

# **37208-ENG - LABORATORY DIGITAL INNOVATION AND MANAGEMENT (DIM) – DIM LAB**

**Preparation to Lab 02**

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# Agenda

- What have we learnt from the PBLs: key takeaways
  - PBL 2: Opportunity identification and customers' needs
  - PBL 3: Concept generation
- Lab Overview
- "Homework for Lab 02"

## Takeaways from PBL2 (Opportunity identification and customers' needs)

- Opportunities consist in the **rough match between a need and a possible solution.**
- Once opportunities have been generated on the basis of hypothesized challenges, **customers' needs have to be identified and validated** with real data.
- Define the potential target customer, empathize with her/him (persona model, customer, customer journey map).
- **Collect data** using interviews, survey, focus groups, observing the potential customers using similar products.
- During this phase **focus on the needs not on the solution.**
- Remember that customer needs and products specifications are not the same thing! First focus on customer needs, then try to translate them into functional requirements.

# Takeaways from PBL3 (Concept generation)

- The **concept** is a rough representation of the product and **how it addresses customers' needs**.
- Before starting with generating possible concepts, **customers' needs have to be identified and translated in product specifications** (i.e., what the product has to do).
- Product specification are determined by translating customer needs from the “language of the customer” to specific metrics.
- **Metrics** measure one feature of the product that addresses customers' needs (e.g., weight of smartphone addresses the need of "being easy to transport"). A metric for each need must be established. Each metric should be associated with a unit of measure (e.g., for the weight of a product, it's grams or kilograms).
- **Needs and metrics are linked through the “House of Quality” tool**, which provides you with more awareness of what the product must do to meet customer expectations.

# Overview of the Labs (1/2)

Lab	Day	Topic	Presentation by teams (during the Lab)	Feedback by the faculty (upon the Lab)
00	30 <sup>th</sup> April	Product-company	- Selected product and company	- Confirm teams' selection
01	7 <sup>th</sup> May	Product strategy and planning (PBL 1)	<ul style="list-style-type: none"> <li>- How does the NPD fit the product strategy?</li> <li>- Expected timeline for the project and Project Management</li> <li>- Empirical strategy for need validation</li> </ul>	<ul style="list-style-type: none"> <li>- Confirm mission statement</li> <li>- Refinement of strategy for need validation</li> </ul>
02	14 <sup>th</sup> May	Customer needs, product specifications and concept generation (PBLs 2 and 3)	<ul style="list-style-type: none"> <li>- Customers' needs</li> <li>- Product specifications</li> <li>- House of Quality and benchmarks</li> <li>- Set of generated concepts</li> <li>- Testing strategy</li> </ul>	<ul style="list-style-type: none"> <li>- Feedback on process/outputs of the need validation/product specifications/concept generation</li> <li>- Refinement of the strategy for concept testing</li> </ul>

# Overview of the Labs (2/2)

Lab	Day	Topic	Presentation by teams (during the Lab)	Feedback by the faculty (upon the Lab)
03	21 <sup>th</sup> May	Concept selection and testing (PBLs 4 and 5)	<ul style="list-style-type: none"> <li>- Scoring/selection of the concept</li> <li>- Concept testing and rough estimation of customer demand</li> <li>- Assumptions of economic analysis</li> </ul>	<ul style="list-style-type: none"> <li>- Feedback on the scoring process and output</li> <li>- Feedback on the testing process and output</li> <li>- Feedback on the assumptions of the economic analysis</li> </ul>
04	29 <sup>th</sup> May	Product development economics (PBL 5)	<ul style="list-style-type: none"> <li>- Estimated costs</li> <li>- Economic analysis (break even and NPV)</li> </ul>	<ul style="list-style-type: none"> <li>- Feedback on the assumptions and outcomes of the economic analysis</li> <li>- Suggestions for the final presentations</li> </ul>
05	4 <sup>th</sup> June	Final presentation	<ul style="list-style-type: none"> <li>- Proposal of improved product and justification</li> </ul>	<ul style="list-style-type: none"> <li>- Overall comment on the product development process and outcome</li> </ul>

# **“Homework for Lab 02”**

10-12 minutes presentation (7-8 slides) + 5-7 minutes feedback

1. Identified customers' needs
2. Translation of customers' needs into product specifications
3. Sketch of HOQ
4. Set of generated concepts
5. Concept scoring
6. Empirical testing strategy
7. Possible Questions