

Interreg Programme: Excellence in Research, Social and Technological Innovation Project Management (ReSTI)

eLearning Guide

ReSTI Module 5: *Innovation in the Business Context*

This *ReSTI eLearning Guide* is offered to orient learners to the courses in this module.

Become a ReSTI Entrepreneur!



Programme Introduction

ReSTI Programme overview:

Click [here](#) to access

Excellence-in-ReSTI stands for Excellence in Research, Social and Technological Innovation Project Management. The *Excellence-in-ReSTI Programme* was developed as an open source platform for project managers and administrators in public and private organisations, and can be used by all people interested in this topic. As such, the *ReSTI Programme* is offered, free of charge, under Creative Commons license.

The intent of the ReSTI Programme is to inspire an innovative and socially responsible Danube region and for participants to hone competences in research, technological, business and social

innovation. Another goal was to co-create a network across the region that learns together and collaborates on various initiatives that lead to EU-funded innovation projects. It goes without saying that the curriculum can also be used by any individual or organisation outside of the Danube region.

The programme offers five modules, each containing several courses that point the learners to EU research opportunities, teach project design and management methods and take learners through the steps of social innovation and innovation for the business context. Courses are directed at three stakeholder groups: research & education, business and civil society. The completion of each module leads to earning a digital badge that participants can place on their online profiles and include in their digital educational portfolios. Completing all modules leads to the *ReSTI Professional* super badge.

Modules and many courses can be completed in any order. However, a course sequence is suggested for all learners who prefer to follow a roadmap.

Usage License: The ReSTI Programme is appropriate for individual learners, and was especially designed for organisations/institutions that use it

as scaffolding for their own educational offers that may include face-to-face engagement. The license allows for organisations or individual consultants to use the ReSTI Programme to charge for their own consulting time or face-to-face engagement with their stakeholders, or their own educational (certification) programme that may be built upon or integrate the ReSTI Programme. The license details¹ can be found on the programme's landing page of the ReSTI.academy site and aligns with



Workload: The work in each ReSTI course aligns with particular ECTS (European Credit Transfer System) credits so that it is easy for the institution/s using the courses to give credit to their participants through their academic affiliations. The ECTS credit equivalence would be helpful when ReSTI courses are integrated into other programmes for which academic accreditation is sought.

Since this programme is open to the public, the library resources (upon which the activities are based) are often composed of open source materials. Some of these resources require registration before they can be accessed. It may happen that - due to the dynamic nature of the open source landscape - certain links will not be functionable at a given study time. Such issues are continuously monitored and corrected by responsible partners but in the meantime it is advised to search by resource titles to find the missing materials elsewhere.

ReSTI 5-Door Approach to eLearning

The *ReSTI Programme Design* accommodates multiple learning styles through the *ReSTI 5-Door Approach to eLearning*. In order to address different learning styles each course offers multiple entry points to the content through five doors: Behind each door, the learner is engaged in the content through a particular learning mode, and participants can either walk through all doors

and solidify their learning through repetition in various formats and/or choose the style that works best for them. At the core of this approach lies self-authorship in meaning-making. Learners choose from a plethora of offerings and compose the meaning that emerges from that choice. They can do a lot of activities, or just a few, or none if they pass the assessment upon entry. The purpose here is to optimize the learning potential and give full control about method, type and depth of learning to the (adult) learner. It is important to realize that the learning includes multiple pathways-some of which will be repetitive. This repetition is intended because not everyone will go through all the activities.

ReSTI 5-Door Approach to eLearning – Click here to watch video



The **Library** contains all content resources for the entire course such as lectures, readings, videos, case studies, articles, models, references, and other research materials, and various templates needed in the course. As is the case for all the doors, the Library also includes a variety of library activities that solidify the learnings. Information intake happens here through thinking, analyzing, and concluding.



The **Café** includes prompts for activities that learners complete through interaction with other people, engaging socially and constructing knowledge in collaboration with others. While the activities behind some other doors can be done in solitude, the Café activities require the learner to invite others into the learning. Information intake happens here through sensing, feeling, and relating.



The **Playground** offers learning opportunities for exploration, such as simulations, trial and error experimentation, or games. Some of these activities can be completed alone but many will also require other players. Information processing happens here through experimenting, doing, and acting.



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The **Forest** provides opportunity for individual reflection upon particular content items and/or activities prompted by instructions but also by various media and activities where the learner takes an observer role. Information processing happens here through watching, reviewing, and reflecting.



