
Mass participation in innovation – the foundation of a modern organization and beyond

Violeta Bulc

Vibacom d.o.o., Slovenia

violeta.bulc@vibacom.si

www.vibacom.si

www.incomovement.eu

www.violeta.si

Abstract

*In this **practice reflection paper** I share hands-on experiences **on innovation ecosystems**. They have taught me that if we want innovation to be the core catalyst of value creation, we need an advanced set of tools, mechanisms and approaches to encourage **horizontal cooperation and mass engagement** in generation of innovative propositions that can turn into innovation. Even more, I stress that only mass innovation can ensure the appropriate **culture and conditions for innovative breakthroughs**. At the same time it is important that we do not merely transfer effective models for mass innovation from one environment to another, for we should consider modelling the **evolution** phase, the level of absorptiveness, the existing innovation experiences, the structural and human capital present in an environment. The model itself should be **authentic, unique and adjusted to the local environment and local idiosyncrasies**. Only with such adjustments one can hope to achieve optimal results. I will support my arguments with examples and experiences from the field.*

Keywords: *innovation, added value, mass innovation, innovation ecosystem, business evolution, horizontal structures, absorptive level, safe environment, innovation models, culture*

1 Mass innovation and innovation ecosystems

Innovation ecosystems¹ are an effective form of co-operation, co-creation and co-existence in modern organisations and in society as a whole. They encourage **horizontal** integration of all stakeholders, who jointly **co-create mutually beneficial results** using a diversified set of tools and approaches along the way.

There are two types of innovation ecosystems – opened and closed. **Closed** innovation ecosystems share and apply the results of their work **internally** in order to create a new

¹ An environment and group of different stakeholders co-creating (added) value

value **within** a defined ecosystem. **Opened** innovation ecosystems **share** the results of their work, against payments or free of charge, with external stakeholders.

Innovation ecosystems can be developed within an individual sector, industry, local community, state or region. They can also integrate various groups of stakeholders, industries, interest groups, and sometimes individuals, owners of knowledge, owners of needs or/and any other matters. They can be geographically or virtually delimited. Regardless of their type or nature, they share a common characteristic: namely that the development of innovation initiatives² is based on **larger number of participants**, interconnectedness, integration and mutual benefits, based on **systemic (comprehensive) thinking**.

But this was not the case in the past. The generation of initiatives used to be predominantly limited to small groups of experts. These groups used to seek solutions for the foreseen needs or identified problems and applied them as products on the market, usually in the form of **technological innovations**.

The need for innovation has increased with the reinforcement of globalisation and the free flow of goods. In order to be globally present, you needed to differentiate yourself from the others; you needed to establish your own recognizable identity. Thus, the concept of innovation was extended further to **service, organisational, marketing, and social innovation**. These types of innovation significantly broadened the circle of stakeholders necessary to generate enough ideas³, inventions⁴ and innovations⁵. The innovation process started to include an increasing number of individuals. The ability to shape a **business culture** that encouraged and developed innovation environment that could handle a large number of participants (**mass innovation**), has become a distinctive identifiable element between **successful** and less successful companies (1).

With the increasing number and broadening variety of innovative initiatives the micro and macro environments were faced with a new challenge, i.e. their **absorptive capability** for successful development and placement of innovative initiatives, or to put it in different terms, their ability to understand the advantages and weaknesses of innovations and the environment where it was generated, as well as adopting all necessary adjustments for their successful implementation.

This paper will focus on the two key components of business innovation ecosystems: **mass involvement and absorptive capability**.

1.1 Influence of the evolution of (added) value on the development of innovation

Since the very beginnings, innovation has been one of the driving forces of humanity. Throughout the various phases of our civilisation, innovation has been perceived from different points of view and manifested in different forms: in a relation to different economic environments, layers, and in respect of different social impacts (Figure 1).

