



D4.1 Methodological description of the forecasting model and the model of decision

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Deliverable description

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Glossary of terms and Acronyms

Terms and acronyms	Definition
BIA	Budget Impact Analyses
CEA	Cost-effectiveness analysis
COVID-19	Coronavirus Disease 2019
DAP	Diagnostic Assessment Programme
EU	European Union
FLASH	Flexible Approaches to Support Health through financing
HTA	Health Technology Assessment
KOL	Key opinion leaders
MCDA	Multi-criteria decision analysis
MD	Member State
NICE	National Institute for Health and Clinical Excellence: executive non-departmental public body, in England, of the Department of Health and Social Care, that publishes guidelines, among others, in the use of health technologies within England's National Health Service (NHS) and NHS Wales, and in clinical practice.
PBMA	Program Budgeting and Marginal Analysis
PSRA	Priority Setting and Resource Allocation
Reimbursement	Form of payment made by an insurer (or "payer"), that may be of public or private nature. The payer covers the costs that a healthcare provider reimburses for the use of a medical product in its practice.
UVRN	University of Verona, FLASH coordinating institution
VfM	Value for money; Concept that relates the delivery of health system outcome to its expenditure in a way that justifies the use of resources to inform the provision of care

1. Executive summary

One of the lessons learnt from the COVID-19 pandemic is the importance of flexibility in funding and organization of health systems. European countries responded to this extreme event by expanding the amount of financial resources available for health care and reallocating financial and human resources. However, there are several other challenges for health care systems that require efficient and flexible financing mechanisms to be successfully addressed. **FLASH** (Flexible Approaches to Support Health through financing), led by UVRN, undertakes a comprehensive analysis of health care financing mechanisms in Europe, by focusing on the two key stages of the process: budget allocation and financing of health services within a specific budget. The consortium identifies and examines the most prominent mechanisms underlying the relationship between the main challenges faced by health care systems (demand shocks, ageing, budget pressure) and their financing. By employing different methodological approaches, FLASH partners provide evidence on the ability of existing financing mechanisms and contracts to address such challenges and study new solutions to achieve more effective, efficient and equitable health care systems.

WP4, led by Biocat, intends to develop new tools to address the relevant financial challenges related to the adoption of innovative technologies, in two different phases: 1) before the technology reaches the market, and 2) at the time of adoption. WP4 effort is complementary to that of successful applications under calls like “New pricing and payment models for cost-effective and affordable health innovation” (HORIZONHLTH-2022-IND-13-03), with whom FLASH consortium intends to collaborate. In particular, HI-PRIX (1) is inspiring for the purposes of this consortium.

D4.1 is the deliverable related to Task 4.1: “Forecasting financial challenges of innovation (BIOCAT; M1-M30), which has two specific objectives: i) to develop a methodology for the timely forecasting of the financial impact of adoption of technologies that have yet to reach the market, and the analysis of the wider implications for the organization of the health care system; and ii) to identify mechanisms that facilitate the sustainable financing and adoption of these key technologies.

2. Introduction to D4.1

WP4, led by Biocat, intends to develop new tools to address the relevant financial challenges related to the adoption of innovative technologies, in two different phases: 1) before the technology reaches the market, and 2) at the time of adoption. For 1st phase (*technology radar*), the FLASH consortium contribution will be the definition of a new methodology to overcome some simplifications of standard horizon scanning methods, thanks to additional information (collected through interviews and focus groups) concerning enablers and barriers toward successful adoption. For the 2nd phase (*adoption of new technologies*), the partners will develop a new tool for *budget impact analyses* (BIA hereinafter), an essential part of a comprehensive economic assessment of a health care intervention increasingly required by reimbursement authorities as part of a listing or reimbursement submission (Deliverables 4.4 and 4.5). Models usually employed are poorly equipped to track such changes and tend to be technology specific (e.g., (2)). FLASH tool will extend the possibility to perform low-cost Budget Impact Analyses (BIA) of high quality. WP4 effort is complementary to projects like HI-PRIX (Health Innovation Next generation Payment&Pricing Models) from HORIZONHLTH-2022-IND-13-03 call, led by Bocconi University in Italy. With the tool developed in this task, and after assessment from FLASH consortium, WP4 partners will approach HI-PRIX and other consortia for feedback and improvement recommendations.

This deliverable 4.1 is a methodological description of the forecasting model and the model of decision matrix analysis including preparedness and resilience attributes of health systems and smart procurement practices and is delivered by Biocat in M15 of the project.

