eHealth Living Lab cluster The Hague

Connecting co-creation activities for meaningful solutions in healthcare

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PROJECT AWARDED
BY THE CID
KNOWLEDGE LAB
-
The Hague, 2018

COLOPHON

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Content

Introduction

Who are we?

We are an enthusiastic group of researchers, designers, managers, policy makers, and entrepreneurs with the shared interest to promote user-centred innovation in the field of eHealth.

For this we acknowledge the importance of eHealth Living labs as a platform to accelerate user-centric eHealth innovations and successfully introduce innovative technologies that affect people's lives in a meaningful and impactful way.

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What is our ambition?

The eHealth Living labs in general and in particular in The Hague region, are becoming popular local initiatives that strive to engage citizens in the development, evaluation and implementation of new eHealth products and services. In that ecosystem, we shared the concern that these numerous initiatives are not performing efficiently, for example: duplicating resources for similar activities, finding answers for problems already solved, etc. This inefficiency negatively affects Living labs to achieve their Key Impact Objective (KIO).

Therefore, we hypothesize the need for a eHealth Living lab Cluster. We expect that such a cluster can take away challenges while providing new benefits to living labs. In this way, we expect the cluster to strengthen the decentralized Living labs by sharing their services effectively and efficiently and happily working together.

Ultimately, we want to realize a buzzing eHealth cocreation business practice in The Hague region, empowering living labs, citizens and stakeholders to better add value and make a meaningful contribution to the quality of social and medical health, through live and virtual interactions.

Why is this relevant?

We understand that our society requires a shift in the healthcare system to cope with the high demand and scarce resources of health services. We acknowledge that a new healthcare paradigm requires putting citizens at the centre of healthcare services, shifting the care responsibility from the care professional to the citizen.

We promote the adoption of eHealth technologies by people, to among other things, support older adults to live independently longer and with higher quality of life; engage chronic patients to self-manage their health condition with higher responsibility and autonomy; activate vulnerable groups (e.g. low socio economics, immigrants, older adults) to increase health literacy and prevention of severe illness (e.g. obesity, loneliness, etc.)

What is the objective of this project?

The objective of the project is to test our hypothesis and make the first steps towards the design of an eHealth Living lab Cluster.

The proposal was awarded a 25K euro prize by The Hague municipality, under the program Central Innovation District (CID).

Process

What is the approach?

The CID award allowed us:

- To conduct research on the state of the art of Living labs' efficient and effective practices as well as to understand existing initiatives or concepts for centralizing efforts and resources, and to encourage collaboration between labs.
- To conduct field research in The Hague region, to validate our initial findings and assumptions on the vision of an eHealth Living lab Cluster.
- To develop an eHealth Living lab Cluster concept, a business model and a framework to guide the process of co-implementation in close collaboration with Living labs and their stakeholders.

Who have we collaborated with?

What have we done?

1/6/2018 ← → 31/12/2018

- DESK RESEARCH
- FIELD RESEARCH
- ANALYSIS & DISCUSSION
- CONCLUSIONS

Literature review conducted by TU Delft team.

Expert meeting session with the Rathenau Instituut.

Rathenau Instituut

Interviews to Living labs in Den Haag conducted by De Haagse Hogeschool Den Haag team.

Co-design sessions with other Living labs.

CID Presentation.

◇ PROJECT KICK OFF

◆ REGULAR CORE TEAM MEETINGS

◆ END OF THE PROJECT

Outcomes

1. What defines an eHealth Living lab*?

Acknowledging the large spectrum of Living labs, we focus on Living labs that center innovation on users and are positioned in real contexts of use. With this definition we exclude living laboratories (e.g. smart home lab) and network facilitators (e.g. ENoLL)

We identify five dimensions that shape the Key Impact Objective (KIO) of a Living lab. While Domain and Target define the metrics of success, and Setup defines the external barriers and drivers (the scope) for success, the dimensions Activity and Stakeholders define the Key Impact Objective: what to achieve and with/by whom.

The dimensions **Activity** and **Stakeholders** define the Key Impact Objective: what to achieve and with/by who.

