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# **Orchestrating a National Innovation Ecosystem**

**A Capacity Building Approach**

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## Foreword

Dear innovation stakeholders,

Change is the only constant. Our country, our society, is in constant change. To make change our ally we need systems that create a net, a framework for innovation to flourish. And this is where an efficient **national innovation ecosystem** comes in.

This document gives a general overview of how Malta may develop and build a National Innovation Ecosystem through a **capacity-building methodology**.

Our current innovation ecosystem has some very evident, and other less evident, gaps such as in accessing resources for R&D and startups, in creating investment opportunities, and most of all in an efficient information flow between all stakeholders. It lacks on the **three C's: (1) connectivity, (2) communication, and (3) collaboration**. By having a framework to identify these gaps and to address them we can aspire to an efficient national innovation ecosystem that benefits everyone.

This document proposes a structured capacity-building process through which we can enhance Malta's innovation ecosystem and keep it relevant. It is made up of **four thrusts: (1) policy and legislation, (2) institutional development, (3) human resource development, and (4) effective communication and dissemination**.

An ongoing capacity-building process based on these four thrusts is the best way to keep the ecosystem relevant at all times. This approach creates a systematic way to broaden the participation of all stakeholders and improve the information flow between them. It also enables Malta to build the **capacity for a futureproof diversified economy** that can adapt and compete with other global knowledge-based economies.

This approach can plant the seeds of a **culture of innovation**. Yet this can only be reached if the public, private, and voluntary sectors collaborate to stimulate and drive innovation.

Innovation can be a major driver to shape the future of our nation and we are committed to supporting this process, in collaboration with all the stakeholders and policy makers. We believe that by working together, we can create a more effective and efficient innovation ecosystem in Malta. We are excited about the potential impact that this process can have on our country and look forward to **working with you all to make it a reality**.

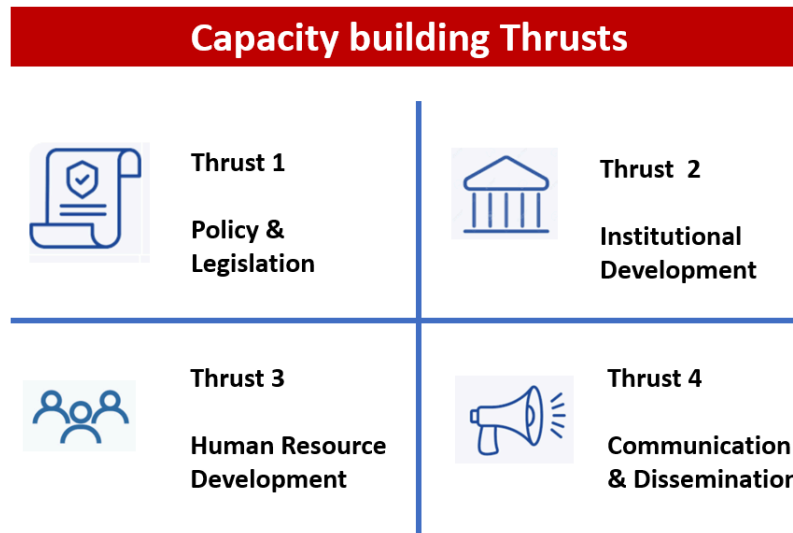
Johan Zammit

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## The Capacity-Building Methodology

For innovative capacity to flourish, society needs to move away from innovation as a sporadic activity, fuelled predominantly by crises and fire-fighting, to systemically embedding innovation at the heart of policymaking, public administration, private sector and civil society at large.



Building a national innovation ecosystem involves following methodologies that are specifically aimed at developing ecosystems, particularly the **Capacity-Building Methodology**. This involves tackling four thrusts:

### 1. Policy & Legislation

Ensuring policies and legislation are up to date and relevant. Policies that stifle the building of an ecosystem, however indirectly, are counterproductive.

### 2. Institutional Development

Ensuring that the institutions gear up and actively participate in a thriving innovation ecosystem. Seamless collaboration between all stakeholders is key.

### 3. Human Resource (HR) Development

Ensuring that Malta has the necessary human capital to drive an innovation ecosystem. Without the right skills Malta cannot have a thriving innovation ecosystem.

### 4. Community Dissemination & Engagement

Ensuring that (1) we tell everyone, both locals and people around the world, about Malta's innovation ecosystem through marketing, content, and advertising; and that (2) the very concept of innovation is understood at a national level, at a corporate level, and at a personal level through education campaigns and targeted events.

