INGENIUM
European University

INGENIUM Pathway Framework

Work package 4 – The INGENIUM European Campus

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Definitions & Acronyms

Definition/Acronym (in alphabetical order)	
Academic Advisor	Academic Advisors counsel students in undergraduate and graduate studies. They assist students in selecting majors and minors, or in this case pathways, planning and registering for courses, and ensuring they meet the requirements to graduate within their desired timeline.
Course	A self-contained, formally structured learning experience. It should have a coherent and explicit set of learning outcomes, defined learning activities consistent with the time allocated within the curriculum, and appropriate assessment criteria[1]
Dean of Studies	The deans of studies work to ensure that courses and curricula offered by the faculty comply with examination and study regulations, that degree programmes can be completed properly within the allotted amount of time and that students receive adequate advisory services. They are responsible for the evaluation of teaching based on students' assessments. For INGENIUM Pathways Programmes, deans of studies are also responsible for identifying the pathways with partner universities.
IPP	INGENIUM Pathway Programme
IPPM	INGENIUM Pathway Programme Model
Module	A course unit in a system in which each course unit carries the same number of credits or a multiple of it.[2]

[1] ECTS User's Guide, p. 68.
[2] ECTS User's Guide, p. 73.

EXECUTIVE SUMMARY

The INGENIUM Pathway Framework is the INGENIUM European University's approach to an open degree in which students can build their individual curriculum. The concept of the open degree is being rebranded as the 'INGENIUM Pathway Framework' to reflect an increasingly innovative and open vision while avoiding confusion with nationally regulated open degree concepts, which might impose restrictions on its implementation.

With the introduction of the INGENIUM Pathway Framework, involved institutions are provided with guidelines how to create study programmes with more flexibility, offering students the opportunity to follow their personal needs and interest while receiving a nationally accredited diploma.

The modular approach to the INGENIUM Pathway Framework allows implementation on a wide range of study programmes. The implementation guide provided in the document will support institution to introduce INGENIUM Pathways to their programmes. Additionally, it sets the basis for the continuous monitoring and evaluation of the framework to ensure that it continues to be fit for purpose.

1. Introduction

The INGENIUM European University is creating an INGENIUM European Campus with ten locations, offering students flexible learning pathways and a wide range of study options. To achieve this goal, the INGENIUM Pathway Framework is introducing a model for the flexibilization of study programmes. With this model, students across various study programmes at all academic levels, including bachelor, master and doctorate, can create their own flexible learning pathway. The INGENIUM Pathway Programme Model (IPPM) presents a transformative approach to higher education, combining flexibility of programme content, international exposure, and interdisciplinary learning. By 2026, the INGENIUM European University plans to have established 10 study programmes offering INGENIUM Pathways.

