see an overview of the structure as well as a short description of each of the four stages.



## Understand

In order to successfully solve a problem you need to understand its true nature. The first step in the process is therefore to understand the overall challenge and break it into specific sub-challenges.

Break the overall challenge into sub-challenges and do research to learn more about the problem areas you have identified.

## User

Now you will identify the various user segments and choose your final user. You can then get an overview of your user's specific problems, then select and describe the problem you want to solve for the user.

## Tech

Most breakthrough innovations are based on a smart new technology or intelligent use of existing technology – stage 3 is focused on screening and assessing the latest technology trends

Find, screen, and assess new technologies

Understand their benefits, weaknesses, and applications

## Ideate

At the very center of every innovation is a great idea! That is why the ideation activity is essential for the success of any project. To enable highly creative ideation sessions, we use a 3-step model that helps you come up with hundreds of ideas before sorting and converting them into the final concept. After having found a brilliant idea you have to create a sustainable business model that can take the idea to the market and create high impact.

To work as a creative team and use the \*Design Thinking Principles

Create, sort, and conceptualize ideas systematically

Find the right business model for the idea

## Pitch

After having found the brilliant idea, you need to prepare a good pitch. A pitch is a short and precise presentation of the solution that highlights the most important features and makes the audience fall in love with your team and your idea.