3. Background desk research

3.1. Postcovid challenges

When dealing with healthcare budgets, there are several relevant **lessons learnt** from the COVID-19 pandemic:

- the importance of increased and more flexible funding
- a new meaning for the concept of preparedness

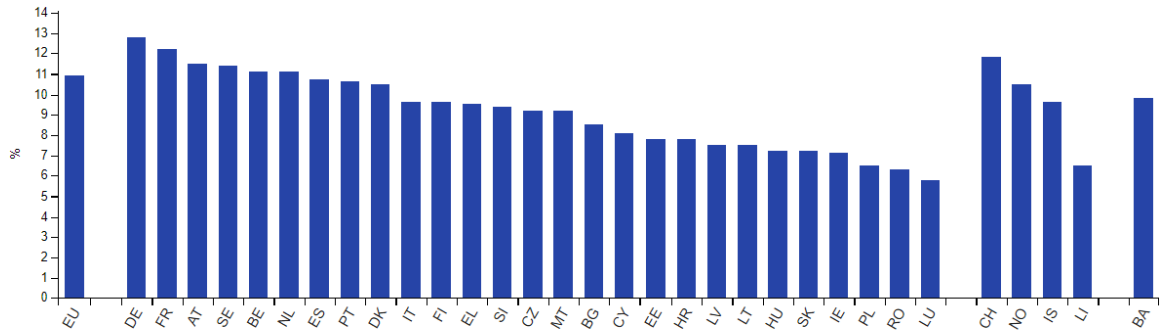
- the importance of building a European Health Union, complementing and balancing Member States' organization of health systems (3)

European countries responded -differently- to this extreme event by expanding the amount of financial resources available for health care and reallocating financial and human resources to adapt to unexpected changes in the health needs of the population and to reallocate resources towards critical areas. According to the WHO Barcelona Office (a centre of excellence in health financing for universal health coverage that works with Member States across WHO's European Region to promote evidence-informed policy making), countries were quick to mobilize additional funds for the health system in 2020 (4). But, as stated by this centre in 2021, this higher level of public investment will need to be sustained in the years ahead to treat and prevent COVID-19, address the backlog created by widespread disruption to health services, mitigate the negative health effects of foregone care, unemployment and poverty and strengthen preparedness for future shocks.

Now, a few years later, a rapidly ageing population, growing healthcare worker shortages, underinvestment in health systems and external shocks such as climate change and inflation driven by the Russian invasion of Ukraine are putting Europe's healthcare systems through a battery of stress tests as the bloc looks to move on from the COVID-19 pandemic. Those are huge challenges for healthcare systems that require efficient and flexible financing mechanisms to be successfully addressed. Because of increasing pressure on health care budgets, financing decisions and management have crucial impact on health outcomes for the population.

3.2. Healthcare budget allocation in EU Member States

The issue of budget allocation to healthcare is a central to policymaking for almost all countries. While healthcare systems are organised and financed differently across the EU Member States (see Figure 1), universal access to quality healthcare, at an affordable cost to both individuals and society at large, is widely regarded as a basic need. This is one of the common values and principles of EU health systems, beyond some more notable differences in how financial resources are distributed between healthcare activities (preventive and curative care) or groups of healthcare providers (professionals, hospitals and healthcare centres).



EU: estimate.
 Malta and Norway: 2019.
 Poland: provisional.
 Source: Eurostat (online data codes: hlth_sha11_hf and nama_10_gdp)

eurostat

Figure 1 -Healthcare expenditure as % of GDP (updated December 2023). Source: Eurostat.

Relevant for the matter of this project and this deliverable is the distribution of these allocated funds between inpatient and outpatient care, pharmaceuticals and medical technologies. MedTech Europe (5) provides a reference for this (see Figure 2).

Breakdown of Total Healthcare Expenditure (THE) in Europe - 2022 ^{1,2,3,4,5,6}

COMPARE



Figure 2 -Health technologies . Source: MedTech Europe.

In Europe, an average of approximately 11% of gross domestic product (GDP) is spent on healthcare. Of this figure, around 7.6% (i.e. less than 1% of GDP) is attributed to medical technologies. The spending on medical technology is estimated to vary significantly across

European countries, ranging from around 5% to 12% of the total healthcare expenditure. Expenditure on medical technology per capita in Europe is around 312€.

