

Module: Social entrepreneurship and social enterprises (including green entrepreneurship)









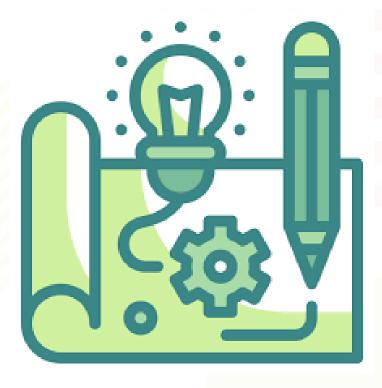








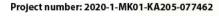
PROTOTYPE



















What is a Prototype

Prototyping is a foundational process for developing a new product through the physical representation of an idea. Prototyping helps designers turn a concept into a functioning item. Using basic sketches and rough materials, the prototype may be a simple drawing or rough model that helps innovators determine what they need to improve and fix in their design.

A prototype is a rudimentary working sample, model, mock-up or just a simulation of the actual product based on which the other forms (Minimum Viable Product, final product, and variations) are developed.

This stage in the inventing process is possibly the period of greatest learning

Making a prototype by hand is a great way to start bringing your product to life. Remember, there are no rules! Give yourself permission to experiment.

















Importance of Prototype

Prototype is the preliminary version of the actual product developed to:

- Validate the design of the product,
- Observe how prospecting customers are using the product,
- Present to investors or licensees,
- Protect the Intellectual property,
- Remove kinks in manufacturing,
- Test and refine the final product.









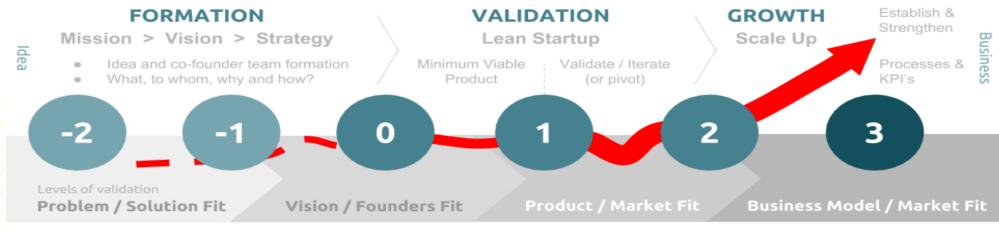








Startups stages



Ideating

Entrepreneurial ambition and/or potential scalable product or service idea for a big enough target market. Initial idea on how it would create value. One person or a vague team; no confirmed commitment or no right balance of skills in the team structure yet.

Concepting

Defining mission and vision with initial strategy and key milestones for next few years on how to get there. Two or three entrepreneurial core co-founders with complementary skills and ownership plan. Maybe additional team members for specific roles also with ownership.

Committing

Committed, skills balanced co-founding team with shared vision, values and attitude. Able to develop the initial product or service version. with committed resources, or already have initial product or service in place. Co-founders shareholder agreement (SHA) signed, including milestones, with shareholders time & money commitments, for next three years with proper vesting terms.

Validating

Iterating and testing assumptions for validated solution to demonstrate initial user growth and/or revenue, Initial Kev Performance Indicators (KPI's) identified. Can start to attract additional resources (money or work equity) via investments or loans for equity, interest or revenue share from future revenues.

Scaling

Focus on KPI based measurable growth in users, customers and revenues and/or market traction & market share in a big or fast growing target market. Can and want to grow fast. Consider or have attracted significant funding or would be able to do so if wanted. Hiring, improving quality and implementing processes

Establishing

Achieved great growth, that can be expected to continue. Easily attract financial and people resources. Depending on vision, mission and commitments, will continue to grow and often tries to culturally continue "like a startup". Founders and/or investors make exit(s) or continue with the company.

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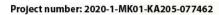








Startup Development Phases - from idea to business and talent to organization.







Organization





Idea reality check

Before starting with building a prototype, you need to ask yourself these questions:

- 1. Does your customer have the problem that you are trying to solve?
- 2. Will they pay for it?
- 3. Will they pay YOU for it?
- 4. Can you build the solution for that problem?







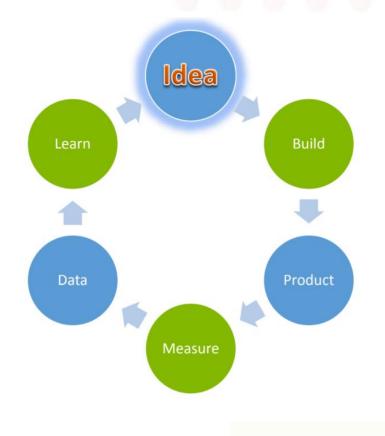








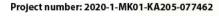
Build – measure – get feedback - improve



















Prototype Methodology

- 1. Make a prototype A good advice is to start "prototype early, prototype often." Most literature on product prototyping advises to prototype your invention as early as possible.
- 2. Test your product and get reviews from users
- 3. Refine the design by applying feedback
- 4. Repeat!















What is a good prototype?