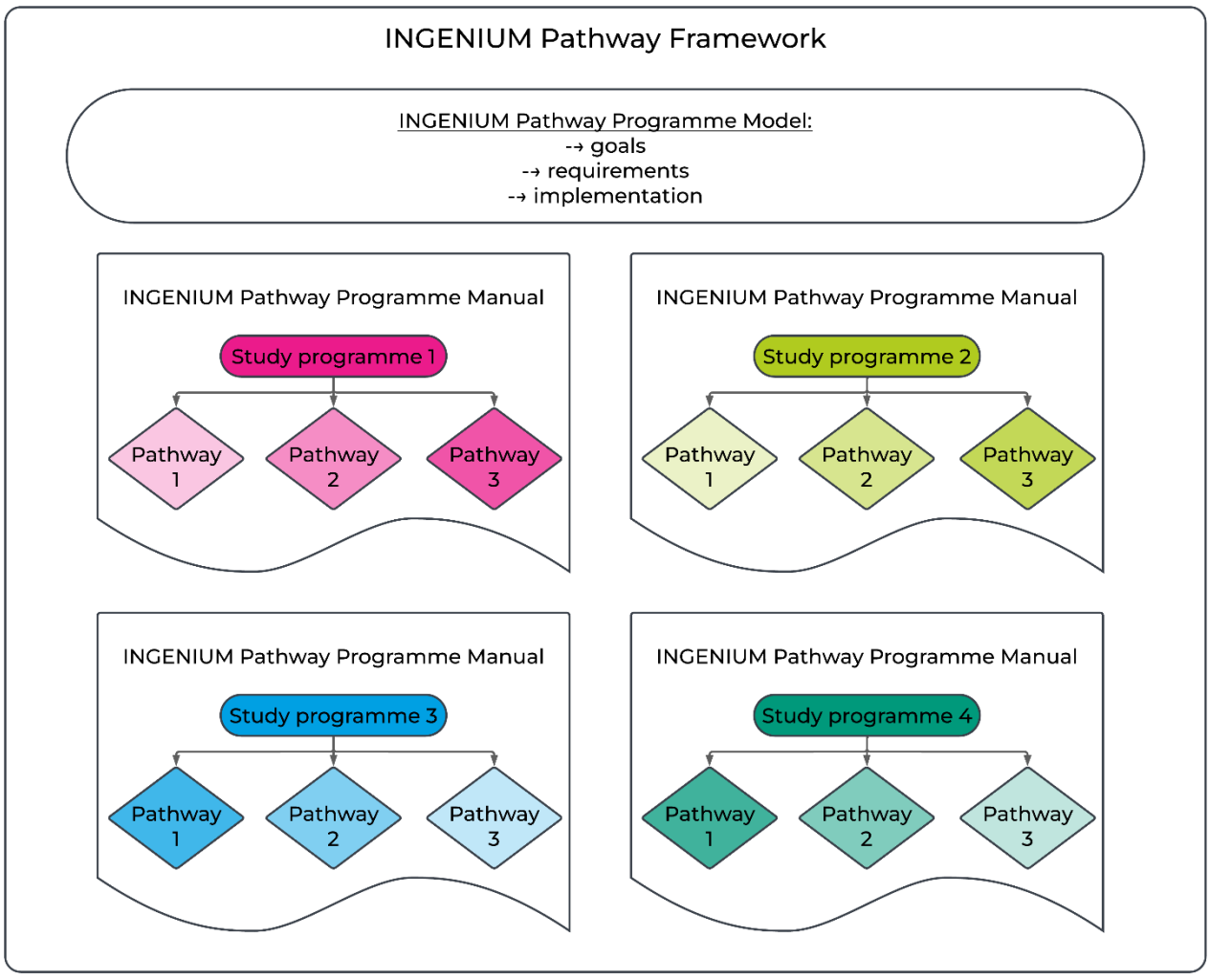
The INGENIUM Pathway Framework was developed through the thorough collaboration of all partner universities. This includes an in-depth analysis of each of the partner universities rules and regulations towards the flexibility of their programmes, a presentation and discussion of existing models to enhance the students' possibility to select and customize their study experience as well as controversial discussions among the Academic Committee about the feasibility of opening existing study programmes and increasing not only flexibility regarding elective components but also the international exposure opportunities for students.

With the development of the IPPM, the European University is putting the students at the centre of their student live cycle. With this model, students can take an increasingly active role in their education and pursue not only their chosen study programme but also take advantage of a broader offer and using extensive resources provided by the involved institutions.

The INGENIUM Pathway Framework provides detailed information about the IPPM, including its goals, requirements, and the steps required for implementation. This document explains to academic and administrative staff and students the enhanced study opportunities available through the INGENIUM European University. Once the first INGENIUM Pathway

Programmes are established across the INGENIUM European Campus, an INGENIUM Pathway Programme Manual will guide students towards building their own study pathways, allowing them to personalize their academic experiences within the programme. Figure 1 below illustrates the structure of this framework and how it will be enhanced in the future. A study programme that offers one or multiple pathways is going to be an INGENIUM Pathway Programme (IPP). Consequently, there will be several INGENIUM Pathway Programmes at all of the partner institutions. For each IPP, there will be a manual that will describe the different pathway options and will guide students through their study experience.

Figure 2. The INGENIUM Pathway Framework



2. Defining the INGENIUM Pathway Programme

The INGENIUM Pathway Programme is a standard academic programme at bachelor, master, or doctorate level that incorporates the opportunity for students to include additional study fields into their regular study programme and to add an international mobility (virtual and physical) component. With the INGENIUM Pathway Programme Model, students can follow an increasingly flexible learning pathway, grow their transversal personal and professional skillsets and increase their international exposure opportunities while pursuing their regular

national degree. To successfully complete an INGENIUM Pathway programme students must fulfil specific requirements. A successful completion of the programme will be formally acknowledged in a diploma supplement.

Students choose a study programme at any member institution of the INGENIUM European University and will be enrolled in a nationally accredited Bachelor's, Master's, or PhD programme. The curriculum of this national programme will form the core of their studies.

Thereafter, students will be offered the opportunity to incorporate an INGENIUM Pathway into their studies. The sooner this option is selected however, the easier it can be incorporated into the student life cycle. By joining the INGENIUM Pathway, students can effectively customise their individual study programme while still being guided by the curriculum of the national study programme.

This approach has the clear benefit of preserving national requirements while adding curricular flexibility and international mobility within the INGENIUM European University. It furthermore recognizes the different starting points of each partner university and allows a step-by-step implementation process.