Particularly interesting is the ability of healthcare financing mechanisms to be flexible with respect to technological change in order to facilitate the adoption of disruptive and transformative technologies and to foster innovation into resilient healthcare systems. Innovation is a discontinuous process, affecting, among other things, the relative value of incremental expenditure in different clinical areas. Unfortunately, financing mechanisms tend to lack the flexibility that would be necessary to ensure access to and appropriate use of innovations.

Thus, key decision-makers need the instruments and tools to enhance their ability to forecast the financial and organizational impact of new technologies to improve their decision-making in terms of budget allocation. This includes, but is not limited to, better pricing models and rules for market access should ensure that only innovations that are good value for money reach the market and better forecasting of the financial impact of such technologies contributes to granting patient access.

The European Commission is now working on a regulation to ensure that EU-level assessments of new medications are conducted in appropriate time frameworks and that the relevant experts are involved or consulted (7).

Although novel technologies may need to prove cost-effectiveness in publicly funded healthcare systems, there may be different perspectives on an innovation's added value that are not fully captured in health economic models (6) (Figure 3).

It is widely agreed that the identification of health needs should be central for the allocation of financial resources. However, needs change over time and, even at any given moment, it is hard to define the amount of resources necessary in order to achieve the best health outcome based on an efficient use of financial resources. Changes in needs over time may occur for several reasons, some of which are more predictable than others. We can identify at least three key types of causes for changes in needs over time:

- shocks that are hard to predict, such as the COVID-19 pandemic, infections, or environmental changes,
- opportunities related to technological advances, which imply that greater gains in terms of health outcomes can be achieved in clinical areas that benefit from innovation, and
- structural changes, such as those of the demographic structure of the population.

Also, health needs may be different depending on the stakeholder assessing them. Providers, purchasers, workers or patients may have different interests and points of view, which may be not necessarily aligned. Asymmetries of information play an important role, too. Hence, understanding which incentives are associated with each potential funding and reimbursement rule is essential.

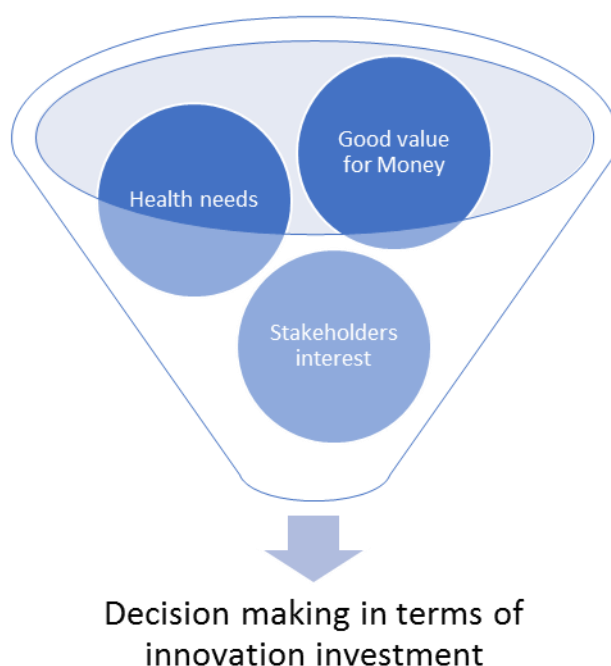


Figure 3 – *Decision-making need to consider several items.*

A review by Seixas, Dinonne and Mitton (6) identifies three major types of decision-making frameworks in priority setting and resource allocation (PSRA) used in healthcare systems of high-income countries: 1) Program Budgeting and Marginal Analysis (PBMA); 2) Health Technology Assessment (HTA); and 3) Multiple-criteria value assessment. According to these authors, these formal frameworks of priority setting and resource allocation have some flaws,

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while there is a growing interest for explicit robust rationales and ample stakeholder involvement.

3.3. Health economic modelling

Grutters et al. (8) published a very clear overview and classification of methods used for early assessing technologies under development. A majority of early HTA applications use health economic models to estimate an innovation's expected cost-effectiveness: late cost-effectiveness analysis (CEAs) are mainly used by payers in reimbursement decisions, while early-CEAs are used by developers for internal decision making about further developments.

Early health economic modelling is a generic tool that can integrate information from different sources providing evidence and guidance for several purposes like defining and sizing the problem aimed to be solved, the magnitude of the societal value that is expected to be brought by the developing technology, identification of the set of conditions to be met for the potential value to materialize and the research needed to be done to demonstrate that expected value is actually borne out in practice (9).

