



RI4C2
Research & Innovation
For Cities & Citizens

Recipes of Innovation

An EC2U Cookbook with best practices
from 7 European city-universities



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Introduction



Recipes of Innovation: The Culinary Canvas of Innovation

Welcome to “Recipes of Innovation,” where we explore ways to ‘cook up’ innovative solutions. Just as there are countless ways to prepare a delicious meal, the path to innovation is equally diverse and far from singular.

Think of this publication as your innovation cookbook, packed with techniques from our “European Campus of City-Universities” (EC2U) to stir up the spirit of innovation. Within these pages, you will discover a collection of best practices, a repository of experiences, experiments, and successes. Much like a cookbook, we present a variety of approaches that you – as an innovator – can experiment with and adapt to your unique context.

A collaborative endeavour

These “Recipes of Innovation” are a collaborative endeavour by the EC2U Alliance. The contributors of these culinary innovations are EC2U “Lighthouses of Innovation” and the board members of work package 5 “Innovation Sphere” within the “Research and Innovation for Cities and Citizens” project (European Union’s Horizon 2020 research and innovation programme “Science with and for Society,” No 101035803).

Innovation and Social Responsibility

In this cookbook, innovation is understood as a non-linear path of turning ideas into practical applications, such as products and services. Innovation is a transformative process that crafts ideas into real-world solutions. Importantly, innovation is neither limited to technological innovation nor economic gain, as it also encompasses societal impact.

Innovation entails implementing changes that benefit society as a whole. The social responsibility of city-universities is deeply intertwined with their ability to cultivate innovation within their ecosystem, spanning both the regional and pan-European level. Just as a great meal leaves you craving for more, we hope this journey through the “Recipes of Innovation” will leave you eager to experiment, collaborate, and innovate in your own sphere

The Lighthouses of Innovation

The “Recipes of Innovation” are a collection of insights and best practices drawn from the experience and expertise of the so-called “Lighthouses of Innovation.” Within the framework of the “Research & Innovation for Cities and Citizens (RI4C2)” project, the Lighthouses of Innovation hold a significant role in a Pan-European Knowledge Ecosystem (PEKE). These Lighthouses encompass a wide range of entities, including academic institutions, research projects and initiatives, entrepreneurship and business units, networks, businesses innovation and transfer organisations, as well as municipal, civic, and administrative bodies. They represent a broad perspective on innovation and excel in identifying and creating possibilities. Collectively and individually, they play a key role in shaping a collaborative European research and innovation agenda. In 2022, the Lighthouses of Innovation came together in a series of virtual workshops to address innovation challenges and opportunities and share best practices.

Structure of the Cookbook

As we embark on this culinary journey, let us outline the origin and structure of the “Recipes of Innovation.” The recipes are divided into two parts. The first part summarises the workshops where the Lighthouses discussed questions such as: Who are our “hungry guests”? What essential tools are needed to transform the ingredients (ideas) into tasty meals (applicable products, services, and goods)?

What challenges arise during this creative process, and what valuable lessons have been learned along the way? What ingredients are essential for successful innovation, and what pitfalls should be avoided? In the second part, you’ll discover the heart of the Lighthouses of Innovation’s collective wisdom, namely the recipes themselves, as a compilation of the finest best practices from our European community. The recipes are presented in a user-friendly format, making them accessible to everybody seeking innovation and positive change, including policy-makers, educators, students and colleagues from the transfer offices.



Bon Appétit!

Our mission is clear: to build a bridge from imagination to impact, to pave the way from research to innovation. So, roll up your sleeves, put on your innovation aprons, and let's cook up some innovation!

Innovative activities of EC2U/RI4C2

In the past three years, the EC2U Alliance has developed and implemented a broad variety of actions directly linked to the creation of an innovative Pan-European Knowledge Ecosystem.

- Lecture Series Innovation: <https://www.youtube.com/playlist?list=PLfrwWJbjVZExCi6fJPmamvTfgZzPUsgoq>
- The Lighthouse of Innovation: <https://ec2u.eu/lighthouses-of-innovation/>
- Think Tanks on Social Innovation (March 2023): <https://ec2u.eu/ec2u-think-tank/>
- Entrepreneurial Academy including the Entrepreneurial Week: <https://ec2u.eu/for-students/careerhorizons/entrepreneurial-academy/>

Quotes

- “Lighthouses as
 - Pathfinders
 - Creators
 - Connectors and enablers
 - Success stories”
- “They turn creative ideas into reality, they create new realities from inventions and new ideas.”
- “They see integrative possibilities and make connections between separate components, building an enabling architecture to support change.”

PART I: Insights



Crafting the Recipe for Successful Innovation

a) Lighthouses of Innovation, who are your hungry customers?

Innovation is a process akin to preparing a sumptuous meal, and just as a chef must have a keen understanding of the preferences of his/her guests, innovators must identify and cater to their “hungry customers.” In the world of innovation, these customers are the stakeholders and beneficiaries of the innovative ideas and solutions. Identifying and understanding their needs is paramount to the success of any innovation journey.

Researchers, entrepreneurs, and innovators must engage with their potential customers to gain valuable insights. Whether it’s conducting surveys, interviews, or market research, the goal is to listen attentively to these voices, ensuring that the resulting innovation is relevant and serves a purpose.

Some of the Lighthouses of Innovation play a dual role within the innovation ecosystem, particularly in academic settings. They advise scientists seeking the application of their research and offer students innovative educational opportunities while simultaneously being innovators themselves. They pioneer new methods, engage in novel research initiatives, collaborations, and entrepreneurial activities. In this dual role, they facilitate the transformation of (scientific) knowledge

into real-world applications and the advancing of innovation. Taking this two-fold role into account, the different types of “hungry guests” of the Lighthouses become more apparent.

Who are the “hungry guests” of the EC2U Lighthouses of Innovation?

Group 1 – Those seeking practical advice:

- Scientists who are eager to witness the practical application of their research
- PhD students who may be involved in innovative research
- Students who can benefit from innovative educational approaches and opportunities
- Science managers and staff
- Companies or start-ups interested in adopting or collaborating on innovative solutions

Group 2 – Those benefiting from innovations:

- Society as a whole, representing the broader community and its interests
- Regional and local public, including citizens, who may directly or indirectly be affected by innovations
- Patients and their relatives, who may benefit from healthcare innovations
- Policy-makers and advocacy groups or structures that voice the opinions for specific groups, topics or issues, e.g. local farmers’ organisations addressing climate change effects

Quotes:

- VLS #1 Uwe Cantner, researcher:
“The actors are masters of trial and errors, masters of risk and uncertainty. They have some intuitive feeling how to deal with that.”
“Often they are the heroes of their times.”
“They have superior abilities to transform an idea to an economic result.”

b) Lighthouses of Innovation, which appliances do you need to transform the ingredients into tasty meals?

Just as a chef relies on a well-equipped kitchen, innovators need the right appliances and resources to transform their raw ideas into appetising products, services, or goods. During the workshops, the Lighthouses discussed and shared their essential “appliances” required for the innovation process.

Innovation kitchens come in various forms, from research laboratories and makerspaces to collaborative workspaces and tech incubators. They provide the necessary infrastructure for experimentation, prototyping, and refinement. The tools available range from **state-of-the-art technologies to creative brainstorming sessions**. As one of the most powerful “tools,” the Lighthouses unanimously identified a non-tech one: **interdisciplinary collaboration**. Innovators often work in diverse teams that bring together a range of expertise. Interdisciplinary collaboration not only enriches the creative process but also enhances the quality of the final innovation.