*We answer this question considering the following general definition of living lab:

"An eHealth Living lab is a platform for user-driven socio-technical innovations to emerge. It does so, by means of user co-creation, business acceleration, and governance transformation"

1. DOMAIN

The application areas the living lab focuses on, e.g.: independent living, chronic diseases, patient homecare, etc.

2. STAKEHOLDERS

The relationship between the stakeholders of a Living lab, which defines their roles, e.g.: Initiator, Researcher, Tester, Co-creator, Facilitator, Investor, Entrepreneur, etc.

3. TARGET

The target group of the Living lab and its scope, e.g.: older adults, chronic patients, informal caregivers, etc. in a neighborhood, a city, a region, national, cross national.

4. ACTIVITY

The main activities living labs participants engage in, e.g. test beds living labs, co-creation living labs, facilitators living labs

5. SET UP

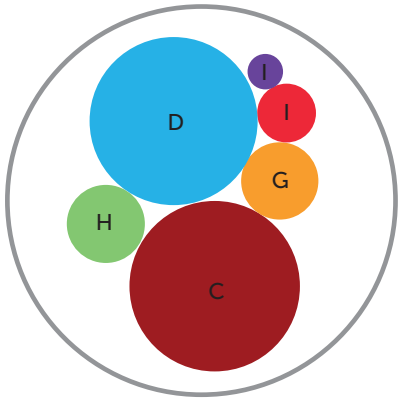
The context in which the Living lab operates in, e.g. physical environments, socio-technical infrastructure, political and economical systems, temporal scope.

2. What are examples of eHealth Living labs?

Within our definition we identify three relevant KIO's that a Living lab can adopt: user co-creation (driving innovation, e.g. participatory design), business acceleration (testing innovation, e.g. test beds), and governance transformation (implementing innovation, e.g. policy making). These KIO's directly shape the stakeholders' configuration of a Living lab, as different roles are needed.

A Living lab's KIO shapes the stakeholders' configuration, defining the roles of the partners involved.

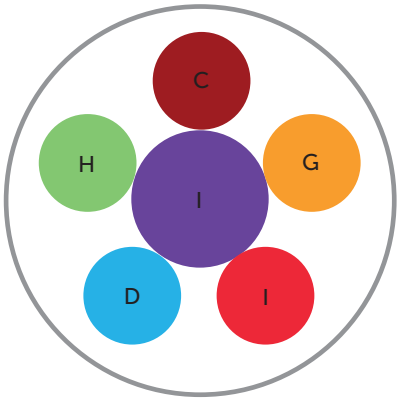
KIO: CO-CREATION



LIVING LAB A:

A socio-technical infrastructure for user-driven innovation to emerge.

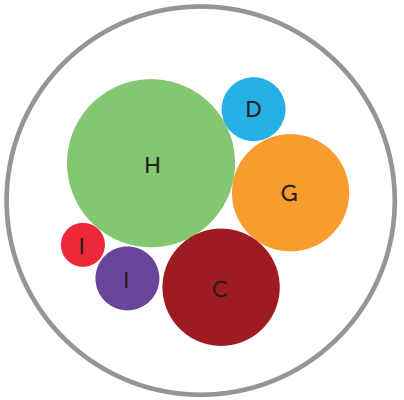
KIO: ACCELERATION



LIVING LAB B:

A field test-bed infrastructure to assess user and market validation of innovative technologies.

KIO: TRANSFORMATION



LIVING LAB C:

A transformative infrastructure for policies to emerge.

Living Lab: coordinator and facilitator of user driven innovation

Citizens: active collaborators to innovate

Health **I**nsurances/ investors: implementor of new business cases

Government: developers of new policies

Healthcare organisations: implementor of optimal care (outside hospital)

Design/Research organisations: developer of evidence based knowledge

Industry: developer of innovations

3. What are the shared challenges of eHealth Living labs?

A Living lab's coordinator is the key entity that manages Living lab's strategic, tactical and operational activities. However, it is clear that most Living Lab's coordinators are still looking for more efficient ways to operate on a daily basis, which hinders their role at higher level activities.