Up until the end of the previous century, development in the business world for the last few hundred years was commonly linked to technological milestones, such as: the steam engine, the electromotor, the microchip, or new materials (nanotechnology). Thus,

2 Ideas with the potential to become innovations (formally drafted and submitted for review)

3 A new view, a new understanding

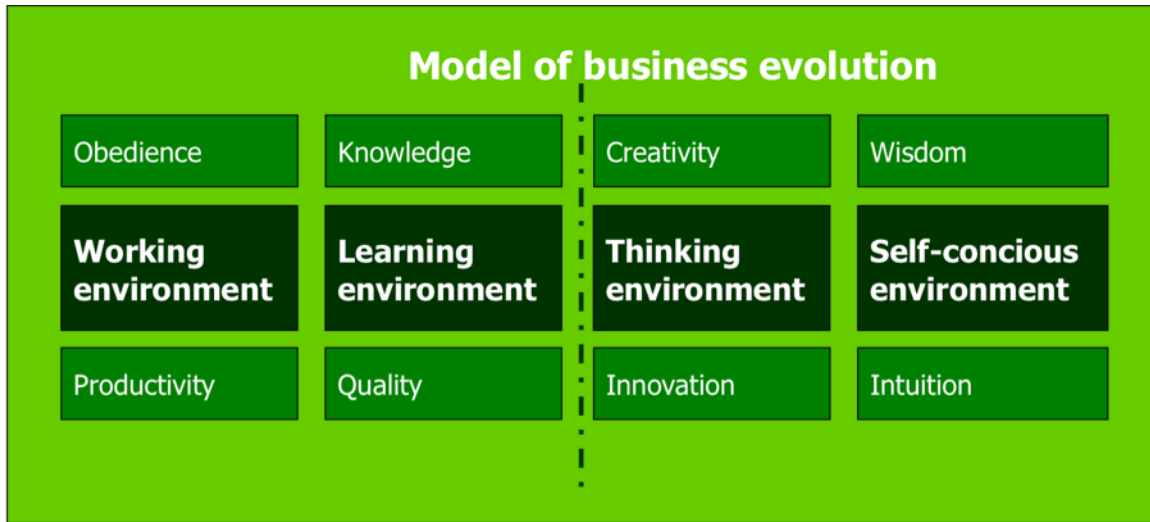
4 A new idea successfully implemented in practice; a new idea that works

5 A new idea that works and generates (added) value

during that time, innovation was exclusively perceived as **technological innovation**, value was created by continuous improvement **of productivity**. This was primarily achieved by the development of new technologies, processes, automation and robotisation.

Technological innovation was usually developed within **small, privileged groups of**

Figure 1: Evolution phases



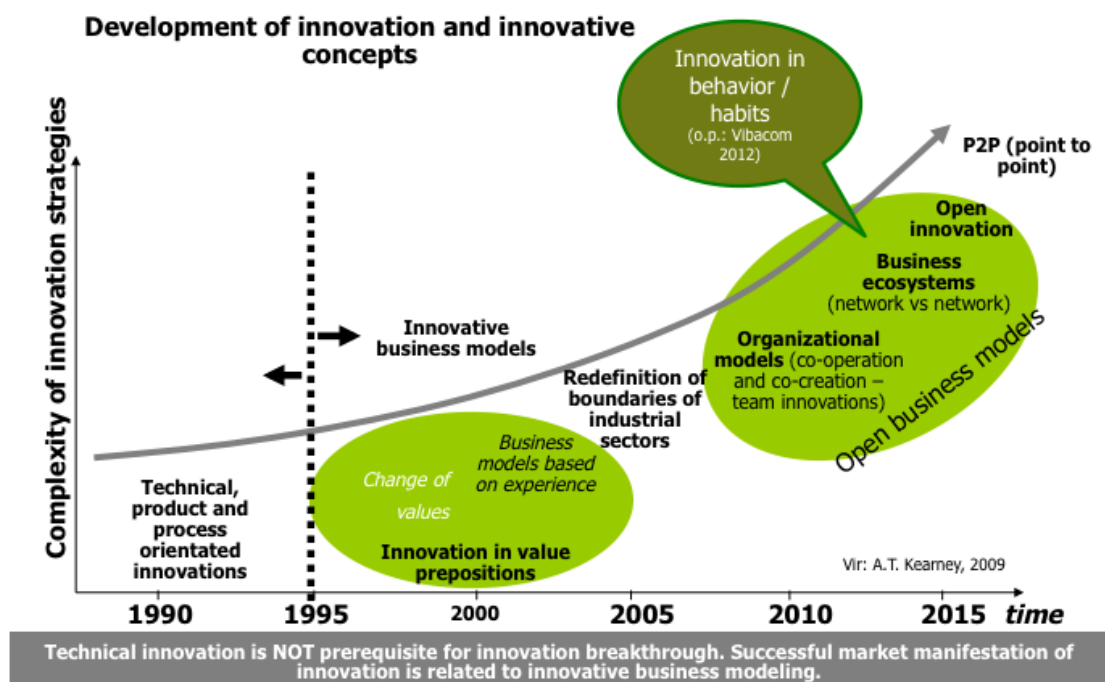
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experts/developers. Their circle for exchanging ideas rarely included other employees or external participants.