What other appliances did the Lighthouses name?

1. **Well-equipped kitchen:** Having access to the necessary tools and resources – represented as “spices” and “pans” – is essential for experimentation and development.
2. **Clear simple but flexible menu:** A project plan that outlines the innovation process should be straightforward yet adaptable to accommodate changing circumstances.
3. **Test eaters for early feedback:** Similar to taste testers in a kitchen, having individuals or teams to provide early feedback on innovations is crucial to refine and improve ideas.
4. **Fast but individual processes:** Balancing speed with personalised attention to detail in the innovation process to ensure efficient progress.

Additionally, the innovation kitchen benefits from:

1. **Highly qualified personell in technology transfer:** Expertise in transferring technology from research to practical applications.
2. **Training and awareness of researchers:** Ensuring that researchers are equipped with the necessary knowledge and skills for innovation.
3. **Access to different kitchens:** Access to co-working spaces, maker labs, incubators, accelerators, and networks that facilitate innovation.
4. **“Fridge whiteboard”:** A visual tool for tracking ongoing innovations, “ingredients” and ideas that are ready for implementation.
5. **“Cellar”:** A storage space for innovative ideas that may require further development or maturation.
6. **Prototypes for reducing uncertainty:** Creating prototypes to test and validate ideas, reducing uncertainty in the innovation process.
7. **Resources and time for in-depth exploration:** Allowing the team to delve deeper into the innovation process, similar to enhancing the taste of a dish.

8. **Innovation foodie TV:** Listening up and learning from others, which is always a source of inspiration and ideas for creating innovative recipes.
9. **Funding for proof-of-concept Studies:** Financial support for conducting proof-of-concept studies to validate the feasibility of innovations.

Quotes:

- VLS #1 Uwe Cantner, researcher:
"Innovation, more and more, does not take place in isolation. [Innovators] try to cope with uncertainty by being cooperative and coordinates their research activities, sometimes even interdisciplinary and transdisciplinary."
- VLS #2 Alberto Bressan, entrepreneur:
"So once again referring to the network, to the relations – it is crucial then to extend these [...] in order to maximise the potential of a very good idea."
- VLS #5 Ana dos Santos Carvalho, science communication specialist:
"Good communication is essential to get it done."

c) Lighthouses of Innovation, what are your challenges while cooking?

Like any culinary endeavour, the innovation kitchen comes with certain challenges. Innovators face a range of obstacles and complexities as they cook up their innovative solutions. The Lighthouses of Innovation shared the challenges that they encountered during the innovation process and strategies to overcome them during the virtual workshop.

The first challenge that the Lighthouses encountered in the academic sphere described is mobilising the scientific community about the question of innovation in the first place. Often there are too many hurdles that dampen the enthusiasm of the researchers.

Once hooked, one significant challenge is securing the necessary funding and creative flow during the so-called “Death Valley.” From the initial idea to the prototype phase, critical phases can jeopardise the entire innovation journey. Innovators often require significant resources for prototyping, development, and market entry. Securing this funding can be a make-or-break moment for many innovative projects. Aspiring innovators have to be prepared for and accompanied during those phases.

Poorly-thought-out contracts that don’t adequately cover intellectual property aspects is another point identified that can lead to complications. Innovators need to navigate legal complexities while focusing on their creative process. Additionally, difficulties in finding suitable funding agencies and support organisations – especially at the local level – can impede progress.

What other challenges did the Lighthouses encounter?

1. **Resource availability:** Sometimes the availability of cooking ingredients and tools can be a barrier to innovation in the kitchen, causing logistical challenges.
2. **Balancing innovation:** Innovators should be cautious not to encourage “too much” innovation and should dimension their capabilities appropriately.
3. **Supporting researcher autonomy:** It’s important for university leadership/administration to leave space for researchers to excel in their fields, acknowledging that innovation cannot be forced but must be encouraged and supported.
4. **Broadening perspectives on innovation:** Overcoming the misconception that innovation is solely linked to economic wealth, acknowledging that researchers in the Humanities can also contribute to critical innovation.
5. **Sustaining enthusiasm:** The challenge of mobilising the scientific community and overcoming hurdles that dampen researchers’ enthusiasm for innovation is a persistent issue.

Quotes

- VLS #2 Alberto Bressan, entrepreneur: “ Message from me to you guys [...], don’t compromise. If you got a good idea sooner or later the results will come.”
- “I believe innovation cannot be forced, only encouraged and supported. University leadership/ administration should always leave space for the researchers to do what they do best: science.”

d) Lighthouses of Innovation, what did you learn not to cook?

Innovation is a process that involves trial and error, much like cooking. In the virtual workshops, the Lighthouses of Innovation delved into the valuable lessons learned from past failures and explored what not to cook in the innovation kitchen. They also shed light on typical mistakes that innovators should be aware of and provided insights for avoiding them.

One key lesson is the importance of avoiding the temptation to rush innovation. Much like trying to cook a complex dish too quickly, innovators may fall into the trap of pushing for innovation when the market or society is not ready for it. Timing plays a critical role in successful innovation. Overestimating one's means or the potential impact of an innovation is another pitfall. Innovators must maintain a realistic assessment of their resources and the actual market demand for their ideas.

According to the Lighthouses of Innovation, the siloed approach should be avoided in any case: "Do not cook in silence. Sharing ideas with peers and more experienced people is an important step. New ideas should not be a secret, shared ideas are more probable to succeed." Innovators must embrace different mindsets and remain open to new insights and opportunities, steering clear of scepticism towards "fancy innovation buzzwords."

Quotes

- "Learning what not to cook is as crucial as mastering recipes. Avoiding common mistakes is the secret sauce of innovation."
- "Forgetting to hear the order of the customer."
- VLS #3 Dominique Royoux, social innovator:
"We've seen a lot of isolated social innovators working on one single service of product or product without any self-reflection [...]."

e) Lighthouses of Innovation, what are the three top ingredients for successful innovation?

In the culinary journey of innovation, the quest for success is much like preparing a gourmet dish, as it involves combining the right elements in precise proportions to craft something truly exceptional. In the world of innovation, when masterfully blended, these ingredients transform innovation into a flavorful and impactful success. What did the Lighthouses of Innovation identify as their top ingredients?

1. **Shared and clear vision (roadmap):** Every innovation journey must begin with a well-defined vision and clear objectives. Innovators need a roadmap that outlines their destination and the milestones along the way. This vision serves as a guiding star, aligning the efforts of the team and stakeholders.
2. **Collaboration (art of teamwork):** Innovation thrives in collaborative environments. Much like a well-coordinated kitchen team, innovators benefit from working together, leveraging diverse skill sets, perspectives, and experiences. Collaboration extends beyond the boundaries of disciplines and organisations. Innovators must cultivate an ecosystem that encourages teamwork and creativity.
3. **Timing and momentum (rhythm of innovation):** Timing is the secret ingredient that adds the perfect touch to innovation. Maintaining a steady tempo throughout the innovation process is crucial. Just as a chef must keep the momentum going in the kitchen, innovators must avoid stagnation. Delays in decision-making or excessive optimisation can lead to a loss of momentum and potential failure. Once the innovation journey begins, it must continue with dedication and purpose.