In the field research, Living labs highlighted a list of activities that are experienced as daily challenges:

1. Coordinate stakeholders to perform different levels of collaboration

2. Encourage stakeholders' participation

3. Development stakeholders' trust towards the Living Labs

4. Implement methods for innovation and participation in practice

5. Engage the end user in co-creation activities

6. Development of business cases

7. Financial management

8. Acquisition and development of personnel/knowledge/expertise

9. Advocate legislation

10. Communication and public relationship

11. Roz out of pilot results (scale up)

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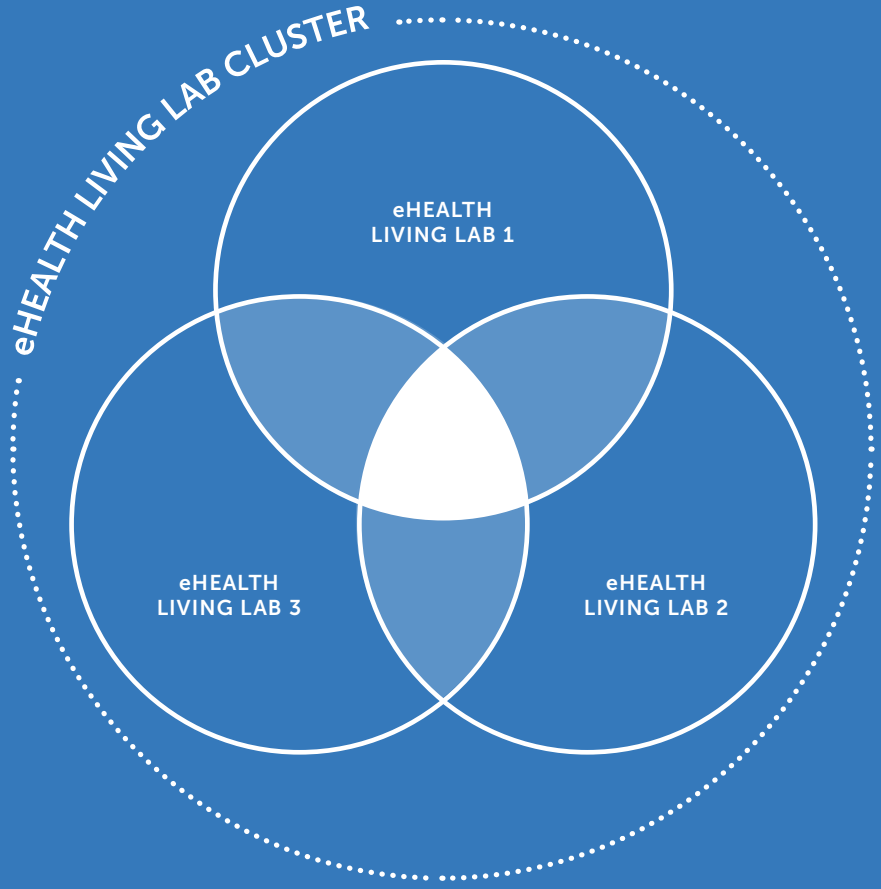
The most common challenges relate to inefficient ways of carrying out operational activities.

4. How does an eHealth Living lab Cluster address Living lab's challenges?

Based on the shared challenges, we identify an opportunity in promoting a collaborative setup in which Living labs come together to learn, share, and exchange resources (e.g. knowledge, expertise, network) in ways that optimize their own efforts and maximises their own impact (KIO).

HYPOTHESIS

An eHealth Living lab Cluster can reduce Living labs' challenges and increase efficiency of daily tasks and effectiveness of mid and long-term activities by fostering collaboration between different eHealth Living labs.



INSIGHT

Synergy and participation is perceived as having positive and negative impact.

5. Validation: What are eHealth Living labs' positive and negative experiences from participating in an eHealth Living lab Cluster?

NEGATIVE

- Financial and time investment pays off in long-term
- Loss of autonomy
- Loss of unique impact

POSITIVE

- Gain on knowledge, methods and tools
- Opportunities for face to face contact to instantly resolve issues
- Optimal (fewer resources and more fitting) access to end users communities
- Outsource of secondary activities
- Opportunity for large-scale impact
- New opportunities of funding (e.g. strategic positioning, sharing costs, larger network)
- Optimal ethical, security and privacy procedures
- Reduce overhead

STATEMENT

An eHealth Living lab Cluster aims to take away challenges while providing new benefits to living labs by opportunities of clustering.