3.3.1 Early cost-effectiveness analysis

Early-CEAs help design and manage reimbursement strategies and guide the resources invested in the development process of something there is no at the market yet (known as "test"). Hence, they have been gaining attention as tools both to assess medical devices and to help improve health outcomes and healthcare efficiency. Buisman et al. (11) described a 5-step method based on early-CEAs for medical technologies (depicted in Figure 4):

- Step 1 narrows down the scope of analysis by defining the test's application, target population, outcome measures, and investigating both current test strategies and possible test strategies if the new test were available.
- Step 2 is about providing an inventory of available evidence and data on current test strategy. In this step, potentially relevant existing models of the disease and target population should be reviewed.
- Step 3 is to develop a conceptual model of the current and new test strategies.

- Step 4 is to conduct the early-CEA by evaluating the potential (cost-)effectiveness of the new test in clinical practice.
- Step 5 involves a decision about the further development of the test.

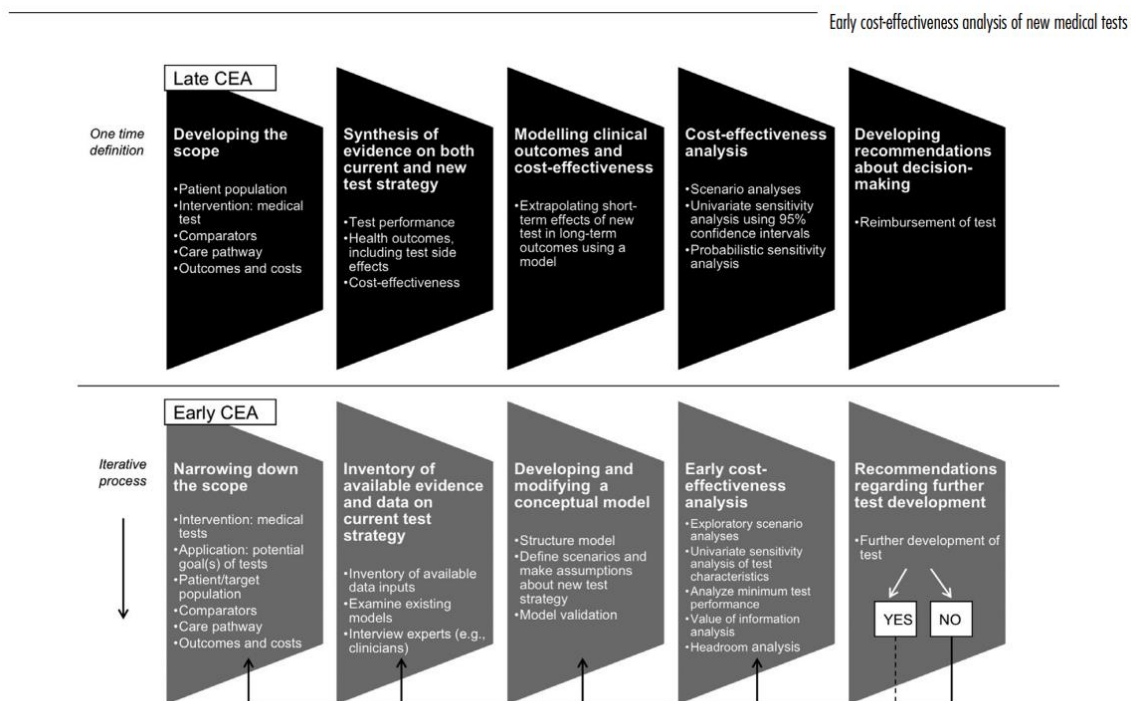


Figure 1. Differences and similarities of late and early-CEAs of medical tests. Steps of late-CEA based on *NICE Diagnostic Assessment Programme Manual (9)*; Steps of early-CEA were defined by the authors.

Figure 4 - Differences and similarities of late and early-CEAs of medical tests.
Source: Buisman et al. (2016)

4. FLASH forecasting methodology

Advancing towards more effective, efficient and equitable health care systems requires the definition of innovative, more flexible approaches to health financing, taking into account the healthcare systems' and population's needs in different contexts. Hence, a major question is how funding should be allocated to respond to changes in health needs along time and across different populations, taking into account the role of technological innovation and how it drives transformation.