Further top ingredients include

4. **Time for creativity:** Providing uninterrupted time for researchers to concentrate on research and innovation free from administrative or teaching responsibilities is essential for fostering innovation.
5. **Specialist support:** Researchers engaged in innovation projects benefit from specialised support for legal, technical, and networking aspects, allowing them to focus on their core expertise.
6. **Small steps:** Innovation is gradual, and progress in innovation often involves taking small, incremental steps, much like the gradual development of flavours in a well-prepared dish.
7. **Spices of storytelling:** Compelling pitches add the spice and allure that make an innovation project stand out.
8. **Finally, opportunity and luck:** Just like real life, sometimes innovation needs opportunity and a sprinkle of luck to make it happen.

Quotes

- “Innovation is GRADUAL!. Tiny steps!”
- “Keep the target audience in the “kitchen” for whole length of the process. The people that “need” the dish need to be present to receive it and tell us whether the dish actually corresponds to their desires/needs.”
- VLS #1 Uwe Cantner, researcher:
“The actors have to have the incentive to engage in innovation activity. [...] Secondly, you need to have the competences. [...] The third dimension is – and that’s very simple – it’s simply luck.”
- VLS #3 Dominique Royoux, social innovator:
“In the area of social innovation, we have to look at a variety of stakeholders. The key words are coordination and cooperation; they are essential for us, for social innovation processes.”“Our focus is the dynamics of transformation rather than the project itself. The process rather than the end product.”
- VLS #2 Alberto Bressan, entrepreneur:
“We are not doing this just to make business. We are doing this to trying to change the status quo.”

Part II: Recipes

**A Banquet of Best Practices
from Our European Community**



Entrepreneurship training course

CONTRIBUTED BY

- ▶ HIVE Consortium (University of Latvia, Riga Stradins University, Ted University, Czech University of Life Sciences, University of Coimbra, University of Applied Sciences Wiener Neustadt, ESSEC Business School, Bukovian State Medical University, Dnipro University of Technology, Ivan Franko National University of Lviv, Bulgarian Chamber of Commerce and Industry, Coursera)

TARGET GROUP

- ▶ HEI students,
- ▶ academic and non-academic staff



INGREDIENTS

- ▶ Coordination team
- ▶ A diverse team of experts in entrepreneurship (teachers and technicians) capable of producing content for an online course, including videos, reading material and exercises
- ▶ Cloud (for sharing all of the work sheets)
- ▶ Online platform (Moodle or equivalent) and a team of technicians specialised in online courses implementation
- ▶ A team of experts in communication
- ▶ A team of mentors
- ▶ A diverse group of motivated participants



MORE INFORMATION

<https://www.hiveproject.eu/>



The aim of the “Entrepreneurship: Turning Ideas into Business” training course is to create an inclusive course that fits all academic community (students, academic, non-academic staff) and could be embedded in the curricula in the future. The course is held in English and it comprises three core modules (Entrepreneurship and Innovation; Develop an idea into a Business; Create a Startup) and three optional modules (Innovation and Entrepreneurship in Healthcare; Social Entrepreneurship and Social Innovation; IT and Digitisation Basics for Young Entrepreneurs).

DIRECTIONS

1. For six months, join the coordination team with the team of experts and produce the content for the online course using a cloud.
2. Include a team of technicians specialised in online courses implementation in the previous group. Let them work for six more months.
3. After one year of work, get help form a team of experts in communication to start course dissemination, allowing people from any HEI to join the course.
4. Register participants on the course.
5. Let participants enjoy the course content and associated activities in a self-paced way.
6. Allow the team of mentors to guide the participants who applied for the mentorship.
7. Issue course certificates. Include this course at your HEI's curricula in order.



Corporate Corner

CONTRIBUTED BY

- ▶ InFLAMES Research Flagship
- ▶ University of Turku and
- ▶ Åbo Akademi University, Finland



TARGET GROUP

- ▶ Research personnel
- ▶ students
- ▶ private sector
- ▶ industrial company representatives



INGREDIENTS

- ▶ Organising team
- ▶ University researchers and other personnel from all career stages
- ▶ University students
- ▶ Stakeholders (companies, entrepreneurs, policy-makers, funding agencies, investors, etc.)
- ▶ An interactive, configurable and even-surfaced hall with a very large screen and high-quality microphones
- ▶ Good food and drinks

DIRECTIONS

1. Select 1-3 hosts for the event.
2. Determine the event's theme and main title with the host(s). The theme depends on the host(s) study area and interests.
3. Allocate short speaking slots of 15 minutes each (12 minutes for the talk, 3 minutes for questions).
4. Ensure a balanced representation of speakers from the research community and from companies.
5. Conclude the programme with an engaging panel discussion, competition, or other interactive activity to ensure a dynamic end to the programme
6. Incorporate dedicated networking time at the beginning, middle, and end of the programme.

MORE INFORMATION

Example of the programme: <https://inflames.utu.fi/events/inflames-corporate-corner-novel-technologies-to-improve-human-health-2/>

News article: <https://inflames.utu.fi/inflames-corporate-corner-delves-into-the-possibilities-of-novel-techniques-in-medical-research/>



“The core idea of the Corporate Corner concept is to promote dialogue and cooperation between academia and industry.”

TIPS AND VARIATIONS

- ▶ Begin planning well in advance (4-6 months before the event).
- ▶ Start the event with a lunch and social gathering.
- ▶ Allow for a time frame of 3 to 4 hours for the main event, followed by a separate two-hour social gathering with food and drinks to enhance the overall experience and facilitate social connections.
- ▶ Event should be advertised for all interested people



Pint of Innovation

CONTRIBUTED BY

- ▶ SPVR

TARGET GROUP

- ▶ Laboratories in the University of Poitiers
- ▶ researchers

INGREDIENTS

- ▶ Researcher-entrepreneurs
- ▶ general public
- ▶ bar



DIRECTIONS

1. To organise such an event, it is essential to find a bar that is willing to host the event, preferably in the city centre.
2. Next, invite the researcher-entrepreneurs and promote the event through various channels.
3. It is also important to prepare a presentation for the audience and arrange engaging activities, such as a quiz for the public.



MORE INFORMATION

<https://www.univ-poitiers.fr/pint-of-innovation/>



“Lighthouses relate to pathfinding.

A lighthouse helps people get where they need to be by shining light on the road ahead.”

INTRODUCTION

- ▶ Pint of Science is an event where the researchers talk about their research to the general public in bars. The entrepreneurial culture plays a crucial role in economic development, and events like Pint of Innovation help to demonstrate to researchers and the general public that launching a start-up is achievable. The University of Poitiers offers various resources to support researchers in the creation of start-ups . Additionally, residents of Poitiers who are interested in innovation and entrepreneurship can directly obtain information from researcher-entrepreneurs in the informal and relaxed atmosphere of the bar.



Seed Tech Transfer – INOVVC+

CONTRIBUTED BY

- ▶ University of Coimbra

TARGET GROUP

- ▶ Entrepreneurs
- ▶ inventors
- ▶ researchers
- ▶ PhD students



MORE INFORMATION

https://www.uc.pt/site/assets/files/743577/brochura_seed_tech_transfer.pdf



INGREDIENTS

- ▶ Teams from three universities
- ▶ Entrepreneurs and innovators seeking to challenge their ideas and technologies
- ▶ Mentors, trainers
- ▶ 7 weeks



DIRECTIONS

1. Applications phase: The best ideas and technologies have the experience with a mix of creativity and business idea, technology scouting, a business plan, commercial valorisation, intellectual property, raising finance, and communication and pitch preparation.
2. Finally, the best technologies and ideas are presented to companies, business angels, venture capital, via mentors, trainers and technology transfer office.
3. Long-term support: Proof of concepts and ignition, joint projects and continuous mentorship.