6. Concept: What is the proposed configuration of the eHealth Living lab Cluster?

A hybrid (centralised & decentralised) Living labs organization.

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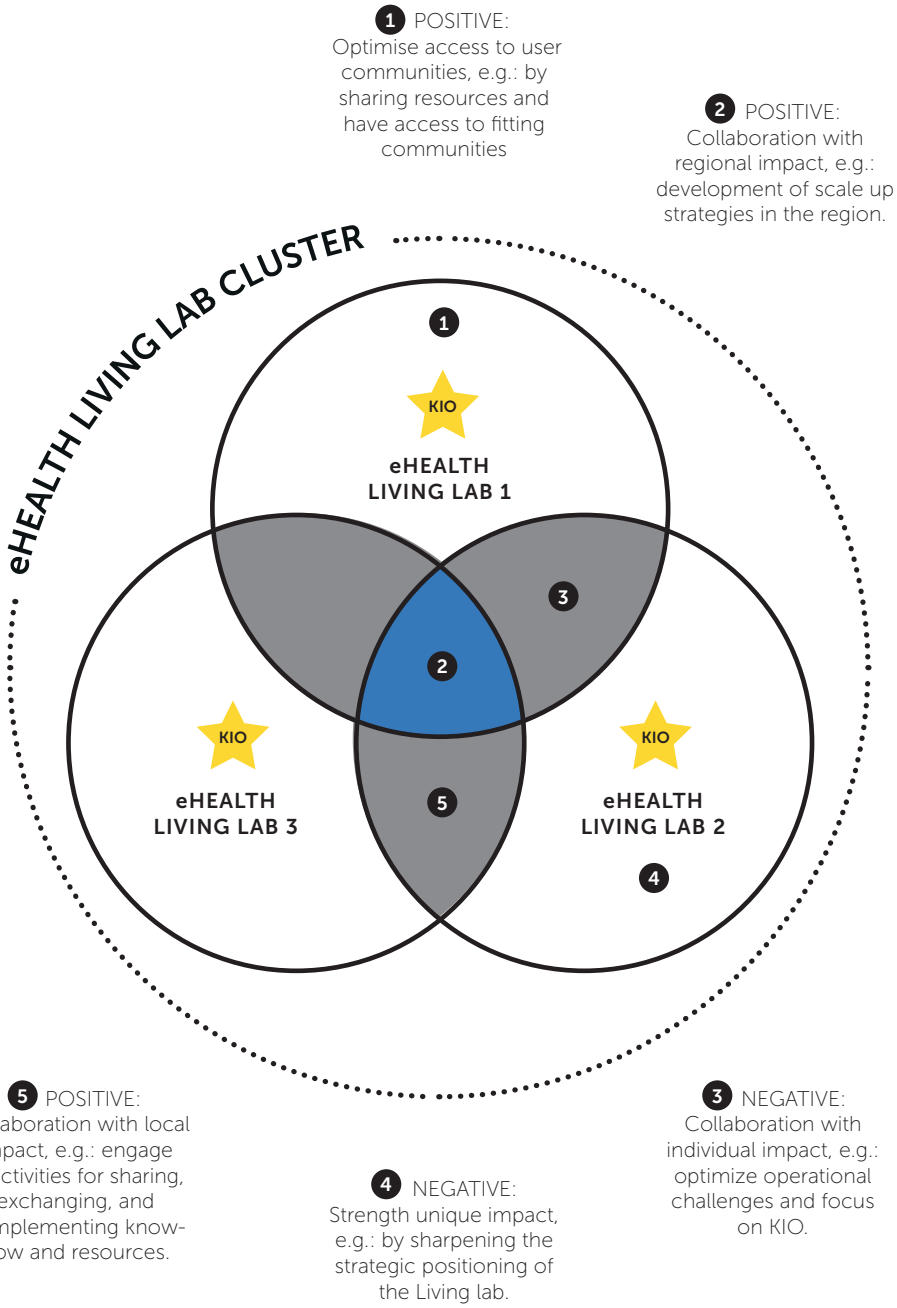
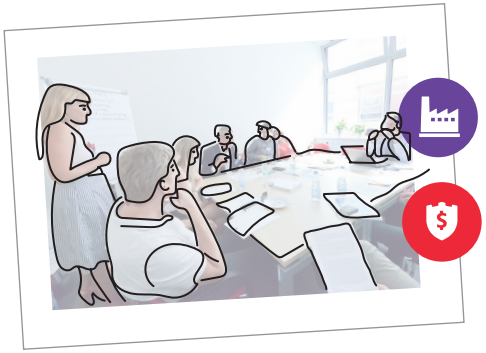
A hybrid (centralised & decentralised) organization of a Cluster is proposed to minimise negative and maximise positive experiences.