3. Programme Structure and Design

3.1. Flexibility and Modular Approach

The INGENIUM Pathway Programme Model follows a flexible and modular approach, allowing students to tailor their studies to their individual interests and goals. With this modular approach, study programmes are categorized into three main module types: Core knowledge areas provide a foundation in the specialized subjects of a student's chosen field, ensuring depth and expertise. Horizontal modules allow students to explore topics from other disciplines, fostering interdisciplinary learning and broadening perspectives. Transversal skills focus on developing versatile competencies such as communication, teamwork, and critical thinking, with particular emphasis on digital competences and entrepreneurship. For study programmes to be eligible to offer an INGENIUM Pathway, the curriculum must be categorized into the three different categories. Each study programme may be structured differently according to its national requirements.

When building their individual INGENIUM Pathway, students will be able to select from a diverse range of options, including online courses as well as bundled course packages available through physical mobility at the INGENIUM campuses. This combination of virtual and in-person learning provides flexibility and encourages students to engage with different teaching methods, environments, and cultural perspective

The modular system offers significant flexibility, as students can choose modules from a wide range of options available across the INGENIUM European Campus locations. This allows them to benefit from diverse academic perspectives and expertise. The number of credits available for selection from each category will vary depending on the specific study programme, as will the number of partner campuses offering relevant courses. Such details will be described in a dedicated manual for each INGENIUM Pathway Programme. The INGENIUM partner universities may offer pathways in the same fields of study and they may differ in their structure and course offerings. This customization enables students to shape

their academic journey according to their preferences, while still meeting the requirements of their degree.

Initially, the home university of each programme will define and structure the INGENIUM Pathways to provide a clear foundation for students. Over time, each INGENIUM Pathway will evolve to incorporate greater flexibility, allowing students to play a more active role in shaping their academic journey and selecting courses that reflect their personal interests and career aspirations.

3.2. INGENIUM Pathway Requirements

For a study programme to qualify as an INGENIUM Pathway Programme, it must meet specific criteria to ensure consistency and quality within the INGENIUM European University. The curriculum must provide options categorized into the three module types: Core knowledge areas, horizontal modules, and transversal skills. Additionally, the programme must comply with national regulations and facilitate credit recognition to ensure academic continuity. Students are normally required to spend at least 25% of the study periods in physical mobility, such as a work placement, a study semester abroad or multiple shorter stays abroad with BiPs or other forms of short-term mobility. The programme should also allow for ample opportunities for modules to be delivered by guest scholars, such as teaching mobilities or virtual mobility or other similar formats, amounting to around 25% of the total ECTS of the programme. Programmes that do not meet this threshold may still be approved as IPP by the INGENIUM Academic Committee if they are well-justified and incorporate a strong international dimension consistent with the pathway's goals.

3.3. INGENIUM Pathway Options

The INGENIUM European University is currently in the process of determining which specific programmes will include the INGENIUM Pathways. These pathways will provide students with additional academic opportunities and international exposure by offering a diverse range of courses across participating institutions. As the programme develops, the list of available pathways will be expanded, with careful consideration given to the academic strengths of each partner institution and the needs of the students. The INGENIUM Pathway options are expected to be regularly updated and extended to reflect the evolving range of study options available through the INGENIUM Pathway Programme Model.

3.4. Integration with National Programmes

The INGENIUM Pathway Programme Model is designed to seamlessly integrate with nationally accredited study programmes across the INGENIUM European University, ensuring that the learning outcomes align and adhere to the Bologna Process, European Standards and Guidelines, the European Approach as well as national jurisdictional, professional, and local requirements. Each INGENIUM partner university must comply with its own accreditation, national, and local regulations.

3.5. Customisation of Study Path

Each programme offering an INGENIUM Pathway will provide comprehensive guidelines to help students customize their academic journey according to their career-related individual

needs and interests. These guidelines outline the options available for selecting modules from core knowledge areas, horizontal modules from other fields, and transversal skill courses as mentioned above. The level of flexibility may be adapted and enhanced for each study programme, which will be revisited especially when a study programme requires reaccreditation in the future. Students are encouraged to build a pathway that aligns with their career goals and academic aspirations while meeting the ECTS requirements for their specific programme as well as the curricular requirements for their chosen professional career pathway. Customisation ensures that students can leverage the diverse offerings at different INGENIUM partner universities, allowing for a unique and flexible study experience tailored to their educational objectives.

4. Participation Criteria and Admission Process

4.1. Eligibility Requirements

Students must meet the enrolment criteria for the specific programme at the home university, as they will graduate with a national degree from their home institution. This ensures that students adhere to their home university's standards and regulations while also taking advantage of the international and interdisciplinary possibilities offered by the INGENIUM Pathway Programme. By fulfilling these enrolment criteria, students are able to pursue a customized study experience that enhances their education without compromising the integrity of their primary degree.

4.2. Application Procedure

To join an INGENIUM Pathway, students must first register for a degree programme that offers such an opportunity. There will be a separate application process at their home institution. The application process will begin with general counselling and guidance by the local INGENIUM contact, which can assist with initial inquiries. For more detailed and specific counselling, students will contact an academic advisor (or equivalent). Participation is open to all students whose study programmes incorporate an INGENIUM Pathway, with the primary limitation being the availability of course offerings at partner institutions. Depending on the pathway, the number of seats might be limited. Details will be provided in each INGENIUM Pathway Programme Manual.