Seed Tech Transfer is a technology transfer skills development programme aimed at promoters of innovative business ideas/R&D projects with commercial potential.

TIPS AND VARIATIONS

- ▶ Know your idea and the full potential, challenge your technology; prepare your pitch, expose yourself, and take a risk believing in your potential.



Born Globals meetup and festival

CONTRIBUTED BY

- ▶ Jena University
- ▶ Central German University Alliance (Unibund)



INGREDIENTS

- ▶ Motivated students from bachelor to PhD from all over the world gathering in one place
- ▶ Start-up service to manage exchange and festival
- ▶ Pitch competitions
- ▶ Digital platform
- ▶ Role models, inspirational input and good food

TARGET GROUP

- ▶ International students and founders at the universities

MORE INFORMATION

<https://internationalstartupcampus.com/calendar/born-global-meetup-90/>

<https://internationalstartupcampus.com/calendar/born-global-startup-festival-day-1-empowering-internationals-to-create-startups-in-germany-93/>



“Empowering internationals to create start-ups in Germany – with a global impact.”

We promote the creation of Born Globals, companies and initiatives that internationalise fast (born from a global mindset and technologies).

DIRECTIONS



1. Yearly highlight event with workshops, pitches, role model speech and good food and drinks
2. Monthly or quarterly meetings for internationals who are interested in founding start-ups
3. Digital platform to communicate

TIPS AND VARIATIONS

- ▶ Establish speed datingIntegrate meetups in regular events to give more visibilityOffer incentives for joint challenge formats and hackathonsEstablish a yearly competition



Toolbox InnoSkills

CONTRIBUTED BY

- ▶ Nucleus Jena is a joint project of Friedrich Schiller University Jena and Ernst Abbe University of Applied Sciences Jena, with the aim of fostering the research-based transfer of ideas, knowledge, and technology in the regional innovation ecosystem of Eastern Thuringia.

TARGET GROUP

- ▶ Researchers



INGREDIENTS

- ▶ In-depth knowledge and skills in innovation management und entrepreneurship.
- ▶ A handful of researchers who are interested in creating innovations.
- ▶ User-centred design process.
- ▶ Graphic design and basic programming skills.



TIPS AND VARIATIONS

- ▶ Focus on tools that align with the innovation strategy of your university (e.g. Industry Collaboration, Startups First, Citizen Science).
- ▶ Make the toolbox widely known and freely accessible to other interested parties and plan for the continuous evolution of the tools.
- ▶ Utilise the tools for coaching and workshops, with a focus on providing the right tool for specific challenges. Only a few researchers will access the toolbox on their own.

Consider the toolbox as an instrument to enhance the quality of your work, such as that of an innovation manager.

MORE INFORMATION

<https://www.nucleus-jena.de/tools/>



“The InnoSkills toolbox serves as a vital resource for researchers, empowering them with a wide range of tailored tools to foster collaboration and innovation.”

DIRECTIONS

Background: Knowledge transfer and innovation management can be challenging for researchers because many perspectives need to be considered and multiple tasks need to be solved. Tools can help in managing these challenges by expanding researchers’ capabilities and create new opportunities. The InnoSkills toolbox was developed using a design thinking approach to promote innovation.

- 1. Understanding the ingredients:** A) The use of tools in innovation management within the industry and in the venture creation process is widespread and well established. Given the abundance of available tools, it is essential to gain a comprehensive overview of these tools.
B) Given that the innovation processes of researchers are diverse, examine which processes exist, how they unfold, and what tasks researchers must fulfil. Structure these tasks using the job-to-be-done method.
- 2. Empathise the settings:** Some tasks cause pain points for researchers. Identify these by creating personas and journey maps. Focus on researchers with less experience in knowledge exchange and innovation management.
- 3. Define the flavour:** Select the most pressing pain points and describe them from the perspective of the researchers. Categorise them into clusters. For example, one cluster that we identified is the From Idea to (Innovation) Project. One pain point from this cluster is What partners do I need for my project?

- 4. Ideate and Prototype:** Use the right tools (e.g. Stakeholder Map, Impact Canvas, Transfer Canvas, Kanban) to help researchers to solve their pain points. In some cases, you may need to use multiple tools for a single problem area. Develop tailored tools, ensuring that they are adapted to researchers’ needs, user-friendly and visually appealing. Optionally, consider engaging a graphic agency to design the tools and create a website for the toolbox. Ensure that the website is customisable and intuitively usable from the perspective of researchers.
- 5. Tasting:** Test the tools with participating researchers and continuously refine them together using the build-measure-learn approach.
- 6. Serve and Implement:** Follow an open policy and make the tools available for free download on a website. Here, use a minimal viable product strategy. Learn from researchers’ feedback to improve the toolbox in width and depth. To promote the toolbox, create a coaching and workshop concept.



Univenture competition

CONTRIBUTED BY

- ▶ Master in International Business and Entrepreneurship of the University of Pavia (MIBE)
- ▶ University of Pavia
- ▶ Parco Tecnico Scientifico
- ▶ Municipality of Pavia



TARGET GROUP

- ▶ Students/researchers/teachers from UNIPV
- ▶ entrepreneurs
- ▶ start-ups or SMEs
- ▶ academic spin-off

INGREDIENTS

- ▶ Innovative business ideas
- ▶ Involvement of university students in developing the innovative idea
- ▶ Non-repayable money prize

MORE INFORMATION

Univenture 2022 edition: <https://web.unipv.it/ricerca/imprese-e-ricerca/cultura-innovazione/univenture22/>



"Univenture: enter as a student, leave as an entrepreneur."

DIRECTIONS

Univenture is a competition aimed at stimulating entrepreneurship and innovation by matching different and complementary skills from the students of the master course in International Business & Entrepreneurship (MIBE) of the University of Pavia as well as innovative entrepreneurs.

The competition comprises four steps:

1. **Presentation of the project proposal:** Presentation of innovative business ideas and first selection round by the organising committee (shortlist of 10 to 20 of the initial proposals), whereby a number of places is assigned considering a few priority criteria (e.g. to participants belonging to the University of Pavia, projects targeting environmental sustainability or non-profit issues, projects led by female leaders).
2. **Fair of ideas:** Selected project leaders attend the "fair of ideas" and present their business idea to the MIBE students. Successful projects (i.e. those voted by MIBE students to form a team with) enter the following "innovation deck development" phase.
3. **Innovation deck development:** during the Innovation Management course (MIBE), the project teams will start their strategic analysis and drafting of the "innovation deck."
4. **Presentation of the innovation decks and announcement of winners:** Each project team (not the project leaders) present their project in front of a jury set up for this purpose. The jury will convene at the end of the presentations and announce the winners. The prizes are non-repayable money contributions for the full development of the innovative business ideas.



Entrepreneurial Week

CONTRIBUTED BY



- ▶ EC2U “European Campus of City-Universities,” mainly with organising teams from the EC2U Universities in Pavia, Iasi, and Jena.

TARGET GROUP

- ▶ Students and young researchers who are new to entrepreneurship

INGREDIENTS

- ▶ Host university with orga team and academic lead
- ▶ 6 partner universities
- ▶ 4 days
- ▶ 21 students (or more) with mobility grants
- ▶ 6 speakers from across the EU (for workshops)
- ▶ 2 entrepreneurs (for entrepreneur lounge session)



TIPS AND VARIATIONS

- ▶ Despite not being explicitly mentioned, we only used female empowering pictures to advertise the Entrepreneurial Week, with women and teamwork in focus. This might be the reason why we had a very balanced gender ratio among the applicants and participants.