The dominance of productivity as value creation started to change when a global economy connected the continents and Europe could no longer compete on global markets solely on the level of price.

In the 1980s, a new driving force for a value creation swept across the globe – “the quality” driver. The increase of business internationalisation and globalization started pushing, for example, those European companies that persisted with creating

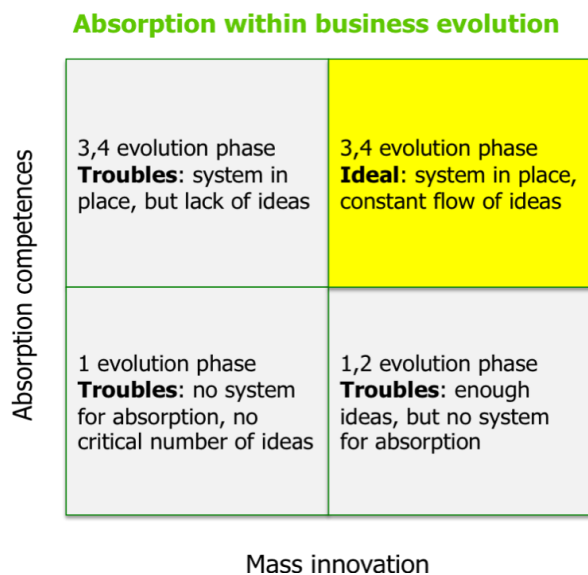
Figure 2: Development of the perception of innovation



productivity-based added value, further towards the margin of survival. This was a result of the growing prices of energy, work force and raw materials. In order to maintain a strong role in the global economy, the European economy needed to find a new driving force.

With quality as the new driver of value creation, new needs and new opportunities arose for innovation. The differentiation among companies was expanded to services and work practice that provided solutions for market penetrations, value chain improvements, integrated solutions, and methods for a successful team-work. The **process** became the key subject of observation. The **process of constant improvement** became the primary tool in the hands of management for staying in the competitive game. This resulted in including more people into innovative thinking. Innovation spread from research and development to all other services and processes within companies. Through appropriate communication and motivation approaches, innovative proposals started to emerge from all levels of business practice. More and more people understood

Figure 3: Relationship between absorption and multiplicity from the viewpoint of evolution



innovation, its nature. More and more were generating it themselves. Consequently, the business environment was more inclined towards the change. However, this new rhythm presented business the environment with a new issue – the issue of the absorptive capability of the people who were responsible for implementing changes on the strategic and operational business levels (Figure 3), as well as markets and supply chains to recognise the value that innovative ideas bring. This is why, in parallel to providing motivation for the generation of innovation initiatives, a more comprehensive development of individuals needed to be exercised, in order to encourage

them towards greater flexibility and the openness to change.

