

AVISO N.º 01/PRR/2021
Convite à Manifestação de Interesse:
Programa Impulso Jovens STEAM
Programa Impulso Adultos

“IPV Região Impulsiona e inclui”.

Project Description | Memória Descritiva

16 de agosto de 2021

Introduction

IPV Digital based PRR Impulso Jovem STEAM e Adultos' proposal: "IPV Região Impulsiona e inclui".

(in [blue](#), links to detailed documents and further information)

The present proposal was thought, from the very first moment, by mid-May, to meet the **objective of the PRR**: to contribute to assist companies, the economy, and the country, recovering as quickly as possible from the crisis caused by the SARS-Covid epidemic.

With this purpose in mind, processes of approximation and dialogue were developed with **stakeholders** and other interested parties who share this territory of [Viseu and Lamego](#) with the IPV: companies and their associations, municipalities and intermunicipal communities, professional schools, and the respective existing network.

As a result of the contact process with the interested parties, a set of training, professional and vocational proposals was drawn up covering diverse areas. For all of them, there are signed [memoranda of understanding](#) from the entities involved in the **co-creation** processes; in all of them, there is a definition of content, timing, regularity, and perspectives of paths to follow for the continuation of studies, depending on the definition and achievement aggregation of previously established courses.

Why [digital](#)? Because digital technologies have been interacting with all sectors of economic activity, a freshly minted 'transition' or 'transformation' process, and because its development has extended to electronics and manufacturing, including all technologies, industrial or other, such as creative, continuing the path to increased tangibility of the solutions proposed ([digitalization, code writing, virtual and augmented reality, cybersecurity, robotics](#)).

Digital encompasses the areas referred and cross references with those identified in the PRR global document, as well as other national and regional priorities: **industry** ([automobile, pharmaceuticals, railway](#)), [climate transition, tourism, health](#), and [creative sector](#), an area particularly burdened by this critical period. But also addressing inclusion, [women](#) and [parity recruitment rules](#), and [special needs](#) from specific educational needs' students.

Aimed at young people and adults, the proposal to the youth group is centred on the attraction to gain knowledge and skills that will allow better access, and in better material conditions, to the labour market. The average 1500 individuals (DGEEC, 2019) that, mainly in depopulated areas of this region, annually complete secondary education and do not continue studies, gives a clear indication that this group must be attracted using non-conventional procedures.

The [partnership](#) with **Universidade Aberta** is a fundamental tool to reengage those individuals, allowing them to initiate simple processes of knowledge acquisition, as a first step, asynchronously and at different paces, to further on insert them in the main training processes or to attend existing technological/STEAM courses (TeSP) that will experience a technological conditions upgrade and benefit of a modernization of learning processes.

A similar strategy will address adults, mainly individuals active in professional fields in companies that have identified areas of lacking experience or expertise, companies and business associations that have expressed their willingness to train their workers during working hours, such as those that an active part of this proposal, to obtain the required capacities and skills to have a choice of well-qualified and practically trained employees.

The **communication campaign** will use video statements and declarations, with other media, to grasp attention and make either group look for, committedly, attending the proposed training activities, where the outcomes are perceived as well as the path to obtain their achievement.

Information about its existence and ways to access it is therefore paramount and, for that, a professional and comprehensive [marketing strategy](#) will be put in place.

And, last but certainly not the least, unfolding a clear demonstration that **innovative methodologies** will be used, based on existing experience (Learning is creating, Emergency ventilators initiative, International congresses, ICALE, and former commitment with front line initiatives such as Demola and LinkMeUp) and the services of a proven Finnish entity with more than 20 years of successful results ([ProAkademia](#)) based on credits and experience in former team learning and team coaching activities. And providing for [new learning contexts](#), as, paraphrasing **Veiga Simão** (1972), "[New universities cannot be built within old walls](#)".

And how to actively contribute so that young people and adults are not left behind by the difficulties that always exist along the way? With the paramount activity of the [Inclusion Laboratory](#).

And how can you be sure that the process is having the expected results? With the [Monitoring Commission](#), a committee provided for in the governing model presented.

This proposal will contribute to further extend the regional capacity to face and overcome many of the challenges foreseen and obtain a desirable sustainable development.

Project Description

Name of the application	IPV Região Impulsiona e Inclui
HEI Leader of the project/application	IPV - Instituto Politécnico de Viseu

Budget summary

Total budget requested:	12 777 436 €
<i>of which:</i>	
“Impulso Jovens” Budget	6 045 213 €
“Impulso Adultos” Budget	6 732 222 €
Budget by project promoters (only IES):	
IPV Leader of the project	11 800 694 €
Universidade Aberta	976 742 €

1. Description of the proposed training program (s), in terms of the objectives of the two programs, “Impulso Jovens STEAM” and “Impulso Adultos”, including in particular:

- i. Description of the institutional strategy and justification of the options considered.

The increasingly rapid advances in technology and the labor market, mostly triggered by the economic crisis caused by the COVID-19 pandemic, requires higher education institutions to provide students, staff, and researchers with the skills they need to embrace climate and digital transition and build a resilient society. Beyond their core responsibilities of teaching, research and innovation, these institutions have a major role in addressing big societal challenges, contributing for the development of cities and regions and promote civic engagement.

The Polytechnic Institute of Viseu (IPV) through its five Schools: Superior School of Agriculture of Viseu, Superior School of Education of Viseu, Superior School of Health of Viseu, Superior School of Technology and Management of Viseu and Superior School of Technology and Management of Lamego. is the only public higher education institution located in the regions of Viseu, Dão-Lafões and Douro, which lends it an irreplaceable role in the qualification of the population, contributing to a successful insertion or reintegration into labor markets and responding to the increasing complexity of the challenges faced by both, professionals, and employers.

The programs Impulso Adultos and Impulso Jovens STEAM under the Recovery and Resilience Program are essential opportunities for leveraging innovative and perennial interinstitutional cooperation solutions to respond to those challenges.

As a “global thinker, world learner, local shaper”, IPV aims to inspire the path of excellence in its activities, namely teaching, applied research and high-level professional development, inter-institutional and community collaboration, with a view to sustainable development, enhancement of resources and satisfaction of all stakeholders.

Through its five schools, the educational offer of IPV covers different areas such as teacher education, social work and education, nursing, community health, engineering, arts, design and multimedia, marketing, management, tourism, media studies, agriculture, public relations, information and communication technologies, or sports.

The majority of IPV’s study programs are professionally oriented, in line with the mission of the polytechnic higher education system and each program is designed in proximity and alignment with professional contexts and practices. The supervised practical training in professional contexts is combined with project-based learning throughout the programs and there is a strong emphasis on active learning strategies.

It is also committed to the guidelines of the Agency for Assessment and Accreditation of Higher Education (A3ES), to the European standards and guidelines for quality (ESG), and to the principles of quality management set out in the reference standard (ISO 9001), committing to a creative and innovative management, guided by transparency, and fostering involvement.

During 2020/2021, IPV has offered 94 courses and served 6.051 students, according to the information below:

Formative Offer	No. of courses running in 2020/2021					Total
	ESAV	ESEV	ESSV	ESTGL	ESTGV	
Bachelor's Degrees - 1st Cycle	6	7	1	7	13	34
Master's Degrees - 2nd Cycle	-	7	4	2	9	22
Post-graduation	-	-	4	-	-	4
Post-bachelor	-	-	6	-	-	6
Technical Professional	5	3	-	-	13	28
Total	11	17	15	16	35	94

Total number of students enrolled	Total number of students enrolled in 2020/2021					Total
	ESAV	ESEV	ESSV	ESTGL	ESTGV	
Bachelor's Degrees - 1st Cycle	365	1.074	405	466	1.996	4.306
Master's Degrees - 2nd Cycle	-	186	93	56	261	596
Post-graduation	-	-	259	-	-	259
Post-bachelor	-	-	130	-	-	130
Technical Professional	140	64	-	70	486	760
Total	505	1.324	887	592	2.743	6.051

Moreover, IPV aims to stimulating reflection and creating conditions for the definition of areas of competency in Research, Development & Innovation (RD&I) in which it can affirm itself and consequent dissemination to relevant regional, national, and international partners. It encourages the creation of intervention mechanisms in the region, together with economic, social, and cultural agents, to identify and define lines of action, programs, and priority RD&I projects.