“The Entrepreneurial Week is a very good activity for raising awareness for entrepreneurial opportunities.

The intercultural team experience often served as hook, to develop a genuine interest in entrepreneurship.” (Eleonore Roderfeld)

“Participants can expect a fast-paced entrepreneurial adventure, with lots of things to do and no time to waste!”

(Participant at the 1st EW in Pavia)

DIRECTIONS



1. Around 8 months before the event, find an academic lead (a professor with matching field of interest) and a relevant topic (e.g. circular entrepreneurship, social entrepreneurship, digital entrepreneurship).
2. Invite your network to contribute with workshops and lectures, as well as involving local start-ups and start-up ecosystem. Then, draft a four-day programme from Monday to Thursday.
3. In the meantime, launch the call for participation for student participants.
4. Select students in a selection committee meeting (with volunteering colleagues and experts).
5. Match diverse teams of 4–5 students, and set up a collaboration platform.
6. Enjoy an intense Entrepreneurial Week and the final student pitches!



Tech Accelerator

CONTRIBUTED BY

- ▶ Innovation Labs project, Calemis entrepreneurial community Iași

TARGET GROUP

- ▶ Students, Entrepreneurs
- ▶ University Spin-off-ers
- ▶ Senior specialists

MORE INFORMATION

<https://www.innovationlabs.ro/>
<https://calemis.org/>

▶ INGREDIENTS

- ▶ Young visionary people aiming to build a start-up
- ▶ Teams from 19 universities belonging to 9 cities
- ▶ Mentors and ambassadors
- ▶ Local partners from industry, strategic and academic partners (universities)



METHOD

1. **Registration**
2. **Hackathon** for finding team members, building a prototype, and pitching the idea. Selected teams can continue the programme.
3. **3 months pre-acceleration phase** with workshops, tech-talks, and mentorship for three months.
4. **Demo day** for presenting the developed technical demo and finding partners and investors.
5. **Long term support** with continuous mentorship, product development, partnerships, and media exposure.



Magic through empowering – because people can do magic when they feel in control through support and positive examples

TIPS AND VARIATIONS

- ▶ Select type of team (student driven, university research spin-off, senior team)
- ▶ Try different tracks (agriculture, blockchain, cybersecurity, Devtools, digital health, lifestyle, retail and e-commerce, smartcity and industry 4.0, sustainability)



Activators breakfast

CONTRIBUTED BY

- ▶ Activators Pavia APS

TARGET GROUP

- ▶ Innovators
- ▶ start-ups
- ▶ interested professionals



INGREDIENTS

- ▶ Italian-style breakfast
- ▶ A nice location
- ▶ An informal format to gather innovators
- ▶ A networking event



DIRECTIONS

1. One meeting a month, on Saturday morning at breakfast
2. Short presentation round
3. Free networking session

MORE INFORMATION

<https://www.activators.it/format/breakfast/>
<https://www.eventbrite.it/o/activators-pavia-2983983687>
<https://www.linkedin.com/company/activators-pavia/>
<https://www.instagram.com/activatorspavia/>
<https://www.facebook.com/groups/284729261648571>



“Think global, Act local.”

Activators through its format #Breakfast create connections in the local community of Pavia focusing on innovation initiatives (idea, project, start-ups), placing genuine and face-to-face relations at the centre.

TIPS AND VARIATIONS

We have several other formats, the most recent is #MeettheInnovators where we move the activators community inside innovative workplaces (companies, start-ups) during the week at the end of the working day.



Future Conference

CONTRIBUTED BY

- ▶ JenaVersum e.V., Germany



TARGET GROUP

- ▶ Stakeholders from academia, cities and industry that aim to collaborate

INGREDIENTS



- ▶ Coordination team
- ▶ Moderators/facilitators
- ▶ Diverse stakeholders (from research, city, industry, foundations, policy-makers etc.)
- ▶ 3–6 predefined (or tentative) strategic fields of action
- ▶ Parallel facilitated workshops with curated working groups

DIRECTIONS

1. Let participants chose one of the strategic fields of action (already in the registration or on-site)
2. **Welcome** [short + sweet!]
3. **Work on fields of action I: Develop “strategy boards”**: joint discussion on “Where do I see the network in ten years? What can I myself and my institution contribute concretely to get there?”
4. **Gallery walk with coffee**: Participants visit all workshop rooms and comment on other strategy boards (facilitators remain in “their” rooms, answer questions from the visitors and encourage them to pin thoughts to each strategy board: “I would like to give the working group this as a thought ...”).
5. **Work on fields of action II: Develop concrete actions**: Incorporate feedback from other participant, and start planning concrete actions for the next two years.
6. **Summing up**: Moderators report to plenum what was special in each working group and a wish addressed to the executive board
→ Executive board comments.
7. **Feedback** [virtual]: What do I take away from today?
What do I wish for the next two years?
8. **Closing words and outlook** [short + sweet!]

“The best way to predict your future is to create it.”

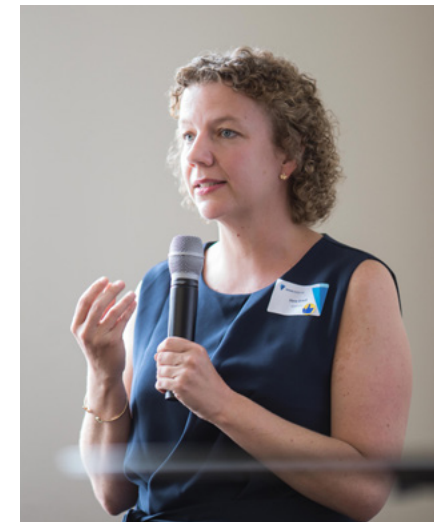
The aim of the Future Conference is to develop recommendations for joint future actions in a multi-stakeholder setting based on a common strategy.

TIPS AND VARIATIONS

- ▶ Get heads of participating institutions to agree to participate in a Future Conference in the first place and agree on a date that fits all/most. Communicate the date to all stakeholders (“save-the-date”) well in advance (6–8 months). Invest in good moderators/facilitators (with experience in multi-professional collaborations). Use virtual tools e.g. for registration or final feedback. Start with a networking lunch.

MORE INFORMATION

<https://www.jenaversum.de/?lang=en>



Chairs of the Foundation

CONTRIBUTED BY

- ▶ Fondation Poitiers Université



TARGET GROUP

- ▶ Socio-economic actors
- ▶ researchers

INGREDIENTS

- ▶ A common topic
- ▶ different actors who work on this topic
- ▶ regular meetings
- ▶ discussion of the current problems in the industry

DIRECTIONS

1. The chairs aim to discuss concrete projects with a clear plan established after the meeting. Additionally, the chairs do not accept direct competitors to the meetings.
2. At present, members of the chairs can be invited personally. The Fondation of Poitiers typically identifies members through networking, but interested parties can also request to participate themselves.

MORE INFORMATION

<https://fondation.univ-poitiers.fr/accueil/nos-actions/les-chaire-adossees-a-la-fondation/> Startup collaborations



Address high social value issues with a multidisciplinary and multi-stakeholder vision.

