



# Mission-driven innovation to increase societal earning capacity

## Overview of aspects for acceleration

Mission-driven innovation calls for new and updated innovation methodologies, models, and working methods, as it encompasses both economic and social impact. This paper presents an overview of aspects to be taken into account for mission-driven innovation to succeed. Improving these aspects can accelerate the innovation process, implementation, and successful uptake. The aspects are based on insights obtained from 60+ interviews with researchers, companies, intermediaries, and program managers working on mission-driven innovation in regional innovation ecosystems. Therefore, bear in mind that the following overview is non-exhaustive.

After all, this paper details a novel approach to innovation in a changing innovation system, and as such it will always be a

'beta model' in which new insights are gained and incorporated continuously.

The Key Enabling Methodologies (KEMs), which are being developed from the Knowledge and Innovation Agenda for Key Enabling Technologies provide the tools to address these aspects.

The following six aspects are important to organise, manage and accelerate mission-driven innovation:

- 1 Ensuring support**
- 2 Regional embedding**
- 3 Organising cooperation**
- 4 Reflection and adaptation**
- 5 Measurements and finance**
- 6 Institutions and governance**

### 1

## Ensuring support

Successful transitions require a shared awareness, understanding and involvement of a multitude of stakeholders. We use the collective term 'support' to describe this prerequisite. Mission-driven innovation, which aims to realise both economic and societal impact, calls for ensuring a basis of support at the initial stages of programs and projects. This includes on the one hand support among companies, governmental agencies, knowledge institutions, interest groups, citizens and intermediaries at all levels of the organisation, as well as support for technological, economic, social and ecological challenges.

### Sub-aspects:

#### 1a. Departing from societal challenges

Local problems - in which several societal challenges come together - require a greater and more collective effort than addressing a stand-alone issue. In practice, local/regional issues are by definition multidisciplinary, since the various stakeholders collectively and individually have a role in examining which solutions could have the greatest impact.





### **1b. Co-creation of an integrated vision and approach**

Successful change starts with the formulation and dissemination of a shared vision of (local/ regional) societal challenges. This is beneficial for several reasons. To name a few, it allows parallel change processes to be attuned to one another, prevents any double work, optimises the use of people and resources, and strengthens the change movement. Co-creating helps all stakeholders to keep up with the rapid pace of change..



### **1c. Combining technological and social innovation**

Mission-driven innovation is an interplay of technological and non-technological solutions. Technology is an enabler of change, renewal, and transition. Economic, organisational, social, and financial solutions are equally important. These include human capital, new revenue models, behaviour, public opinion, ethics, and multi-stakeholder collaboration.



### **1d. Engage users/citizens in development and implementation**

Successful mission-driven innovation requires a good understanding of the needs and behaviour of its intended users. Therefore, it is important to involve, for instance, citizens as consumers, co-researchers, co-designers, critics, and ambassadors during the development and implementation phases. This helps to increase the success rate of innovation and accelerate upscaling, thereby increasing impact.



### **1e. Developing new revenue and business models**

Realising both economic and social impact is at the core of mission-driven innovation. In this, entrepreneurship and the role of entrepreneurs are essential. Societal earning capacity and multiple-value creation require a new interpretation of the concept of 'growth'. Developing and testing new (collaborative) revenue and business models are a crucial part of this.

## **2**

## **Regional embedding**

Each region has its own unique characteristics and contextual factors. As a result, one region/ city/neighbourhood/street differs in strengths, weaknesses, opportunities, and challenges from another nearby location. The upscaling of innovations is therefore different in each region. Nonetheless, there are also common denominators between locations that play a role in the successful upscaling of innovations and the creation of societal earning capacity.

### **Sub-aspects:**



### **2a. Taking the specific context into account**

Complex situations often arise because several societal challenges come together in, for instance, a city, region, or province. Recognising this complexity and mobilising the various stakeholders involved for each sub-task helps to achieve a better result. Being aware and creating an understanding of the specific context positively influences the success of a multifaceted challenge.



### **2b. Insight into both (locally) available and lacking knowledge and skills**

Possessing insights into the available knowledge and skills is a success factor for mission-driven innovation. Know what is readily available and what you need to look for outside your regional innovation ecosystem in terms of specific data, information, skills, and experts. This determines the pace of innovation and the extent to which regional ambitions can be realised.