While productivity was the driving force of added value for more than a hundred years, quality held this place for a mere twenty years. Due to the growing influence of the Internet and other modern information technologies that enable global communication, trade, and co-operation, the central driving force of generating added value at the beginning of the 21st century, became **innovation**. And that is still the case today. The need for establishing identity on the levels of the objects, individual, groups and structures, is on the rise. Those needs are becoming increasingly diverse. Instead of product and process, **correlations** and the understanding of relationships are growing in importance. Therefore, **business models, organizational innovations, marketing innovations**, and the relationship with the markets, environment, and the Planet itself, are gaining in importance.

Innovation ecosystems have been established as a new form of co-operation and these, in addition to the internal resources (employees), also include external stakeholders (strategic partners, suppliers, knowledge holders, the environment) who are actively included in the process of innovation. The number of active participants is

growing and so are the number and complexity of innovation propositions. Companies that do not succeed in activating a mass approach lose ground with respect to the market, thus failing in terms of business success.

A special type of co-operation is being developed in the form of open innovation ecosystems in which the principle of co-creation and joint application of results represent a border beyond which something new and exciting can be expected in the future. In order to ensure that thinking environments have an absorptive capability (Figure 2), the **comprehensive development of competences** of individuals, teams and communities represents one of the key tools for success. **Inter-structural teams** prove to be the most efficient, for within them participants stimulate each other's growth by challenging each other, encouraging each other to expand beyond the known, and discover new insights and solutions.

Thus, a **horizontal innovation infrastructure** is being established in support of the innovation process and development of the innovation culture. The innovation infrastructure helps maintain transparency and visibility of innovation proposals and ensures a unified model for assessing innovation proposals, as well as provides tools and knowledge resources for encouraging 'out-of-the-box thinking'. It is essential that those terms are aligning with the organizational strategy and vision, as well as with the corporate values and mission.

By establishing **mass innovation** and appropriate **absorptive capability** of the ecosystem we do not merely insure the growth in the generation of innovative ideas, but also simultaneously ensure a suitable environment for the development of premium innovation; the so-called **breakthrough innovation**. Only when the business environment has established a broader support and readiness for mass innovation, can such an environment also successfully absorb needed changes and adjustments for a radical innovation to take place on the level of the company and the entire innovation ecosystem.

To summarize: successful implementation and market manifestation of innovation proposals requires a **suitable environment and certain preconditions** in place: innovation culture and awareness, appropriate resources for added value creation, and open markets (globalization).

The generation of **innovation propositions** is increased by **mass participation**. This is a precondition for ensuring an appropriate corporate culture that leads towards an **absorptive capability** of the environment to implement the necessary changes. It needs to be emphasized that innovation can generate added value only if the other two key forces of business success (i.e. productivity and quality) are successfully managed.

2 Mass innovation

Today, mass innovation is recognized as one of the key catalysts of successful innovation ecosystems. For innovation to be considered "massive" within a company, ideas need to be generated by more than 60% of employees, more than once per year. This includes improvements, inventions and innovations.

2.1 Dynamic environment

Providing a **dynamic environment** is one of the key challenges of mass innovation and absorptive capability of people. Among other things, this means breaking the routine and stepping out of the comfort zone into constant motion, adaptation, transformation and progression into the new. All of the above is a particularly difficult challenge for people trained for (working) industrious and learning environments (Figure 1).



So far, our experience gained from 7 Slovenian examples⁶ confirms the statement above. These examples served as the basis for creating the **Innovation Infrastructure** model⁷ (**I2**). The **dynamic environment** for supporting mass innovation within an innovation infrastructure⁸ is **provided through four points of entry**:

1. **Model of criteria** for assessing innovation proposals

Explanation: the model of criteria integrates the key strategic goals of the company that the employees need to be aware of when shaping their ideas; the model can be changed and adapted according to the current strategic goals or the company's vision; I recommend a set of **7-9 criteria** with the **1,2,3** assessment scale. The model should apply uniformly to all employees regardless of their role in the organisational structure. I recommend that the criteria are categorised in relation to the complexity of the proposals: a special set of criteria for **more simple** innovation proposals (they can be implemented within the operational action plans) and another set for **more complex** innovation proposals (they can be implemented on a project level).

