

# eHealth HUB Smart Guides

FIND YOUR WAY THROUGH THE EHEALTH MARKET

## Business Model Design for successful Digital Health Startups in Europe



 The eHealth Hub project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No727683



**BUSINESS MODEL CLINC**  
ONE-ON-ONE SUPPORT





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# “BUSINESS MODEL DESIGN FOR SUCCESSFUL DIGITAL HEALTH STARTUPS IN EUROPE”

## BUSINESS MODEL CLINIC REPORT



European eHealth business support.

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# 1 About us

## We are here to support European eHealth businesses

eHealth HUB - European eHealth business support is the new EU-funded initiative, cross-border and focused on the digital health vertical. eHealth HUB's goal is to provide high-quality business-oriented services tailored to the needs of European eHealth startups, SMEs and stakeholders. We use a demand-driven approach to promote new business and collaboration opportunities for SMEs and key ecosystem stakeholders including healthcare provider organizations, investors, insurers, pharma and med-tech.



info@ehealth-hub.eu  
www.ehealth-hub.eu

## From Business Modelling to Regulatory advice: exploit our services

eHealth HUB offers FREE services to support European eHealth SMEs, healthcare providers and ecosystem stakeholders on the following key areas:

### Business modelling

 **Business model clinic**  
*One-on-one Support*

The Business Model Clinic supports the best promising entrepreneurs and startups offering personalized coaching on business proposition, customers and go-to-market strategies.


 **Lean Startup Academy**  
*Learn to be Lean*

The Lean Startup Academy provides eHealth SMEs with the opportunity to mature their business by systematically testing their ideas against the market.

### Access to private finance


 **Investment readiness training & pitch**  
*Make eHealth SMEs ready to make their business*

eHealth Hub Investment Readiness prepares European early-stage startups and SMEs to approach and collaborate with investors.

 **eHealth Hub Platform**  
*The place to be for eHealth SMEs and Investors*

The eHealth Hub Platform features SMEs, investors, healthcare organizations, legal and regulatory service providers. By registering, health stakeholders can get easily in touch with each other.

### Commercialization

 **Solution Match**  
*Start form your need, ask European SMEs for a Solution*

Solution Match supports healthcare providers, insurers, pharma or medtech companies looking for a concrete digital health solution to be implemented in their organization.

 **eHealth Roadshow**  
*Pitch your solution, Jump into European market*

eHealth Roadshow offers an opportunity for selected eHealth SMEs to expose their digital health solutions in front of a Committee of key stakeholders in the eHealth European market.

### Legal issues & Regulatory and reimbursement guidance

 **Legal Support**  
*A compass to navigate legal services through Europe*

eHealth Hub Legal Network offers good quality, affordable legal advice for eHealth SMEs as well as free workshops detailing current legal issues of eHealth SMEs interest.

 **Regulatory Guidance**  
*Regulatory and Reimbursement Guidance for eHealth SMEs*

eHealth Hub Regulatory Network helps European eHealth SMEs to be compliant with regulatory requirements and develop reimbursement strategies across the European Union.

## Let's find the best way to work together



**Jorge González,**  
eHealth Hub coordinator  
and eHealth Hub team

*"At eHealth HUB, we believe that health organizations, public administrations, private companies, professionals, and patients all form a huge ecosystem: we cannot 'grow' without each other. That is why eHealth HUB works as a network of relevant stakeholders within the eHealth ecosystem to work together in order to boost eHealth in Europe. Therefore, if your business is in digital health, contact eHealth Hub. We'll find the best way to work together".*

## 2 Why this report

“ All new businesses have to deal with the challenge of designing a sustainable business model. This is especially true for businesses within the digital health sector with innovative products, because they often disrupt parts of the industry value chain.

While such a challenge might sound hard to tackle, it also represents an opportunity to redefine the industry and reap the benefits of mastering a new way of doing business.

The development of technological tools has opened the way for many innovations in the e-health sector. These products and services allow, for example, doctors to remotely monitor their patients and help empower dependent persons. Yet the companies that develop and market these solutions find it very difficult to establish viable and sustainable business models.

For this reason, after 2 years of activities of the eHealth Hub project, including 6 editions of the Lean Startup Academy that involved +50 eHealth entrepreneurs from all over Europe, we have designed this guide. It is specifically crafted for early-stage startups, and addressing the key issues that they face when dealing with their business model.

This guide has four sections:

1. Digital Health in Europe
2. Using the "Lean Startup" approach to boost successful business models
3. Successful eHealth business models in Europe
4. How to assess digital health business models

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***We hope you find this information useful!***

**Jorge González,**  
*eHealth Hub coordinator and eHealth Hub team*

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**Digital Health in Europe**