7. What are the expected benefits of participating in the proposed eHealth Living lab Cluster?

The implementation of an eHealth Living lab Cluster is expected to bring direct benefit to all stakeholders involved in eHealth Living labs. Below we envision the core benefit of each main stakeholders and explain how the Cluster contributes to that benefit.

Citizens feel **ownership** and are able to **shape their future**
the cluster provides value to their participation



Investors (Insurances, industry) are **attracted** to new **business models**
the cluster provides them with large-scale evidence

Healthcare organisations **adopt new care practices**
the cluster provides support across levels (strategic, tactical and operational)

Government organizations **develop/improve faster policies**
the cluster provides with the scaled-up evidences

Research organisations provide **societal relevance** to innovations,
the cluster facilitates collaboration with citizens and other parties

Living labs **effectively achieves their KIO**
the cluster increases efficiency of task and activities

8. How will the cluster be implemented?

We adopt a Strategic, Tactic and Operational (STO) Model, to develop the 'Cluster implementation framework'. The framework defines the strategic, tactical and operational goals of the Cluster and the respective implementations that could support each goal.

At the strategic level, the goal is to upscale Living labs' success by achieving regional and long-term impact of their KIO.

At the tactical level, the goal is to encourage Living labs to optimise/leverage their capabilities by identifying direct benefits from collaboration practices. At the operational level, the goal is to optimise Living labs' functioning by adopting collaborative tools and practices in their operations.

1. STRATEGIC

LONG TERM SUCCESS / KIO

User & data driven innovation
- Define KIOs

Collaborations to scale up
- Impact & resources

Long-term partnerships
- Merging strategies
- Financially sustainable

Policy Making
- Shaping new policies

2. TACTICAL

LEVERAGING CAPABILITIES

User + Scientific + Business + Policy involvement
- Developing standards

Collaboration practices
- Developing roles & activities
- Develop funding schemes

Prototyping in the field
- Developing shared infrastructure (technological, research, social, ethical, policies)

3. OPERATIONAL

OPTIMISE OPERATIONS

End User Engagement
- Community manager
- Database of participating communities per city area