The **Assessment** requires the learner to pass an automated test. The tests are randomized from a broader set of questions and tests for acquiring a certain knowledge base, but cannot refer to experiences gained. However, if learners also complete the activities behind various doors, the knowledge base from the library comes alive, gains meaning, and will therefore be remembered better.



The **ReSTI Plaza** serves as an exchange place where learners leave information, reflections and opinions for other learners to access. Some activities include prompts to post in the plaza for others to learn from.

How to Best Move Through the Courses

Step 1: Course Information & Sequence

All materials can be accessed randomly and according to preference. However, the developers do suggest a potential sequence for all those learners who would rather have a complete roadmap, provided in the *Course Information & Sequence* file to be found on the landing page of each course.

Step 2: Introductory Video(s)

To obtain an overview of the course, it's best to begin by entering the Library Door and watch the introductory video(s).

Step 3: Summary of Resources

Next the *Summary of Resources* file provides the lay of the land for all the resources in a course. These are organised in sub-categories. Resources needed for activities are color-coded to distinguish them from all other resources.

Step 4: Access Doors

Thereafter, participants may continue with *Library Activities* and/or by entering any of the other doors to complete activities there.

For further info about the ReSTI 5-Door Approach visit this co-authored article:

Rowland, R., et al. (2018). The 5-Door Approach to eLearning for the Interreg Excellence in Research, Social, and Technological Innovation Project Management. *INTED2018 Proceedings*, 12th International Technology, Education and Development Conference, 5-7 March, Valencia, Spain, pp. 1016–1022, doi: 10.21125/int-ed.2018.1198.

ReSTI Modules & Courses

Module 1 | EU POLICIES

Course 1.1 EU Institutions and Strategy

Course 1.2 EU Policy Goals and Guidelines

Course 1.3 EU Grant Landscape & Funding Structure

Module 2 | PROJECT DESIGN

2.1 Introduction to Grant Application Writing & Impact

2.2 Advanced Project Development and Application Preparation

2.3 Forming a Consortium

2.4 Budget Development

Module 3 | PROJECT MANAGEMENT

3.1 Introduction to Project Management

3.2 Risk Management

3.3 Financial Management & Reporting

3.4 Communication & Dissemination, Capitalisation

3.5 Exploitation & IPR

Module 4 | SOCIAL INNOVATION

4.1 Introduction to Social Innovation

4.2 Social Innovation: Approaches and Methodologies

4.3 Designing and Implementing Social Innovations

Module 5 | INNOVATION IN THE BUSINESS CONTEXT

5.1 Innovation Sandbox

5.2 Introduction to Human-Centred Innovation Practice

5.3 Toward Sustainability: Introduction to Nature-Based Innovation Practice

5.4 Bringing Innovation to Market

5.5 Business Development

Click here to see more about programme structure

For further information, questions, or welcomed feedback, please contact the lead partner of the project, the [Centre for Social Innovation \(ZSI\)](#) in Vienna.

Technical aspects

Process of Excellence-in-ReSTI learning menu registration and course enrolment:

Participants should start at website [ReSTI.academy](#) and after reading the relevant information, click on the "ENTER" button below. This will guide them to the main MOOC website of Charles University in Prague where they can register.

Assessment process:

If confident about the knowledge and skills gained, participants may proceed to the Assessment door where they will find an Assessment quiz. Participants need to answer 6 out of 10 questions correctly in 30 minutes to pass each Assessment quiz. In case of failure, the same assessment can only be attempted after 5 days have passed.

Process of tracking study progress:

Participants can track their study progress through the course completion status block (available top right of the screen), they also have the option to double-check their progress by visiting the list of desired learning outcomes that

can be found within the Course Information & Sequence document.

Process of earning badges:

When learners have successfully completed the Assessment quiz in each course within a module, they will be awarded a virtual badge by the *Excellence-in-ReSTI Partnership*. The badges are small informative pictures with metadata that indicate the accomplishment of successfully completing a whole *Excellence-in-ReSTI Module* - and thus reaching an adequate knowledge level in all module topics. The earned badges can be shared online in various websites and social networks. Participants first have to create a [digital backpack](#) and then upload their badges per each module. Upon completion of all 5 modules, participants will be awarded a so-called *ReSTI Professional* badge.

The badge system - click here to watch video



Participants can see earned badges [here](#).

Introduction of ReSTI Module 5 *Innovation in the Business Context*

A warm welcome to *ReSTI Module 5*! These courses were designed by the Department of Business Studies at the [University of Applied Sciences Burgenland](#), Austria. For further questions please contact the [European Studies Programme](#).

