MODULARISATION, AND FLEXIBILISATION' INTERNATIONALISATION IN HIGHER EDUCATION

THE VITA GLOBAL WHITE PAPER

VitaGLOBAL

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ABOUT THE VITA GLOBAL PROJECT

Vita Global is an Erasmus+ Capacity Building for Higher Education project (2018–2022), led by Rovira i Virgili University and OBREAL Global, which has focused on three levels: 1) internationalizing the curricula in a strategic subsector for all of the partner regions involved: vitiviniculture and enology, 2) contributing to the modularization and flexibilization of curricula, and 3) sharpening the university contribution to local development, university-industry cooperation, and training and skilling.

The Vita Global partners share the belief that in order to deliver higher quality, locally relevant study programs and research, global engagement is needed. In this sense, it has created a distinct global network of universities committed to local development challenges through the internationalization of study programs across diverse and mostly nonurban areas in South America, the Caucasus, Europe, and Africa.

Vita Global has had high aspirations: cocreating study modules in strategic fields of viticulture and enology with universities from different countries and with diverse capacities, and piloting those modules and inserting them into existing study programs or aspiring to build new ones. The project has responded to European policy priorities for higher education internationalization and regional development as well as to educational strategies across South Africa, Georgia, Argentina, Chile, and other countries. Connecting university and industry actors from these very diverse regions with shared common interests has been a feat in itself.

In addition to the benefits related to study programs and industry cooperation, the project has explored, both theoretically and in practice, current trends in flexibilization and modularization of study programs and their importance for ensuring the future of responsive and relevant higher education. This has been done despite, and in the context of, different national regulations that in many cases limit the flexibilization of study programs. Linking modularization to the topics of global cooperation and internationalization has been a distinctive feature of this project, and Vita Global demonstrates how international academic cooperation can be a motor and incentive for experimenting with modularization and flexibilization. The production of this white paper summarizes the Vita Global experience and its significant contributions.

ACKNOWLEDGEMENTS

The Vita Global project was the fruit of diverse and compatible interests, equally to the wine sector as to the pursuit of global academic cooperation for development, one of the missions of OBREAL Global. Its strength has been in combining different strategic actors at the university level: professors specializing in viticulture, oenology, plant science, chemistry, tourism, economy and law, as well as managers of international cooperation offices. Engaging both types of actors has allowed this project to rise above that of a curricula development project and attain a strategic dimension, one that looks transversally at the complicated topics of curricula modularization and its potential for internationalizing study programs and training.

The project was fraught with challenges, among them the more than two years of a pandemic that challenged but also transformed how we cooperate internationally. Nonetheless, the resolve of the partners and the individuals involved in the Vita Global project has been admirable, and in many ways this cooperation is just a beginning.

Special thanks are due to Joan-Miquel Canals and his team at the URV, who have showed consistent responsiveness, flexibility, and commitment to inclusiveness in a project that unites universities with very diverse contexts and capacities.

Thanks are also due to the academics who have been open-minded and committed to this journey from the start, and who have worked countless hours to make this project a success, as well as to their own institutions and the academic collective, in particular (but not exhaustively): Jimena Estrella, Natalia Carrillo, Roberto Planety (UNCuyo), Alvaro Peña and Karen Hansen (UChile), Felipe Laurie and Lisbeth Alarcón (UTalca), Bettina Siufi (UNJu), Samanta Caminoa and Néstor Mariano (UNDec), Eduarda Dellacassa (Udelar), Hanlé Theron (CPUT), Erna Blancquaert, Maret du Toit, and Alecia Erasmus (SU), Tamar Aslanishvili (TesaU), Nino Chkhartishvili (GTU), Andrea Versari (UNIBO), Jorge Queiroz (UPorto), Philippe Gallusci, Laura Tejada Pascual and Pierre-Louis Tessèdre (UBx), and Salvador Anton and Marina Vives (URV). And from OBREAL Global, special recognition goes, of course, to Agustina Calabrese for her financial guidance, and to Nicolas Patrici, who persistently advocated the need for this project to be about "modules" and the learning experience, more than about wine.

Finally, many thanks must be given to Mónica Marquina, who took on the challenge of developing the white paper and exploring very difficult concepts linked to the flexibilization and modularization of learning. Her support and authorship have been a great contribution.

OBREAL Global commits to take the "Vita Global spirit" forward in many respects, whether in championing further module development and translating it into online learning offers for training or upskilling, or continuing to advocate flexible learning pathways.