Build a great prototype that demonstrated your idea

Design and practice a powerful business pitch

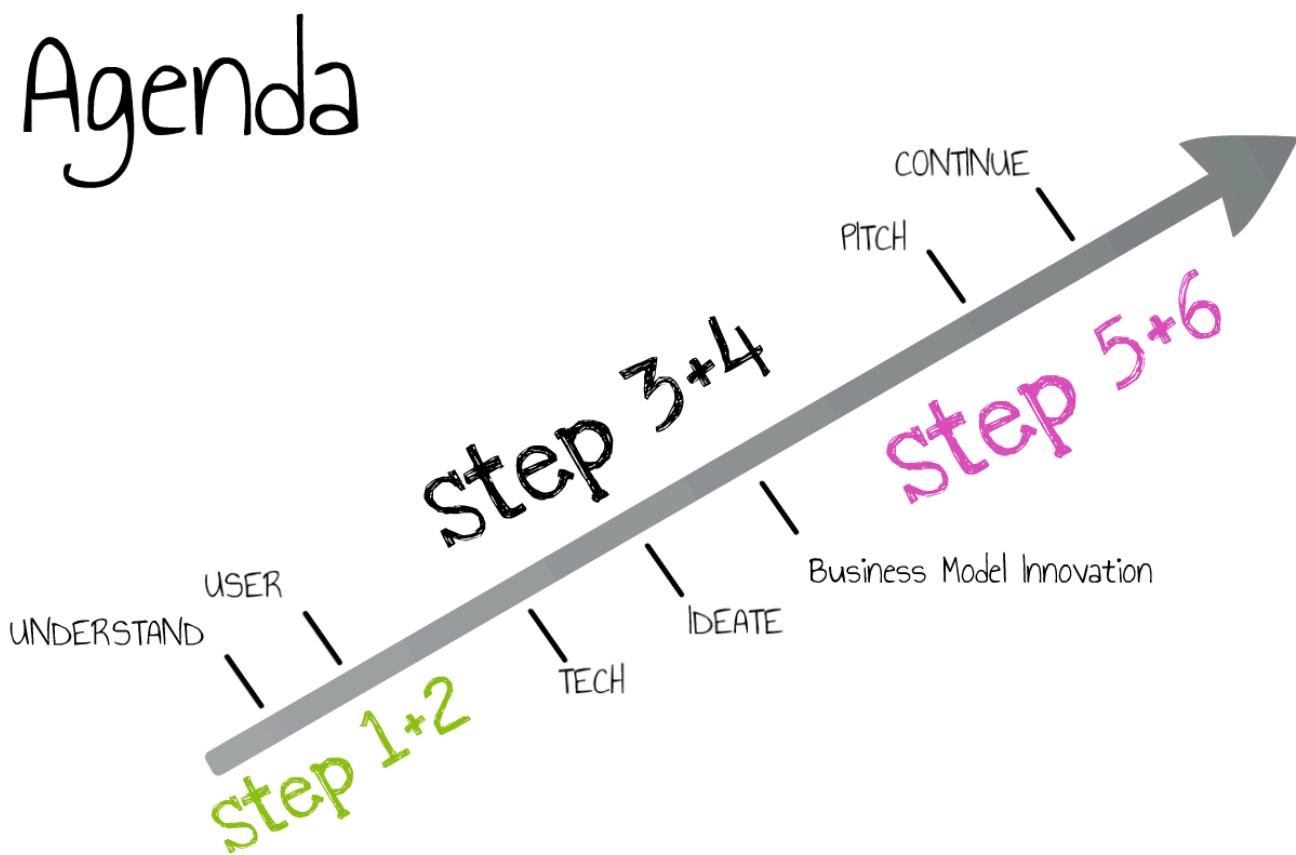
## Continue

After the ideation workshop you have the opportunity to continue your entrepreneurial journey by signing up for one of Intel's great entrepreneurship courses and continue working on your idea!

## Agenda

The workshop begins with an inspirational pep talk about entrepreneurship and social innovation, shortly afterwards you are divided into teams based on your skills and entrepreneurial personality type. After a teambuilding exercise and a short break, you will be introduced to the challenge and the teamwork begins. First you will learn about the problem and get a good understanding of the user case. Then you will hear a talk about the latest tech trends and finally you can start generating new ideas in the ideation stage.

When you have found a brilliant idea you will build a business model around the idea. Finally you will create a cool prototype of your idea, prepare a great pitch and present your solution to the jury.



# Process guidelines

The following guide can help you through the process of innovation. Each stage has a specific set of activities but please feel free to add extra steps or leave out activities that you don't see fit.



## Before you begin

### Team

Innovation is a team-sport and we strongly recommend that you take advantage of the complimentary skills that are represented in your team. Spend some time on getting to know each other - this will most certainly pay off later.

### Buddy teams

During the ideation workshop you will have a buddy-team. After each stage you will present your findings to your buddy-team who will provide you with valuable feedback. You will also give feedback to your buddy-team to help them improve their ideas and sharpen their problem statement.

### Energizers

We use Energizers to maintain a high level of energy and focus in the team. Energizers are fun and typically rather crazy exercises that gives you a good boost of energy. Your coach will introduce the energizers along the way.

### Templates

In all stages of the workshop we will provide you with one or more templates related to the tasks you are working on, use the templates as you see fit.

### Final results

At the end of Stage you will pitch your idea to the jury and try to convince the judges, that you have come up with the best solution. You have exactly 3 minutes to deliver your pitch.

## Stage 1 – Understand

This stage gives you time to read the case study, discuss it, analyze its various details and dissect some of the sub elements or related topics. Your work in this stage will help you create a brief and precise problem description at the end of the USER stage.

It is critically important that your starting point for this workshop is sound and solid, as it forms the basis and foundation for the entire workshop. So please take some time to read and discuss the case and use the tasks in this stage to get, as a team, a solid grounding and understanding of the problem.

It is an extremely valuable use of time to understand what you want to improve or create! At Intel we very often see teams solve the wrong problem or fail to understand the problem correctly. Try not to fall into that trap! Once you have read and briefly discussed the case study please use the UNDERSTAND template to summarize your findings. **The main output from this stage is a solid understanding of the overall challenge and the people involved.**

### Read

- Read in detail the case study which has been provided to you
- Make sure that all team members have a good understanding of the situation
- Identify some of the core factors involved in the scenario



### Discuss

- Briefly discuss as a team the challenge and your feeling towards it – which of the problem areas are you passionate about?
- Think about your ‘gut’ reactions - try to bring into the conversation your personal experiences
- Beware not to jump into the solution space, you are not trying to solve the problem yet you are only seeking to understand more about the problem environment



### Analyze

Use the UNDERSTAND template and analyze the challenge

- Understand and describe on your template the key facts figures, statistics, data points and relevant background information related to the challenge
- Create an overview of all the problem areas



### Research

- Take time to do online research about the case (if possible)
- List on your template any insights and observations
- Try your best to interview experts, see and observe the problem environment



## Stage 2 – User

A product or service will only be a successful if the users want to use it. Therefore, we have to make the users an important part of the innovation process by learning about their needs early in the process.