If an INGENIUM Pathway has a limited number of seats available or reached capacity, there will be a selection process. The selection criteria will be determined by the home university in collaboration with the university offering modules to ensure that requirements from all involved partners are met. If a particular INGENIUM Pathway has reached the number of seats, students may be encouraged to select an alternative pathway.

It is recommended that bachelor's students decide whether they would like to enrol in an INGENIUM Pathway within their first three semesters of study, while master's students should make their decision by the end of their first semester. This timeline allows students to plan their studies and integrate the INGENIUM Pathway into their student life cycle in a timely manner. Partner institutions offering an INGENIUM Pathway Programme may set more precise deadlines for joining a pathway.

4.3. Approval Process

The approval process for an INGENIUM Pathway will be streamlined into standard pre-approved options (bespoke options also possible) to provide students with flexibility while ensuring that they meet the necessary academic requirements. Each of the three elements of the INGENIUM Pathway will have a minimum number of required ECTS credits that must be completed in core knowledge areas, horizontal modules, and transversal skills. As long as students adhere to these predefined requirements and follow the structure of their chosen pathway, no further approval procedure is necessary. It is highly recommended that the students are receiving guidance from the dean of studies or the local equivalent thereof.

5. Course and Module Selection

5.1. Catalogue of Available Modules

The catalogue of available modules within an INGENIUM Pathway will be provided once they have been fully developed across the INGENIUM European University. This catalogue will outline overall structure of each INGENIUM Pathway Programme and the courses offered by the involved partner institution(s), ensuring that students can easily access and explore the various academic opportunities available through the programme.

5.2. Cross-Institutional Enrolment

The INGENIUM Pathway Programme Model streamlines the process of cross-institutional enrolment for students, enabling them to take courses at partner institutions with ease. The Digital INGENIUM work package (3) is working towards the creation of a digital campus for the alliance including a virtual INGENIUM student registry. Through such a centralised tool, the need for separate enrolment procedures at individual partner universities will be largely eliminated as partners will be able to share the respective data. Students can utilize their home institution credentials to access courses and materials across the INGENIUM European Campus.

5.3. Specialisation and Elective Options

Once the INGENIUM Pathways are fully developed, a comprehensive overview of offerings in the core knowledge areas, horizontal modules and transversal skills will be made available to students. These options will highlight unique and specialized courses that are offered across the partner universities, enabling students to tailor their academic journey to their individual interests and career goals. The core knowledge areas and horizontal modules will cover a wide range of disciplines, offering students opportunities to deepen their knowledge in specific areas not typically available at their home institutions. Elective options will also provide students with the flexibility to choose courses outside their primary field of study, promoting interdisciplinary learning and broadening their academic and professional horizons. It should be emphasized that core knowledge areas within one study programme may serve as horizontal modules for other study programmes and vice versa.

5.4. Requirements for successful completion of an INGENIUM Pathway

To successfully complete the INGENIUM Pathway and benefit from its unique academic and professional opportunities, students must fulfil specific requirements designed to ensure meaningful participation and alignment with the programme's objectives. These requirements include academic guidance, mobility experiences, and cross-institutional engagement:

- Guidance from the local INGENIUM contact
  Students must engage regularly with their local INGENIUM contact to ensure they are fully informed about the INGENIUM Pathway opportunities, requirements, and processes. This guidance provides a critical support system for navigating course selections, mobility options, and administrative procedures.
- Regular check-ins with an academic advisor or equivalent
  Throughout their student life cycle, students are required to meet periodically with their academic advisor, dean of studies, or an equivalent. These check-ins help monitor progress, address challenges, and ensure that the student's pathway aligns with both individual academic goals and programme requirements.
- Physical mobility
  A key component of the INGENIUM Pathway is international mobility. Students should normally complete 25% in physical mobility. This can either be a study abroad semester at one of the other nine locations of the INGENIUM European Campus or completing a work placement in an international setting.
- Completion of modules delivered by guest lectures
  To foster cross-institutional learning and collaboration, students should have ample opportunities to participate in modules delivered by guest scholars, e.g., visiting the home university as a teaching mobility or through virtual course offers.

6. Credit Transfer and Academic Recognition

6.1. Credit Transfer between INGENIUM Partner Universities

The process for transferring credits between institutions involved in an INGENIUM Pathway follows well-established procedures to ensure smooth academic progression for students. For mobility windows, the recognition of credits follows the same guidelines as any other Erasmus+ mobility. This ensures that credits are recognized according to the ECTS system and are integrated into the student's academic record.