IPV has an interface unit, ADIV, Association for the Development and Research, whose work has been focused almost exclusively on providing specialized services to the community and on professional training.

The Institute also has and integrates 5 research centres:

CISED

A unit that has as its mission to be a centre of excellence in digital services and technology development for the automotive industry. The research lines that comprise this Research Unit are Digital Decision Support Systems, Social Web Applied to Culture, Economy and Society, Connected Digital Society, Digital Service Business, Digital Automotive Industry

CI&DEI	An inter-organizational unit among IPV, IPGuarda, IPLeiria, IPBragança, IPViana do Castelo. In total there are 75 PhD researchers and 38 collaborators. This research unit concentrates interdisciplinary activities, having as a common information and communication technologies as a common element
CIDETS	The Research Unit that gave rise to CISEd and CI&DEI, and that aggregated the Education, Health, Technology and Management Sciences until 2019. Since the Research Unit lacked scientific objectivity, the two units mentioned above were created, and it is in these units that the researchers carry out their scientific activity
CERNAS	Consists of 3 institutions, namely, IPCoimbra, IPCB and IPV, comprising 49 researchers. CERNAS aims to produce research in the areas of Agricultural Sciences, Food Science and Engineering, and Environment and Society
UICISA:E	A management unit in the IPV comprises 131 researchers and collaborators from 24 higher education institutions and health services, seeking to respond to complex problems in health promotion, disease prevention and care of the sick, disabled and end-of-life. Its mission is to develop research that has an impact on the health of society, seeking synergies with other domains

The COVID-19 pandemic has had a devastating impact on the world, affecting societies and economies, increasing poverty and inequalities, with profound implications to people's livelihood, economic progress, and social cohesion for the next decade.

In the field of education, COVID-19 pandemic has affected 1.5 billion learners around the world, forcing educational institutions to reorganize themselves in order to give a proper answer, immediate but medium and long term too, to unprecedentedly challenges such as overcoming of learning losses, providing support to students with special, social and economic needs, setting effective remote learning conditions or safely reopening schools and universities (NESET, 2021).

These challenges remain as the economic crisis may lead to students' lack of access to learning resources, lack of suitable home learning environment and insufficient support from parents, which, along with an employment crisis, may result in a tendency to demotivation and educational disinvestment, increasing the number of early dropouts from educational systems.

Portugal has a greater challenge because, despite the progress in recent decades, there is still a significant skills gap compared to the EU average, in terms of higher education qualifications (26.3% compared to the European average of 31.6%).

In Viseu, there are around 900 students per year who complete 12th grade and do not continue their studies; in Lamego, these students are around 700. (DGEEC, 2020)

This requires a greater investment in measures to increase the number of students in higher education, not only in terms of diversity and quality of training but also in students' social support and better conditions for an effective teaching-learning environment.

Additionally, the crisis has shown that digitalization can increase resilience and preserve capacity in the face of stringent restrictions to physical interaction. To make digital service provision more inclusive going forward, further efforts are needed to ensure that all individuals have the skills and access to technology needed to benefit from these services.

In parallel, the increasingly rapid advances in technology and the labor market, require that graduates and professionals in the workforce can quickly fill new, emerging skill gaps and up to date knowledge, so that they can adapt and actively contribute to the demands of competitiveness and structural transformation of industries and enterprises.

Indeed, the profound transformation of economic activities and the digitization of the economy require high qualified professionals, especially in scientific and technological areas, and higher education institutions, polytechnics in particular, are expected to work in close cooperation with the community adapting their training offer to its needs and renewing the qualifications of labor market.

With a historical collaboration with local and regional stakeholders, enterprises, civil society, schools, and communities, IPV has been exploring different network dynamics in education and research in alignment with strategic territorial options for development and internationalization.

In this context, the programs proposed in this application are based on the needs of local and regional employers and aligned with the options underlying the National Strategy for the next decade, especially in what concerns the qualifications and competencies of the population, the participation of adults in lifelong learning activities and the increase in the number of graduates in STEAM areas.

Moreover, the proposed initiatives aim to support the competitiveness and structural transformation of industries and enterprises considering new technological and societal challenges related to the digital transition and industry 4.0, as well as the climate transition, sustainability, and efficient use of resources.

These options are even more important in the context of the current pandemic situation for Covid 19, whose economic and social impacts have reinforced the importance of qualifications and skills as a driver of competitiveness, cohesion, and well-being.

The definition of the IPV's strategy was also based on strategic plans for the region, as well as on European and national guidelines for these matters:

Alignment with the agenda of Viseu 2030

IPV is a key partner for the implementation of this agenda for the development of the region over the horizon of a decade, contributing to develop the skills and competencies needed to impulse the main priorities which are: culture, creative industries, and heritage; agriculture, rural development, and forests; environment, sustainability and climate change and Tourism, internationalization, territorial resources and local development.

Alignment with the country specific recommendations of The European Semester

The initiatives planned in the present application contributes directly to the specific recommendations of (i) improving the level of skills of the population, enhancing the relevance of adult learning to the needs of the labour market and increasing the number of graduates, in particular in STEAM areas; (ii) supporting the use of digital technologies and promoting digital skills and, indirectly, innovation and research by reinforcing the relationship between RD&I and learning activities and by boosting collaborative networks to promote innovation and experimental projects.

Alignment with The European Pillars

In what concerns the Digital Transition Pillar and despite the positive evolution registered in several indicators, the Portuguese levels of adoption of digital technologies are below the EU average. Thus, IPV is devoting a special attention to this gap, focusing most of the investment on initiatives that will contribute to those indicators, namely by designing several training courses that increase the literacy and digital skills of students (young and adults) but also by modernizing the infrastructures and equipment it puts at the service of students and regional partners.

A special focus will also be given to the Green Transition, dedicating a global program to this thematic.

Nevertheless, the programs and activities designed for this project contributes, directly or indirectly to all the other European Pillars, by the promotion of research, development and innovation; the support for a technological upgrade of the national educational community and educational, pedagogical and scientific innovation leading to social and territorial cohesion; the reinforcement of qualification and training of human resources necessary to ensure the health and economic, social and institutional resilience; and the diversification of higher education training offer with adapted to promote inclusion and to reduce inequalities.

Alignment with Flagship Initiatives

One of the challenges stated in the flagship initiatives is concerning the re-qualification and improvement of skills, where by 2025, 50% of the adult population must participate in training actions, and by 2025, the percentage of Europeans aged between 16 and 74 with basic digital skills is expected to rise to 70%.

IPV has been actively participating in several projects that aims to contribute to these indicators, like "[Upskill – Digital Skills & Jobs](#)" Programme or [Brightstart](#) (led by Deloitte) and the initiatives proposed in these application will strengthen and continue to develop the activities re-skilling and up-skilling the population, aimed to reinforcing innovation and growth potential, promoting economic and social resilience, and guaranteeing quality jobs, as well as social inclusion.

Alignment with National Strategy for Equality and Non-Discrimination

Through the mechanisms and partnerships already available in the Institution, IPV ensure measures to support the [integration of migrants](#), the [prevention/combat of Violence, gender equality](#) and the [integration of people with special educational needs](#).
 In this strategy it is mentioned that the investment Impulso Jovem STEAM binds the entities to the pursuit of objectives in this domain of combating professional segregation, particularly in attracting girls and women to the areas of engineering and technology. The IPV will contribute for this through the regional partners with which there is an agreement for the development of skills of their employees.