This module offers five comprehensive hands-on courses with the first three focusing on collaborative innovation processes and the last two on bringing innovation to market and/or implementing it, and considering the phases of business development. Many activities require other co-actors to complete them. Thus, individual learners will need to gather colleagues or friends to work with, while institutions may use the prepared activities for collaborative face-to-face group work.

A plethora of resources and activities are offered in these courses. Some may feel repetitive; this is on purpose as same/similar content is offered in multiple learning styles. Since the module is constructed to simulate innovation processes as they are lived in organizations today, the focus should lie on “doing” rather than reading or watching “about” doing, so that learners experience the content as it is currently practiced in the business environment.

All five courses can be completed successfully online without face-to-face coaching. There are, however, significant benefits to the learners in this module, particularly when their learning is supported by face-to-face interactive sessions—as learning how to innovate requires not only the acquisition of knowledge but, above all, the honing of skills through experiencing the creative engagement process in a collaborative effort. The first (5.1) and last (5.5) course could easily be completed through online engagement only, while learners would hugely benefit from face-to-face support during the second (5.2), third (5.3) and the fourth (5.4) course. In fact, the third (5.3) course is best accomplished with two or three face-to-face engagements that usher learners through the steps of user-based research, problem definition and creation of design criteria, scientific research into nature, ideation of concepts, and evaluation of prototypes against the design criteria and sustainability benchmark. Courses 5.2 and 5.3 could also be combined, so that Course 5.2 could be used for conducting contextual action research which results could then serve in Course 5.3 as the definition of the design challenge and selection of design criteria during the first stage of the bio-inspired innovation process. It is recommended to feed any face-to-face session with online (theoretical) materials prior to the event, and facilitate the learners through the collaborative innovation steps as well as allow for reflection and dialogue at the end or after the session, so that transformative learning might happen.

Module 5 Course Outlines

INNOVATION IN THE BUSINESS CONTEXT

Recommended academic credits: 6 ECTS for the online curriculum (~ 150-180 hrs workload total, see below details for each course in this module)

ReSTI Module 5 Course 5.1

Innovation Sandbox

1 ECTS (~ 25-30 hrs workload)

Course Description:

In this course, participants gain an overview of the innovation models, strategies, and methods across sectors and genres. The course includes definitions and introductory materials for open, closed, and circular innovation. The innovation process is simplified in *The Double Diamond* approach from the *UK Design Council*. Methods that lead toward systemic sustainability are presented in *The Circular Design Guide* from the *Ellen McArthur* organization. A variety of other sources for leading innovation toward systemic sustainability are offered. The course provides a brief introduction to human-centred and nature-inspired innovation approaches that are then each deepened in the following innovation practice courses (5.2 and 5.3).

Course Objectives:

The main course objectives are

- to define open, closed, and circular innovation
- to become familiar with *The Double Diamond* approach to innovation
- to become familiar with *Circular Design* as a framework for innovation toward systemic sustainability
- to get to know human-centred and nature-based methods for leading innovation

Learning Outcomes:

By the end of the course, participants are able to

- define open, closed, and circular innovation
- list the steps of *The Double Diamond* approach to innovation
- describe the genre of *Circular Design*

- list a variety of methods for innovation
- define human-centred innovation & contextual research
- define nature-inspired innovation & systemic sustainability

ReSTI Module 5 Course 5.2

Introduction to Human-Centred Innovation Practice

1.5 ECTS (~ 45 hrs workload)

Course Description:

In this practice-oriented course, participants experience the steps through *The Double Diamond* innovation process to which they were introduced in course 5.1 Innovation Sandbox. They engage deeply in the human-centred innovation process, moving from contextual (user-based) research for (re-)defining a chosen problem, through creating concepts and prototypes for potential solutions. In subsequent courses (5.4 and 5.5) participants have a chance to bring their invention from this course to market and develop a business around it.

