

MNBS – Meeting

ML² - Exploitation

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Global Innovation Network

■ Approach

- Design and development of a novel, highly cost-effective and versatile production platform
- Combination of microfluidics, optics and microelectronics based on a multi-layer approach.
- Roll-to-roll printing for an innovative and integrated Lab-on-Chip systems.

■ Objectives

- Development of smart miniaturised and highly integrated lab-on-chip demonstrators
- Derivation of rules for new product architecture
- Development of functional layers of the ML² device
- Material development
- Qualification and installation of high volume equipment



■ How do we know them:

- Defined by consortium member (Dolomite)
- Consultation of industrial reference group
- Definition product specifications for concrete POC devices and production of feasibility studies

■ What are the needs of our users

- Microfluidic (sub) devices
 - Cost efficient and scalable production
 - High replication quality of mass products
 - Reproducible surface behavior
- Highly integrated devices (hybrid multilayer devices)
 - Cost efficient and scalable production
 - Application related needs
 - High sensitivity
 - Reproducibility
 - Usability
 - Connectivity
 -

User needs

- How do you validate the user needs?
 - Due to the nature of the major outcome as development and production platform user needs are constantly defined by the need of certain application directly by the end-user
 - For the marketing of the two demonstrators
 - PCR LoC
 - Environmental test

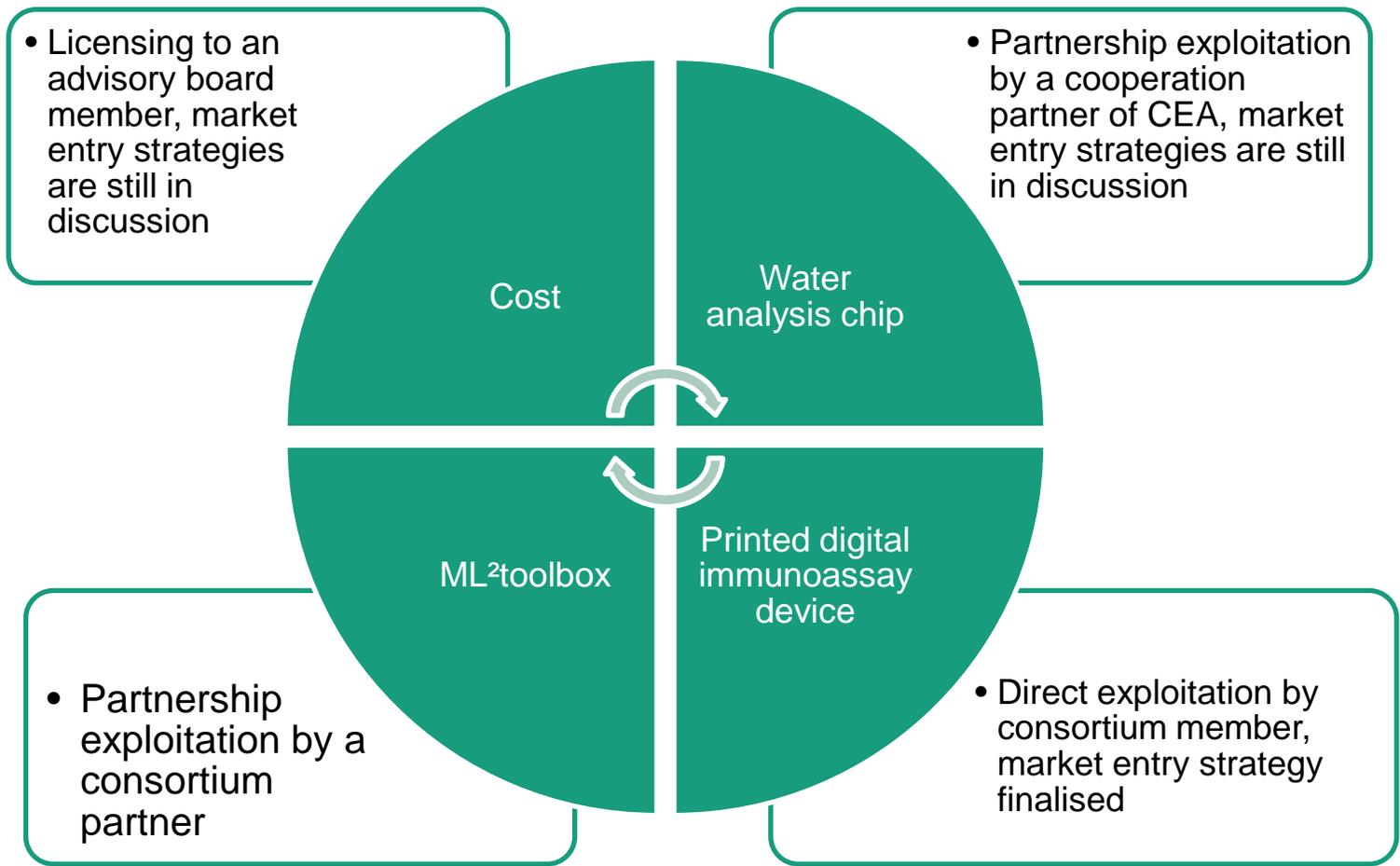
the continuous validation of the user needs are difficult.