Open Data portal
- City Data Portaal voor analyse, predictie & presentatie

Best Practice Sharing
- Knowledge & Chat platform
- Meet ups

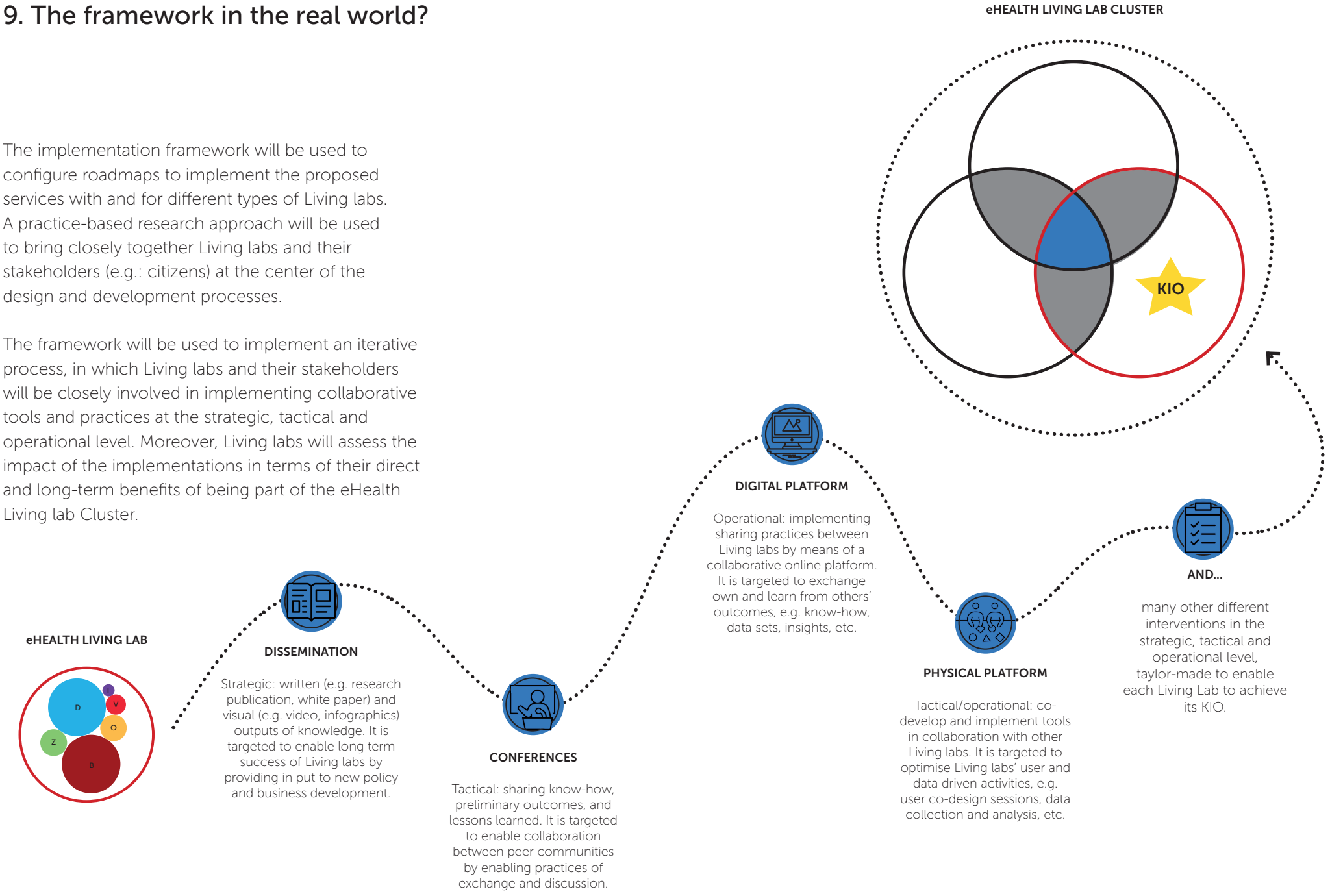
Resource broker
- Database of researchers/skills/ availability

The Cluster implementation framework allows us to develop different implementation roadmaps depending on Living lab's KIO and stakeholder configuration.

9. The framework in the real world?

The implementation framework will be used to configure roadmaps to implement the proposed services with and for different types of Living labs. A practice-based research approach will be used to bring closely together Living labs and their stakeholders (e.g.: citizens) at the center of the design and development processes.