These four equally important **thrusts are closely interwoven**. The strong unifying factor among these elements is the mission of enhancing capacities to develop an environment conducive to innovation and engage all stakeholders in the innovation ecosystem.

## Thrust 1 - Policy & Legislation



### Policy & Legislation - The Definition

Policy and legislation refer to the strategic framework and legal instruments established by a government, and relevant authorities, to promote, support, strategise and regulate the development of innovation capacities, and facilitate the implementation of innovative technologies, products, and services.

Legislation refers to the laws, regulations, and legal frameworks enacted by the government to govern the development, implementation, and use of innovative technologies and solutions. Policy consists of the strategic direction, guidelines, and plans formulated by the Maltese government and its affiliated institutions to foster innovation. These policies aim to create a favourable environment for research and development, attract international talent and investment, and drive collaboration between public and private entities.

Some examples of policy initiatives related to innovation in Malta include the National Research and Innovation Strategy, Smart Island Strategy, and Malta's National Artificial Intelligence Strategy.

Together, policy and legislation work in tandem to create a favourable ecosystem that encourages innovation, fosters growth, and ensures responsible development of innovative processes, products, and talent in Malta.

### The Expected Outcomes Of Policy & Legislation

Thrust 1 brings together like-minded stakeholders and enables them to participate and federate their efforts to identify, formulate and advocate for essential changes in the legal and policy framework for innovation. The following is a set of expected outcomes of this first thrust:

- a) Encourage innovation in all entities and in all sectors including the public sector and local communities.
- b) Further to the financial support helping the few, support is required to help everyone to innovate through awareness, training and workshops to identify and implement innovative solutions including simplification.
- c) Facilitate multidisciplinary participation through innovation workshops.
- d) Encourage innovation procurement in all the public sector. Targets could include a percentage of the current annual budgets.
- e) Training is required for those formulating the tender specs intending to use the Innovative Partnership route.
- f) There needs to be follow up training for the implementing the winning innovative bids both from an operational as well as a financial perspective.
- g) Include innovation skills training in all Continuous Professional Development by including in the various educational prospectus.

- h) Training in a workshop methodology encourages personnel how to work in teams.
- i) Organisations are to synergise through a common National Innovation Charter so that together they can take-up, implement and evolve these proposals.

## **Policy & Legislation - The Malta Context**

The policy and regulation of innovation in Malta has undergone significant progress, but notwithstanding, particular aspects of the current national innovation ecosystem can be strengthened. The capacity-building methodology will identify the gaps, thus enabling stakeholders to design improved framework conducive to more effective innovation policies and regulations:

- ✓ An ecosystem with better collaborative capacities will counteract stakeholder fragmentation and drive cohesion results in national policies among the public, private, and academic sectors to enhance the overall innovation landscape.
- ✓ Building a sounder legal framework for innovation will result in comprehensive and coherent regulations fostering certainty for innovators and investors and encouraging the growth of innovative projects and businesses.
- ✓ The effective development and implementation of coherent policies that support the growth of new ideas and technologies require a robust innovation culture; encouraging a more proactive approach to innovation and fostering this culture that embraces change is crucial for Malta's progress in this area.

To a very high degree, the benefits of innovation are unclear to many public and private sector stakeholders in Malta. This lack of understanding and appreciation for the potential positive impact of innovative solutions can hinder the development of effective policies and strategies that support innovation across various public, private and civil society sectors.

## Thrust 2 - Institutional Development



### Institutional Development - The Definition

An institution is a group of people organised, formally or informally, to fulfil a common purpose. The purpose is usually a social, economic or political goal. Institutions have defined structures, rules, procedures and norms within which their people (members, staff) operate and work together in a coordinated way. They can also take many forms, like government ministries, departments and agencies, NGOs, educational, research and financial institutions, private companies and investors, and startups to name a few.

Hence, it is easy to understand that institutions provide the crucial infrastructure for an innovation ecosystem; they are its skeleton, and the consolidation of a well-developed infrastructure is key to ensure a systemic approach to developing and supporting innovation nationwide. In the context of a national innovation ecosystem, institutional development refers to the process of strengthening the qualifications and capacity of institutions to respond, and remain relevant, to the innovation ecosystem.

Institutional development can therefore be interpreted as the ongoing and systematic process whereby they become better organised, establish rules and procedures that allow them to participate more effectively and be a more successful contributing stakeholder of the innovation ecosystem and to make the best use of the available human, financial and material resources.

### The Expected Outcomes of Institutional Development

By strengthening the innovation capacity through the development of institutions, it is expected that, from an internal perspective each institution will internally promote a culture of innovation and an environment that fosters innovation. On the external front, the institution would have determined what products, services, knowledge and/or collaboration can be offered by other participative institutions and collectively instil innovation.