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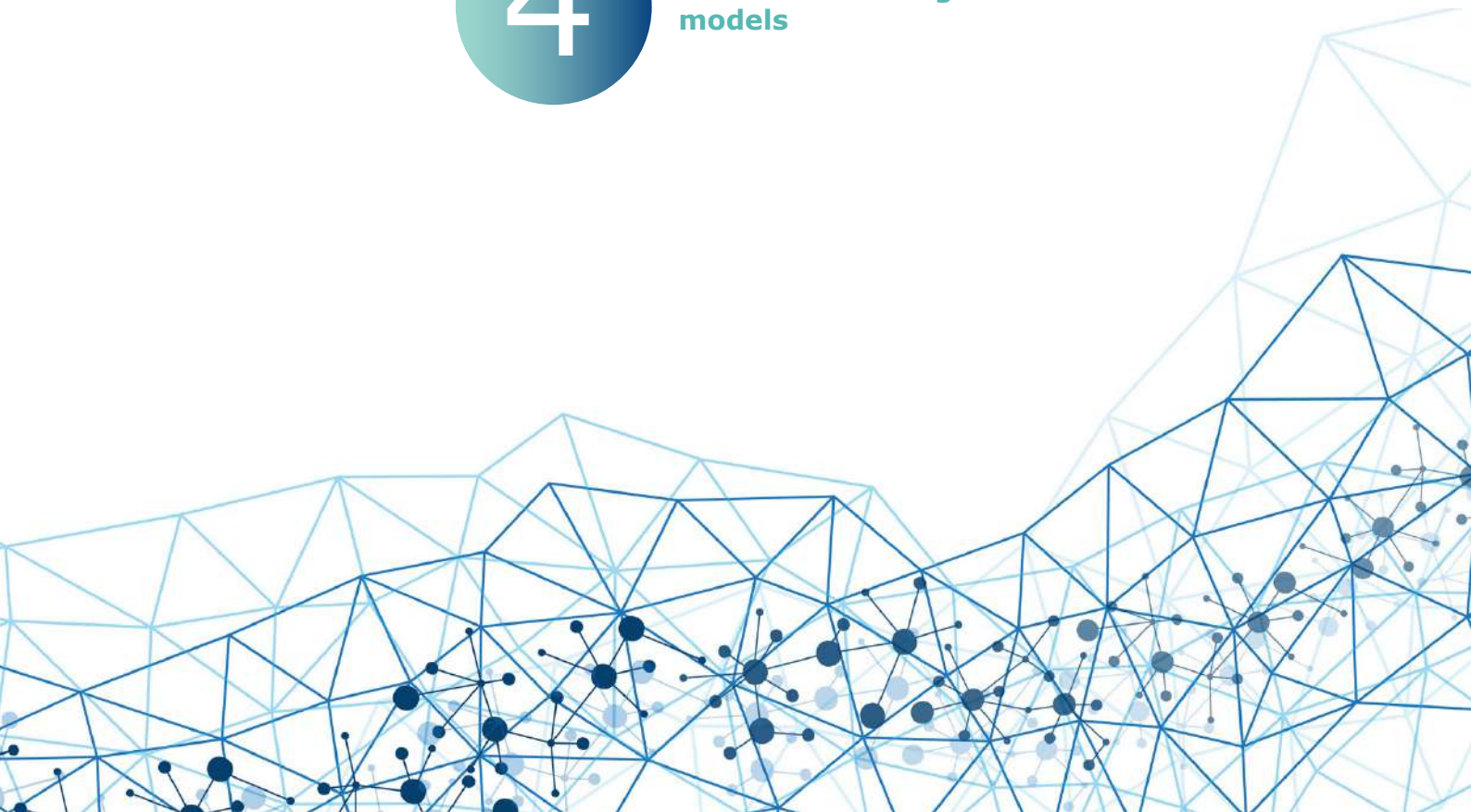
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**Successful eHealth business models in Europe**