### 2c. Create trans-regional knowledge transfer

Regional innovation ecosystems face similar challenges compared to partnerships in other regions. Facilitating trans-regional knowledge transfer contributes to successful mission-driven innovation. Moreover, many regions are also engaged in similar research and innovation tracks. Think of, for example, developing new battery solutions, precision agriculture, or circular business models. Alignment and knowledge transfer with other regions can accelerate innovation and scale-up.



### 2d. Utilising labs

The Netherlands is home to many forms of labs (e.g. field labs, living labs, learning communities, garages, Centres of Expertise, hubs, etc.), in which business, education, research, government, interest groups, and citizens work together. Often collaboration at such labs is aimed at contributing to societal challenges, where each local context and challenge requires a specific approach and structure. Labs are an excellent work format for mission-driven innovation.

## 3

### Organising cooperation

Involvement of all stakeholders is desired in regional innovation ecosystems, as multi-stakeholder cooperation requires understanding of each individual interest and connecting partners proactively. Particularly, the challenge lies in involving citizens in regional innovation ecosystems. Moreover, developing and optimally facilitating cooperation also requires attention to possible conflicting interests between both established actors and challengers, as well as between local and global players.

#### Sub-aspects:



#### 3a. Taking different interests into account

In order to achieve a well-functioning innovation ecosystem with many different stakeholders, it is necessary that the parties involved know how to connect their individual interests with the collective challenges. Quantifying and expressing individual and collective goals and expectations is a way to achieve a balanced and sustainable collaboration.



#### 3b. Paying attention to language and communication

Differences in language, jargon, communication styles, and context cause misunderstanding within an innovation ecosystem. Think of, for example, the use of somewhat formal language by governmental institutions and the more informal attitude adopted by companies. Agreeing on communication rules helps to speed up innovation processes.



#### 3c. Collective allocation of roles

Successful cooperation requires direction to accomplish equality in roles of and participation among stakeholders. Multi-stakeholder collaborations, by definition, consist of individuals that are not equally experienced in dealing with, for example, engineers, lawyers, economists, or sociologists. A good 'interpreter' can make all the difference.



#### 3d. Organising decision-making

The act of organising decision-making concerns who can or should be involved in the decision-making process, how and when this should occur, and how decision-making in general takes place. Regional innovation ecosystems can become extensive and accommodate many stakeholders. As such, not everyone needs to be involved at every point in the development and decision-making process, as long as there is a fitting method for parties in- and outside the ecosystem to participate and vote.



### 3e. Breaking through silos

Societal challenges can be better addressed by actively organising interdisciplinary collaboration. Often, departments within (large) organisations and organisations as a whole tend to work independently of each other (in silo's). As a result, activities (unwittingly) work against one another, a lack of ownership often arises, and/or the wheel is invented several times.



### 3f. Ensure neutral coordination

Successful mission-driven innovation ecosystems are characterised by the presence of an impartial, professional coordinator. This person operates as an 'interpreter' in the network, ensures proper decision-making, facilitates internal and external communication, organises adjustments of plans based on interim evaluations, and keeps all parties involved focused on the common goals. Intermediaries, such as regional development agencies, interest groups and consultants, but also municipalities and provincial governments can play a key role in this. As such, when designing a partnership, it is recommended to assign this - neutral - directing role to an intermediary party at an early stage.

## 4

## Reflection and adaptation

The speed of technological and societal change requires continuous monitoring, analysis, interpretation, reflection, and adaptation, so that the goals, approach, and activities of the partnership can be flexibly adjusted.

### Sub-aspects:



### 4a. Involving all stakeholders when evaluating progress

Evaluating the process, progress, results, and impact of mission-driven innovation requires the involvement of all stakeholders. As such, coordination and direction is necessary, in order to ensure all stakeholders have a voice. New partners can play an important role, as they bring in different perspectives.