When all relevant institutions that directly or indirectly play a role in the 'driving community' promoting innovation (hence the 'innovation ecosystem') have their internal and external innovation capacity maximised and proper, this results in a vibrant and sustainable 'national innovation ecosystem' with the following expected outcomes:

- Come up with new products and services
- Drive economic growth
- Create jobs
- Find solutions to social and environmental challenges.



## **Institutional Development - The Malta Context**

Malta already has a good number of entities which promote and provide some form of support to innovators and enterprises that are interested in innovation. Notwithstanding, more effort needs to be devoted to enhanced linkages and improved communication and collaboration between the various players.

The institutional development initiative is to be championed and owned by an authoritative delegate ideally identified by the Parliamentary Secretariat for Youth, Research and Innovation who will also define the overall objectives, whilst making reference to the National Research and Innovation Strategic Plan 2023-2027 [led by the Malta Council For Science & Technology (MCST)].

All entities could be asked to participate every quarter in a National Innovation Forum to share experiences, challenges being faced and knowledge (stakeholder meetings).

Being at the heart of an effective national innovation ecosystem, continuous institutional development is key. Once the ecosystem has a strong foundation with a clear mission, a firm legal base and a broad constituency, it then depends on its institutions to build the adequate capacity with effective leadership and sufficient resources (human, financial and material) to drive the innovation effort.

## Thrust 3 - Human Resource Development



### Human Resource Development - The Definition

By way of definition, human resource development (HRD) refers to an organisation's plan to help employees – at all levels – develop their abilities, skills, and knowledge. In return, this process enhances the organisation's efficiency<sup>1</sup>. It is, of course, key to note that this effort to support employee development is to be targeted at all levels of the entity. Generally speaking, human resource development ensures the effectiveness and advancement of individual employees, collective departments, and the organisation itself.

MIF recognises HRD as one of the major pillars in the new paradigm of innovation, especially during and post COVID-19, and Thrust 3 addresses the need for human resources to undergo the necessary capacity-building to ensure a robust National Innovation Ecosystem. Given that the essential elements of innovation are **people (individuals or teams) generating ideas, obtaining funding, executing and taking these ideas to market (fruition)**, HRD is to lean towards an organisational environment that is conducive to innovation, especially in these highly economically- and socially-disruptive times.



There is growing interest in investigating the role of HR departments and practices in supporting the entity's capacity for innovation. Upon throwing in the concept of innovation into the equation, the HRD definition is **altered slightly**. It now additionally factors in the "sustainable" and "market relevance" facets of the entity. In this context, HRD will primarily contribute through **dedicated capacity building**. This entails creating an **organisational growth culture** with programs and policies that promote up-skilling and development, which in turn brings about an ulterior need for the **upskilling of the HR professionals** themselves, adopting practices that are agile, resilient, and innovative, whilst attracting the right talent and minimising skills gaps.

### The Expected Outcomes of Human Resources Development

The driving goal is to explore how the public, private and non-governmental sectors can gain competitive and sustainable advantage through the engagement of non-technical and process innovation in HRD, for sustainable future growth through the support of a robust National Innovation Ecosystem. Proposed capacity building initiatives will be **targeted towards** all the ecosystem actors namely:

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<sup>1</sup> <https://www.workhuman.com/blog/human-resource-development-hrd/>

Policymakers

Executives in companies

Local councillors

Executives in voluntary organisations

Executives in public service

Entrepreneurs

Students (secondary/tertiary levels)

HR innovation is the implementation of new ideas, methods, and technologies to better meet the ever-evolving requirements of the organisation and its workforce. It's about anticipating future needs and circumstances rather than simply finding a response to a changing present situation. The integration of a **community in discussion** of these 21<sup>st</sup>-century requirements needs the development of new spaces for cocreation, deliberation, and shared action, and research into and experimentation of new instruments, organisational models, and methodologies.

If championed by the National Innovation Ecosystem leader or orchestrator, this can take the form of an **HRD innovation laboratory**: researching and experimenting with new forms of relationship and cooperation between HRD professionals and experts to co-create a new agenda.

From this enhanced investment in HRD, one may expect the following outcomes:

- ✓ An acknowledged **national consensus** of the critical significance of innovation in HRD and its effects on Malta's Innovation Ecosystem
- ✓ An effective and **fruitful dialogue** on innovation in HRD between all stakeholders
- ✓ A long-term **strategy with guidelines** for industries or authorities to help them adopt innovative HRD principles
- ✓ A concerted **investment in building** the innovative portfolio capabilities of HRD, leading to scalable impact for transformation.