INTRODUCTION

- ▶ The University of Poitiers is a hub for research facilities and scientific experts in various fields. However, it's crucial that the research conducted serves society and allocates resources to meet the actual needs of socio-economic actors. To foster a dialogue between the scientific and non-scientific worlds, the concept of partner chairs was proposed.
- ▶ Partner chairs are large-scale projects financed by one or more sponsors that aim to develop a multi-year programme of research, education, and dissemination of knowledge in a collectively defined domain of interest, linked to the university's scientific policy. These chairs represent a true meeting point between the university and the socio-economic world. They aim to address high social value issues with a multidisciplinary and multi-stakeholder vision, enabling actors from the socio-economic world to support innovative themes defined and led by dedicated teams of teachers and researchers.
- ▶ This method helps to identify actual problems in society and provides researchers with a challenge to propose possible technologies to address them. It can also serve as a starting point for technological start-ups based on the real demands of society. There are four chairs that currently exist: Sport, Health, and Well-Being; Biodiversity; Brain Ageing; and Digital Tools in Biology and Health. The latter is developing new methods of working with data in that field.
- ▶ Additionally, three more chairs will be created in the future, including Cybersecurity, Culture and Creativity in the virtual universe as well as Territorial Energy Autonomy (how the territory can be self-sufficient in producing the energy that it needs?).



Deep-tech Idea Pitches

CONTRIBUTED BY

- ▶ Digital Innovation Hub Photonics (DIHP), Jena
- ▶ Dr. Sebastian Händschke and Eleonore Roderfeld

TARGET GROUP

- ▶ Researchers
- ▶ innovators
- ▶ start-ups and anyone with photonics ideas



INGREDIENTS

- ▶ A consortium of five local research institutes, with local coordinators
- ▶ Budget for financing 5 x 6 person months of research work
- ▶ A diverse jury from research, industry, venture capital etc.

TIPS AND VARIATIONS

- ▶ If the pitch is not public, and the jury and guests sign a confidentiality agreement, the applying teams might be open to give a good insight into the technical details. Moreover, due to the technical expertise in the jury, this kind of pitch contains more technical details than a usual investor pitch or innovation award.

“By winning the DIHP Pitch, we use the research support to try out new technology modules and draw on many years of expertise. More in detail, we are having the research institute Leibniz-IPHT develop and test a fluidics concept on the basis of which we will possibly develop a first prototype in the future.”

Tobias Schröter of FluDect GmbH, one winning team of the DIHP Pitch 2022

DIRECTIONS

1. Around 3 months before the event, open the call for application via website, social media, and posters. Individual invitations, contact with multipliers and scientific networks are important to spread the invitation.
2. Invite jury members with a diverse expertise to combine academia, industry, and venture capital.
3. Based on the application documents, select the pitching teams and invite them to the pitch event. Take care that teams match the research focus of the five institutes.
4. On the pitch day, welcome the guests and applicants and moderate the event. Facilitate the networking and the jury discussion.
5. Follow-up: Schedule meetings with winning teams and respective institutes and matching research groups to start the joint projects. A few months later, organise a meeting with all winning teams for a status update and networking.



Entrepreneurs in Residence

CONTRIBUTED BY

- ▶ University of Turku
- ▶ School of Economics
- ▶ Department of Management and Entrepreneurship
- ▶ Entrepreneurship Unit

TARGET GROUP

- ▶ Students
- ▶ faculty members
- ▶ entrepreneurs

INGREDIENTS

- ▶ Local, national and/or international entrepreneurs who are interested to collaborate systematically with the university
- ▶ Faculty members who are motivated to take the EIRs onboard to their educational activities
- ▶ University administration (contracting and practical support purposes)
- ▶ Students



MORE INFORMATION

<https://www.utu.fi/en/university/turku-school-of-economics/eirVirtual>
Lecture Series: <https://youtu.be/FKteJBvKV58>



“Such experiences are the best lessons our university can offer for us.”

(3rd year BSc student)

DIRECTIONS

Entrepreneurs in Residence (EiR) is a programme that involves entrepreneurs in the activities of the business faculty in a systemised manner. The objective of the EiR programme is to increase the participation and presence of active entrepreneurs in the school. The close form of cooperation benefits both parties. The EiRs chosen for the programme become honorary members of the scientific community. They offer students and researchers a direct connection to the realities of business life. In turn, the entrepreneurs get access to the latest academic research and knowledge. The EiRs engagement can take different forms, such as:

1. Engagement as inspirational guest speakers
2. Serving as review panellists/judges in classroom activities, such as pitching/business idea competitions
3. Mentoring students in the identification, evaluation and exploitation of business ideas
4. Supporting research activities of faculty members across TSE
5. Reinforcing TSE as an entrepreneurship-friendly faculty and partner for business
6. Serving as ambassadors of TSE and its programmes

TIPS AND VARIATIONS

- ▶ EiRs are appointed as Honorary Teaching Fellows. The EiR appointment is unpaid at our university. EiRs are appointed for a fixed-term period of two academic years, with an option for renewal, which will be granted based on the interest to continue and the contribution made over the previous academic years. The contribution is negotiated and planned individually with each EiR. The programme was launched at our university in 2020 with three EiRs. EiR initiative is concrete, grassroot-level action to support teaching and learning. It is scalable in different faculties, HEIs, different levels of education. It is scalable also in terms of entrepreneurs.



Programme to support innovative entrepreneurship

CONTRIBUTED BY

- ▶ Mili Pizarro
- ▶ University of Salamanca



TARGET GROUP

- ▶ Entrepreneurs working in specific sectors (e.g. health, agriculture, environmental and digital sector)

INTRODUCTION

- ▶ This programme brings together a complete package of support services in the field of entrepreneurship focused on students. The objectives are to identify, attract and facilitate the creation, acceleration, and growth of new innovative business projects that bring diversification of economic activity and incorporation of new technologies with high added value and growth potential to the Castilla y León ecosystem. The collaboration between the University Research Groups and the University of Salamanca Talent – which we work with within a regional approach – is promoted.



INGREDIENTS

- ▶ Funds are provided by the “Instituto para la Competitividad Empresarial” (ICE), the arm of the Regional Government of “Castilla y León,” and managed by the University of Salamanca (SIPPE). All services and activities are free of charge.
- ▶ Promoters of entrepreneurial ideas and projects with a technological and/or innovative base, at any stage of maturation.
- ▶ Entrepreneurs who have started or are considering starting a business and need support for the validation, start-up or growth of their project.
- ▶ A series of individual services to be provided to entrepreneurs, depending on the stage of their project.
- ▶ All actions will be aligned with WOLARIA, the business accelerator of Castilla y León (ICE).

MORE INFORMATION

<https://empleo.usal.es/emprende/ice2124.php>

<https://empleo.usal.es/emprende/apoyo-base-tecnologica#ICE-2021-2024>



“The secret to successful innovation? Listening to your customers as attentively as a chef listens for the sizzle of a perfectly seared steak.”

DIRECTIONS

- ▶ Creation of a resources inventory, with the aim of having a regional repository of advanced resources for innovative entrepreneurship.
- ▶ Dynamization actions, which include the following types of actions:
 1. Awareness-raising events for university groups to bring to the surface innovative entrepreneurial profiles, ideas and/or projects.
 2. Net days. Technological meetings between start-up promoters and research groups to define and contrast the solutions developed.
 3. Team days: University meetings between start-up promoters and students.
 4. Talent connection: Stable and regular information for alumni on initiatives linked to this program.
- ▶ Detection of ideas, selection of projects and creation of personalised itineraries.
- ▶ Deep-tech: Support actions for the generation of entrepreneurial projects.
- ▶ Entrepreneurial training to improve the capacities of the promoter teams, with three types of actions:
 1. Specific sectoral workshops that will allow them to cement and build the business initiative, aiming for the project to grow as quickly as possible.
 2. Technological training workshops, which favour the generation of technological profiles that cover the demand for workers with this profile.
 3. Specialised individual consultancy, complementary to the workshops, aimed at defining the critical strategic aspects for each project.
- ▶ Definition of the communication strategy. Support for the design, development, and implementation of communication materials.