So, based on above analysis, **IPV identified six lines of action:** (1) **Re-industrialization;** (2) **Climate Transition;** (3) **Digital Transition,** (4) **Tourism,** (5) **Health** and (6) **Creative** to be considered in its academic offer:

Re-Industrialization

The priority of innovation and renewal of the productive and business sectors includes initiatives that favour a greater effort in collaborative Research and Development (R&D) that enhance, by stimulating strategic mobilizing projects, the transformation of R&D and innovation into economic and social value. The aim is to contribute to the improvement of the specialization profile of the Portuguese supply structure, in articulation with academic and scientific community, and to increase the weight of the manufacturing industry in the national economic structure. IPV has several research centres, which together with the various schools, can be useful to boosting the industrial transition at regional and national level.

Climate Transition

The world is aware and alert to the issue of climate change and it is urgent to promote the necessary conditions and skills to an effective resource-efficient and competitive economy.

The Agrarian School of Viseu intends to have a fundamental role in this climate transition, given that the region has the resources to implement several advances in this area. Sustainable agriculture, for instance, is an important point within this thematic area.

Digital Transition

In the Digital Transition dimension, components were considered, intending to respond the need of having workers highly qualified to ensure the dematerialization of transactions and processes and to enable remote work, ensuring, in an inclusive way and with relevant structural and efficiency gains, the transformation that was already underway in this domain. The investment, focused on schools, businesses, and public administration, intends to contribute decisively to a more competitive country with lower context costs, and is in line with the Commission's guidelines in the Communication on Building Europe's Digital Future and the European Ecological Pact. The programmes to be carried out will be of most importance in the

qualifications of students and workers to face these challenges.

Tourism	Tourism, being one of the areas most affected by the pandemic, needs support as one of the most important sectors for the country. The general objective of this component is to enhance the arts, heritage, and culture as elements of identity affirmation, of social and territorial cohesion and of the increase competitiveness of the regions and the country through the development of cultural and social activities of cultural and social activities of high economic value
Health	The health-based proposals presented have as mission the training of skills that, combined with specific knowledge of the health and related areas, reinforce the quality of learning as well as the capacity to adapt to the needs of the labor market with a view to a safe and qualified practice. They also saw the strengthening of initial training for young people and the increase in the number of graduates in the areas of health sciences, in a room of interdisciplinarity and transdisciplinarity.
Creative	The creative sector, as one of the most affected by the current pandemic, need to recover and take advantage of the opportunity to incorporate better quality skills. The foundations of support for the conception and implementation of the proposals in this area constitute an essential means for a democratic citizenship improvement, necessary for the sustainable development of the communities.

The established Regional Alliance, gathering local, regional and national entities, ensures the alignment of the training programs to actual and future demand for skills and competencies in labor market, the attraction of students (especially adults) and, moreover, the territorial cohesion and interinstitutional cooperation, being committed with the following objectives:

1. Increasing the higher education of young people in the fields of science, technology, engineering, liberal arts, and mathematics by attracting more 4500 students in the next four years.
2. Promoting more 202 higher education programs in STEAM fields in the next four years.
3. Increasing the number of adults in Higher Education by involving 5500 adults in short term courses in the next four years.
4. Increasing lifelong training opportunities (reskilling and upskilling) in Higher Education Institutions by implementing 204 new training programs.

To achieve these objectives, IPV will coordinate the design and delivery of the training programs suitable to the various target audiences, enhancing the use of active and innovative methodologies supported by technological tools as much as possible, allowing flexible schedules and a more individualized supervising of students. In the past years, IPV has been investing in the technological conditions of its schools, increasing areas with Wi-Fi coverage and the speed of internet access, renovating computers or adjusting the software

used in classes to real work context. The reinforcement of this investment, including online learning tools and platforms, but new equipment and technologies for the laboratories, as well, is essential to implement new learning modalities, develop students' digital competencies and promote their adaptability to the challenges of professional practice.

IPV intends to evolve to an environmentally sustainable campus based on modern principles of cost efficiency, where simple and combined spaces allow students to enjoy the contact with nature.

This innovative Campus will be open to the community and provide the best services, great social satisfaction, and leisure spaces, to enhance an interactive work of teams of students and researchers.

All of these will contribute to reinforce the inclusive environment IPV has been promoting in its schools, fostering equity of access, participation, and completion of higher education, with a special focus on students from underrepresented, disadvantaged and vulnerable groups.

ii. General description of the proposed training programs.

IPV proposals fall into the two types of programs:

- Impulso Jovens STEAM
- Impulso Adultos

The programs will be developed in partnership with Universidade Aberta, with its decades long experience, will be instrumental in reaching distant, depopulated, and depressed areas of the region, allowing for a first moment the reprisal of young students that did not continue studying, as well as to provide for accessible, asynchronous, knowledge for active adults; engaged are also other entities located in the region and identified in chapter 4 of this document. The plan is focused on the development of competencies in the six areas mentioned previously, namely 1) **Re-industrialization**; (2) **Climate Transition**; (3) **Digital Transition**, (4) **Tourism**, (5) **Health** and (6) **Creative**. Furthermore, these will consist in a set of flexible ways of learning and continuous learning opportunities through the provision of more short-term courses, specifically adapted to the needs of labor market, and ensuring the easier recognition and certification of this new and expanded type of learning.

Impulso Jovens STEAM

Initiative	Description	
Training Program on STEAM areas	To increase the number of graduates in the STEAM areas, IPV plans to offer short-term courses focusing the fundamentals of artificial intelligence, business intelligence, programming, databases, among other subjects detailed in the next pages. As such, these comprise the intention to contribute for the transformation of the labor markets and the new employability requirements for the transformation of the specialization profile of the Portuguese and regional economy.	4500 students 200 short-term and 27 technological (TeSP) courses

<p>Summer Schools for high education students</p>	<p>This initiative already takes place at IPV, where high education students integrate research teams and activities guided by around 50 IPV professors, in areas such as 3D Printing, Agroecology, Internet of Things, Health Literacy or Circular Economy and Sustainability. It is, hence, intended to leverage these summer schools, through the creation of more research teams and activities in what concerns the science, technology, engineering, arts, and mathematics areas.</p>	<p>5500 students 8 short-term courses</p>
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Impulso Adultos

Initiative	Description	
Training for Re-Industrialization	<p>Given the importance of transformation of R&D and innovation into economic and social value, IPV aims to contribute for the improvement of the Portuguese supply structure, in collaboration with its research centres, through short-term courses about electricity and electronics; industrial instrumentation; industrial control; industrial communication systems; robotics; industrial automation systems; design and modelling; 3D printing; transmission and transport systems; materials, connections, and manufacturing processes; energy and sustainability; digital transformation for elimination of waste; logistics; procurement and stock management; management and industrial maintenance; facilitating the increase of the weight of the manufacturing industry in the national and regional economic structure.</p>	<p>1000 students 151 short-term and 2 post-grad courses</p>
Training for Digital Transition	<p>As already mentioned, the Digital Transition dimension intends to respond the need of having workers highly qualified to ensure the dematerialization of transactions and processes ensuring, in an inclusive way and with relevant structural and efficiency gains, the transformation that was already underway in this domain.</p> <p>For this, IPV determined a set of short-term courses for developing skills and understanding best practices for project management methodologies; optimization of indexing of websites and web platforms by search engines; managing code versions; and technologies for web development.</p>	<p>1000 students 26 short-term and 1 post-grad courses</p>
Training for Climate Transition	<p>Given the concerns in people's lives regarding food transition, as well as having several resources to implement several advances in the region, IPV aims to empower knowledge related to basic principles and concepts in agroecology and the main associated</p>	<p>1500 students 184 short-term courses</p>

issues (social, environmental, production, economic), and their relationship with the human right to food and nutrition; the need for conservation and management of natural resources; the development of sustainable agroecosystems and food system models, based on the adoption of sustainable production and consumption models; the contribution to the human right to adequate food and nutrition; study the modes of commercialization, and technically guide the production and adapt this specific production to the new commercialization modalities; along with many other thematic, thus improving the population's level of skills and reinforcing the relevance of adult learning to the needs of the labour market.

