



Designing Learning Opportunities for the Universities of the Future. SAPs, Short Advanced Programmes in the RUN-EU Regional University Network

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Abstract

RUN-EU is a European University with one main objective – to support the development of the regions covered by its partner universities, through prepared and committed students who will shape the future. The mission of RUN-EU is to strive to secure the sustainable economic, social, cultural, and environmental progress of its regions and stakeholders. RUN-EU delivers this mission by identifying the future and advanced skills required by regional stakeholders to successfully meet the challenges of the future, engage in societal transformation, and promote active citizenship, thereby creating a new type of multinational interregional alliance, the European Zone for Interregional Development.

RUN-EU has been carrying out training programmes that promote future and advanced skills for social transformation in the regions of the European Union. Through pedagogical innovation, the partner Higher Education Institutions have been jointly developing a diverse range of teaching and learning actions, offering students different international short-term programs and e-learning, and international cooperation projects in the field of research and development are also being implemented.

In the case of IPCA, our home institution, we have been responsible for coordinating the design of the Short-Advanced Programmes SAPs; SAPs are short and small individual learning units based on transnational curricula focusing on the future advanced skills needs, enabling the promotion of flexible learning pathways, short-term international mobility, innovative pedagogies and blended learning. SAPs are means to increase the effectiveness and flexibility of Higher Education (HE) and to provide upskilling and reskilling opportunities to the labour force.

At this conference, we present our pivotal role in pedagogical innovation through SAPs and 50+10 project.

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Preamble

This work is presented by two researchers working together on applied pedagogical innovation. One is an art and design researcher and the other is an engineering researcher, who have used their expertise to lead multidisciplinary pedagogical innovation projects at IPCA, linked to the RUN-EU alliance.

However, we must emphasise that this work has only been possible within the framework of RUN-EU and with the teams that make it up and have made it up from the beginning. It is an honour to represent a group of people who have contributed to the success of the projects presented here.

RUN-EU an Alliance Committed with Regional Development

The European Universities initiative was outlined in 2017 as the vision of the future for education and culture in Europe with the following purpose:

“European Universities are transnational alliances that will lead the way towards the universities of the future, promoting European values and identity, and revolutionizing the quality and competitiveness of European higher education.”



After the 2023 Erasmus+ call, we have 50 alliances spread across European capital cities and remote regions in 35 countries today. Besides EU Member States, we also have Iceland, the Republic of North Macedonia, Norway, Serbia, Türkiye, Albania, Bosnia, Herzegovina, and Montenegro.

RUN-EU is one of these European universities with one main objective – to support the development of the regions covered by its universities. The mission of RUN-EU is to strive to secure the sustainable economic, social, cultural, and environmental progress of its regions and stakeholders. RUN-EU delivers this mission by identifying the future and advanced skills required by regional stakeholders to successfully meet the challenges of the future, engage in societal transformation, and promote active citizenship, thereby creating a new type of multinational interregional alliance, the European Zone for Interregional Development.

RUN-EU involves the following partner institutions: Polytechnic of Cávado and Ave (Portugal), Polytechnic of Leiria (Portugal), TUS Technological University of the Shannon (Ireland), Széchenyi István University (SZE) (Hungary), Häme University of Applied Sciences HAMK (Finland), NHL Stenden University of Applied Sciences (Netherlands), and FH Vorarlberg University of Applied Sciences (Austria), and more recently Universidad de Burgos (Spain) and Howest University of Applied Sciences (Belgium).

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Besides pedagogical innovation through the SAPs, IPCA also created the 50+10 concept, a pedagogical framework for the development of future skills across the Polytechnic University's educational offer. This framework was designed to address the challenge of integrating transversal competences with knowledge and disciplinary expertise in Higher Education courses. It offers an integrated approach that aims to respond to the needs of students, teachers, and employers, hence society at large, incorporating student-centred teaching and learning strategies, pedagogical development, transferable competences, and university- community-industry-society partnerships capable of delivering social transformations. The 50+10 approach is further expected to have a positive impact on student and professor engagement, deliver high-quality learning, and prevent dropout.

Definitions and Innovative Approaches: SAPs and 50+10

Here, we will present the definition of the concepts of SAPs, 50+10 and their implementation in RUN-EU and IPCA.

What is a SAP?