Market exploration programme

CONTRIBUTED BY

- ▶ International Startup Campus (ISC)
- ▶ University of Jena
- ▶ Central German University Alliance (Unibund Mitteldeutschland)



TARGET GROUP

- ▶ University start-ups



INGREDIENTS

- ▶ A maintained network of international universities, other supporting business promotion institutions and companies in the target region
- ▶ Regional start-ups that need to internationalise early
- ▶ Travel grants
- ▶ A team managing the international networks

MORE INFORMATION

<https://internationalstartupcampus.com/explore/japan/>



“The Japan trip organised by the ISC solidified our thoughts on entering the attractive Japanese market. We were able to establish local contacts as well as connections to DJW, which we will rely on in the future. We were also able to exchange ideas with other international start-ups in our field that are active in Japan.”

DeepEn start-up team from Jena

DIRECTIONS

1. Coaching of university start-ups with potential to internationalise (the starting point is often a patent application).
2. Workshop series to introduce the opportunities to explore international markets with partner networks.
3. Regular events and visits with partner institutions in target countries that strive for the same goal (online and offline).
4. Apply for programmes that support university members and start-ups to internationalise and solidify the network.
5. Regular travel delegations and visits to establish joint programmes.

TIPS AND VARIATIONS

- ▶ Establish joint online programmes in certain faculties to foster mixed teams from various countries
- ▶ Offer a digital community platform
- ▶ Offer incentives for joint challenge formats and hackathons
- ▶ Establish a yearly competition



Exhibition of Creativity and Innovation

CONTRIBUTED BY

- ▶ EUROINVENT
- ▶ Romanian Inventors Forum
- ▶ Europe Direct Iași
- ▶ Gheorghe Asachi Technical University of Iași
- ▶ Alexandru Ioan Cuza University of Iași

MORE INFORMATION

<https://www.euroinvent.org/program/>

TARGET GROUP

- ▶ Academics
- ▶ Companies
- ▶ Citizens



INTRODUCTION

Leading inventors, researchers, engineers and scientists present actual research issues in all fields of research.

Exhibition purpose:

- ▶ Dissemination of research results
- ▶ Signing partnerships and agreements
- ▶ Creating and developing new research ideas
- ▶ Technology transfer
- ▶ Implementation of inventions



“The overwhelming (wrong) impression that innovation is necessarily something that produces economic wealth. It’s important to say that researchers in the Humanities can provide critical innovation too.”

INGREDIENTS

- ▶ One or several local universities
- ▶ One big main event (e.g. Inventors Forum)
- ▶ Over 700 inventions and projects

METHOD

1. Inventions and Research Exhibition
2. International Conference on Innovative Research (ICIR)
3. Technical–Scientifically, Artistic and Literary Book Salon
4. European Visual Art Exhibition



Innovation lab

CONTRIBUTED BY

- ▶ Ricardo Costa
- ▶ University of Salamanca



TARGET GROUP

- ▶ Ag sector
- ▶ academics
- ▶ students
- ▶ regional innovation ecosystem

MORE INFORMATION

<https://agrienvironment.usal.es/index.php/2023/02/01/un-nuevo-proyecto-busca-soluciones-frente-a-una-mosca-invasora-que-ataca-a-los-frutos-rojos/>



INTRODUCTION

- ▶ The Unit AGRIENVIRONMENT, a institutional strengthening project co-financed by the autonomous regional government and ERDF has set the challenge of improving technology and knowledge transfer output of CIALE, a university research institute focused on agricultural biotechnology in Salamanca, Castilla y León.
- ▶ We have decided to strategically focus on setting-up an innovation lab whose mission is to invert the workflow (socio-economic impact building efforts) in the academia-business context by promoting and focusing on a market pull strategy instead of the traditional technology push. We believe that the strategy (method) can be applied to other sectors and contexts.

TIPS AND VARIATIONS

- ▶ Change the challenge (e.g. strawberries to chestnut) and repeat. Instead of a pork stew, it may be rabbit stew, or a fresh new tiramisu...



“If you start stagnating (because you’re optimising, discussing, doing something), you lose momentum and you can fail. Once you start, you have to keep on going.”

INGREDIENTS

- ▶ The pain of the customer (need to feed, hunger)
- ▶ Technology surveillance and sourcing (sourcing ingredients)
- ▶ IP, business development, research portfolio (vegetable orchard, develop as necessary)
- ▶ Talent. Companies, Academics, Students. (find out who goes out to supermarket and gets the ingredients, who cultivates, who peels, who cooks, who sets the table, where is the kitchen, who washes the dishes, etc.)
- ▶ Fruitful networking (get talent to work together)
- ▶ Successful bidding (market your food: Who wants to get into your restaurant? Who do you want in your restaurant? Set the price)
- ▶ The first funded project was initiated two years after the initial design of the innovation lab. It will run (currently has funding) for two additional years. Patience is also a required ingredient, like the yeast when baking bread. “Paciencia es la madre de la ciencia” Serve your meal to society (business model design with Co.)

DIRECTIONS

1. **Identify a company or companies (other institutions in case of societal impact) with a pain!** The more serious the pain, the better! In marketing terms, it is often called the pain of the customer, in our case it was the impact of *Drosophila suzukii*, a pest affecting red-fruit productivity. Find a unresolved issue or challenge that provides an distinctive advantage to those company or companies. Regional companies with a expanding European or international footprint are favoured. For this specific case, we have selected the red-fruit sector (strawberry) located in a particular village (Chañe, Soria, Castilla y León). The source of the vegetal material is expanded in Murcia and feeds half of Europe.
2. **Act as their innovation department**, external to these PYMEs. Small and medium enterprises often lacking such skill sets, capacities or talent, which the university can more easily source. Perform and in-depth study about available technology (technology surveillance).
3. Lead and act as a business developer and promoter between interested companies and academics to design a open innovation path. Promote a deal. Lead a consortia and funding application. (Write up the recipe of your stew and keep it safe). Have you ever asked for your granma’s recipe book? Share with criteria and among family members...

Biomarker Commercialisation

CONTRIBUTED BY

- ▶ University of Turku (with its eight partners from the Baltic Sea Region and beyond, see <https://biomarker.nu/partners>)

TARGET GROUP



- ▶ Academic researchers
- ▶ start-up companies
- ▶ technology transfer offices

MORE INFORMATION

<https://biomarker.nu/>



INTRODUCTION



- ▶ Biomarker discovery is an area becoming increasingly important in research and industry, giving rise to new areas of diagnostic and treatment, and could form the foundation for new innovative drivers for researchers, enterprises and SMEs. According to “Biomarkers Market – Global Forecast to 2020,” the global biomarkers market expects to reach a market share of \$45.55 billion by 2020, of which healthcare and R&D expenditure are the key growth drivers. Nonetheless, the challenges for market uptake of these innovations are significant, as the development and commercialisation of biomarkers is time-consuming, difficult and expensive. Another challenge is to involve industry (pharmaceutical and diagnostic enterprises, SMEs, investors) much earlier in the development and commercialisation process of biomarkers, while research institutions need guidance to select the most relevant biomarker discoveries and conduct a development plan that meets early requirements from relevant industry partner.

DIRECTIONS

Depending on their starting positions and goals, researchers and other users can choose the tools and/or specific parts of those that support them in their own commercialisation goals.