2. **Motivational methods** supported with innovation communication and innovative communication

Explanation: motivational approaches within an innovation process need to be **adapted** constantly otherwise they lose effectiveness. Experience show that motivational measures need to be refreshed and/or upgraded at least **once**

6 BTC d.d., Petrol d.d., Elektro Maribor d.d., Lek d.d., TPV d.d., "Srce Slovenije" (Heart of Slovenia) development partnership, InCo movement

7 <http://www.vibacom.si/page.php?54>

8 Innovation infrastructure is a formal environment with a set of rules that provide all participants within the innovation ecosystem with equal access to the process of generating ideas, as well as in the assessment and implementation of the ideas. It comprises of: steps, leverage, building blocks, business effects and manifestations.

per year. The individual, team and organisational needs of a business environment need to be identified and addressed simultaneously. Motivational measures may comprise of: monetary and non-monetary incentives, interesting experiences, events, visits, information of other innovation proposals, introduction of weak signals, breakthrough technologies, examples of best practices and other similar topics that help provide the employees with inspiration and moral support. The **attitude of managers** towards creativity, mistakes and success, is extremely important for motivation. Business is people. People are unpredictable, physical, intellectual, emotional, spiritual and social beings who perceive their environment on all of these levels and make decisions/adaptations according to the received impulses and their own genetic memory. Motivational measures must break through the **walls of the familiar** and stimulate the need of the individuals towards constant evolution and readjustment.

3. **Methods for generating ideas** and innovation proposals

Explanation: similar to motivational methods, methods for generating ideas require constant creation of **new approaches**. The most effective method for generating ideas is playing **games** that help us shed our habitual patterns, release our adrenaline and open the world of **lateral thinking**. A few methods that have been proven in practice: »Krea Natura« (a psychology-based approach that helps us achieve the maximum results in a creative process), »Open Innovation« (a global approach to the development of open innovation based on the stakeholder model), »Different Thinking in Business« (ensuring sustainable competitive advantages), structured innovation methods and processes (Lead Users Research, Blue Ocean Strategy, Synectics, Stage Gate, TRIZ, Structured Management of Ideas, Idea Pool, Innovation Risk Management). The **role of management** is also important in the idea generation process, as their **body language** and **active communication** on the role of innovation in achieving good business results can encourage innovative thinking. For me personally, the most inspiring method for seeking new ideas is the concept of **"seeking the new at the edge"**: we recognize everything that is known, that exists, and we seek what could possibly be at the edge of the known (the next industry, the next material, the next customer segment, the next behaviour, the next wisdom, the next logical partner,...).

4. **Cross-structural teams**

Explanation: nowadays, it is hard to imagine successful mass innovation without cross-structural teams. The core philosophy behind them is that a creative team must comprise of individuals with different knowledge, from different fields and cultural backgrounds. This ensures **diversity** with respect to the chosen reality. And it is precisely this diversity that triggers various **lateral thought correlations**, which lead to breakthroughs in thinking. Practical experience has clearly shown that challenges, e.g. in sales, are difficult to overcome by the sales department alone. Only if presented with views from the financial, production, purchasing and other departments can they achieve a breakthrough in thinking and find comprehensive solutions. The same holds true on the levels of projects, processes and communities. There are no wrong or stupid questions in inter-structural teams. It often happens that a seemingly inappropriate or unrelated question triggers an intensive **storm of thoughts** in someone else. Participants in inter-structural teams often feel that: "It is unimportant who comes up with the breakthrough thought, as long as someone does. The person who comes up with it can explain it to the others and we can all move on; some create a space, some get inspired, but we all participate that an idea occur." Together we create the

conditions for new awareness and new insights. This is why it is so important to encourage a mass approach to the shaping of innovative awareness and endeavour to reinforce our environments as a whole.