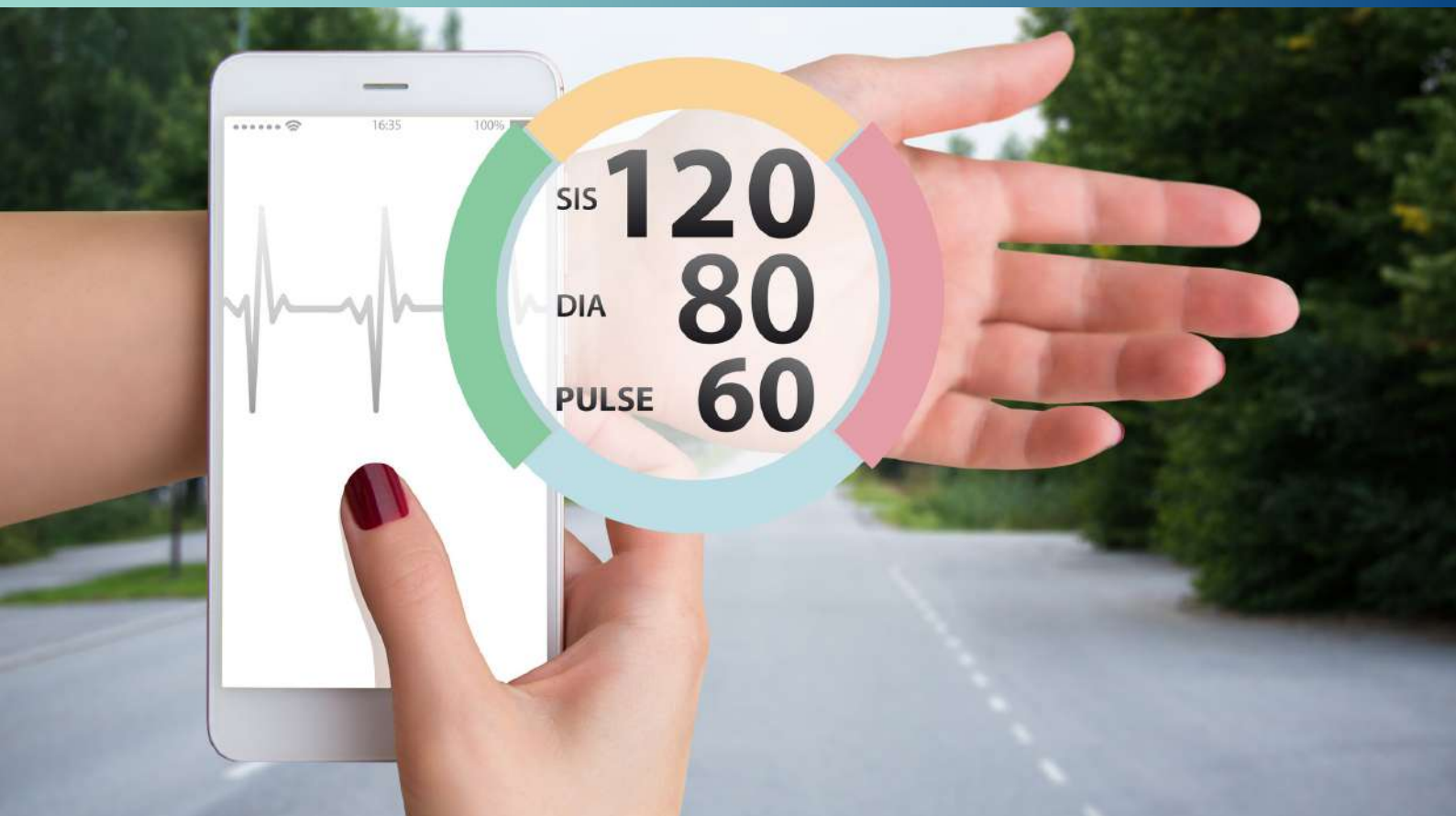
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**How to assess digital health business models**



# 1

## Digital Health in Europe





# Digital Health in Europe

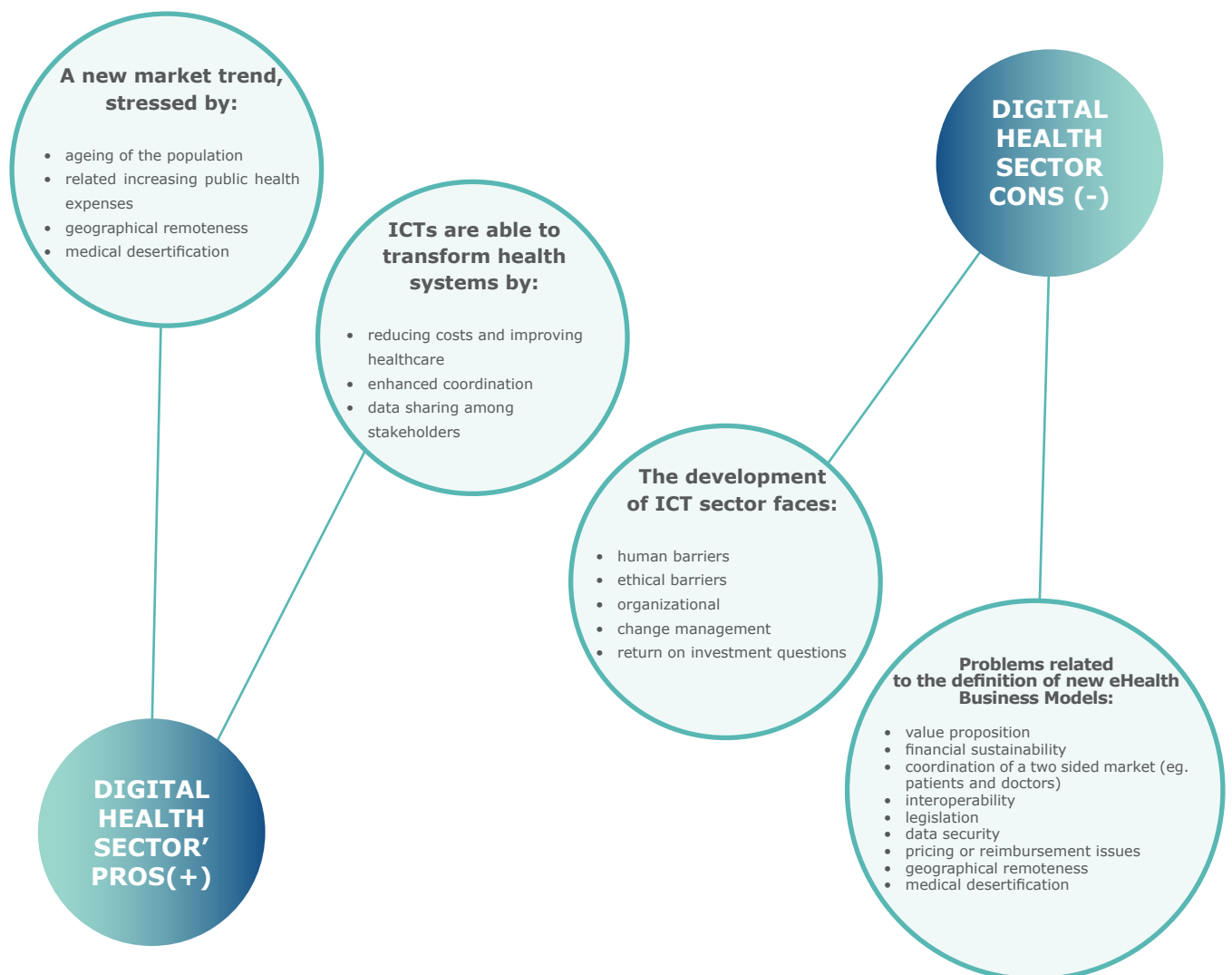
Digital Health is clearly a growing topic in EU. The [Communication on Digital Transformation of Health and Care in the Digital Single Market](#) identifies three priorities:

- 1. Citizens' secure access to their health data, also across borders**- enabling citizens to access their health data across the EU;
- 2. Personalised medicine through shared European data infrastructure** - allowing researchers and other professionals to pool resources (data, expertise, computing processing and storage capacities) across the EU;
- 3. Citizen empowerment with digital tools for user feedback and person-centred care** - using digital tools to empower people to look after their health, stimulate prevention and enable feedback and interaction between users and healthcare providers.

*From the above-mentioned communication, it's then possible to define the three main European health challenges:*

1. Ageing population and chronic diseases putting pressure on health budgets
2. Unequal quality and access to healthcare services
3. Shortage of health professionals

From a business perspective, it's also possible to identify pros and cons of the Digital Health sector:



According to a recent report from IQVIA, Digital Health tools are proliferating worldwide:

- Over 318,000 health apps and over 340 consumer wearable devices are now available worldwide, with over 200 health apps being added each day.
- General wellness apps still account for the majority of health apps, but the number of apps focused on health condition management — those often associated with patient care — are increasing faster and now account for 40% of all apps.
- Of the top downloaded Android health apps, over 55% make use of data collected from sensors including activity- and sleep-monitoring wearables.
- The next wave of innovation among wearable sensors focuses on detecting various health parameters and vital signs with accuracy, which may enable population-based screening and monitoring and replace bulky clinical devices.



Source: IQVIA Institute, Sep 2017  
Report: The Growing Value of Digital Health. IQVIA Institute for Human Data Science, Nov 2017

## So, what are the main Digital Health blockers in Europe?



### AWARENESS

Apps are not yet part of the day to day management of health and care related conditions



### ACCESSIBILITY

Finding and matching Apps to support your needs or those of your patients or service users is very difficult



### TRUST

The lack of a suitable quality indicator inhibits the embracing of Apps by end users and professionals in the health and care space.



### GOVERNANCE

The lack of clarity around the regulatory landscape and the appropriate governance foundations delivers organisational uncertainty.

# 2

## Using the “Lean Startup” approach to boost successful business models



# Using the “Lean Startup” approach to boost successful business models

Lean Startup is a new, field-tested philosophy that, provides entrepreneurs with a toolset to increase chances of generating impact for their companies, and that we adopted in eHealth Hub.

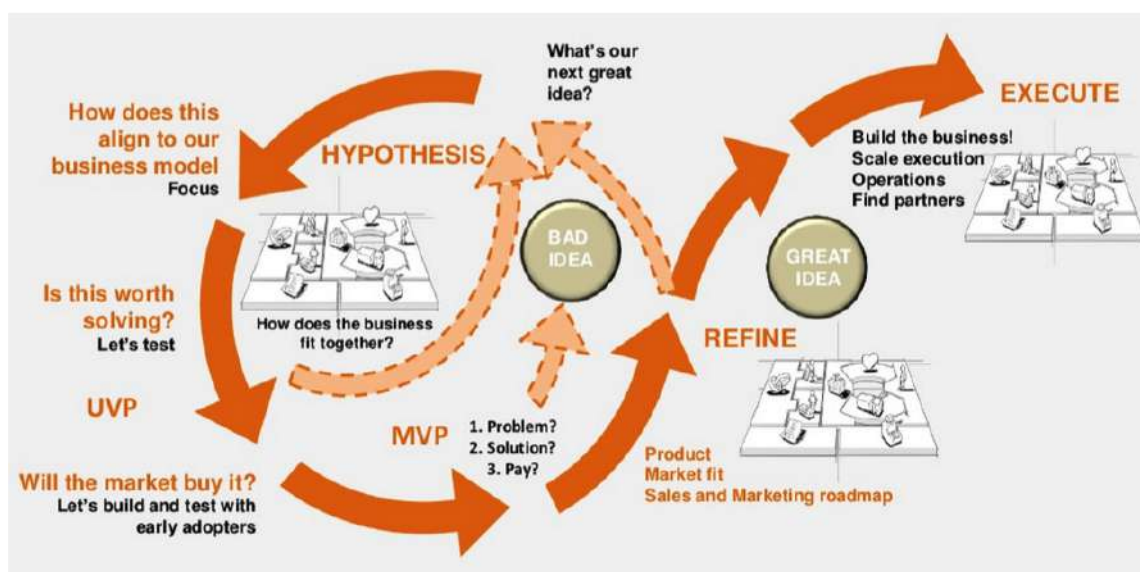
More in eHealth sector than others, designing the model of a company is an iterative process, and innovation doesn't only concern the technology side, but as well the other function of the company (marketing, commercial, communication, finance, etc.). **The Lean Start-up** methodology, promoted by Eric Ries, helps startups to create the minimum viable product, in order to don't lose time in full developments and be able to quickly test with potential customers and users and adapt or pivot your business model.