A shared and transparent definition of Short Advanced Programmes (SAPs) was necessary to establish and foster common understanding and trust within RUN-EU.

It was agreed that SAPs:

- are transnational *curricula* focusing on the future advanced skills needs, enabling the promotion of flexible transnational mobility of students, innovative pedagogies and blended learning activities;
- SAPs are means to increase the effectiveness and flexibility of Higher Education (HE) and to provide upskilling and reskilling opportunities to the labour force;
- SAPs are designed to provide the learner with specific knowledge, skills or competences that respond to societal, personal, cultural or labour market needs;
- SAPs must have explicitly defined Learning Outcomes (LO) indexed at a Qualification Framework level, an indication of associated workload in ECTS credits, assessment methods



and criteria, and be subject to quality assurance in line with the European Standard Guidelines for Quality Assurance (ESG);

- SAPs need to have commonly agreed standards and a clear definition regarding mode of delivery, duration, workload, LO, ECTS range, assessment process, validation, stackability, among others;
- RUN-EU is now working deeper and exploring SAPs recognition for further studies and/or employment and, considering their strong association to the micro-credentials concept, meaning, how to incorporate them into larger credentials.

Summarising, **SAPs are short and small individual learning units based on transnational curricula focusing on the future advanced skills needs, enabling the promotion of flexible learning pathways, short-term international mobility, innovative pedagogies and blended learning.**

SAPs can be presented in diverse formats, have different typologies and be offered in multiple ways. This diversity and flexibility form part of their strength and allows for the development of rich, meaningful and competitive solutions.

SAPs must be considered as short and small learning units, ranging from 1 to 5/6 ECTS credits (1 ECTS has an average workload of 28 working hours). The typical duration of RUN-EU SAPs will range from 1 to 8 weeks, either on a part-time or full-time basis. The number of ECTS credits translates the workload effort. The duration represents the overall time frame (from the 1st to the last programmed days) and might not correspond to the entire duration of the delivery.

Transnational physical short-term mobility (from 1 to 2 weeks) is a compulsory component.

SAPs should have a modular and flexible nature to allow individualised learning paths. SAPs can be a standalone, independent, adds-on unit or can be used or strategically foreseen as integrated, stackable, building blocks towards a course, programme or larger credential.

SAPs must have a collaborative nature and involve at least 2 RUN-EU International full-members. English is proposed as the standard working language for SAPs, but other languages may be used, notably for the SAPs focused on Culture & Language.

A wide range of target groups is envisaged: students from all cycles of studies, academic staff, staff, researchers, professionals, and life-long learners from regional and international stakeholders.

To provide a better understanding of the concept and illustrate what SAPs could mean, the following SAPs typologies have been identified:

- **Cutting-edge Topic** - incorporating the most recent results of the joint advanced research and innovation projects as well as emerging trends;
- **Transversal Skills** – aimed at the development of future and advanced skills;
- **Challenge Programme** - focused on Challenge/Project-based learning experiences;
- **Research Challenge Programmes** – focused on Research Challenges;
- **Open Undergraduate Module** and **Open Postgraduate Module** - building blocks of open undergraduate / postgraduate degrees (disassembled modules);
- **Local Culture & Language.**

At the beginning of the alliance, to develop the SAPs, it was necessary to establish Standard Guidelines that would serve as a tool for the partners to have support in creating the SAPs. We created a document to be used by the coaches and institutional heads of the SAPs from the first contact with the teachers proposing the programmes. These guidelines included all the stages of designing, preparing, developing and implementing a SAP. Over the course of the first year of programme creation, we found it necessary to create more and simplified training materials, so we added the 'Step by Step: How to build a SAP' infographic presenting a summary of all the information presented in the Standard Guideline.

The developed and work in progress SAPs have a virtual learning period and one or two weeks on-campus teaching periods. Transnational physical short-term mobility (1week) is a compulsory component. The classes of the SAPs normally consist of 10 students of the hosting member/country, and at least 14 international students, which are benefiting from a mobility scholarship. Each SAP is organized by at least one professor from the hosting institution and professors from other RUN-EU



institutions. The involved academic staff will join the on-campus teaching period. SAPs are financed by RUN-EU grants.