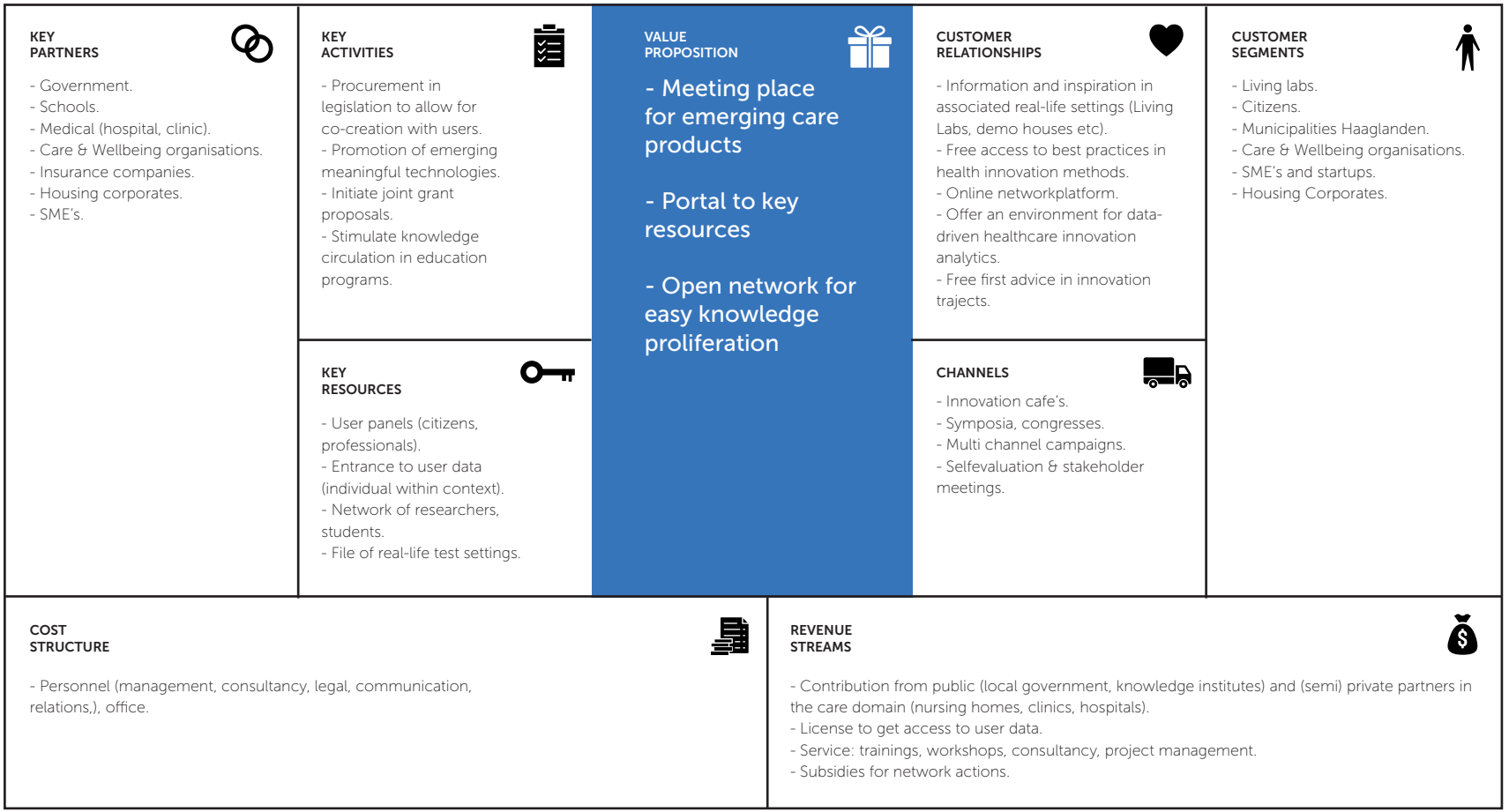
The framework will be used to implement an iterative process, in which Living labs and their stakeholders will be closely involved in implementing collaborative tools and practices at the strategic, tactical and operational level. Moreover, Living labs will assess the impact of the implementations in terms of their direct and long-term benefits of being part of the eHealth Living lab Cluster.



10. What makes the cluster self-sustaining?

We have used the Business Model Canvas (BMC) to structure how the eHealth Living lab Cluster will add value to its customer segments via a value proposition. This value proposition concerns the intended services and products that will generate the cluster incomes.

In the project's next phase we aim to validate the match between this proposition with the actual needs of the Living labs and learn the requirements for this proposition to develop a sustainable model.



Final words

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Invitation

In our aim to implement and realize the eHealth Living lab cluster, we need you!

If you:
- consider yourself part of a Living lab ecology
- are ready to scale your validation projects
- are tired of inventing the wheel over and over

We invite you to work with us on this challenge. We aim for the moon - what about you?

Get in contact with us via LinkedIn:
Janneke Vervloed
(Phone number: +31 (0) 620152753)

Acknowledgments

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