## Idea generation → What to learn from start-ups

- The mindset: Start small. Experiment.
- Involve customers. Fail. Iterate.

## Validation → Idea development and testing outside the building

- Getting customer feedback with fast-made prototypes of an idea
- Testing



The Lean methodology has proven records of considerably reducing the incidence of failure, while increasing the chances of successful commercialisation of innovative ideas.

Lean Startup is an iterative process for entrepreneurship that begins *with customer discovery* – physically getting out of the building to interview dozens or even hundreds of potential customers and stakeholders to understand their problems and pain points in the market and in society.

As eHealth is evolving fast, the **Continuous improvement** methods will engage a dynamic approach about the design of your solution and of your business.

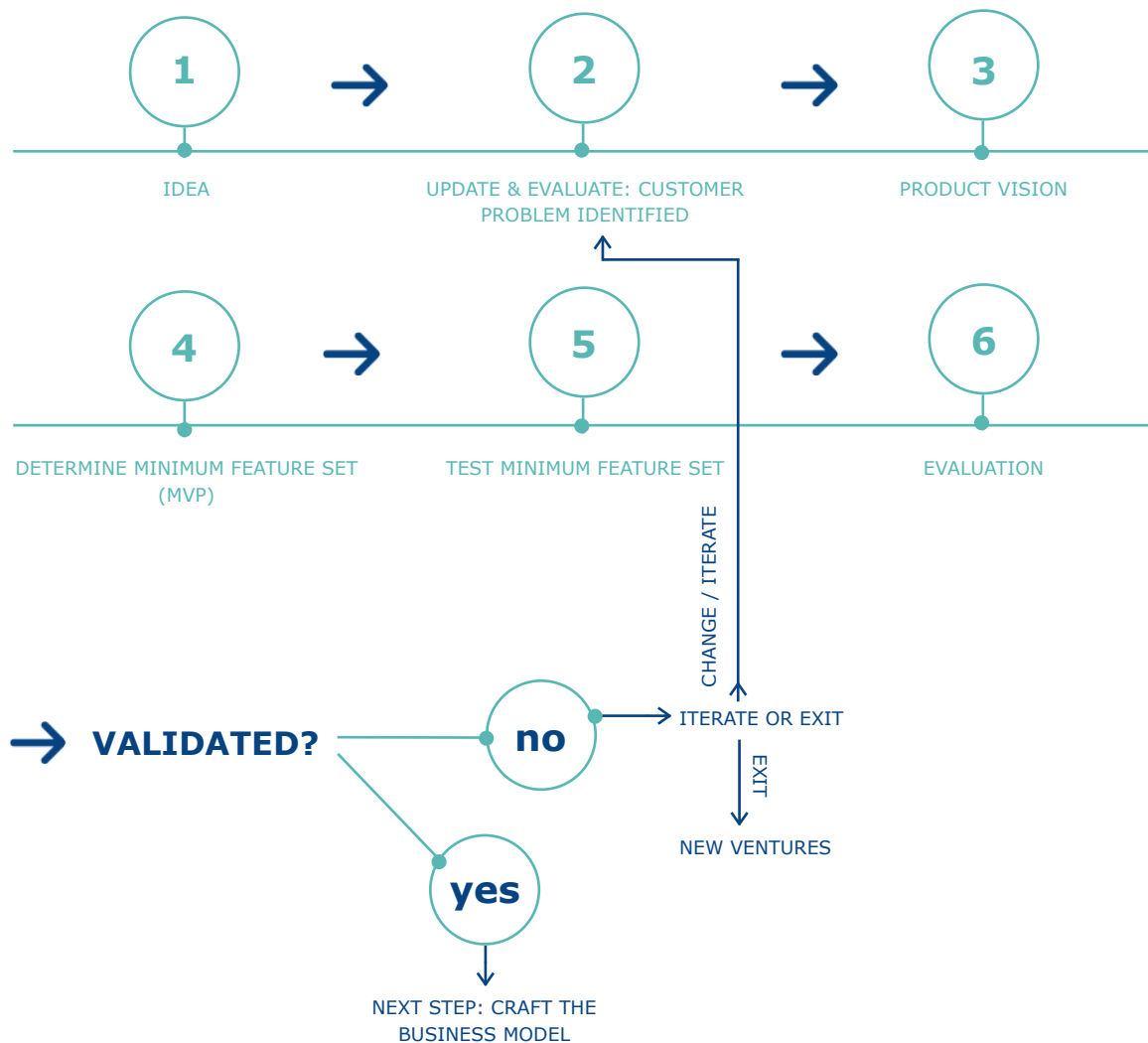
## How to craft your Unique Value Proposition

Entrepreneurs who are in the process of designing their business model require an approach that allows them to understand if and how a value proposition can be successfully scaled up to a profitable business. "Scaling up" refers to the process of progressing from creating and selling your first unit to a situation where you are creating and selling multiple units in a financially sustainable manner.