In parallel with the creation and development of SAPs (in the 2019 RUN-EU application), in 2021 the European Union created Blended Intensive Programmes (BIPs), fully funded by the ERASMUS+ KA131 programme. BIPs, like SAPs, work between three EU partners and compulsorily include a week of physical mobility in addition to the online component.

Following the great success of the SAPs, RUN-EU is now also organising BIPs between alliance partners as a way of further promoting jointness.

The 50+10 Concept for Future Skills

The IPCA “50+10” is a pedagogical model that focuses on the development of “future skills” [1]. Its objective is to foster abilities in Higher Education students and teachers that empower them to engage with and learn from intricate, real-world issues, thereby facilitating meaningful and influential societal changes. The model underscores the importance of cross-functional skills such as teamwork, communication, collaboration, inquiry, and creativity, but also time and conflict management.

By actively engaging learners, the 50+10 framework seeks to enhance these skills. Moreover, it strives to reconcile the integration of these cross-functional skills with specialized disciplinary knowledge within Higher Education curricula. This approach is designed to prepare students for the future by equipping them with a balanced blend of soft skills and technical expertise.

It enthusiastically introduces active learning early (from day one) in Higher Education, enhances relational skills through learning experiences, involves external partners for real-world challenges, delivers experiential learning activities based on curricular flexibility and collaboration, includes students in diverse teams throughout their courses, and dedicates a common timeframe across all courses to address challenges and present solutions.

This proposal recognizes IPCA’s and RUN-EU networks’ needs for “future skills” development, encompassing hard and soft skills to tackle real-world challenges. It promotes collaboration, encourages new methodologies in a safe environment, acknowledges time as a limited resource, and identifies the hindrance of heavy workloads and disconnected activities on deep learning.

The “50+10” concept is actively focused on the reconfiguration of learning environments/approaches, by dedicating 50 hours to disciplinary competences and 10 hours to cross-disciplinary, experimental learning in a typical 60-hour curricular unit (most common in Portuguese HE systems). It promotes the allocation of time for relational & future skills learning activities (five sessions of one hour), and practical learning at the start (the kick-off day), throughout, and end of each semester (two-week of active learning activity), respectively.

This integrated approach aims to meet the needs of students, teachers, organizations, and society. It combines student-centred teaching, pedagogical development, transversal competences, and partnerships between university, community, industry, and society. It seeks to enhance Higher Education Institutions’ (HEIs) ability to effect social transformations, promote student engagement, active and high-quality learning, and prevent dropout.

To support the teachers’ activities, IPCA as defined a set of 50+10 guidelines with the aim to balance student expectations, teacher capabilities, and external needs by restructuring lectures and learning moments into three steps, with one pre-work moment: This initial preparation involves a semester pre-planning to integrate hard and soft skills. IPCA restructured five pilot bachelors in 2022 (one per each school) and in this sense, teachers participated in a FASA program to learn how to adapt the 60-hour lecture into 50 hours of technical knowledge and 10 hours of transversal activities.

With help of FASA, teachers planned the kick-off moment, discussed relevant skills for new students, identified entities for collaboration, and determined how to reflect the sprint project evaluation in the curricular units. Each teacher also mentored one or two teams of his course. The 50+10 concept didn't require course modification but focused on course interaction and reflecting sprint week projects in student grades, with all activities mostly being developed in teaching hours.

- A. Project Initiation: This step involves a collaborative activity engaging students, teachers, and an external challenge partner. The activity, lasting approximately 4 to 5 hours, aims to eliminate barriers among participants and prepare students for the challenge theme. The FASA program with teachers facilitates several components of this activity: welcome and icebreaking, challenge and partner presentations, random team formation, team building, and initial idea pitching. In subsequent semesters, the welcome component also serves as a reflection on the previous semester's pros and cons.
- B. Skill Development: This step focuses on enhancing skills through transversal activities that supplement technical lectures. These activities, each lasting 1 to 2 hours per curricular unit, involve both students and teachers and aim to explore skills beyond the lecture content. The step comprises three sections: a brief icebreaker for team formation, an introduction to a specific soft skill, and a team activity promoting discussions, presentations, and new experiences centred around the specific skill. Mid-semester, one of these skill-building moments is dedicated to revisiting and discussing the challenge and any topics requiring further clarification.
- C. Sprint Weeks: These two weeks allow students to apply their acquired knowledge and skills to a transversal project or challenge. This period, free from evaluations or assessments, is dedicated to collaborative problem-solving. On the first day, the challenge is reviewed, and students are introduced to various design thinking methodologies for project development. Students work in teams to generate, create, and build prototypes of their ideas or solutions. On the final day, each team presents their work to an external jury, including the invited entity, for evaluation and feedback. The presentation format and location are free to be decided by the course teachers (inside or outside classroom, formal or informal moments).