“Availability of cooking ingredients and tools: Sometimes, everyone has good ideas and wants to cook but there is no space in the kitchen, the oven guy is too busy, the eggs are all used.”

INGREDIENTS

- ▶ The BIC Biomarker Commercialisation Guide provides guidance throughout the biomarker development process from the discovery to the launch of the product. It is a tool to monitor the progress of the biomarker development process actively.
- ▶ The BIC Best Practice Handbook offers hints and tips on e.g. commercialisation aspects, intellectual property rights, business models and legal viewpoints for different phases of biomarker discovery and development.
- ▶ The BIC ReviewTool is a tool for choosing the most innovative/commercialisable biomarker projects. It is a fill-in form for following the progress of a project. The BIC Regulatory Tools were created to extend, organise, and systematise knowledge around regulatory affairs. They aim to support stakeholders who participate in the process of placing IVD biomarker products on the market. The toolset includes a BIC IVD Regulatory Guide and a BIC IVD Regulatory Roadmap.
- ▶ The Educational Toolbox is a collection of different kinds of information that are either directly related to BIC tools or generally related to the commercialisation of biomarkers. Its purpose is to give a quick introduction to BIC tools as well as deeper information about various topics of biomarker commercialisation.



LabCom (common laboratories)

CONTRIBUTED BY

- ▶ Aliénor Transfert and SPVR



TARGET GROUP

- ▶ Laboratories in the University of Poitiers
- ▶ researchers

INGREDIENTS

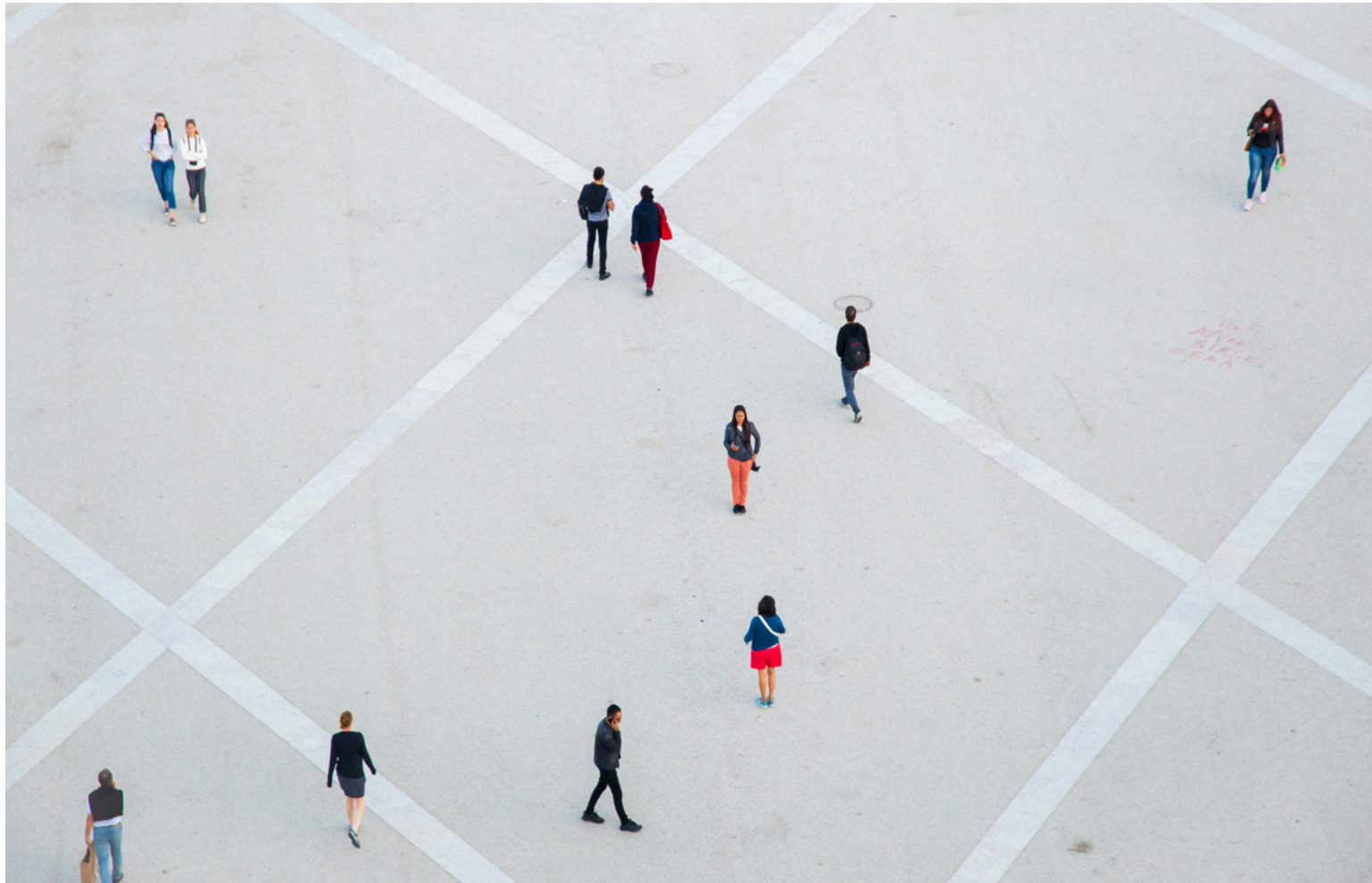
- ▶ Identification of the technology



DIRECTIONS

1. Technology transfer is a complex process that involves conveying research results from the laboratory to the market and society.
2. The first step in technology transfer is identifying potentially promising innovative technology or ideas. This is where SPVR and Aliénor Transfert come in, as they detect technology at different levels: macro, medium, and micro.
3. Macro detection of innovative technology occurs in LabComs, which are common laboratories between the University of Poitiers and other research entities such as CNRS (National Centre of Scientific Research), CHU (research hospital), and others. Additionally, global doctoral events can serve as opportunities for macro-level technology detection. The medium-level detection of technology is carried out within research teams, where the leader of the team can identify potential ideas from the researchers.
4. The micro-level detection of innovative technology is possible through personal interaction with researchers, where SPVR and Aliénor Transfert can engage with them directly to identify promising technologies.

"Identify the promising technology to choose the development strategy."



Crowdfunding platform – UNIVERSITIAMO

CONTRIBUTED BY

- ▶ Third mission service



TARGET GROUP

- ▶ UNIPV researchers

INGREDIENTS

- ▶ University-driven crowdfunding platform

MORE INFORMATION

<https://universitiamo.eu/en/>



DIRECTIONS

The crowdfunding process works as follows:

- 1. Selection of projects:** Projects to be funded are selected via an open call disseminated within the University of Pavia departments and research centres.
- 2. Dissemination of the crowdfunding opportunities:** A specific dissemination webpage dedicated to each selected project is created on the UNIVERSITIAMO website. Each webpage contains a brief description of the project, the goals to be attained, the list of people involved and the amount of money already reached, together with the names of the donors (if they gave their consent to this).
Example of a webpage: <https://universitiamo.eu/en/campaigns/un-mattone-contro-le-specie-aliene/>
- 3. Implementation of funding campaign:** Each selected project is supported by UNIVERSITIAMO in carrying out two different kinds of funding campaigns:
 - ▶ The first one targeting small individual donors via public events/social media
 - ▶ The second one targeting larger institutional donors such as foundations or firms via targeted communication and events
- 4. Termination of the campaign and award of funding:** Each project is promoted until it reaches the expected goal and receives the entire amount of funds that has been gathered.

"Choose a project, give your contribution, support our researchers!"



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