Before we start developing ideas for a solution, we must listen to our potential users and make sure we have a good understanding of the situation and their problems. Information is power - The more you know about the user, the more likely it is that you can create successful innovations. **The output from this stage is a detailed description of your user segment and a specific problem statement.**

### Identify

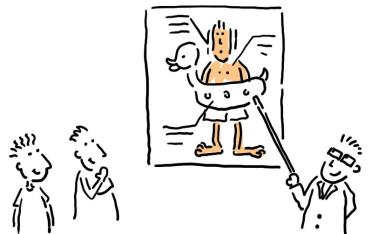
- Identify the different user segments involved in the case study
- Discuss which user segments you would like to help – back up your arguments with data
- Choose **one** user segment



### Analyze

Before jumping to conclusions we need to collect more information about the user. Try to get more information by using these methods:

- List all the problems your user has \*be very specific
- Do desk research (online research about the user)
- Interview an expert (a person working in the field, for example a scientist in the field)
- Interview the user/user group
- Imagine that you are the user and try to think like him/her.



Discuss these questions:

- How does a normal day go by?
- Who do you interact with?
- What problems do you have?
- What are you missing in your daily life?
- What would be valuable to you?

### Select

Write down the top 10 problems on individual sticky notes and rate the problems by mapping them on a the selection matrix.



X axis = Impact (how big is the problem for the user?)

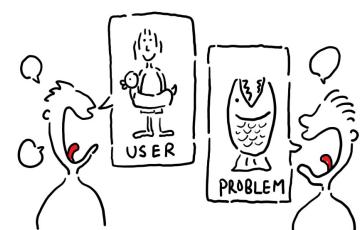
Y axis = Frequency (how often does the user experience the problem?)

Discuss the different problems in your team and select **one** problem that you want to solve, try to choose a problem that is really important to the user and that you think you have a chance to solve.

### Describe

Now you understand the user case and you have found the problem you want to solve. Summarize your findings on the DESCRIBE template.

- Use the **User Description** template to create a detailed description of the user and the problem you have chosen.
- Prepare to present to your buddy team

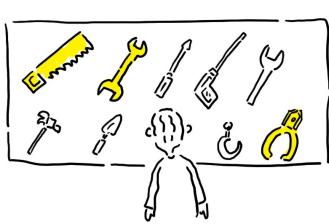


## Stage 3 – Tech

This stage is about discovering new technologies that can help solve the problem you are working on. A new technology is often the starting point of innovation because it can solve a known problem in a new and better way than current solutions/technologies. Talented innovators therefore always strive to be up-to-date on the latest tech trends and break-through research in their field.

You will hear a brief presentation about some exciting tech trends. Try to identify and do research on technologies that are interesting and relevant to the case. At this point you do not need to be specific in the choice of technologies, they will simply serve as inspiration.

- Discuss the technologies from the presentation – how do they work and how could they be useful to your case.
- Brainstorm on other technologies that you find relevant to the case. Write down the suggestions and make sure everyone in the team understand how they work.



## Stage 4 – Ideate

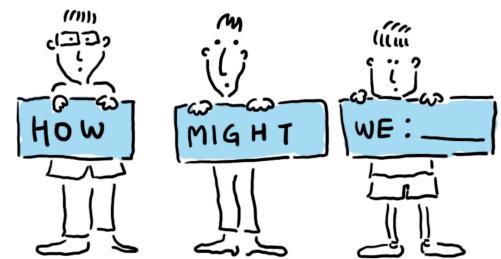
Creativity is essential in all startups and to all breakthrough innovations and it is therefore a core element of the ideation workshop. Creativity is defined as the ability to look at a problem from a new angle and think outside the box to solve it. *“Without creativity, there would be no progress, and we would be forever repeating the same patterns.”* – Edward de Bono

A few rules during the creative process:

- Do not interrupt each other
- Be positive
- Respect each other's ideas
- Have fun!

### Scope

Before you can start generating ideas your team needs to choose one very specific problem that you want to solve. Scoping the problem is extremely important for the creative process. Your team should now align your understanding of the problem and sharpening the key problem statement.



- Formulate a problem statement (one sentence) that very precisely describes the problem you want to solve. Start your problem statement with: “How might we...”
- The problem statement has to be approved by your coach before you move on.