2.2 Safe environment

The next challenge of mass innovation is to create a safe environment. **Only a person with a sense of being safe can realize their full creative potential.** A sense of safety is established when we feel we are appreciated, heard and taken into consideration; when we feel we are in the field of respect and trust provided by our fellow team members, managers and the (business) environment.

Figure 4: Elements that create a safe space

INDIVIDUAL LEVEL	POINTS
Openness to new ideas	5
Expertise	4
Co-operation	6
TEAM LEVEL	
Relaxed atmosphere/relaxed relations	4
Teamwork	11
Collegiality	7
Trust of colleagues, superiors	12
Freedom (of expression, action, decision-making)	5
ORGANIZATIONAL LEVEL	
Communication, access to information	11
Knowledge sharing and professionalism	4
Stimulating environment (encouragement, motivation)	5
Personal development; possibility of self-realization	4
Measurable and clear objectives, achieving plans	8
Business skeleton (clear strategy, vision, mission)	7
Customers (permanent, loyal, satisfied)	4
Time, space to think, time to introduce	5
Social security, financial security, regular payment	7
Technical (IT) support	4
The most important elements: more than 10 points	
Important elements: from 7 to 9 points	
Potentially elements: from 4 to 6 points	

A safe environment is not ensured merely through financial security. When we asked employees in **15 Slovenian companies**⁹ how they perceive a safe environment that would enable them to release their maximum creative potential only two participants stated that money was a precondition for this, and only three participants mentioned material means (Figure 4). Other participants listed basic human values and types of information necessary for goal-oriented thinking: team spirit, management support,

⁹ Analysis of 15 Slovenian companies (7 companies from production, and 8 companies from service sector)

effective task delegation, good relationships, information quality, openness to new ideas, mutual respect, ability to reach decisions, professionalism, clearly set goals, information on customers, positive charge, tolerance, enough time for quality work, etc. The results encourage us to conclude that financial security is not a precondition for creativity (when the basic social standards are met). Our creative spirit is most significantly influenced by **mutual relationships and access to information**, which allow us to **understand the environment** in which we work and for which we create. Simply, we try to be useful and therefore we need access to information and we need co-operation of others to succeed.

Based on my experience I suggest that when we find ourselves in challenging moments, i.e. being pressured by the market, suppliers, partners, owners, etc., we invite people from different organizational structures into a safe environment (in a conference room, in an office, in a forest); we present a challenge and the goal to the group and invite them into a creative process. Moderate the process well, ensuring that they all can express their feelings, thoughts, inspirations, ideas, and lead them towards the most appropriate solution based on the initial goal. I am confident that the results will not be disappointing and that the collective intelligence will exhibit its true creative power; through the **inspiration of an individual and the power of the collective consciousness**.

2.3 Innovative leadership and innovation leadership

Mass innovation requires a **new leadership style**. It requires a constant interaction between the characteristics of innovative leadership and innovation leadership. Often, both roles are enacted in the same person. The role of the **innovation leader** is to establish the rules and conditions for effective creativity of individuals. The role of the **innovative leader** is to constantly monitor the stakeholders and the situation within and outside the company, and to identify the opportunities for new business models, new definitions of processes and new work methods, to drive towards the new borders of what is known, to define new ecosystems, etc.

In both cases, leaders in innovation ecosystems must motivate, encourage, connect and clearly communicate the needs and goals of the company as the fundamental stimulus for successful innovation.

Experience has taught us that the role of an innovation leader is a difficult one for individuals who have not tried innovative leadership, or at least created an innovation on a level of a product or service, i.e. individuals who have not previously practiced innovation. Only personal experience in innovation can truly enable a person to understand the requirements, opportunities and pitfalls of innovation ecosystems and later contribute to the effective drafting of rules and the creation of a safe environment for the development of innovations, e.g., be a successful innovation leader.