In this context, and under WP4, FLASH partners have developed a methodology intended to be validated and replicated in different contexts. The methodology is aimed to forecasting the

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financial impact of adopting technologies that have yet to reach the market, analysing wider implications for the organization or the health care system. For instance, we are taking into account allocation of funds based on *health needs*, cost-effectiveness and the involvement of other stakeholders (providers, purchasers, workers) interests and needs.

In comparison with existing methods, we propose a holistic approach to a horizon scanning, based on the consultation to key stakeholders bringing viewpoints related to the different dimensions of interest (e.g., technological, regulatory, sociological, economic, political).

Policymakers and healthcare decision makers are increasingly facing the need to evaluate healthcare innovations in their early stages of development. With the holistic approach above mentioned, FLASH WP4 develops a tool that intends to help policymakers early in the product life cycle, improving their regarding the transformative value of the early-stage technologies and their impact in system, from efficiency, accessibility and cost-effectiveness perspectives, among others.

4.1 Preparatory phase

On the 6 initial months, Biocat has been gathering background information to define the topics and key debates to include on the focus groups and interviews. For that, we have performed different activities in parallel:

- Attending local health technology evaluation agency (AQuAS) seminars.
- Reviewing Early Health Technology Assessment (Early HTA) bibliography, including state of the art methodologies and case reports.
- Analyzing internal synergies and connections within the FLASH work packages to identify standard indicators.

This work has been collected in a draft document that have served as a guideline during interviews and focus groups sessions.

Complimentarily, Biocat has identified relevant stakeholders and KOL in the sector that need to be included in the sessions or interviews. A tentative list for an initial focus group is already set up. Although this list is now on a local plane, it is foreseen to have an important international

European representation on the final output, including evaluation agencies, academia, healthcare providers, patient associations, and innovators/entrepreneurs.

The goal of this methodology is to provide a framework of indicators that need to be considered to make a transparent and informed assessment of a technology under development at different stages of development, for different healthcare systems, and from the point of view of different stakeholders.

For this purpose, we aim to provide guidance on

- defining relevant questions about a technology
- identifying who should answer these questions
- describing the analytical tools available to that end

The proposed methodology (Figure 5) integrates quantitative tools and expert opinion, allowing us to compare the potential of different technologies. We developed a framework of analysis and decision making that involves health economic modeling using assumptions based on expert opinion as well as sociopolitical and environmental impact.

To ensure relevant results of this early assessment is relevant, the methodology must use indicators aligned with Health Technology Assessment (HTA) methodologies. However, since the technology to be assessed is not yet in the market but under development, some assumptions need to be made and the assessment must be adapted to the available information.

It might be adaptive to a broader or a narrower perspective, according to the use cases:

- A broader public sector budget perspective when significant budget implications for other publicly-funded services or transfer payments are anticipated.
- A narrower perspective when BIA is conducted at the local healthcare level (eg. A decision to introduce a technology within an individual hospital or clinic setting)
- An intermediate perspective beyond the local healthcare level to include other relevant government departments if necessary appropriate.

FLASH early assessment methodology



Figure 5 - Scheme of the methodology developed under FLASH WP4, to support the decisions fo adoption of disruptive technological innovations under development

4.2 Technology radar

It is important in this case to have developed or have access to a landscape or overview of technologies being developed locally, in a region or in the healthcare system where the tool is going to be used.

Biocat, the leaders of this WP, has had the opportunity to participate into the Commission for Innovation and Transformation of the Health System of the Catalan Government. The aim of the Commission was to strengthen the national health system and guarantee sustainability and responsiveness to emergencies such as the Covid-19 pandemic. Of course, financing and budget allocation were some of the main lines of action. An output of the Commission's work was the recommendation of improvement of the public funding of the Catalan health system, emphasizing that it should be prioritized those areas of the public health system that are considered strategic and more cost-effective.

As part of the Commission's tasks, the Department of Health decided to create the Subcommittee for the adoption of innovation in the Health System, coordinated by Biocat and dependent on the Departmental Commission for Innovation and Transformation of the Health

System. The main goal of this Subcommittee was to orchestrate a system of identification, prioritization and support of the innovation we have in our country, susceptible to be incorporated in the Healthcare system, either in the field of inter-health centers, or also at a systemic level. It looks to do so in an optimal way, without neglecting the possible incidence in the private sector, with the ultimate aim of improving the quality of life of the population of Catalonia and, in particular, of patients.