“A business model describes the value an organization offers its customers and illustrates the capabilities and resources required to create, market and deliver this value and to generate profitable, sustainable revenue streams.”

(Osterwalder, A., Pigneur, Y., & Tucci, C. (May 2005). Clarifying Business Models: Origins, Present and Future of the Concept. Communications of the Association for Information Systems, Volume 15)

The value proposition forms the core of the business model. A clear and focused value proposition is required to determine the business model. Without a value proposition, it is impossible to know if and how the business will make money, which partners are needed, the nature of key operations, and how to acquire and retain customers.





## 1

### STEP 1: DESCRIBE YOUR IDEA

To start the process of designing a well-crafted and effective value proposition, consider the following aspects of your business idea.

- Who is your target customer? What kind of problem do you solve for them?
- Is this an important problem for this customer? Is it an urgent problem?
- How do you plan to solve this problem for the customer? Describe how your solution will work in the customer's hands and the benefits that it will generate.
- Who is your competition? How do they solve this problem for their customers today?
- What is unique about your way of solving the problem? Why are you better than anyone else in solving this problem? Is your advantage sustainable over time?



## 2

### STEP 2: CRYSTALLIZE YOUR VALUE PROPOSITION ASSUMPTIONS

Focus on your target customer and on the problem you will solve for them. Check your answers against the following criteria:

- Is the customer problem you are solving validated by a measurable fact?
- Are you able to identify which customers are suffering the most from this problem?
- Do you understand how the problem impacts the customer and their business?
- Do you have evidence that links the customer problem to the target customer?



## 3

### STEP 3: TEST YOUR TARGET CUSTOMER ASSUMPTIONS

If your idea is currently based on untested assumptions, then you must seek to validate those assumptions:

- What objectives are your potential target customers pursuing?
- How are they pursuing the objectives?
- How does failure to reach those objectives affect them?
- Can the impact be measured in economic terms as a loss?



4

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STEP 4: EVALUATE MARKET FEEDBACK

Conduct your evaluation by answering these questions:

- Is the market problem urgent? Once you identify a problem that applies to the market, ensure that it is a problem worth solving. Is the perceived problem actually urgent? Will customers care if the problem is not solved? Do they have another way to solve this problem?
- Is the market problem pervasive? Determine if the identified market problem applies to a significant percentage of your desired target market. Use quantitative research to collect the data. Methods of data collection include surveys, census information and other primary market research. Use free survey tools and your personal network (depending on the target market) to collect as much quantitative data as possible.
- Will your buyers pay to have this problem solved? If the problem is significantly urgent and pervasive, chances are good that customers would agree to pay for a solution. The next step would be to understand how much they would be willing to pay for a solution to this problem. This can be achieved by conducting surveys or additional interviews with your target market.



5

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STEP 5: PROCEED, ITERATE OR EXIT

Now that you have the answers, which direction should you take? (A)

- If you answered "Yes" to all of the preceding questions, then you will have identified a problem that is worth solving. (B)
- If your answer is "No," then it is time to step back and ask yourself whether you have identified another, slightly different problem to solve and (C)
- If the answer is "No" and you haven't identified a new customer problem worth solving, you may want to consider to exit the venture at this point to save yourself further time and money. (D)



6

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STEP 3: TEST YOUR TARGET CUSTOMER ASSUMPTIONS

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**Name of the startup/SME:** Hajime

**Name of the author/interviewed and role:** Barthélémy Bourdon Baron Muñoz, CEO

**1. Which eHealth HUB Service did you take part in? When?**

We took part in the Lean Startup Academy, 14-15/06/2018 in Bucharest.

**2. A brief story of your idea/ startup/SME (how, when and why it was born, state of play etc):**

The Hajime project was born in a hackathon, organized by the pharma lab Amgen. We were 4 friends and we wanted to participate for fun. Then, the jury's members loved our idea and encouraged us to go further. We're actually finishing the prototype and looking for a partnership to finalize the proof of concept.

**3. Why did you take part in the eHealth HUB Service:**

It was thanks to our Network that we were introduced to this opportunity. Pascal Lardier and Sylvie Donnasson from ehealth-hub were helping us to redefine our business model, so thanks to their introduction we heard about the Lean Startup Academy for the first time, and we thought that it could have been a good experience for us.

**4. How did it help you (be as specific as possible):**

We learnt a lot, especially about how to build the solution according to the customers' needs. We learnt, firstly, to identify the right customers, and then to understand their problems, because this is why they're willing to pay. I always remember the favorite sentence of Dario Mazzella & Andrea Di Anselmo, from META Group (the two trainers that managed the Lean Startup Academy): "Don't talk about your solution, ask about their problem".