Virtual exchange opportunities also form part of the INGENIUM Pathway. For virtual exchange opportunities, the process is similarly structured. These exchanges are clearly defined within the INGENIUM Pathway Programme Manual, and once a student receives their transcript of records from the host institution, the home institution will follow its established procedures for credit recognition. This ensures that any credits earned through virtual exchanges are officially recognized and counted towards the student's degree, maintaining consistency and transparency throughout the programme. These standardized processes guarantee that all credit transfers — whether through physical mobility or virtual exchange — are efficient,

accurate, and aligned with both the INGENIUM Pathway Programme and institutional requirements.

6.2. Recognition Policies

Courses completed at partner institutions as part of an INGENIUM Pathway are automatically recognized at the student's home university, provided that students select from the pre-defined modules within the pathway. The recognition process follows the regular procedures established by the home institution, meaning that no additional approval is necessary. This streamlined system ensures that credits earned at partner universities are seamlessly integrated into the student's academic record, maintaining consistency and ensuring that students can progress towards their degree without administrative delays.

Students participating in an INGENIUM Pathway will have their international and multidisciplinary experiences formally acknowledged in their Diploma Supplement. Each host university will ensure that these experiences are clearly documented, highlighting the added value of their participation in the pathway. This recognition underscores the international mobility and interdisciplinary approach that enriches the student's academic journey, providing visibility and distinction in their degree.

6.3. Accreditation Guidelines

In order to ensure alignment with accredited study programmes and the degree awarded at the end of their studies, all offers within the INGENIUM Pathway must be approved by the student's home institution. Students can only select courses from the pre-defined pathways, which include a carefully structured mix of subjects from key areas, horizontal modules, and transversal skills. This approach guarantees that the courses taken as part of the INGENIUM Pathway meet the academic standards required for accreditation. Students' achievements in these courses will be documented according to the existing procedures at their home university, ensuring that credits earned through the INGENIUM Pathway are properly recognized and contribute towards their final degree.

7. Support Services

7.1. Advising and Mentorship

Students enrolled in an INGENIUM Pathway Programme receive comprehensive support to help guide them through their academic journey. Local INGENIUM contacts are available for general information and assistance, while the academic advisors, local programme coordinators, or their equivalents are able to provide more detailed academic guidance. With their support, students will plan their INGENIUM pathway, ensuring it aligns with their academic goals and meets INGENIUM requirements.

To foster a sense of community, students in any INGENIUM Pathway will join a community with peers from across the INGENIUM European University. This community offers students a chance to connect, share experiences, and support one another throughout their studies. In addition, there will be special courses designed to build skills that strengthen the

community's sense of identity and create a shared experience for all students in the programme.

As the programme grows and multiple cohorts are established, INGENIUM will introduce mentorship opportunities in various configurations. Mentorship may be offered within home institutions, within specific study fields, or across different institutions and disciplines. This approach ensures that students receive guidance from a wide range of perspectives, enhancing their academic and professional development throughout their INGENIUM Pathway journey.

7.2. Administrative and Technical Support

A range of administrative and technical support services are available to assist students with logistical issues related to their INGENIUM Pathway. The first point of contact for students is the INGENIUM contact at their home institution, where they can receive guidance on various aspects of the programme.

Using their home institution credentials, students will be able to log into the INGENIUM learning management system (Moodle) to access course materials, announcements, and resources. The INGENIUM Moodle platform ensures that students can also connect to relevant course materials from partner institutions, providing a seamless learning experience across the network.

For students studying a semester abroad as their physical mobility, the local International Offices play a vital role in supporting the registration procedures at the host institutions. These offices assist with administrative tasks and ensure that all necessary documentation is completed for a smooth transition to the host university.

7.3. Language and Cultural Support

In alignment with the INGENIUM policy on multilingualism and intercultural understanding, students participating in an INGENIUM Pathway have access to a wide range of language courses, offering all 11 official languages of the INGENIUM European universities. These resources help students develop their language skills to effectively engage in their studies across different institutions.

8. Assessment and Grading Policies

8.1. Uniform Grading Framework

The INGENIUM Pathway Programme Model acknowledges that each partner institution within the network follows its own national grading system, which can vary significantly across countries. To address this and ensure that students' academic achievements are recognized fairly and consistently, INGENIUM is developing a comprehensive grade-conversion table. This tool will act as a standardized framework for converting grades between partner institutions, allowing for a transparent and equitable assessment of student performance. By employing this unified approach, students and academic staff can confidently compare and understand grades across different institutions, facilitating seamless credit transfers and academic recognition throughout the INGENIUM network.