In the framework of this program, Biocat will identify high-value innovation ready to be evaluated by any level of the Health System. The tool will be available to Health system entities, complementary to other existing sources of information and will boost interactions between entities and innovation providers. It intends to be the preferred gateway for the health system to identify innovations to be adopted (Figure 6).

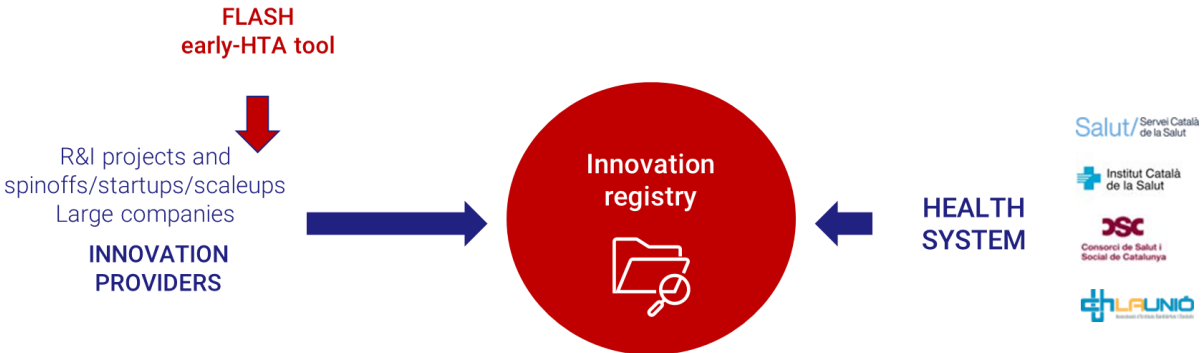


Figure 6 - FLASH early-HTA tool as part of the Technology Adoption Program, and previous to the Innovation Registry of a technology to be accompanied for adoption. Source: Biocat.

In Catalonia, Biocat monitors the development of health innovation technologies (Figure 7) (12). This will be used as source for the technology radar observatory that will nurture the decision matrix for technologies under development.

The decision matrix developed because of this WP will be validated and extrapolated into wider European regions and contexts.

An approach to the healthtech pipeline in Catalonia (I)

For the first time in this Report, and considering the relevance of the digital segment in the sector as a whole, we have introduced a vision* of the products and services offered by healthtech companies in Catalonia in 2022, which we hope to expand upon in future editions.

In terms of the type of product developed, **medical devices (65%) stand ahead of apps, platforms and other digital health tools**. Almost half is in the development, validation or PoC phase or is awaiting regulatory approval, and 52% is in the marketplace (mostly apps, which require no regulatory approval). A large part of the products (almost 50%) are classified with a low risk level (I/A and IIa/B) or have no risk level at all (apps). To show the level of clinical evidence, a significant number of companies are developing pilot studies (almost 40%) and are in clinical studies (close to 29%).

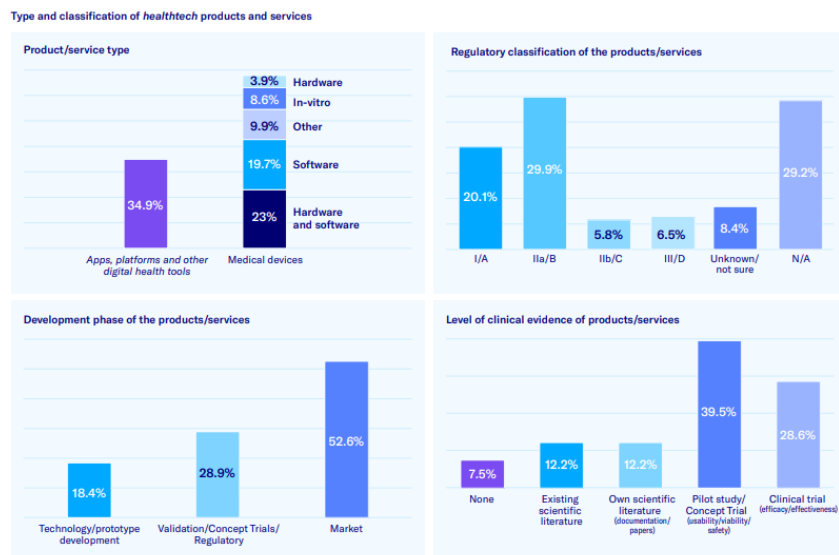


Figure 7 - An approach to the healthtech pipeline in Catalonia. Source: 2023 BioRegion Report.