- **Representation**: A prototype is a representation of the actual product. It represents how the product will look and/or work like.
- **Precision**: More precise the prototype, better the response and feedback.
- Functional: A good prototype performs the basic functions of the actual product
- Improvision: A good prototype is one which can be improvised on with minimum effort. This one of the most important aspect of prototyping as a prototype is subject to many improvisations.

















Functional Prototypes

For example: creating a backend prototype without working on the frontend of the website.

Display Prototypes

Display prototypes besides in the IT industry, are usually used in industries where outlook and design are more important.

Miniatures (3D printing, craftsmanship, digital etc.)

Miniatures are usually developed by the 3D printing of the product.















PROTOTYPE EXAMPLE - Miniatures

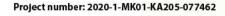












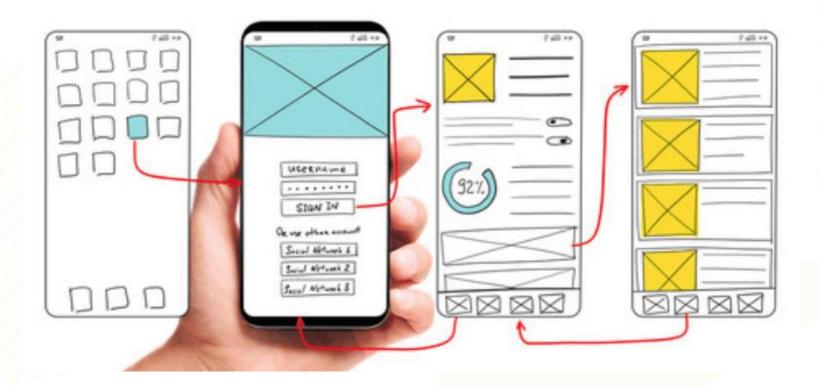








Prototype example:



































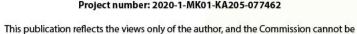
Types of prototype:

High-fidelity user prototypes Live data prototypes Testing: Usability Testing: Behavior (proven with data) Design Requirements Low-fidelity user prototypes Feasiblity prototypes Testing: Value proposition Testing: Technical limitations **Technical Complexity**

















Be aware, you should aim for MVP, not for creating the actual product









Prototype

MVP

Iteration 1

Iteration 2















It's time to pick up a focus.

Once you've decided to prototype, it's time to pick up a focus. Figure out what you want to achieve and stay focus!

- ✓ Is the prototype made for testing or for communication?
- ✓ If for testing, would it be and exploratory or directed study?
- ✓ What do you want to test, attitude, engagement, or behavioral metrics?
- ✓ Do you have any hypotheses or assumptions?
- ✓ Which part of the product do you want to collect feedback?















Test your Prototype:

Share the prototype with the people you are designing it for and obtain feedback about what works and what doesn't.

Group Interview: Use a group interview to answer questions about your prototype.

Co Creation Session: A co creation session sees people in the group not as interview subjects but as designers. Facilitate co creation by enabling people to actively redesign and make changes to the prototype

One to one Interview Online tools







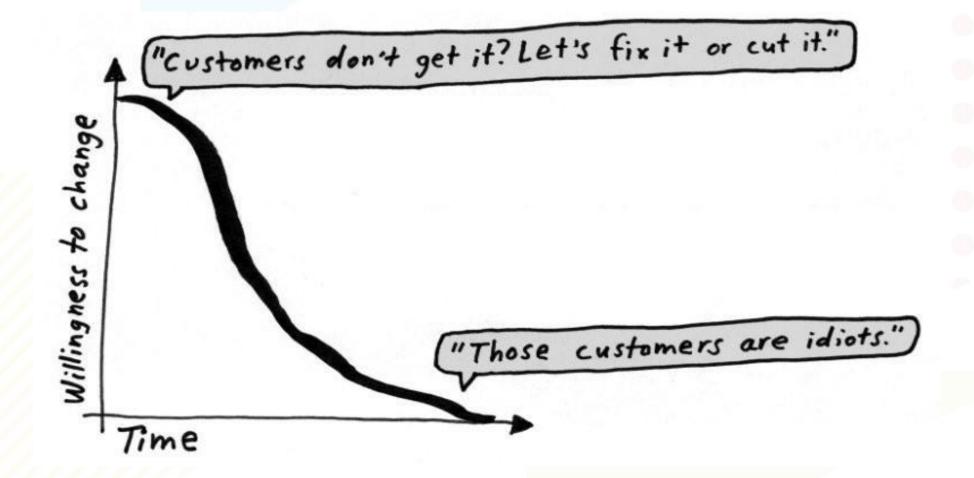








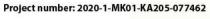




















Evaluate and Iterate

- ✓ What did you find out?
- ✓ Gather your findings: As soon as possible after testing, get down all of your findings including observations, facts, stories and hunches on paper. Use post it notes on a large board or paper.
- ✓ **Synthesize and analyze your findings**: You can use Frameworks above to help organize all your feedback. Using frameworks such as 2x2 grids, diagrams or customer journeys will make you begin to see patterns in all of your findings.















Ideas and Iterations:

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Try to sell the product (by using prototype) before you actually build it