8.2. Assessment Methods

Within the INGENIUM Pathway Programme Model, local assessment methods are maintained, ensuring that each partner institution continues to apply the practices and standards familiar to their educational systems. This approach respects the diversity of evaluation methods and techniques across institutions, including exams, coursework, projects, and practical assessments. While no new assessment methods are introduced specifically for the INGENIUM Pathway, guidelines from joint programmes can be referenced to provide further detail on the types of assessments employed and the criteria used for evaluation. This ensures consistency in understanding how assessments are conducted and evaluated, promoting clarity for students participating in the pathway across different universities. At the same time, transparency, clarity and fairness are prioritized, with measures in place to ensure that assessment outcomes are comparable across institutions, even as each university applies its own criteria. This information must also be part of the INGENIUM Pathway Programme Manual that participating students will receive.

8.3. Feedback Mechanisms

The INGENIUM Pathway Programme Model preserves the local feedback mechanisms employed by each partner institution, ensuring that students receive feedback in ways that align with the established practices of their home or host universities. These mechanisms might include written comments, in-person discussions, digital platforms, or peer reviews, tailored to fit the academic culture of each institution.

9. International Exposure Opportunities

9.1. Mobility Options

The INGENIUM Pathway Programme Model offers a wide range of mobility options for students, enabling them to enhance their international experience and academic development. One of the key opportunities is the mobility window, where students can study at other INGENIUM European University locations for a semester or academic year, allowing them to immerse themselves in different academic cultures and broaden their perspectives.

In addition to traditional mobility windows, students can also participate in short programmes such as Blended Intensive Programmes (BIPs) or summer/winter schools, which provide focused academic experiences in shorter timeframes. These programmes are designed to be flexible, enabling students to participate in international learning without the commitment of a full semester abroad.

Students also have the opportunity to gain practical experience through internships or work placements abroad, offering valuable exposure to different industries and work environments.

For those seeking a more flexible international experience, virtual exchange courses, such as Collaborative Online International Learning (COIL) programmes, provide students with the chance to collaborate on projects with peers from the INGENIUM European University, all

while staying at their home institution. These diverse mobility options ensure that students can tailor their international experiences to fit their academic and career goals.

9.2. Collaborative Projects and Workshops

The INGENIUM Pathway Programme Model fosters international exposure through a variety of collaborative projects and workshops that encourage cross-cultural interaction and skill development. One key element is the offering of transversal skills courses that are available to all students enrolled in an INGENIUM Pathway. These courses cover a wide range of essential skills such as soft skills, teamwork, leadership, communication, problem-solving, and global citizenship, helping students develop competencies that are critical in today's interconnected world. These courses are designed to be collaborative, bringing together students from various partner institutions to work on shared projects, enhancing their international and interdisciplinary exposure.

In addition to formal courses, the programme also includes dynamic activities such as hackathons and challenges, where students collaborate to tackle real-world problems. These events provide a hands-on, immersive experience in a global context, allowing students to apply their knowledge and creativity to innovative solutions while working with peers from diverse backgrounds. Such collaborative projects and workshops play a vital role in building a strong, international learning community and equipping students with the skills they need to succeed in a globalized workforce.

9.3. Funding and Scholarships

Students participating in an INGENIUM Pathway have access to various financial support options to help with the costs of international components of their studies. Erasmus+ funding is available for students engaging in physical exchanges such as Blended intensive Programmes (BiPs) or exchange semesters. Some INGENIUM Partner Universities may also have additional funding schemes available that will support students during their physical mobility period.

10. Implementation Plan for the INGENIUM European University

10.1. Step-by-Step Guide

Implementing the INGENIUM Pathway Programme Model involves a structured, collaborative approach to ensure successful integration and delivery. The first step is to conduct a comprehensive mapping of all study programmes across the ten partner institutions. This mapping process helps identify areas with the greatest potential for cross-institutional collaboration and course integration. Once these areas are determined, key stakeholders such as deans of studies and academic coordinators must come together to create a detailed mapping based on learning outcomes. This step is essential to ensure consistency and alignment across the INGENIUM European University.

Next, involved partners should work to create course packages, each worth 30 ECTS credits, which simplifies recognition and transfer of credits between institutions. These packages

should be designed to be modular and flexible, allowing students to tailor their pathway while ensuring that core learning objectives are met.

Deans of studies must also identify courses that can be taught collaboratively across institutions. One approach may involve virtual exchange or collaborative online international learning (COIL), where students can attend classes jointly, while participating in local laboratory sessions or practical work at their home institution. This model not only enhances the learning experience but also reduces duplication of resources and teaching efforts.

To further optimize the implementation of the programme, universities may consider integrating self-learning courses that are already available within the INGENIUM European University. These courses could help alleviate teaching loads by offering students the opportunity to study independently, with dedicated consultation hours or online support to guide them.

10.2. Monitoring and Evaluation

To ensure the effective implementation and continuous improvement of the INGENIUM Pathway Programme Model, a robust monitoring and evaluation system will be established. This system will involve regular tracking of student progress, course completion rates, and feedback from students and faculty to home and host universities. Data collected will be used to assess the quality and relevance of the pathways, identify potential challenges, and make adjustments where necessary. Additionally, the programme will include periodic evaluations of the collaboration between partner institutions, focusing on the integration of courses, resources, and support services. By systematically reviewing the success of the pathways and gathering input from all stakeholders, the INGENIUM European University can refine and enhance the programme to better meet the needs of students and universities alike, ensuring its long-term sustainability and success.