4.3 Stakeholder groups involved

The approach followed by the partners is to require top experts advice to define the list of indicators and a decision matrix to be used to measure both the value (clinical, social, and environmental) and the economic and organizational impact of technologies under development.

Expert opinion is a frequent resource to create or validate some of these assumptions. Clinical experts are typically the most consulted. In this case, other stakeholders should be added in order to have more information about social, economic, technological, sociological environmental and political aspects that can influence the adoption of an early health technology.

In order to select the best stakeholders, different aspects should be considered:

- **Stakeholder expertise:** as the assessment of early-stage technology has several aspects to take into account, we need a several expertises to cover all the disciplines that are involved in the decision. Specially important is the expertise on HTA to build a bridge between late and early-HTA. In our case, we have involved experts on health economics, clinicians, innovation specialists and patient representatives.

- **Stakeholder role:** people with the same expertise can have developed different roles in its workplace with different points of view. In this sense, we need healthcare and technology providers, market access experts, technology users, both professionals and patients, decision-makers, evaluators and academics.
- **Stakeholder workplace:** interests and conflicts of interest can change depending on who is representing every stakeholder; so it is important to have representatives from start-ups, big corporates, public and private hospitals, public healthcare system or consultants.
- **Stakeholder context:** every context is different, so every context can slightly modify the stakeholder list. In our case, we have always worked on a local plane, although international European or overseas experts could be necessary in some context.

4.4 The case study

This forecasting methodology will be validated in a case study, Catalonia's healthcare system, as a means to support the decisions for adoption of a series of disruptive technological innovations.

There are several reasons behind the decision to test and develop in parallel this case study in Catalonia

- Biocat has participated in the Expert Committee to advise the Health department in the process of reaching a National Agreement for the Transformation of the health System. As such, the synergies between both processes seemed a sound basis to increase the forecasting capacity of the project.
- Biocat has also been developing in the last months some key steps of a fast-track process for the adoption of health technologies in Catalonia. Like in the previous instance, the synergies could benefit both the project and the ecosystem, in a good practice for complementarity.
- On behalf of Catalonia's Health Department, Biocat coordinates a committee for the adoption of health technology, in which several key stakeholders have been interviewed, asked which tools could help the policymakers identify and accompany innovation at an

early stage, set a preferred gateway for innovation in the public and private sector and ensure interaction and collaboration between the public and private spheres to add and optimize efforts in accelerating innovation towards the market.

- According to the BioRegion of Catalonia Report 2023, Catalonia’s life sciences and healthcare sector is a catalyst for innovation, economic and social advancement in the region, being Barcelona (with 94% of the sector) one of the most dynamic health research and innovation hubs in Europe. But currently our ecosystem does not have sufficiently defined or efficiently developed the mechanisms and connections necessary to explore, filter, identify, interact and finally incorporate the innovations that can help us solve the health needs of the population, and at the same time improve the competitiveness, efficiency and territorial equity of the same system and the development of innovation skills among its professionals. This is why, for the authors, the opportunity to experiment the robustness of the methodology in a real case, makes this choice a good practice.

Because of the above mentioned rationale, Biocat is working with 15 relevant stakeholders and key opinion leaders to validate our methodology (Table 1).

Table 1 - Stakeholders groups to be included in the validation

Organisation	Type of stakeholder
AQuAS	HTA Agency
Hospital Clínic	Hospital, HTA Unit
CRES-UPF	Academia
HiTT	Consultancy
Ferrer Internacional	Corporate, Catalonia
Boheringuer Ingelheim	Corporate, International
SHIP2B	NGO, investor/accelerator
EATRIS	Large Infrastructure

POP	Patient organisations
Generalitat de Catalunya	Government
ICS	Healthcare providers
CatSalut	Policymakers, Health Service Payers
Alira Health	Industry
Consorti de Salut i Social de Catalunya	Hospital Consortium, Payers

The focus groups will be performed in a second phase of this development.

4.5 List of indicators

To define a list of indicators that could be used to early assess health technologies, a focus group has been programmed, where six experts with different profiles have been requested to actively assess, discuss and improve, with Biocat, the FLASH early assessment methodology.