**“Only by strengthening a network of collaboration between institutions, people and organised civil society will we be able to respond to our challenges as a society”**

## Human Resources Development - The Malta Context

It is felt that within the local scenario there is not sufficient awareness of the importance of integrating innovation in HRD and there is the need to deploy national campaigns supporting this.

A better snapshot of current HRD innovation efforts is required and stakeholder input should be leveraged here. The design, development, and delivery of enhanced HRD training programmes should be better facilitated and possibly create social learning spaces so as to cultivate a community of HRD practice.



## Thrust 4 - Communication & Community Engagement



### Communication & Community Engagement – The Definition

This critical thrust relates to the conveyance of information and knowledge, irrespective of the channels used to do this. Effective communication and community engagement ensures not only the efficient distribution of new knowledge, but it raises awareness and encourages collaboration. It is imperative to ensure visibility of a project by promoting it and the activities within it.

Broadly speaking, communication is a two-way interaction between persons, and involves channels such as workshops, roundtables, and info sessions and events. On the other hand, dissemination is one-way, and involves sending information through publications, social media, presentations, a project website, and so on.

Through community engagement, strategies can be tailor-made to reach different layers within a targeted audience, while also spreading valuable knowledge to a series of target groups. By collecting different strategies to share knowledge, a shared understanding may be established to avoid misunderstanding and miscommunication. In turn, this can lead to the creation of a network that engages policy and decision-makers, while also fostering capacity building.

### The Expected Outcomes Of Communication & Community Engagement

Thrust 4 aims to refine the push-and-pull mechanism that exists within a national innovation ecosystem. Communities are crucial for innovation because as they share ideas they can mutate and grow, especially as they adapt to new conditions. With more community engagement, the exposure and knowledge of issues increase, which grants communities the opportunity to influence decisions that have an impact on their daily lives, communities, towns, and neighbourhoods.

Special events can be organised at local and national level to communicate different aspects of the national innovation ecosystem to specific target groups and engage with key players for more effective outcomes and impact. Such initiatives will facilitate the target audiences to better engage with the process of development.

### Communication & Community Engagement - The Malta Context

We have already managed to engage a local private media platform that has around 60,000 users and we plan to expand this to other media platforms which will act as a megaphone to communicate and engage different groups of the community.

Our approach will identify and engage various multipliers that will assist us in building the necessary push and pull mechanism that is required to build a national innovation culture.

Innovation today in Malta is a push vector and this could be the reason why we are struggling to move forward as a nation to develop economic growth driven by innovation.

Malta is a small nation and our size can serve as a major competitive advantage in developing a national innovation ecosystem. Most of the elements that make a national ecosystem have been developed but the ecosystem lacks connectivity which in turn leads to weak communication which has a great impact on collaboration. This is why thrust 4 is crucial; it will enhance connectivity, increase communication, and improve collaboration.

“The only problem with communication is when we think that it has been completed.” Chomski

## Conclusion

Change will always be a constant factor in the evolution of our nation and our society. Leveraging change for our benefit necessitates the establishment of solid systems that provide a platform for innovation to thrive, underscoring the importance of an efficient national innovation ecosystem.

We already know the major gaps our present innovation ecosystem harbours. Addressing them through a holistic capacity building exercise can render our national innovation ecosystem more efficient, benefiting all parties involved.

The structured process described in this document is aimed at uplifting Malta's innovation ecosystem and keeping it relevant. The methodology is based on four pillars: policy and legislation, institutional development, human resource development, and effective communication and dissemination. Sustaining this capacity-building process, with these four thrusts as strong pillars can ensure our ecosystem's continuous relevance.

Adopting this approach paves the way for a systematic expansion of stakeholder participation and enhances information flow among them. Furthermore, it provides Malta with the means to build capacity for a diversified economy capable of adapting and competing with other globally prominent knowledge-based economies.

Innovation holds the potential to substantially shape the future of our nation. And we are committed to walk all the way through this transformative process with all the stakeholders and policymakers. Our collective efforts can make this happen.

Malta's size offers a great advantage but we need to be smart and agile. Once this framework is built for Malta we can promote it to other nations too, especially islands and small states. **Currently there is an evolving discussion in Malta to establish a new economic model and the National Innovation Ecosystem can be a cornerstone of new economic niches.**

The positive impact that this process can have on our nation fuels our enthusiasm. We express our gratitude for your collaboration and commitment to bringing this vision to life. Through collaboration, we can transform the inevitable change into an ally, moulding a brighter, more innovative future for our country.