Example: *How might we prevent that older people with Alzheimer get lost when they walk out alone?*

### Generate

It is now time to be really creative and generate tons of ideas that can solve the problem you have identified. In this activity you can try two different techniques to generate ideas: Brainstorming and Reverse Brainstorming. The techniques are explained below. When we work with creativity there are a few important rules that you need to follow in order to be most effective:



#### Ground rules

- Liberate yourself from conventional thinking
- Generate as many ideas as possible – quantity over quality!
- No criticism is allowed – don't say “no but”, say “yes and.”
- See opportunities and forget known limitation
- Co-create by building on each others' ideas

#### Rules for idea documentation

- Use sticky notes when describing ideas.
- Only one idea per note
- Write down the idea in a short and precise sentence – keywords are not enough.

Remember that everyone has good ideas, and that it is your job to turn a good idea, into a GREAT idea!

## 1. Regular Brainstorming

The aim of this technique is to generate as many ideas as possible. Clear the table, write the problem statement on a big piece of paper and place it in the middle of the table. Each team member gets a stack of sticky notes and starts to write down his/her ideas on how to solve the problem. When you are done writing down an idea you can read the idea out loud and place the sticky note in the middle of the table. When you run out of ideas you force yourself to continue for another 10 minutes – this is when the truly innovative ideas come out! During this exercise you have to pay attention to these 5 rules:

- **No criticism!** Say "Yes and..." never "No because..." No evaluations or negative comments to proposed ideas.
- **Many ideas** – The more ideas, the better.
- **Wild ideas** – No idea is too crazy or too wild. Crazy ideas have a stimulating effect on the creative process, and inspire new and more relevant ideas.
- **Improving your idea** – Build on each other's ideas and combine the ideas into new ideas.
- **Write it down** – Remember to write down all your thoughts and ideas.

## 2. Reverse Brainstorming

When you have been working for some time on a problem and tried to find new solutions, you often stop because you cannot make any further improvements. By turning the problem upside down, and trying to make the situation even worse, you can suddenly trick the brain to think of many new ideas.

Follow these 4 steps to perform a reverse brainstorm.

- **Positive problem formulation** – Write down your problem statement on a piece of paper and place it in the middle of the table. For example; "how do we make it easier to open the door?"
- **Negative problem formulation**  
Reformulate the problem statement to a negative statement (opposite meaning) and write it on the opposite side of the paper. For example; "How do we make it impossible to open the door?"
- **Negative ideas**  
Now start to develop ideas to solve the negative problem statement: Find ideas to make the situation even worse. Use a specific colored sticky notes for these ideas.
- **Positive ideas**  
You can now flip back to the positive problem formulation and turn the negative ideas into positive ideas, or you can use the negative ideas as inspiration for entirely new ideas. Choose different colored notes for the new positive ideas. For example: negative idea: "we can make the doorknob extremely small and very hard to turn" can become "let's make a nice big doorknob that is easy to see, grab and turn".

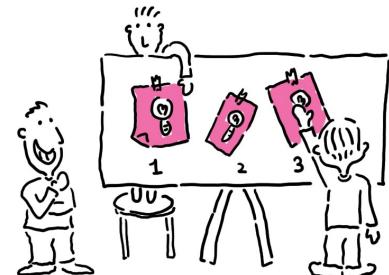
Add the new ideas to the ideas that you generated during the regular brainstorming session.

## Select

Great! Now you have a lot of good ideas for how to solve the problem. However, as you might have guessed, not all ideas are equally good so you need to sort the ideas and find the very best one. In this activity you are allowed to be rational, realistic and skeptical when you evaluate the ideas' potential.

Ground rules:

- Be critical in a constructive way (say "No, because...")
- Be realistic and rational



Go through the ideas one by one and read them out loud. Throw away the obviously unrealistic ideas and the ones that are less likely to solve the problem. Try to combine weak ideas to make bigger and better ideas. Continue until you have found the 10 best ideas.

After sorting the ideas you can use the *idea selection matrix* to find the very best idea. The matrix has two axes ranging from "low" to "high":

- X-axis: Value: How valuable is your product/service for the user?
- Y-axis: Uniqueness: How much does your product/service differ from competing products/services?

Place the ten ideas on the matrix to get a good overview of their potential. When you are done, the **BEST** ideas should be the ones that are highly valuable and well differentiated from competing solutions.

Take the three best ideas and make a quick vote in the team: Which one do you believe in the most?

Choose ONE idea

## Describe

In this activity you will turn the idea into a concept by making a detailed description of your idea. Having a great idea is a good starting point – but it's not enough to build a company. You also need to find a way to make money and to build a sustainable and scalable business model. To help structure your work you can use the Idea Description template. As illustrated below there are 6 building blocks that need to be filled out. Always use sticky notes when you are conceptualizing the idea – that way it is easy to make iterations and come up with new ideas. There are many options, so don't just settle with your first model.