Training for Tourism	Aiming to enhance development of cultural and social activities of high economic value of the region, IPV formulated short-term courses regarding the inclusion of the deaf community, languages for service and reception, data processing, events management, and innovation and sustainability in tourism.	1000 students 22 short-term and 1 post-grad courses
Training for Health technologies	Aiming to reinforce the quality of learning as well as the capacity to adapt to the needs of the labor market providing a safe and qualified practice. They also aim to strengthening the initial training of young people and to increasing the number of graduates in the areas of health sciences, namely those related to technological areas, such as physiotherapy, image diagnostic, skin care, and others.	1000 students 19 short-term and 1 post-grad courses
Training for Creative industries	Creative based proposals concern different sort of stage activities, including light and sound technologies, as well as scenario construction; they encourage entrepreneurship and innovation, strengthening social initiatives with an impact on the community.	200 students 4 short-term courses

iii. Experimental projects, within a framework of interdisciplinarity and transdisciplinarity, following the best international practices.

Following the "Skills 4 post-Covid - Skills for the Future" initiative, IPV has been stimulating the academic community to present innovative responses to new challenges caused by the pandemic, namely from the perspectives of teaching/learning and administration.

So, IPV has several experimental projects on the run that are expected to evolve to consistent innovation in practices and methods to be spread through every IPV school.

One of these projects comprises the development of digital content in industrial automation and acquisition of interactive solutions for the classroom based on the integration of two

strands: classroom interactivity and development of solutions and digital content designed to arouse curiosity and encourage goals to be achieved.

Another project that gathers professors and researchers of the Polytechnic Institutes of Viseu, Guarda and Leiria and the University of Salamanca, is designing and promoting other forms of teaching-learning, using an online platform, in the audiovisual area, offering privileged contact with invited experts from the business and educational contexts.

The project for the development of a hospital ventilator is a good example of active learning methodologies and interdisciplinarity and transdisciplinarity. It consists in developing and producing a mechanical invasive ventilator, based on the engineering and medicine knowledge of the team members, combining the participation of students who will perform learning/improvement tasks in real context and consolidate theoretical knowledge received. Also the 'Shell Eco-Marathon' contest has been a successful opportunity to develop hands on experiments and obtain experience in creating active learning contexts.

At regional level, IPV is already cooperating with the business sector in program curriculum development and teaching by designing an EQF5 program in collaboration with 20 enterprises of the region. The companies are preparing to take on responsibility for 70% of the teaching in the program. This means that practice-based and project-based learning will be central and located in "factory grounds". This project also has the participation of the municipality: providing factory-type premises so that the activities of the remaining 30% are also practice-based. This will also include artistic expression as a vehicle for developing socioemotional competencies.

At European level, the research project "Learnin's Creatin'- Addressing SI&TD problems, decreasing dropout and improving student outcomes, using active learning methodologies" was an important support for the wider use of that approach across schools and it is an important area that we want to continue to study and develop. This program had partners from the University of Barcelona, FH Dortmund and HvAmsterdam.

iv. Scientific capacity and coordination with R&D units.

IPV develops its research strategy based on interdisciplinarity and transdisciplinarity, intercultural awareness and a growing international network supported by international cooperation partnerships at both teaching and research.

IPV is structured in Research & Development Units, as referred to in point 1. These R&D Units have a body of researchers with an extensive scientific path and collaboration with various external entities, and the impact of research is developed mainly regionally and nationally. Nevertheless, its involvement in international projects and networks has gradually increased in recent years. Some relevant examples of this international projects are: 1) Learnin`s Creatin`: alternative plant species and methodologies to improve energy efficiency using active learning methodologies; 2) Lightwood: Innovative wood composites; 3) InfoPaths: Route monitoring and control system for tourist and social applications; 4) ECONewFARMERS: develop ICT (m-learning) formats for people who wish to start a new activity in agriculture through organic farming.

As an infrastructure of the Central Region, IPV has been developing several projects in co-promotion with companies, business associations, producer associations, local development associations and other non-business entities of the ID&I System, contributing to gradually link science to companies.

In terms of the challenges faced by the regions, there are projects directed at the move into a more sustainable society with a strong emphasis on circular economy, like the Food4Sustainability CoLAB, tackling large scale problems in bio-based food systems for climate resiliency. The well-being of the ageing population in the regions is being addressed by projects connected to nursing and by projects from the education area. For example, Viseu InterAge Stories developed a collaborative app that promotes interaction between generations in the urban environment. More connected to the productive sector, the project Promotion of Industry 4.0 in the Region of Trás-os-Montes and Alto Douro is fostering innovation.

To reinforce the IPV's position for the region and for the country in research, development and innovation, some measures are being carried out, such as:

- Activate the relations with municipalities and other public or private institutions.
- Develop efforts for artistic creation and research, in articulation with other scientific areas.
- Encourage the conception and participation of professors in projects of scientific, technological, and artistic character, at national and international level.
- Promote the relationship between RD&I and learning activities, reinforcing active learning mechanisms and active learning and the interest and involvement of students.
- Participate actively, and in an organized way, in the discussion of policies and funding programs for RD&I, with the regional, national, and European decision-makers.
- Create a functional unit dedicated to the dissemination of research capabilities, technological development, and innovation of IPV.
- Establish national and international partnerships in doctoral supervision and co-supervision, in the design and delivery of doctoral programs.
- Support the organization of technical, scientific, and artistic events, and create better conditions for the publication of technical and scientific work.

The programs included in this application have some learning activities that will involve students to design RD&I projects in alignment with the needs and interests of their companies and/or the region. These projects will be, then, developed with the support of the IPV Centers and researchers, taking advantage of the experimental conditions provided by a FabLab. Also, the [Bright Learning Farm](#) is a project that contains specific [experimental activities](#) enabling interdisciplinary and transdisciplinary activities following the best international practices.

- v. Academic offer strategy and reinforcement of training leading to micro-accreditations.

IPV, as a higher education provider, intends to reinforce its role in providing flexible ways of learning and continuous learning opportunities through the provision of more short-term courses, specifically adapted to the needs of labor market, and ensuring the easier recognition and certification of this new and expanded type of learning.

Therefore, the academic offer strategy is mainly based on the expansion of training opportunities that respond to the needs arising from the new challenges, present and future, of the labor market, offering diversified and attractive programs for initial and lifelong learning.

These programs will be supported on innovative teaching and learning practices adapted to a mixed and differentiated education system at all levels, on modernizing facilities (e.g., new equipment and technologies, flexible spaces for study and experiment, etc.), and on extending and deepening ways to learn and teach project-based, integrating self-learning and teamwork.

The academic offer will be delivered in straight alignment with employers in the context of this regional alliance. In fact, it is expected that the design of the courses as well as the format in which they are delivered will be defined by the alliance in a co-definition and co-creation format.

This kind of arrangements will allow a concerted answer, in the field of higher education, to the needs of the students and workers in key areas for innovation and industrial renewal, increasing their adaptation to the new requirements associated with the digital transition.

The flexible nature of these qualifications allows learning opportunities to be opened up to citizens, including those in full-time employment.

Micro-credentials

The growth of the global micro-credentials movement is having a gradually increasing impact on higher education, and it has been of most concern in the European Union context how institutions should best respond to the challenge of thinking beyond degree based programming and to consider how value can be provided to learners across their entire lifetime.

Micro-credentials can be defined as a proof of the learning outcomes that a learner has acquired following a short learning experience and assessed against transparent standards (A European Approach to Micro-Credentials - output of the micro-credentials higher education consultation group – Final Report, 2020).