### 4b. Make integral considerations when choosing between technologies or innovations

How and when do you choose a particular technology and corresponding infrastructure? When making such decisions there can be a trade-off between 'focusing on making sprints' on the one hand, and 'the risk of early lock-in of suboptimal solutions' on the other. To prevent lock-in, an integral assessment is necessary when deciding which technology or innovation to deploy. Economic, ecological, social, ethical, and legal aspects play a part in decision-making



### 4c. Reflecting on economic and societal impact

What seemed like a great solution five years ago may no longer be the ideal solution, given today's knowledge. Moreover, some innovations may prove to have insufficient demand to scale up and thus create societal earning capacity. Equally, it is possible that innovations focused on economic gains may have an unintended negative social impact. By using scenarios and models, one can continuously make estimations of which balance to strike between economic and societal impact.



### 4d. Flexibly adapt to changing context

Mission-driven innovation takes place in a dynamic context. As such, changes in, for example, social relations, political movements, public opinion, new technology, economic paradigms, and the geopolitical situation require flexible adaptation and response. Collective reflection helps to adapt flexibly within development, design, and scale-up processes.

## Measurements and finance

Financing mission-driven innovation proves to be difficult, as innovations with a societal purpose are often only economically viable in the long term. In addition, the economic and societal impact cannot always be measured accurately, since the impact may, for instance, focus on prevention. Financing mission-driven innovation requires new ways and new indicators to assess economic, ecological, social, and societal returns. New forms of financing are essential to stimulate the double objective of economic and societal impact in a balanced way.

### Sub-aspects:



#### 5a. Quantifying economic and social benefits

Since scaling up innovations leads to both economic and societal impact, its benefits are reaped by different actors. Often the benefits befall on parties other than those who have incurred the costs. The use of a broader set of criteria and indicators for valuing societal earning capacity is important. More specifically, valuing and assigning non-economic benefits should be considered a key task here.



#### 5b. Measuring output and impact

To demonstrate the contribution to societal challenges and the impact on both society and the economy, it is important to measure the results, application, and effects of mission-driven innovation. Determining the right indicators and measurement methods requires careful consideration, preferably early on in an innovation process. This can help public and private financiers in making investment decisions.



#### 5c. Organising forms of financing for scaling up innovations

Scaling up mission-driven innovations goes hand in hand with higher financial risks, due to the longer return on investment. Including the societal benefits in business plans can help investors to consider mission-driven innovations more seriously. Moreover, partnerships in regional innovation ecosystems can experiment with new forms of financing.



#### 5d. Actively focusing on human capital

The availability of qualified people who can develop, realise, and scale up innovations is crucial. Currently, there is a vast shortage of diverse professionals to accelerate the various transitions and realise the envisioned earning capacity. Careful consideration of training, life-long learning, and innovation in partnerships is essential for future success.

## Institutions and governance

Mission-driven innovation also calls for new forms of organisation and governance, both within regional innovation ecosystems, as well as in local, regional, and national government. Moreover, mission-driven innovation policies may result in unexpected effects that require special attention.

## Sub-aspects:



### **6a. Clear division of tasks between national, regional, and local governments**

Mission-driven innovation is stimulated by the Dutch government through the Knowledge and Innovation Covenant. Furthermore, the National Growth Fund and InvestNL also focus on societal challenges. At the provincial level, 'region deals' and local programmes are the guiding force of mission-driven innovation. Among local governments, cities are more and more focussing on societal challenges as a result of an increasing number of nationally delegated tasks. The division of responsibilities and tasks between national, provincial, and local government is changing. As such, this necessitates partnerships to flexibly adapt accordingly.



### **6b. Appropriately dealing with 'the losers'**

In transitions and disruptive innovations, there are always parties who come out of it worse off - 'the losers'. It is imperative that innovation ecosystems and partnerships take this into account.



### **6c. Dismantling existing systems**

The current socio-technical system is a complex array of infrastructure, laws, regulations, and human behaviour. Unfortunately, some parts of the system work against transitions and its accompanying missions. Efforts to deliberately break down systems and structures is part of successful mission-driven innovation.



### **6d. Proactively contributing to the formulation of missions**

Successful mission-driven innovation starts with clear and challenging missions. Active participation from a wide variety of stakeholders in the formulation of missions gives each of them the opportunity to define and contribute to realistic 'moonshots'.



### **6e. Integrating creative capabilities**

In order to work within the new frame of mind that places emphasis on the double objective of achieving both economic, and societal impact, new methodologies, models and ways of working are essential. The creative industry offers the tools and working methods to develop, execute, and scale up programs and projects in a structurally different way.