Course Objectives:

The main course objectives are

- to define innovation challenges to work with
- to conduct secondary research
- to conduct primary contextual research through user-centred empathetic stakeholder-engagement
- to collect, analyze, and synthesize data into key findings
- to move from insights to opportunities
- to brainstorming ideas
- to develop, consolidate, and focus concepts for potential solutions
- to develop and refine prototype
- to practice leading innovation sessions

Learning Outcomes:

By the end of the course, participants are able to

- properly define an innovation challenge
- conduct secondary research
- lead primary contextual research

- generate key findings and insights from collected, analyzed, and synthesized data
- formulate opportunities for design from research insights
- brainstorm ideas and develop concepts and prototypes
- design and facilitate innovation activities and whole sessions

ReSTI Module 5 Course 5.3

Toward Sustainability: Introduction to Nature-Based Innovation Practice

2 ECTS (~ 50-60 hrs workload)

Course Description:

In this practice-oriented course, participants experience the steps through *The Double Diamond* innovation process, in form of a nature-inspired analogy-based process. Both Biomimicry approaches will be introduced: *Biology to Design*, and *Design Challenge to Biology*. In particular, participants will practice the 4 stages of *Biomimicry Thinking*: scoping (defining function the innovation should fulfill in the end), discovering (nature-based scientific research searching for models in nature), creating concepts and prototyping, and evaluating the proposed innovation against the sustainability benchmark of the *26 Biomimicry Life Principles*. Research steps include deep scientific research into general and subject-specific sub-categories of biology and/or ecology in order to discover the strategies nature uses for surviving and thriving. Systemic sustainability is guaranteed in this innovation process through the sustainability mandate that is built into the design process. In subsequent courses (5.4 and 5.5) participants have a chance to bring their innovation to market and develop a business opportunity for their innovation.

Course Objectives:

The main course objectives are

- to be introduced to a nature-based innovation practice: *Biomimicry-Innovation Inspired by Nature*
- to become familiar with the *26 Biomimicry Life*

Principles as guidelines for sustainable innovations

- to develop a scientific fieldwork practice
- to practice the *Biology to Design* approach to the *Biomimicry Thinking Innovation Process*
- to practice the *Design Challenge to Biology* approach to the *Biomimicry Thinking Innovation Process*
- to produce concepts and a prototype for a biomimicry innovation

Learning Outcomes:

By the end of the course, participants are able to

- explain the *Biomimicry* framework and practice to others
- list what opportunities *Biomimicry* holds for innovation
- use the six *Biomimicry Master Life Principles* as a sustainability benchmark
- find strategies in nature to emulate into human-made products, services, processes, and systems
- work with the 4 stages of the *Biomimicry Thinking Innovation Process*
- recognize the specific features of biomimetic innovations
- lead *Biomimicry* innovation sessions

ReSTI Module 5 Course 5.4

Bringing Innovation to Market

1 ECTS (~ 25-30 hrs workload)

Course Description:

In this course participants create a strategic vision in form of a business model for an idea, concept, or invention completed during courses 5.2 Human-Centred Innovation Practice and/or 5.3 Nature-Based Innovation Practice (or taken from another case). They also develop implementation and business plans to bring their innovation to market through a series of cohesive phases.

Course Objectives:

The main course objectives are

- to explore a variety of business models
- to work creatively with the *Business Model*

Generation canvas process, expanded to integrate biomimicry and circular economy principles

- to develop implementation and business plans to roll out the innovation
- to become familiar with various business plan outlines
- to develop a viable business plan aligned with the completed traditional/biomimicry/circular *Business Model Generation* canvases

Learning Outcomes:

By the end of the course, participants are able to

- manage the *Business Model Generation* canvas process and align it with biomimicry and circular economy principles
- create implementation and business plans to roll out innovations aligned with components of the traditional/biomimicry/circular *Business Model Generation* canvases

ReSTI Module 5 Course 5.5

Business Development

0,5 ECTS (~ 13 hrs workload)

Course Description:

In this course participants consider how the business would be developed through the different phases of the business life cycle from inception to growth, maturity and decline. Further, as a next step, participants then put the idea in the context of circular economy and sustainability.

Course Objectives:

The main course objectives are

- to become familiar with the different phases of a business life cycle and its challenges
- to work creatively on a business idea, expanded to integrate circular economy principles
- to become familiar with different business development strategy tools

Learning Outcomes:

By the end of the course, participants are able to

- work with the phases of the business life cycle (BLC)

- create a business aligned with circular economy principles
- create a sustainable business development strategy concept

Link list

- ReSTI Programme overview:
<http://www.interreg-danube.eu/approved-projects/excellence-in-resti>
- Video on ReSTI 5-Door Approach to eLearning:
<https://stream.cuni.cz/en/Detail/2858>
- Learn more about the CC BY-NC-ND 4.0 licence:
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Join the ReSTI LinkedIn Alumni group <https://www.linkedin.com/groups/13538663/>



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