11. Quality Assurance and Continuous Improvement

11.1. Evaluation Criteria

Several key evaluation criteria will be established to ensure the quality and success of the INGENIUM Pathway Programme Model. One of the primary standards is that the duration of studies should not be excessively prolonged. The INGENIUM Pathways are designed to complement existing academic programmes, so students should be able to complete their degrees within the expected timeframe.

Another critical criterion is that students must engage in at least one physical mobility experience during their pathway, enhancing their international exposure and intercultural learning. The ease and efficiency of credit transfer and recognition will also be closely monitored and addressed as necessary to ensure that the process is seamless and does not create administrative barriers for students. These evaluation criteria, along with ongoing feedback and data collection, will ensure that the INGENIUM Pathway Programme Model maintains high standards and meets the academic and personal development goals of the students involved.

11.2. Feedback Loops

The INGENIUM Pathway Programme Model places a strong emphasis on continuous improvement through regular feedback loops involving students, academic, and administrative staff. For each study programme offering pathways, there should be a study commission that is evaluating and further developing the pathways. In this committee, members (students, academic and administrative staff) from the home university and representatives from those who are offering pathway modules should meet to do so. This task can either be covered by an existing commission for the study programme or an additional commission can be introduced. This will be detailed by the home university in the INGENIUM Pathway Programme Manual. Academic staff will collaborate regularly to identify any challenges faced by students, such as those who may be struggling with the course material. This collective reflection allows for timely adjustments to teaching methods and course content to ensure all students are supported.

For students, multiple avenues for providing feedback will be made available. This could include one-on-one conversations with their dean of studies or the local equivalent thereof to discuss academic progress and challenges, as well as surveys that gather input on the overall learning experience. Additionally, whenever cohort-based transversal skills courses are offered, there will be a dedicated component to collectively gather feedback from students. By integrating these feedback mechanisms at various stages of the programme, the INGENIUM Pathways can continually adapt and improve to better meet the needs of all participants.

11.3. Updating the Framework

The INGENIUM Pathway Programme framework will be continuously monitored, reviewed regularly, and updated as appropriate to reflect the development of new pathways and to incorporate feedback from students, academic and administrative staff. As new pathways are created, deans of study or any relevant person involved in the development process, will be closely supported and interviewed for insights and suggestions on how to improve the framework. Initially, the framework serves as a theoretical guide, but over time, it will evolve with the addition of best practice examples and an FAQ section to address emerging questions and challenges.

Once the first cohort of students is enrolled in the INGENIUM Pathways, their experiences will be closely monitored to assess whether the INGENIUM Pathway Programme Model is fit for purpose. Feedback from students will be invaluable in identifying any weak spots or areas for improvement, which will be addressed to ensure the model meets their needs. There will be a close collaboration with the respective study commissions (see 11.2) to do so. After sufficient data has been gathered, a comprehensive review will take place, no later than 1.5 years after the launch of the programme. Going forward, the framework will be revised every year, ensuring that it remains relevant, effective, and responsive to the evolving needs of the INGENIUM Pathway community.

The review process will be in line with the governance structure of the INGENIUM European University, involving committees associated with academic affairs. For the review cycles,

academic staff involved in the INGENIUM Pathways, current students as well as alumni of INGENIUM Pathways will be involved and will serve as an advisory and review group.

11.4. Monitoring, Evaluating and Updating the INGENIUM Pathways

To ensure the continued success and relevance of the INGENIUM Pathway Programme Model, it is essential that the deans of studies from all partner institutions regularly meet to monitor and evaluate their respective pathways. These meetings will primarily focus on ensuring that the modular system remains aligned with the evolving academic standards and objectives. Such reviews should take place whenever a nationally accredited programme is up for re-accreditation, as these revisions may necessitate adjustments to the pathway structure or course content to maintain compatibility with accreditation requirements.

If an INGENIUM Pathway need to be adjusted, which may be due to changes according to the accreditation process or others, it must be ensured that students who have been admitted to the programme have the opportunity to complete their planned studies. Each partner offering modules within an INGENIUM Pathway must guarantee that changes will not affect already enrolled students and their personalised study plans, e.g., resulting in a delayed graduation.

In addition, deans of studies (or equivalents) must convene if significant discrepancies are observed in the participating students' achievements. For example, if a student who excels at their home institution fails a majority of courses at a host institution or vice versa, it is crucial to investigate the underlying causes. This could involve a review of teaching methods, assessment practices, or student preparedness, and will help identify any areas where additional support may be needed to ensure that all students succeed in the INGENIUM Pathways. Regular monitoring, evaluation, and updates based on such feedback will help maintain the quality and effectiveness of the programme over time.