 - In particular the definition of user needs for the PCR LoC results in contrary specifications
 - Costs vs complexity
 - ...
- How do you contact and involve the users?
- How do you explain the potential advantage of your product to the users
 - Presentation, Technological demonstrators
- What position does your users have in value chain
 - OEM, Integrator
- Why the technology under development has a unique value for the market users?
 - Within the elaboration of ongoing specific development requests we see the benefits compared to state-of-the-art solutions

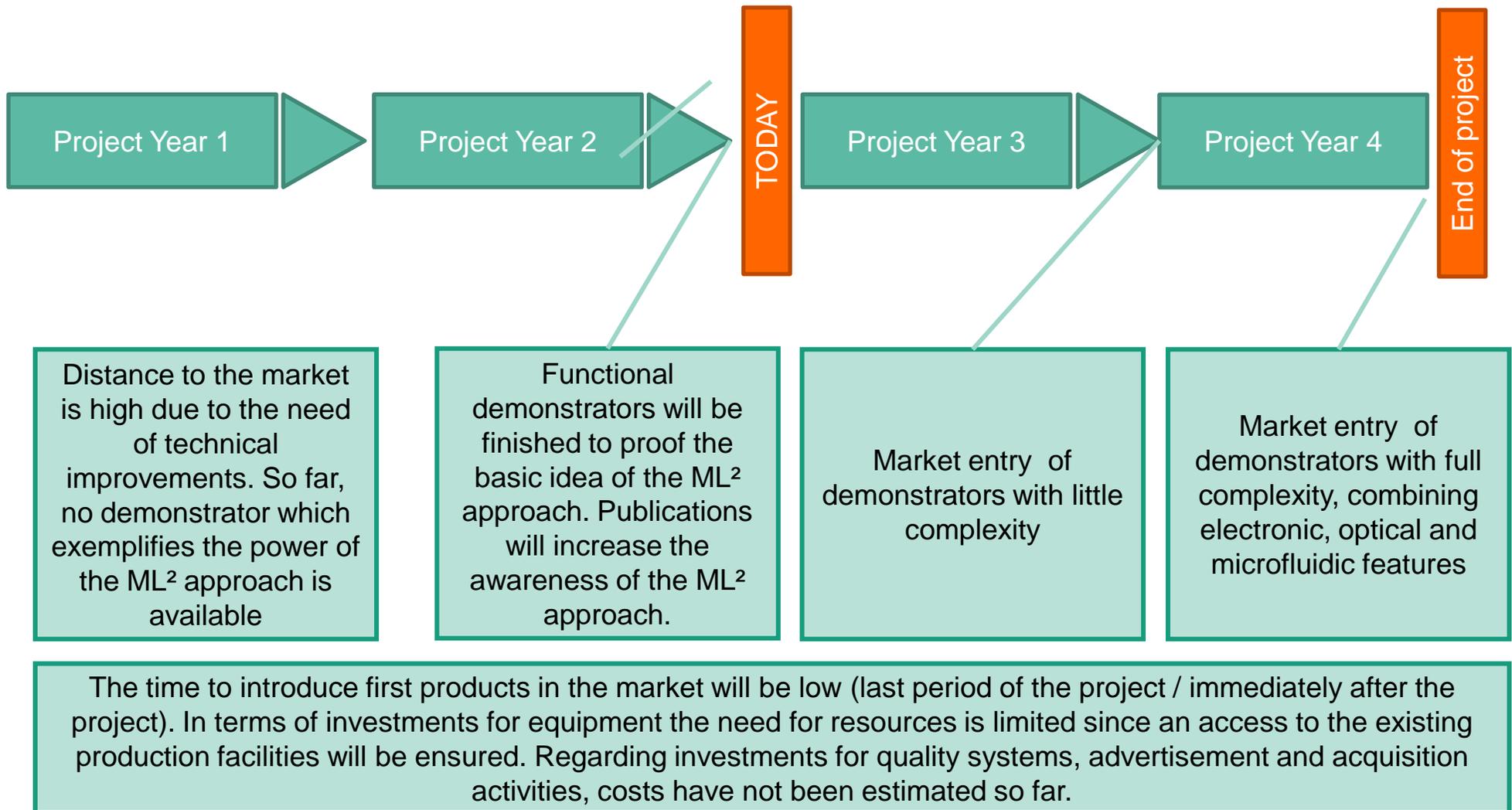
Innovation Process and Road to Exploitation



User needs must be clustered referring to the way of exploitation



Distance to the market





- Does your consortium have already an agreement for the exploitation of the IP after the project?

Periodic workshops on IP-related activities are performed. The patent researches are ongoing. Possible applications have been structured and are finalised. A model for licensing has been derived.

Exploitation of Production Line

Direct exploitation of pilot line by granting access to partners

Indirect exploitation

Research

- Product development
- Training
- Dissemination

Prototyping

- Product development
- Feasibility studies

Pilot series

- Product development
- Small lot size production

Series

- Agreement on machine usage with industrial partner

Volume prod.

- Installation of production line at industrial partners site



Consulting