2.4 Innovative communication and innovation communication

Special communication forms were developed to support mass innovation. **Innovation communication** is communication about innovation. Innovation communication¹⁰ deals with the appropriate representation of **innovation topics** on communication channels. It encourages telling a story in a way that highlights the following aspects:

¹⁰ Innovation communication (www.incogibanje.si) is a comprehensive process of identifying, understanding and promoting innovation through comprehensive and systematic communication. In practice, it is a movement that integrates all stakeholders in the innovation environment and strengthens the network of interdisciplinary connections and relationships, both in the sense of content and structure.

- clearly defines the level of development of the described innovation (in which part of the innovation life cycle is the idea presented in the story: on a level of idea, invention or innovation);
- describes the stakeholders contributing to the story (presents the contributors of knowledge, experience and resources necessary for success);
- defines the impact that the story might have on the industry/the area that it emerged from, as well as, the impacts that it has/will have on other fields/industries;
- defines the duration of the effects (whether the innovation will have a short- or long-term life cycle; whether the subject has a short span or it is something with lasting effects on a society);
- forecasts the future topics that the story might inspire (a possibilities for a new development).
-

A special role in the existence of innovation ecosystems plays also **innovative communication**¹¹. Innovative communication seeks new tools and communication channels and adapts them according to the needs and/or behaviour of the target customer segments, thus repeatedly reshaping the communication environment in an innovative manner.

In Slovenia most experiences in innovative communication and innovation communication come from the activities performed by the **InCo** movement between 2006 and 2012. The InCo movement systematically promoted the development of innovation culture in Slovenia through both types of communication and dismantled taboos of the new innovation paradigm by setting an example of innovative and innovation ecosystem by itself. One of its important conclusions/propositions that came out of the InCo experiences was that a **common language** was necessary for the development of mass innovation. When the InCo movement defined various stakeholder groups¹² we found out that they used different jargons and terminologies that were specific to their internal use and often foreign to external observers or potential partners. A public debate on the glossary of terms and continuous creation of new environments for inter-structural communication, stimulated the co-operation between different stakeholders, and provided new insights about the behaviour and the inner streams of co-operation within innovation ecosystems.

A common language brings various groups closer together and creates an arena for sharing thoughts. Furthermore, it encourages the communicators to keep that in mind when they do massive dissemination of innovative ideas. In order to achieve an optimum effect in spreading a new story about an innovation, we should simultaneously send the same information through different communication channels, to different target audiences, in their authentic languages. This produces a **net effect**; when the congestion is right, the dots horizontally connect and create by themselves a common environment that share the same information.