Given the synchronous schedule of all bachelor courses, Sprint Weeks (last two weeks of each semester) present a unique opportunity for multidisciplinary projects addressing challenges across multiple knowledge domain. This interdisciplinary collaboration enables students to broaden their understanding of diverse fields and collaborate with a variety of individuals, national and internationally.

Achievements of SAPs and 50+10 as Pedagogical Innovation Approaches

In deciding which SAPs to develop within the framework of RUN-EU, these respond to a set of needs that are undoubtedly aligned with the research being done at the level of Future Advanced Skills FASA, such as the 50+10 programme, but also with the alliance's Discovery Programme, which involves research between partners, as well as the Innovation HUBS implemented over the last few years: Future and Sustainable Industries, Bioeconomy and Social Innovation. These, aligned with the European objectives for a sustainable future, respond to the needs of the RUN-EU university regions. In addition to being evaluated in different dimensions, as long as they are proposed by the professors, on the one hand in the scientific and innovation component, as well as in terms of pedagogical innovation. The SAPs are also evaluated by the students so that they can actively participate in the continuous improvement of the whole process.

The current experience has exceeded initial expectations and promoted extraordinary results in learning, inclusion, diversity, multiculturalism, and multilingualism. So far, within the alliance, during the first period of the project (3 years), we promoted a significant number of SAPs (almost 80) in different cutting-edge topics, transversal skills, and challenge programs, among other current relevant trends. And if for the teachers the co-creation of these training offers, in which they jointly thought about and built learning opportunities, in a multidisciplinary way and anticipating the skills of the future, for the students the SAPs were effectively a gain, and a form of active and participatory learning.



Regarding the 50+10 programme, from the feedback sessions with students and teachers, some of the highlighted pros aspects are the establishing of new connections, successful teamwork despite unfamiliarity among members, engaging and practical learning experiences that fostered transversal skills like creativity, self-confidence, and critical thinking, collaboration, mutual assistance, familiarity with the IPCA region, the realization of ideas, public presentation of their work, and direct interaction with external partners.

Some areas identified for improvement include project time allocation, workload management, clarity in objective definition, fairness in group formation, task redundancy, teacher engagement, time for other course assignments, and learning spaces. Consequently, students expressed a desire for clarification on key aspects such as objectives, next steps, rationale for theme selection and learning timings, and the reason for implementation in the first year.

Overall, the gain for students was evident and the projects developed exceeded expectations. However, certain aspects need enhancement to prevent teacher and student disorientation. Initial feedback from external entities, gathered during and after project presentations, was also very positive, encouraging us to persist in this direction as they foresee potential for further collaboration. Due to the early stage of this 50+10 concept, effectiveness in student engagement, success, and dropout reduction are still being qualified.

Although, at the end of this second year of application, a clear increase in student participation is obvious in these courses. While still a pilot program, the engagement for students but also teachers is promoting an innovation ecosystem that ensures a clear connection between learning and application to real-world cases, increasing overall motivation and also interest for internationalisation and entrepreneurship.

At this date, a total of 5 bachelor's degrees (first and second years) are using this concept with over 300 students. Since this concept has deep roots in RUN-EU framework, the exposure of student to these new methodologies, the understanding of what RUN-EU is, what are "future skills", has promoted their interest in multidisciplinary activities and specifically the SAP programme.

Final Remarks

RUN-EU has been renewed for 2024-2027 with funding from the European Framework. The ambition to increase collaborative projects with the outside world and to contribute to the future advanced skills of the regions is even stronger. Following the success of the first edition of the alliance, RUN-EU intends to expand its range of short learning opportunities for its students and staff, but also to include external learners. In this edition of RUN-EU, external partners from industry and institutions will become even more relevant and active, actively participating, advising and guiding, building the future with us. We believe that European universities are the universities of the future, flooded campuses where the student community can move freely and shape their future without restrictions.

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