Their profiles are:

- Evaluation notified body director
- Hospital health technology evaluator
- Academic health economics researcher
- Professional consulting firm on market access
- Pharmaceutical company Pricing & Market Access Chief Officer
- Professional provider of health economic studies director

Previously to appointing them as focus group experts, this group of stakeholders answered an initial survey in order to prepare the development of the session.

The main objective of the focus group is to discuss the indicators and dimensions to be included for the assessment of innovations.

A preliminary list of indicators was complemented by the suggestions of key opinion leaders interviewed. Those interviews were organized to add different points of view that were not possible to include in the focus group. Several stakeholders were interviewed:

- Patient organization director
- Catalan government representative

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- Catalan Health Service representative
- Clinician
- Professional consulting firm on social and environmental impact
- Scientific director of a research non-profit organization

Indicators include relevant results from health economic analysis such as the Incremental Cost-Effectiveness Ratio (ICER) in relation to gold standard, the degree of uncertainty or efficiencies generated at an organizational level. It also includes healthcare system priority, preparedness and resilience attributes of health systems and smart procurement practices as well as the societal need for innovating on a specific field.

The list of indicators will be definitive once the focus groups will have taken place.

4.6 Decision matrix

Some of the aspects to consider about an innovation may not be quantitative but qualitative, like addressing a health, social or environmental priority. To integrate both aspects, we have created a decision matrix: scoring and weighting of the different indicators could be adapted to different contexts. We used multi-criteria decision analysis (MCDA) to help the decision-making process (13). MCDA explicitly evaluates multiple conflicting criteria in decision making. Conflicting criteria are typical in evaluating options: health system priorities should be clearly defined by payers and policymakers, incentivizing innovation in priority issues and allowing to transparently account for its added value. Likewise, the value and economic impact brought by the technology to patients or final users should be considered from a societal point of view rather than from a payer perspective. An example is shown on Figure 3.

Table 2 - Example of decision matrix

VARIABLE	TECHNOLOGY	TECHNOLOGY	TECHNOLOGY
	A	B	C
RESULTS OF EARLY ECONOMIC MODEL (4 POINTS)	4.5	6	5
HEALTHCARE SYSTEM PRIORITY * (2 POINTS)	2	0	1
SOCIAL/ENVIROMENTAL PRIORITY** (2 POINTS)	2	2	1
TOTAL SCORE (OUT OF 10)	8.5	8	7

*Healthcare system priority: Critical (2), Urgent (1), Standard (0)

**Societal/environmental impact: High (2), Medium (1), None (0), Undesirable (-1)

5. Conclusions

Setting a consensus around valuable information at early stages of development using indicators aligned with HTA is expected to have a positive impact in several aspects:

1. It will ease HTA evaluation for technologies that have just reached the market.
2. Healthcare providers would be able to evaluate the budget and organizational impact of implementing a new technology for the first time.
3. Innovators would be able to develop strategic roadmaps to gather all the relevant information and align with the needs of the system.
4. Innovation supporters like venture capital firms would reduce the uncertainty and risk associated to the projects.
5. Payers and policymakers would have a tool to foresee potential impact at different levels, enabling them to adapt early, implementing changes in regulation and payment system to drive innovation towards addressing social and environmental challenges through the definition of system priorities.
6. Patients will benefit from an earlier and value-driven access to new technologies. Having also a better alignment with those technologies that are prioritized and wanted by society and patients.

In conclusion, having defined beforehand the most relevant information to seek for during technology development will enable innovations that are good value for money to stand out and find the support they need to reach the market in the shorter possible time. In turn, payers will be able to make a transparent and informed decision about which innovative technologies are the most efficient options and how are they going to impact on their overall budget and organization, contributing to improve patient access to state-of-the-art technologies. This evaluation will be useful to all stakeholders by defining the key indicators to be considered.

The results of the early evaluation of technologies in relation to its potential to become cost-effective solutions can be favourable or unfavourable. On the one hand, technologies with

favourable results will benefit from validation and valorisation of their value proposition, engaging the participation of business accelerator agents. As a result, technologies that are cost-effective will reach the market earlier to be implemented in the shortest possible time, contributing to a more efficient healthcare system. On the other hand, technologies with unfavourable results will be able to timely pivot or dismiss projects on early phases of development, contributing to time and resource savings. Finally, this methodology is complementary to the Budgeted Impact Analysis (BIA) Model that is developed by another partner in the same work package. The outcomes early analysis would serve as inputs for the BIA analysis.

6. References

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