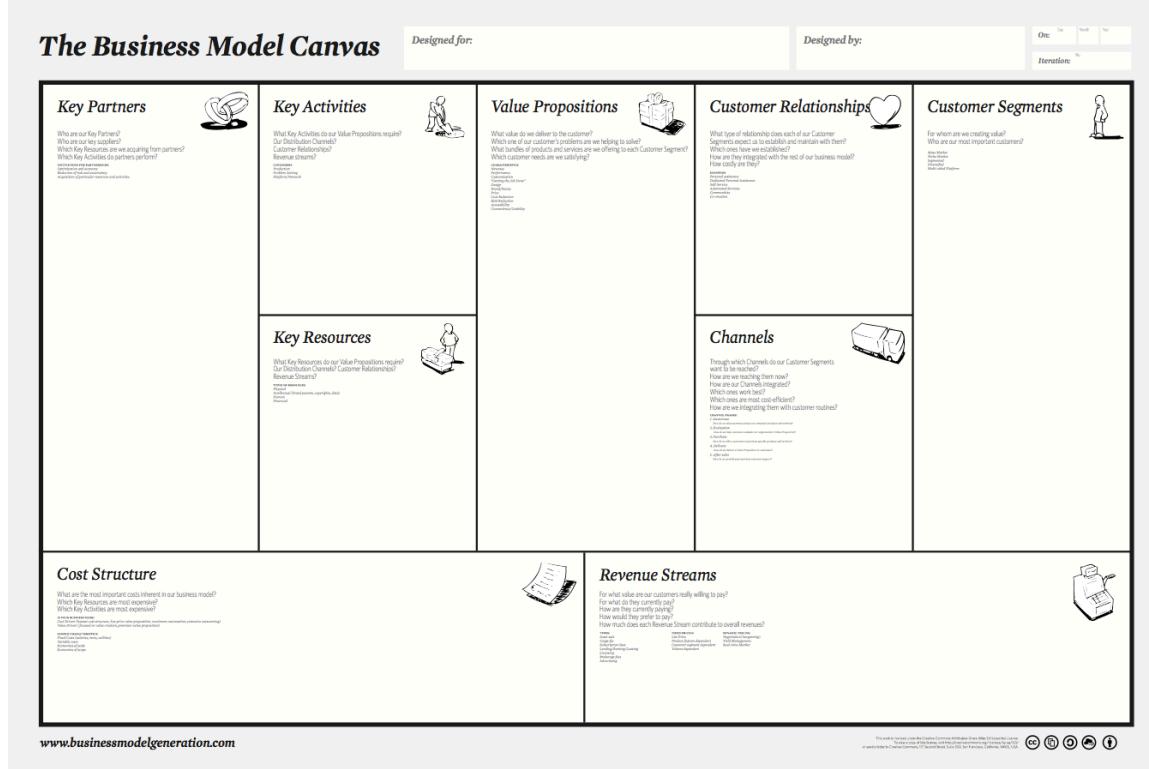


You have to explain the *user-need you are satisfying, your solution to solving the problem, the user you are helping, the competitors, the costs of the solution and how you are planning to make a revenue with the idea*.

Idea description					
Stage 4 - Template 2 out of 2					
<b>Problem</b> What problem are you trying to solve? What user need are you satisfying?	<b>Solution</b> What is your idea and how does it work? What is the core functionality of your idea? What is your unique value proposition to the user? How will you market your solution and reach the user?	<b>User</b> Who are you helping with your solution? Who is the most important user?	<b>Competition</b> What are the alternative solutions to the problem? Who offers these solutions? How will you beat the competitors?	<b>Costs</b> What will it cost to develop your solution? What are the ongoing fixed + variable costs?	<b>Revenue</b> How are you going to make money? Who pays? How much will they pay? How do they pay (one-time fee/ongoing subscription/license..)?

## Business Model Innovation

The next step in the ideation stage is to refine the idea using the business model canvas. Your facilitator will introduce this powerful tool and show you how to use it.



## Stage 5 – Pitch

You might have heard that pitching is very important; and that's true! As an entrepreneur you are constantly pitching so you better get good at it sooner than later. Innovators and entrepreneurs are very often required to present their ideas and business plans to stakeholders, potential investors, new business partners and customers, and it is therefore key to have a super sharp elevator pitch.