The use of micro-credentials by higher education providers has the potential to foster continuous learning, fill in the knowledge and skills gap, increase the efficiency of the higher education system, encourage innovation, and reach a diverse group of learners.

The design and delivery of these short learning courses will follow the quality assurance principles and all the necessary procedures, to guarantee their integration into higher education systems as well as a global understanding and recognition.

Impulso Jovens STEAM

The academic offer strategy in this area includes initiatives focused on:

- Introducing new training programs and innovative pedagogical practices, aimed at increasing the higher education of young people in the fields of science, technology, engineering, liberal arts, and mathematics (STEAM - Science, Technology, Engineering, Arts and Mathematics).
- Promoting innovative platforms by combining and diversifying forms of teaching and learning, with self-learning and active methodologies.
- Developing cross-cutting skills such as the ability to work as a team, critical spirit and creativity in problem solving, entrepreneurship or digital skills.
- Working with national and regional stakeholders to widen access to higher education for underrepresented learners, including in terms of geographical coverage and field of study choice.
- Working with local schools to promote strategies to attract more students, especially female people, to scientific and technological careers.

Impulso Adultos

The academic offer strategy in this area includes initiatives focused on:

- Collaborative arrangements with public and private employers, stimulating the diversification of training and the higher education of adults throughout life.
- Promoting short learning courses, modular, with microcredentials / microdiplomas, which promote continuous learning and curriculum enrichment for the labor market and attest acquired skills.
- Creating conditions for the recognition of professional experience to students in accessing higher education short learning courses.
- Stimulating the territorial cohesion and interinstitutional cooperation based on scientific knowledge.

vi. Level and capacity for internationalization and strategy for attracting foreign students, including involvement in European networks.

IPV began its international cooperation activities in 1993. Since then, it has sought to intensify and diversify this field of activity, believing that this type of cooperation is a source of development for the institution and the surrounding region. The current package of activities reflects this institutional orientation and has been substantially extended to projects with different objectives, in various academic and geographical areas.

The internationalization policy of IPV establishes as a fundamental objective the strengthening of cooperation, exchange, and mobility, cooperating with more than 100 institutions in the development of bilateral or multilateral projects, sharing of pedagogical, scientific, and cultural experiences, exchange of students and teachers and scientific production.

In what concerns the attractiveness of foreign students, IPV has strengthened its participation in international fairs or, more recently due to the pandemic situation, in platforms (EduPortugal, academic and Study in Portugal), for dissemination of the training offer. It has also increased the number of cooperation agreements with universities in China, Brazil, the other CPLP member countries and Spanish-speaking Latin American countries that encourage student mobility and their participation in international programmes.

To promote its image and the region, IPV has also developed a guide roadmap for national and international students that integrates and disseminates the capacities and experiential potential of the region, namely, at the level of housing, sports, gastronomic, tourist, cultural, social, etc.

These efforts have resulted in an increment on the total number of foreign students of over 60% between 2017 and 2020, covering not only the bachelor and master's degrees but EQF5 programmes as well.

In the near future, IPV intends to implement more initiatives to promote its international attractiveness not only to students, but researchers, higher education institutions and other organizations also.

Furthermore, IPV is fostering the participation in European networks of polytechnic universities such as UASnet, UAS4Europe, EURASHE (UAS+ University Colleges), Smart Partnership for Regional Impact, Swiss Universities of Applied Sciences, Österreichische Fachhochschule Komferung, and, recently, has applied to the European Universities initiative, aiming to:

- 1) create an integrated inter-university campus with shared support services, jointly developed student-centred curricula with a minimum of two languages, staff training, research and increased mobility indicators.
- 2) further strengthen collaboration with the business sector; and
- 3) promote its values and mission and try to be relevant to the regions where they are located, solving problems with short- and medium-term solutions.

The presence of IPV abroad has multiple scientific and economic benefits, namely (1) access to research topics and objects, (2) expansion of capacities, (3) creation of networks and cooperation with centres of excellence in partner countries, taking advantage of new sources of funding.

Internationalization plays an important role in the competitive positioning of the IPV, given the boost it gives to its profile and reputation. European and international collaborative projects can broaden the spectrum of cooperation with companies and scientific partners and bring added value to the institution.

- vii. Capacity and strategy for articulation with collaborative innovation centres and networks, in conjunction with employers and the incubation of business projects.

The annual European Innovation Scoreboard (EIS) provides a comparative assessment of research and innovation performance of EU countries, other European countries, and regional neighbors. Portugal is a Moderate Innovator, while Centro - Innovation performance

has increased over time (8%). Compared to Portugal and the EU, showing relative strengths (e.g. International scientific co-publications) and weaknesses (e.g. Employment knowledge-intensive activities).

Higher education providers are linked to the business sector and seek to create new partnerships with institutions/companies and deepen existing ones. Entrepreneurship and innovation are factors that can make a difference, and are, therefore, areas of intervention in which various actors in society try to intervene and foster, especially higher education institutions. The IPV is close to companies in the Douro and the Viseu and Dão Lafões regions.

In this line of action, the IPV and ADIV are dynamizing an incubation center. The main objective of this Business Incubator is the promotion and monitoring of companies in their embryonic phase of start-up, facilitating their survival in their initial phase of life and due preparation for a full successful path in the competitive environment that is the market. This valency intends to make services and spaces available to the entire community, especially to students who have completed their academic training in the IPV, or who attend their courses in one of its integrated schools, allowing them to create companies with added value and jobs for the region.

IPV has several cooperation protocols with local and regional entities (ACERT, Amarelo Silvestre, Teatro Viriato, Companhia Paulo Ribeiro, Carmo 81) in the scope of technical services, promotion and organization of events, aiming at the active participation of IPV students in events and shows, granting of spaces and discounts on tickets for shows, thus dynamizing culture in the region.

Moreover, IPV integrates two of the 10 Digital Innovation Hubs (DIH) selected to be part of a National Network of DIH which will be linked to the European DIH Network to be boosted by the European Commission under the European Framework Programs for 2021-2027.

Those two DIH are: CONNECT5 that aims to providing advanced services in the areas of integrated connectivity systems and CPS through the combination of 5G, cloud systems, IoT, Big Data capabilities, to SMEs and public organizations, enabling them to access the latest knowledge, expertise and technology for testing and experimenting with digital innovations relevant to their activity, products, processes or business models; and Portugal Centro Region DIH which aims to act as a one-stop-shop to foster competitiveness, innovation and territorial cohesion in the Centro Region of Portugal.

This is a competitive turning point for IPV, especially in this Industry/Business and Science/ID&I dichotomy.

viii. Capacity and strategy for articulation with secondary schools, especially in the vocational education, when applicable.

Another type of initiative that is already common and that reflects civic intervention in the transfer of knowledge to society in general, is the internship guidance for students from secondary and professional schools.

Since November 2019, IPV has been working with the Piaget Institute and several professional schools and high schools, through the PEPER Regional Network - Promotion of Professional Education in Network Program aiming to enhance the professional education and develop the region of Viseu and Dão Lafões.

The PEPER Network promotes a greater articulation between the various education/training agents/entities, with the purpose to articulate and build training paths that allow aligning level 4 professional courses with EQF5, bachelor's and master's degrees, ensuring that students from these courses can continue their studies and increasing the number of students in higher education from professional courses. The dissemination of the higher-level training offer, in complementarity with the level 4 training offer, will be more effective, to empower young people, young adults and the unemployed, of the opportunities for further studies, thus counteracting the desertification of the interior, contributing to the settlement of young people in the region, with technical skills and entrepreneurial dynamics able to meet their development needs.

Furthermore, outgoing, and incoming initiatives such as visits to professional and high schools and education fairs, specific lectures, open days, and summer schools are part of the strategy of the IPV in order to increase the number of students, as well as to promote the development of this region.