12. Challenges and Solutions

The INGENIUM Pathway Programme Model faces several challenges due to the broad spectrum of study programme models across the INGENIUM European University. Some models are more flexible, while others are more regulated, which can make the implementation of flexible pathways more complex. For example, the Finnish and Swedish models offer greater flexibility, with numerous elective modules available to students. However, other models also provide elective options, but these often need to be specifically defined for accreditation purposes, which can limit their flexibility. To address these challenges, solutions such as the work-around implemented by HKA with its “Bachelor International” programme[3] are being explored. In this model, students can take a voluntary extra semester to gain international experience, providing them with additional opportunities for flexibility without compromising the integrity of their academic programme. It should be emphasized that his work-around is not the first choice when implementing the INGENIUM Pathway Programme Model but should only be used when all other options have been

[3] Further information on HKA’s “Bachelor International” programme can be found here: https://www.h-ka.de/en/bachelorinternational

consulted, tested and such tests have failed. This model can be extended to master's programmes as well, providing a viable solution to the limitations imposed by national regulations.

13. Impact

13.1. Partner Universities

The INGENIUM Pathway Programme Model is set to bring significant positive impacts to partner universities. By incorporating this initiative, institutions can offer more versatile and comprehensive study programmes that cater to a wider range of academic interests. This expanded offering allows students to access courses and specializations that may not be available at their home university, thereby broadening their academic choices. Additionally, the collaborative nature of the IPPM helps address resource shortages by leveraging the shared expertise and facilities of partner institutions. Overall, the IPPM enriches the academic environment and enhances the range of educational opportunities available, strengthening the INGENIUM European University's academic portfolio and appeal to prospective students.

The IPPM also brings notable advantages and opportunities to teaching staff. One of the primary benefits is the potential to increase participation in specialised courses that may have previously struggled with low enrolment. With a broader catalogue of specialisations shared among partner institutions, teachers can focus on their areas of genuine expertise and engage with a wider, more diverse cohort of students. This collaborative approach reduces the need to hire external experts, as teachers within the INGENIUM network can pool their knowledge and resources. Furthermore, resources can be optimized by merging cohorts through online or hybrid courses. This model helps save resources and enables teachers to reach larger audiences while maintaining high educational standards.

13.2. Students

The INGENIUM Pathway Programme Model offers students significant benefits, enhancing their academic, personal, and professional development. By participating in this initiative, students gain access to specializations and courses that may not be available at their home university, enabling them to deepen their knowledge and integrate diverse perspectives into their chosen field of study. Beyond academic enrichment, the IPPM emphasizes the development of essential skills and competencies that extend far beyond traditional subject expertise. Through interdisciplinary and intercultural learning experiences, students are challenged to think critically, collaborate effectively across cultural and academic boundaries, and adapt to new environments.

The multilingual nature of the programme, with a strong focus on English, strengthens students' communication skills and builds their confidence in navigating international contexts. Furthermore, opportunities such as working with peers from different disciplines, participating in problem-solving activities, and engaging in hands-on projects foster versatile skills like teamwork, leadership, and adaptability. These experiences equip students not only to succeed in their studies but also to thrive in a rapidly changing global job market.

Ultimately, the IPPM offers a holistic and transformative educational experience, preparing students to face global challenges with confidence, creativity, and a unique set of skills. By focusing on both academic excellence and personal growth, the IPPM helps students become well-rounded, future-ready individuals who can make meaningful contributions to a modern, interconnected Europe.

13.3. Academic Staff

The IPPM offers significant benefits for academic staff, fostering professional growth and enriching their teaching practices. Faculty members are exposed to diverse pedagogical approaches and gain insights into teaching in international and intercultural classroom settings. This environment encourages adaptation and innovation in their teaching methods, promoting inclusivity and responsiveness to varied student needs. Additionally, academic staff have the opportunity to collaborate with colleagues from partner universities across different countries, exchanging knowledge and best practices. This collaboration not only enhances their expertise but also broadens their perspectives on education. Engaging with students from diverse cultural backgrounds further deepens their understanding of global academic expectations and experiences, making the programme a valuable professional and personal development opportunity.

14. Future Outlook: Next Steps

The INGENIUM Pathway Programme Model lays the groundwork for future advancements in how academic offerings are structured and delivered across the INGENIUM European University. Moving forward, the IPPM aims to evolve towards more open and integrated study programmes that may lead to the awarding of multiple degrees, enhancing the academic and professional opportunities for students. To achieve this, further development may be required, including collaborative efforts to obtain new and joint accreditations that align with these expanded academic frameworks. This forward-thinking approach ensures that the INGENIUM network continues to innovate, fostering a more interconnected and adaptable educational landscape.

15. References

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