In this stage you have to prepare a short pitch that explains the most important aspects of your idea. "An elevator pitch is a short summary used to quickly and simply define a product, service, or organization and its value proposition. The name "elevator pitch" reflects the idea that it should be possible to deliver the summary in the time span of an elevator ride, or approximately thirty seconds to three minutes".

When presenting a new idea it is also very valuable to make a simple prototype that can help you visualize the concept. Most people find it easier to understand an idea when they can see an illustration or a simple prototype. Here are the steps in the final stage of the workshop:

### Prototype

A prototype is a demo-model of your solution that visualizes the elements from the idea description template in other ways than words on paper. Prototypes are often used when presenting an idea to give the audience a better understanding of what you mean.



A prototype may be:

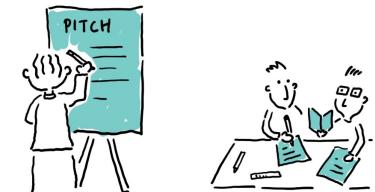
- A drawing/illustration of the idea.
- A digital demo of the product: a functional prototype of an app/website/game or similar
- A physical prototype: a model of the idea made from cardboard, tape, wire, play dough, etc. Often used when the idea is a physical product.
- An experience prototype: a video, a play, an interactive visualization of the idea and how it works. Often used when the idea is a service or an experience.

Go and create a fantastic prototype! Use your imagination and creativity! Hint: It is a good idea to divide tasks among the team members.

## Prepare

The perfect pitch is short, sweet, and to the point. You have very limited time, so being clear and precise is essential! You need to highlight only the most important elements of your idea. You can use your idea description template as content for your presentation. The jury will evaluate your pitch based on the following criteria so make sure to cover those in a good way:

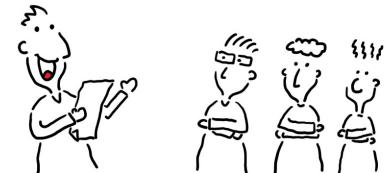
- The pain (The team's understanding of the problem)
- Market understanding (Scalability and impact potential)
- The idea (Technology and value proposition for the user)
- Application (Implementation readiness, business model/funding model)
- Innovation level (How new is the idea?)



Remember that your idea might actually be implemented, so make sure to highlight how this can be done.

## Practice

Practice makes perfect! Before pitching to the judges you have to practice the pitch with the team. Practice the entire pitch from start to finish at least four times. Try to improve the presentation each time. Everybody in the team should pay attention and give feedback. Helping each other makes it better. Practicing will also show you how much time you spend, remember that you **only have 3 minutes** when presenting to the jury.



## Present

Now it's time to go and deliver a fantastic pitch to the jury.

A few tips...

- Speak loud and clear, and not too fast
- Look at the audience (not the at the slides)
- Use positive body language
- Use humor (when appropriate)
- Stay within the time limit (3 minutes)
- Do not put too much text on your slides
- Do not panic if you make a mistake just take a deep breath and start over ☺



Good luck dear innovators!!

## Stage 6 – Continue

**So this is only the start of your journey!**

Keep Going. We urge you to continue on this exciting voyage both as a learning experience and to continue with the ideas you have created here in this workshop - we really hope you can IMPLEMENT them.

You have learned over these 2 days the skills and mentality that innovators and entrepreneurs use to come up with exciting ideas and innovations. You have learned these skills in an interactive, real life problem solving setting. We hope you have found it a beneficial and enlightening ideation experience!



Please feel free to revisit this site and reuse this Ideation Workshop resource to evolve your idea or to work on fresh new case studies and challenges. We are also sharing here several other resources, which may help you continue your innovation and entrepreneurial journey. These are resources, tools and support options that we hope will help you take your concepts from ideas into reality. They are;

- Additional real life **Case Studies** which you might like to challenge yourself further on
- **E-Basics** – learn the skills which successful entrepreneurs need
- **TECH Lab** – additional information on technologies which may enable innovation
- **Coaching and Mentoring** supports to help you evolve concepts into implementations

We would also urge you to conduct your own research on government and external supports available to innovators and budding entrepreneurs in your region. Now it's up to you, go out and find problems that need solving, create new ventures, services or products and be the new ideators, innovators and entrepreneurs of tomorrow!

**...and please let us know what you thought of this experience and how you are getting on with your innovations!**