- ix. Strategy for organizing learning / teaching / research spaces and encouraging their connection to citizens, cities and territory, in the case of renovation projects / construction of facilities.

The basic concept of a modernized library space, easy to access and use, has evolved significantly. Greater versatility is now being sought, in terms of the use of digital and, for the particular present, material means, it is used as a place for informal learning and is recognized as an opportunity for opening, through the attendance of its members, to communities surrounding.

From an architectural point of view, one of the characteristics is the differentiation of zones according to working methods: individual work in peace, zone of silence, or group work. Promoting discussion and interactivity in addition to a cafeteria.

A Learning/Hub Center is a tool with a strong digital dimension, and as such should be considered as part of the establishment's digital strategy. It is consistent with the policy of disseminating knowledge through digital technology and its free access within the campus, and with the strategy of production, acquisition, and management of digital content. It is important to fill the gap between enterprises and higher education institutions.

It is essential that the pendular movement between conception and application that leads to achievement is made possible with the availability of spaces for creative reflection, discussion, and debate, of an 'administrative/documental scholastic' nature, with nearby spaces for prototyping, manufacturing, and production, with 'factory floor' features.

The learning center can also contribute to the development of educational innovation and the rapprochement between academia and the private sector.

- Real support for the acquisition of knowledge guaranteed by a much closer link between students and teachers from the posed subjects/problems to the design of the solutions/project.
- Friendly, open and flexible spaces.
- Maximum accessibility in terms of timetables and resources.
- Remote use facilities.
- Flexible staff and a grouping of services.

IPV is planning, should this opportunity materialize, the development and implementation of a [Learning innovation Hub](#) that, apart hosting non-conventional pedagogical mind centered activities, will comprise a Fablab, open to the community, based on the best examples in Europe, promoting the use of digital technology in creating art, small scale production and prototyping new ideas and mechanisms, so that new business and/or academic initiatives and projects can also be materialized. These facilities will allow to:

- Promoting creativity and cooperation, entrepreneurship, competitiveness, environment, and sustainable development.
- Promoting the creation of intellectual property.
- Promotion of networked learning, qualification, professional training, and employment.
- Collaboration in education (Cross-sectoral; Higher education, Upper-secondary education, Secondary and Elementary education).
- Promotion of business generation based on innovation and research.
- Social development and social inclusion.

And will include:

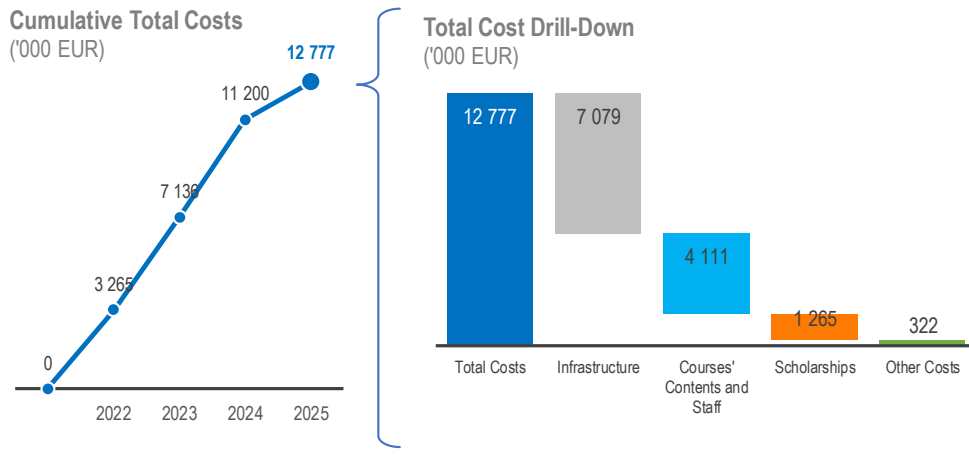
- Vinyl cutting stickers for a laptop, t-shirt, or flexible circuit board.
- Laser cutting complex parts for design, engineering, or jewelry.
- 3D printing custom parts.
- CNC milling snap-fit furniture and 3D objects such as molds for vacuum forming or miniature landscapes for architecture.
- Precision milling 3D objects and circuit boards.
- Design and produce electronic circuit boards to drive motors.
- Technology pilots.
- R&D development projects (prototype development).
- Miscellaneous manufacturing operations.

2. Conditions for the reception / installation of the proposed training programs and the financing execution plan:

In order to properly run the proposed programs, IPV will carry out a series of investments and assume some additional costs to its already existent cost structure. This section provides an overview of the total costs of the proposed programs, drilling down all the major components of it.

The cost of these programs, in the 4-year period that comprises this application, is estimated total of circa EUR 12 777 436 €. The three main cost drivers are: (1) the infrastructure costs, which account for more than half of the total; (2) the courses' costs, which sum about one third of the total and (3) the costs of scholarships which represent about 10% of the total cost. IPV estimated that about EUR 7.1M, will have been executed until the end of 2023, and the remaining EUR 5.6M will be spend in the period that ranges from 2024 to the course of 2025.

Total Cost Execution and Drill-Down



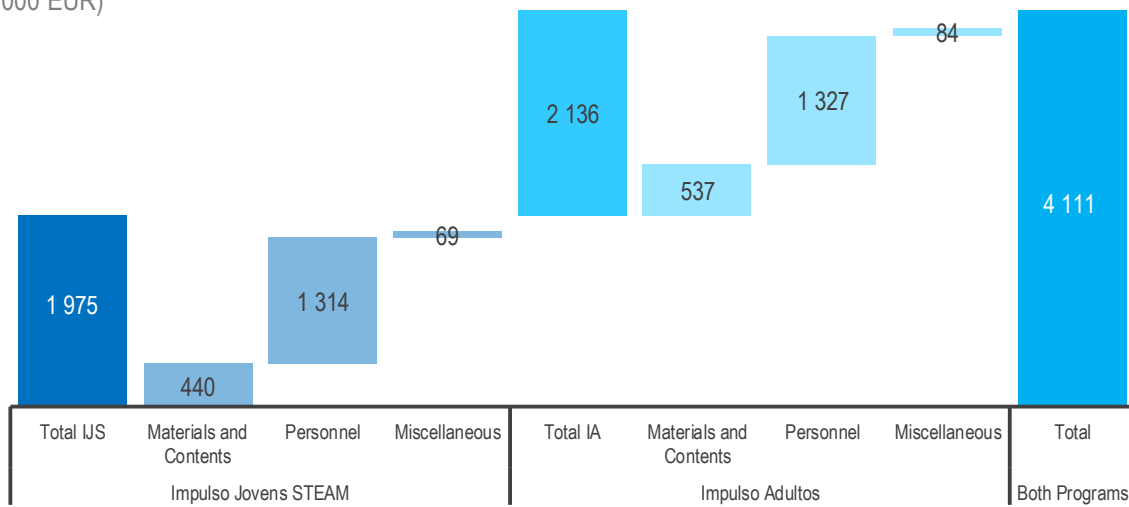
The largest cost drivers required to carry out the proposed programs, are the infrastructure costs, which comprise both investment in infrastructure (whether construction or equipment) and the running costs of the infrastructure during the 4-year period.

There are 3 key drivers that compose the infrastructure costs which sum up about EUR 7M: (1) the construction costs, which account for 50% of the total; (2) the equipment and installations, which represent both the costs of purchasing assets and the costs of placing and installing these assets in IPV buildings, which account for 41% of the total costs and, lastly, (3) other infrastructure costs, which represent a residual part of 10% of the total infrastructure amount.

Another significant portion of the costs are the courses costs, which total EUR 4,1M and represent all the costs involved in creating and delivering the programs detailed in chapter 2.2 of the present document. These costs are evenly distributed between the programs eligible to the “Impulso Adultos” incentive and the “Impulso Jovens STEAM” incentive, each of these components accounting for roughly half of the total courses' costs.