**5. Next steps (taken or planned) after having joined the eHH Service:**

We decided to apply what we saw in the Lean Startup Academy into the real environment. We made more than 50 interviews to customers and users (as in our case they are different) to identify their problems and then we started to re-build our solution according to what we discovered.

**6. What did you learn about the importance of business models for eHealth companies? How did it impact your company?**

The Business Model describes how your company create value. Even if it's not permanent, it allows entrepreneurs to make hypothesis and then to test them. It defines the way you want to make grow your company and how/why you set goals and milestones. We radically changed our business model thanks to the lean startup methodology.

Your startup /SME contacts: [website](#)

# 3

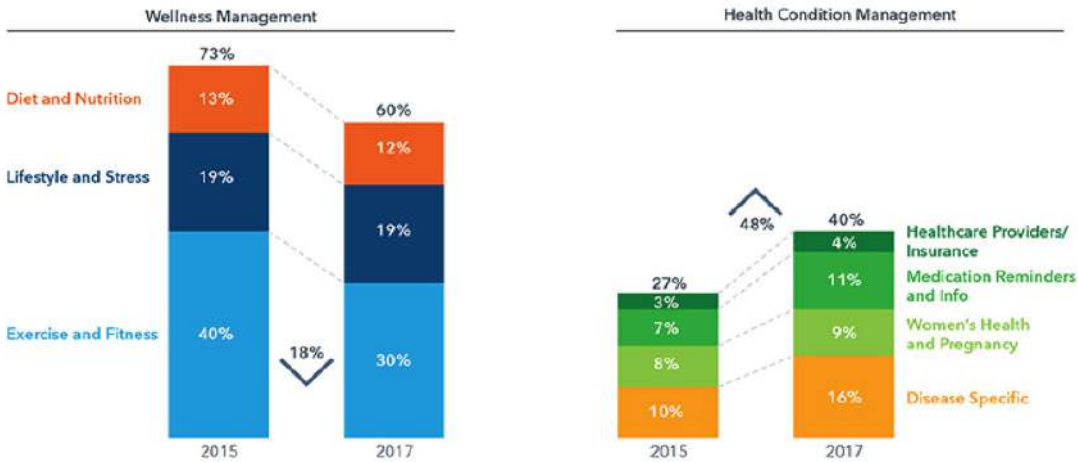
## Successful eHealth business models in Europe



# Successful eHealth business models in Europe

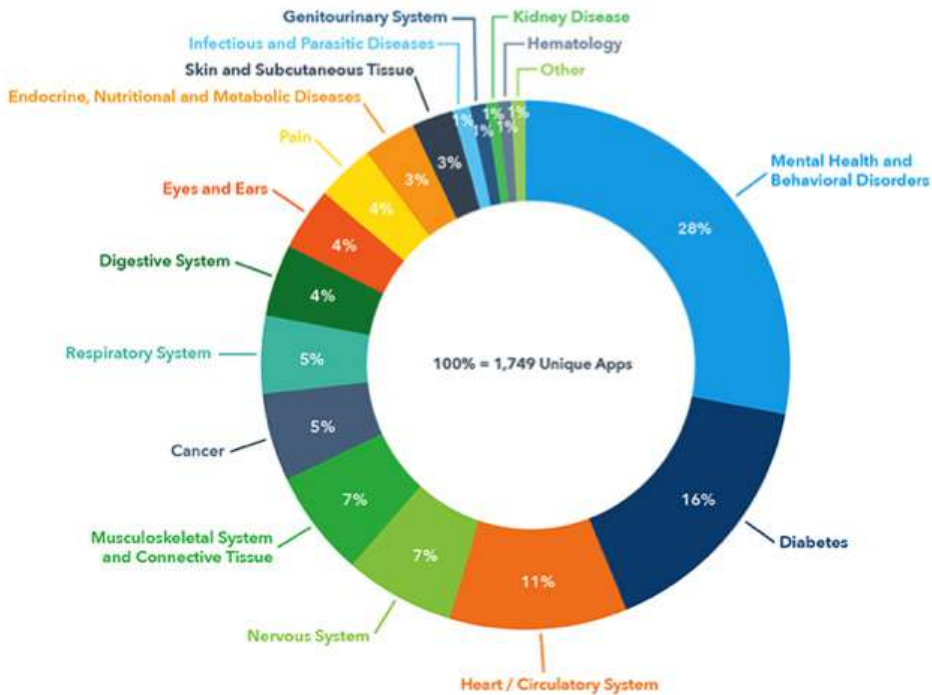
Healthcare was once a single-chain, supply side, wholesale industry; but now, it is edging towards becoming a hyper-competitive, multi chain & demand driven industry, one that is location-independent & information based. The consumerism in this space already exploded, through smartphones and mobile apps, into a new, multi-billion € market.