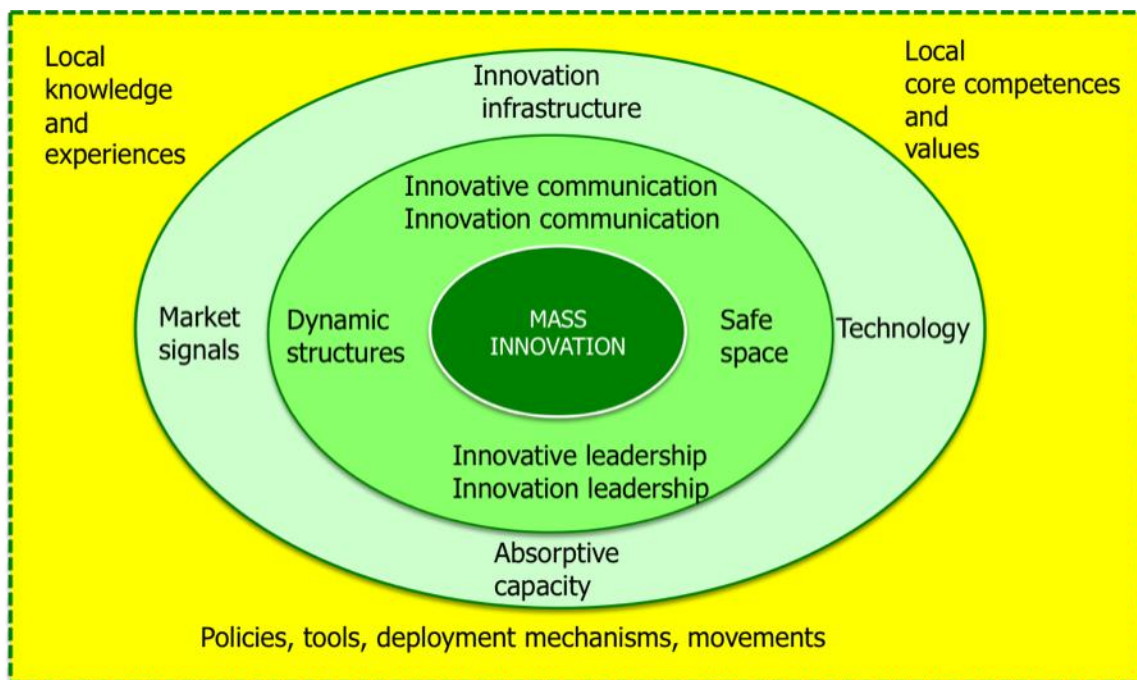
2.5 The mass innovation model

¹¹ Innovative manner of communication.

¹² departments, communities, teams, companies, regions

We have mentioned mass innovation several times already. Now, let us take a closer look at it. Figure 5 shows a generic model for the development of mass innovation. It highlights the elements that are directly connected to successful management and the development of mass innovation. However, the essence of the solution lies at its heart, which is **unique and specific to every** company, organization, community, or a team.

Figure 5: Mass innovation model



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None of the previously mentioned 7 companies (see the chapter on safe environment) share the same approach to the development of the innovation ecosystem and mass innovation. Each company has taken into account their specific corporate culture, company's evolution level, and the previous experiences with innovation. **Cultural sensitivity** is an important aspect of success, for it is tied to people and the richness of their conscious and unconscious relationship with life.

The implementation of the innovation model and innovation infrastructure should take into account the specific key abilities of the company, its values, history and ambitions. Petrol, for example, applied the concept of promoters to encourage mass innovation; BTC used strategic workshops and motivational visits; Elektro Maribor named innovation ambassadors in each of their organisational units, etc. The above examples show that different criteria and motivational systems were used for assessing innovation proposals. In one of the examples the incentives were non-financial, while elsewhere they were predominantly financial. Their forms and methods of communication were also different. Some relied on the personal presentation of information and assessment results, while other published everything online. There are also noticeable differences in the formal organisation of the innovation environment. Some managed innovation through an actual or virtual project office, while others use the change management process or formal linear structures to achieve the same effect. The "right/wrong" concept does not apply to these solutions. In the end all that matters are the results.

3 Conclusion

Systematic management, leadership and development of mass innovation are the key guarantees for sustainable success in the age of globalisation and open markets. This is directly linked to the absorptive capability of the environment; therefore, mass innovation and the absorptive capacity need to be addressed and developed simultaneously. New types of leadership, communication and tools for establishing dynamic structures for the implementation of innovation, and consequently the change, provide a great help and support in this endeavour. Nevertheless, we have to constantly keep in mind that people are the key generator of innovation propositions. Therefore, the methods and approaches for the development of innovation environments should be adapted to the (corporate) culture, the organizational evolution level, and the ambitions, strategy and vision of the environment in which the innovation is developed and implemented. The first results and the positive outcomes that follow the organizations that implemented horizontal innovation infrastructures that support mass innovation help me to understand that this is also an infrastructure for a prosperous and thriving Planet, where everyone creates based on his/her best abilities and where together we can solve any challenge this civilisation or this Planet can have.

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