Courses Costs Drill-Down

Courses' cost disaggregation
 ('000 EUR)



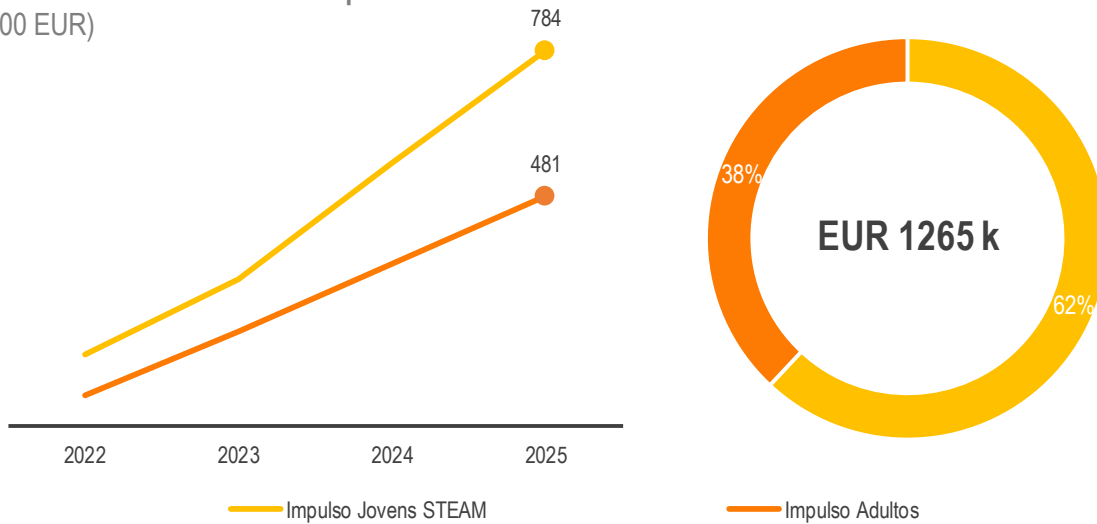
Regarding the “Impulso Jovens STEAM” component, which sums a total of EUR 1.9M, the personnel accounts for the most part of these costs, summing up EUR 1.3M, while the costs of materials and contents account for EUR 440k. As for the “Impulso Adultos” component, which totals about EUR 2.1 million, the personnel costs are also a significant part of the costs, accounting for a total of EUR 1.3M and, again, the materials contents account for a lesser part of the costs, rising up to EUR 537k.

The last key-part of the budget is the scholarship costs, which re-enforce the commitment of IPV in supporting the accessibility to higher education to the most disfavored segments of the population, and moreover, are also an integral part of the PRR objectives.

The total scholarship costs are about EUR 1.2M, which IPV expects to attribute to students in both “Impulso Adultos” and “Impulso Jovens STEAM”. However, in this case, the distribution is not even, for the total amount of scholarships attributed to students from “Impulso Adultos” programmes sum about EUR 481k, while the total amount of the scholarships attributed to “Impulso Jovens STEAM” programs sum about twice as much, accounting for EUR 784k.

Scholarship Costs Drill-Down

Cumulative costs of Scholarship ('000 EUR)



This overall difference in amounts determines that 34% of the scholarship amounts are to be attributed to students of “Impulso Adultos” and the largest part (66%) are to be attributed to students of “Impulso Jovens STEAM”. This difference is due to the cost per student which is 697€ for “Impulso Jovens STEAM” and 350€ “Impulso Adultos” .

3. Estimated analysis for the regional and national impact in terms of the relative contributions of the proposed training program (s) to achieve the following goals in terms of the population living in Portugal:

The “Impulso Jovens STEAM” and the “Impulso Adultos” have indicators to measure their impact both regionally and consequently nationally. These two impulses aim to leverage the Portuguese population, together with higher education institutions, to another level of excellence. Below we have the IPV’s contribution to the indicators under analysis and to the national goals to achieve.

Impulso Jovens STEAM

Indicator	National Goal	IPV Contribution
20-year-olds to participate in higher education by 2030	60%	2500
Higher education graduates among the population 30-34 years old by 2030	50%	400
Higher education programs in STEAM fields by the second quarter of 2025	25	27
Additional annual graduates in higher education courses/study cycles exclusively in STEAM fields in 2025, compared to 2020	10 000	4500

Impulso Adultos

Indicator	National Goal	IPV Contribution
Increase the number of adults in lifelong learning in all higher education institutions by 2030	5 times	2500
Participants in short courses of higher education, initial and post-graduate level, supported until the 3rd quarter of 2025	23 000	5500
N. ° of "schools" and/or "alliances" for post-graduate training in collaboration with employers, for short post-graduate courses	10	1
N. ° of "schools" and/or "alliances" for post-graduate training in collaboration with employers, for short post-graduate courses in the interior Region of the country	4	1

4. Relative level of involvement of the consortium partners, especially public and private employers, in the programming and implementation of the proposed training programme(s):

Each partner in the Consortium will play an active role in the implementation of the programmes: public and private employers will contribute to the co-definition and co-creation of the training programmes and provision of human resources for specialised training; high schools and VET schools, among other organizations, will cooperate to attract students to STEAM courses; municipalities and enterprises will provide spaces to real context practices and employability conditions of students.

Describing these processes in a more detailed manner, there was, from the very beginning, several meetings with business and entrepreneurial associations and a large number of companies from the various sectors identified, from local public administration, professional schools and the creative sector, that is, with all interested parties. These stakeholders were also approached because of crossing the needs they have pointed out with the objectives of the PRR and with the objectives defined in the national and regional strategies, namely those involving intelligent strategies for the development of the two regions in which this institution operates. Subsequently, meetings were held by segments and by areas, in which the identified qualification objectives, the definition of the contents and the methodologies used were discussed.

But also the duration, frequency and, very important, the sequence of progression that will enable a trainee to progress in the acquisition of knowledge, skills and abilities; but also the way in which they can continue to study, particularly in higher education, that, in the various areas, the designations of 'aggregations' were attributed, in the sense that allows to understand, and that allow the trainee to understand, how they can accumulate micro-accreditations that permit them to pursue studies, either for technological courses, either for degrees or, if applicable, for postgraduate courses.

In particular, the companies involved, which were joined by the management of the business associations, were always aware of the benefit of their employees acquiring training in the proposed areas, as well as showing that they understood that such training should take place during working hours. There is also the manifested availability to contribute with human resources to the range of trainers necessary for the execution of the training actions.

The understanding that it will be necessary to capture both young people in geographically more distant areas, young people with situations of scarce income availability, or young people with unstructured previous academic paths, led to the presentation of a particularly very comprehensive and thorough marketing plan.

This institution will also participate in the effort to fund operating costs, process management, provision of facilities and services and respective consumables, and ensure the competent functioning of the activities that will be developed, either within its scope or in third parties' scopes.

This [regional alliance](#) will be coordinated by a steering committee formed by a representative of each partner organization, who will define and monitor the collaboration strategy for the identification and definition of responses to actual and future demand for skills and competencies in labor market. The steering committee will deliberate on the formation of specific transdisciplinary work groups to focus on:

- Collecting information to forecast future demand for qualifications and skills, including up- and reskilling in each study area.
- Defining and selecting academic offer in key areas such as innovation, reindustrialization, climate, and digital transitions as a response to the needs of the labor market.
- Innovating training formats and practices based on the articulation between employers and IPV schools.
- Identifying strategies to stimulate business innovation.
- Boosting collaborative networks to promote innovation and experimental projects (e.g. incubation of business projects).
- Monitoring and evaluating the regional alliance strategy.