Digital Health Apps currently on the market by Category:



Sources: 42 Matters, Jul 2017; IQVIA AppScript Database, Jul 2017; IQVIA Institute, Jul 2017  
 Report: The Growing Value of Digital Health. IQVIA Institute for Human Data Science, Nov 2017

## Disease-Specific Apps by Therapy Area



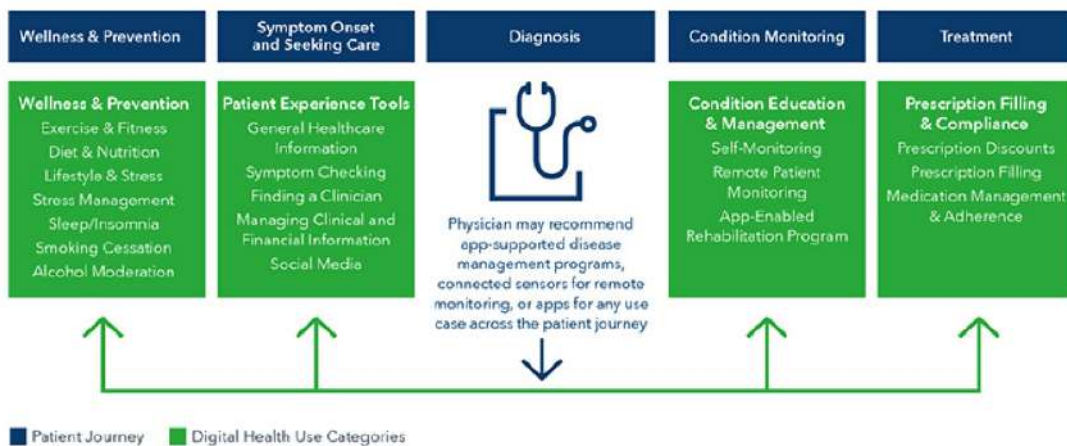
Sources: 42 Matters, Jul 2017; IQVIA AppScript Database, Jul 2017; IQVIA Institute, Jul 2017  
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Digital Health tools are transforming clinical trials: Pharmaceutical and biotech manufacturers together with CROs are at the early stages of understanding how to best leverage Digital Health technology in clinical development but have naturally experimented with it as they look for ways to speed enrollment into clinical trials, reduce costs, cycle times and inefficiencies, and enhance patient retention. Manufacturers are exploring the use of Digital Health tools, also, to generate and track new outcome measures such as digital biomarkers and patient experience metrics, to provide them some differentiation in the market.



Source: IQVIA, Jun 2017  
Report: The Growing Value of Digital Health, IQVIA Institute for Human Data Science, Nov 2017

Digital Health companies are increasing the value along the patient journey: A large supply of apps exists for nearly every use across the patient journey. However, Digital Health apps will ultimately be judged — like any other medical technology — not by their quantity but by their value to human health and the healthcare system. Value in healthcare can be defined as the health outcomes created for patients relative to the cost of generating those health outcomes, as well as the extent to which the “triple aim” of improving the patient experience, improving the health of populations, and reducing the per capita costs of healthcare is delivered.



Source: IQVIA AppScript Use Categories, IQVIA Institute, Sep 2017  
Report: The Growing Value of Digital Health, IQVIA Institute for Human Data Science, Nov 2017

# 4

## How to assess digital health business models



# How to assess digital health business models

The value of business models is not just linked to technology, but to the identification of a supporting business model where stakeholders' interests are represented, and all appropriate operational elements are considered:

- customer segmentation;
- value proposition;
- communication and distribution channels;
- customer relationships;
- revenue streams;
- key resources;
- key activities;
- partner network; and
- cost structure.

**In the case of eHealth the overall context involves society as a whole.**

Therefore, when devising a business model for an eHealth system it is necessary to identify the value to be gained by an individual (patient, physicians, nurse, citizens, social security officials, etc).

While a standard business scenario equates value with a pure financial return, in the case of eHealth the overall context varies, as intangible internal and external elements need to be taken into consideration in addition to specific monetary terms. For internal elements, it is possible to consider the specific benefits associated with activities within healthcare delivery organisations, such as a reduction in clinical mistakes, decline in hospitalisation time, enhancement of executive reporting or the improvement of the image of a healthcare delivery organisation, to name but a few. For external elements, it is possible to consider the social benefits, such as a decline in transportation costs and time due to the electronic delivery of a specific cure via telemedicine, or less anxiety and stress for patients.

## → **Business model mapping describes the elements underpinning the business model, such as:**

- customer segments – for whom is the eHealth service creating value?
- value proposition – what does the eHealth service offer to the market?
- distribution channels – through which communication and distribution channels is the eHealth service reaching the targeted users?
- customer relationship – what different customer relationships are developed and maintained in the business model?
- revenue streams – what are the revenue streams of the eHealth service?
- core capabilities – what are the core capabilities of the eHealth service?
- value configuration – what are the main activities in developing capabilities into a value proposition?
- partner network – with which partners have they worked together throughout the eHealth service process?
- cost structure – what are the most important costs of the eHealth service?

## → **Performance mapping identifies the specific factors whose combination has led to the sustainability of an eHealth system. These are as follows:**

- What benefits are provided by the eHealth service to its stakeholders?
- What made the eHealth service successful or sustainable (finance model, stakeholder adoption, cost reduction, structure)?
- Which building blocks of the business model caused the sustainability of the service?



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