Enterprises

[Álvaro dos Santos, Lda.](#)
[ASEA BROWN BOVERI Portugal, Unipessoal Lda](#)
[AKWEL Tondela \(Portugal\), Lda.](#)
[Casa Archie](#)
[Centro Berry - Frutas de Portugal Lda.](#)
[CertEnergia, Estudos e Projetos de Energia, Lda.](#)
[Costa Ibérica – Florestal, Lda.](#)
[Costa Ibérica – Madeira & Derivados, SA.](#)
[CP – Comboios de Portugal, EPE](#)
[Critical Manufacturing, SA.](#)
[Ecoseiva - Agricultura Biológica, Lda.](#)
[Emotions and Balance - Unipessoal Lda.](#)

[Eda – Estofagens de Assentos Unipessoal, Lda \(Faurécia\)](#)
[Felmica – Minerais Industriais S.A.](#)
[Fresenius Kabi \(Labesfal\)](#)
[Grande Hotel Thermas](#)
[GSFAN – Indústria Unipessoal, Lda.](#)
[Hotel do Parque – Congress & SPA](#)
[Hotel Vouga – Amélia Marques, Lda.](#)
[INFAIMON Unipessoal, Lda.](#)
[Luso Finsa, SA.](#)
[MEO, SA \(Altice\)](#)
[Meivcore - Industry Solutions, Lda](#)
[PrimerGen, Lda.](#)
[Project Box, Lda.](#)
[Purever Industrial Solutions](#)
[Radar D'ideias - Unipessoal Lda.](#)
[Schneider Electric Portugal, Lda](#)
[SEW–Eurodrive Portugal, Lda.](#)
[SKF Portugal – Rolamentos, Lda.](#)
[Termalitur – Termas de São Pedro do Sul, S.A.](#)
[TIS.pt – Technological and Intelligent Systems, Lda.](#)
[Tojaltec - Fabrico de Máquinas, Lda.](#)
[Vasco Pinto & Agostinho Sousa - Produtos Hortícolas e Ervas Aromáticas Lda.](#)
[Visabeira Turismo, Imobiliária e Serviços SGPS, S.A.](#)

RD&I Entities

[CoLab Food4Sustainability](#)
[Academia Cuf, Unipessoal Lda.](#)
[ADIV – Associação para o Desenvolvimento e Investigação de Viseu](#)
[PrimerGen, Lda.](#)
[TICE.PT – Pólo de Competitividade Tecnologias de Informação, Comunicação e Electrónica](#)

Associations and other non-profitable entities

[Acrítica CRL – Carmo’ 81 \(Creative Industry\)](#)
[ADACB – Associação Distrital dos Agricultores de Castelo Branco](#)
[ABRE – Associação da Bio-Região de São Pedro do Sul](#)
[ACTUAR – Associação para a Cooperação e o Desenvolvimento](#)
[AMRPB – Associação de Municípios da Região do Planalto Beirão](#)
[AFIN – Associação Florestal do Interior](#)
[AHRESP – Associação da hotelaria, restauração e similares de Portugal](#)
[APDC – Associação Portuguesa para o Desenvolvimento das Comunicações](#)
[Associação Beira Aqueira de Apoio ao Deficiente Visual](#)
[Associação da Indústria Hoteleira e Similares das Termas de São Pedro do Sul](#)

	<p>Cáritas Diocesana de Lamego</p> <p>Cine-Clube de Viseu (Creative Industry)</p> <p>CNA - Confederação Nacional de Agricultura</p> <p>CVR - Comissão Vitivinícola Regional do Dão</p> <p>Fundação Lapa do Lobo (Creative Industry)</p> <p>Sindicato de Professores da Zona Centro</p> <p>Surdisol</p> <p>Teatro Viriato – Centro de Artes do Espetáculo de Viseu (Creative Industry)</p> <p>Verdelafões – Associação de Produtores Florestais</p> <p>Viseu Marca</p>
Public Entities	<p>AMRPB – Associação de Municípios da Região do Planalto Beirão</p> <p>AHRESP – Associação da hotelaria, restauração e similares de Portugal</p> <p>Comunidade Intermunicipal Viseu Dão Lafões</p> <p>Câmara Municipal de Lamego</p> <p>Câmara Municipal de Mangualde</p> <p>Câmara Municipal de Mortágua</p> <p>Câmara Municipal de Oliveira de Frades</p> <p>Câmara Municipal de Tabuaço</p> <p>Câmara Municipal de Tondela</p> <p>Câmara Municipal de São Pedro do Sul</p> <p>Câmara Municipal de Viseu</p> <p>Centro Hospitalar Tondela-Viseu</p> <p>CVR - Comissão Vitivinícola Regional do Dão</p> <p>CP – Comboios de Portugal</p> <p>Direção Regional de Agricultura e Pescas do Centro</p> <p>Termalístur – Termas de São Pedro do Sul EM, S.A.</p>
Public Schools	<p>Agrupamento de Escolas de Carregal do Sal</p> <p>Agrupamento de Escolas de Castro Daire</p> <p>Agrupamento de Escolas de Mangualde</p> <p>Agrupamento de Escolas de Oliveira de Frades</p> <p>Agrupamento de Escolas de Vila Nova de Paiva</p> <p>Agrupamento de Escolas Miguel Torça, Sabrosa</p> <p>Agrupamento de Escolas de Gouveia</p> <p>Escola Secundária Viriato</p>
VET Schools	<p>Escola Profissional Mariana Seixas</p> <p>Escola Profissional de Tondela</p> <p>Escola Profissional de Vouzela</p> <p>Escola de Hotelaria e Turismo do Douro Lamego</p>

5. Capacity of the investment proposed to leverage other sources of co-funding, public and private, national, and European, including synergies with other programs of the PRR/RRP, as well as other national and community funding programs (i.e., centrally managed funds, including Horizon Europe, or decentralized, including structural funds).

The investments needed to help programs reaching their full potential are beyond those listed in point 3, once IPV intends to create an effective dynamic within this regional alliance that will be extended in time and, thus, will generate other, activities, programs, and projects with potential to leverage other sources of co-financing, public and private, national and European. At the same time, IPV must continue to improve the schools' infrastructures and equipment to support the desired innovation and technological evolution.

The co-funding opportunities that can already be identified are:

PRR – Exploring the synergies created within this regional alliance especially in the areas of Climate Transition and Reindustrialization to generate new initiatives and partnerships aligned with Research and Innovation Agenda for the Sustainability of Agriculture, Food and Agro-industry, the Agendas/ Mobilizing Alliances for Business Innovation and Green Agendas/Alliances for Business Innovation.

The plans for building an environmentally sustainable campus have investments on energy and resource efficiency (Component 13 of the PRR)- IPV [POSEUR approved energy efficiency projects](#).

Portugal 2030 – Considering the nature of the present project, the programs that will be designed, developed and updated within this regional alliance aiming to elevate the competencies of young adults and the upskilling and reskilling of active adults will continue to evolve and, thus, fomenting the leverage of other sources of co-financing under the Qualification of Human Resources included on the Thematic Agenda of Digitization, Innovation and Qualifications as Drivers of Development under Portugal 2030.

At the same time, the digital transition strategy of IPV towards the modernization of infrastructure and equipment needed to update the teaching and learning process in line with a STEAM approach will continue to be implemented leveraging new investments aligned with the orientations of the Qualification of institutions also included on the Thematic Agenda of Digitization, Innovation and Qualifications as Drivers of Development under Portugal 2030.

Erasmus+ – The synergies generated among this regional alliance as well as the implementation of the two programs will impulse new applications to Erasmus+ particularly Mobility and Partnerships for Cooperation.

Horizon Europe – IPV has recently carried out a strategic reflection, aligned with the priorities for 2030, which resulted in the identification of its main areas of expertise in the international context, in order to create the right conditions to enable its participation in European research and innovation programs, as coordinator of European proposals. under which it intends to submit applications in line with the next calls of Horizon Europe. Working very closely with enterprises, their qualified professionals, and researchers in the context of this regional alliance, IPV intends to identify opportunities for new innovation projects and strategic partnerships meeting the conditions to apply to Horizon Europe.