And, of course, thank you to the European Commission for recognizing the potential of this project and its vision. We feel it has exceeded our expectations.

Elizabeth Colucci
Director, Global Projects
OBREAL Global

GLOSSARY

COIL	Collaborative Online International Learning
COVID-19	Coronavirus 2019
CPUT	Cape Peninsula University of Technology
EC	European Commission
ECTS	European Credit Transfer and Accumulation System
EHEA	European Higher Education Area
ERASMUS	European Community Action Scheme for the Mobility of University Students
ESG	European Standard Guidelines for Quality Assurance in Higher Education
EU	European Union
EUA	European University Association
FLP	Flexible Learning Pathways
GTU	Georgia Technological University
HE	Higher Education
HEI	Higher Education Institutions
MICROBOL	Micro-Credentials Linked to the Bologna Key Commitments (Project)
MOOCs	Massive Open Online Courses
NQF	National Qualifications Framework
OECD	The Organization for Economic Cooperation and Development
QF-EHEA	Qualifications Frameworks in the European Higher Education Area
RTF	Recognition of Training Pathways
SU	Stellenbosch University
TeSaU	Telavi State University
UBx	Université de Bordeaux
UCHILE	Universidad de Chile
Udelar	Universidad de la República
UNCUYO	Universidad Nacional de Cuyo
UNDeC	Universidad Nacional de Chilecito
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIBO	Università di Bologna
UNJu	Universidad Nacional de Jujuy
UPorto	Universidade do Porto
URV	Universitat Rovira i Virgili
UTALCA	Universidad de Talca
VET	Vocational Education Training

EXECUTIVE SUMMARY

Introduction

In the last decade, the context of higher education worldwide has changed, and much more so after the pandemic. Not only has the number of students increased, but also their profiles. Today's students comprise both traditional and nontraditional learners, including working adults, part-time students, international students, people returning to higher education, and migrants (categories that often overlap). All these groups have different motivations and learning needs. The traditional higher education student will be just one type among many other student profiles.

Difficulties in carrying out the necessary transformation of higher education can be explained by two main reasons. On the one hand, academic practices that have existed for centuries were created under rigid institutional structures and curricula, with little capacity to adapt to a changing context. On the other, there are difficulties in coordinating higher education governance structures, with different ministries and agencies in charge of regulating training offers.

This reality of higher education in many countries has favored the fragmentation of systems and contributed to the inequity between students, which deepened during the pandemic. In addition, graduate unemployment has affected young people and, in particular, women.

Higher education should play a key role in providing skills and qualifications that prepare graduates for a new world. This requires rethinking learning and reorganizing teaching. There are two preconditions: First, reorganizing teaching means focusing on greater curricular flexibility. Second, and even more importantly, rethinking learning means placing the student as the protagonist of the labor force and society's current and future needs.

The Vita Global project — Erasmus+ Capacity Building in Higher Education (2018–2022) — explored what for many is the best way to collaborate with this purpose: promoting international study programs organized in modules. Modularization, in this sense, is a form of curricular design in higher education that better enables a) broadening the spectrum of influence of the university; b) focusing on learning and the "learner"; and c) the internationalization of the curriculum in a growing global higher education context.

Organizing Learning: Students at the Center

Twenty-first century students have more sources of learning at their disposal than just teachers at a higher education institution. Teaching and learning are often presented and discussed as if they were the two sides of the same coin. Abandoning this bi-univocal perspective will allow us engage in a discussion about what to teach and what to learn.

Learners have a very wide array of sources of knowledge at their disposal, which they use all the time, and which complement or even supersede what they learn in class. These sources are very often more effective than any formal teaching method.

Teaching is one of the sources for the student learning process and may be crucial in a proper student-centered learning construct. Increasing students' motivation, rigorousness, and self-discipline should remain an essential objective of teachers and any higher education reform.

A different way of understanding the learning process must lead to a general rethinking of the organization of the curricula. It is possible to integrate academic requirements with those of the labor market, and there is a certain kind of learning that matters to both. The knowledge to be acquired by students must combine some degree of generality and specificity. This combination is what allows graduates to be able to apply their knowledge in the workplace and be both versatile, adaptable to new labor demands, and innovative, because they have a relatively broad knowledge base.

Under this approach, not all courses play the same role and stand on the same footing. In addition, some courses will be more oriented to the acquisition of competencies, while others, to the acquisition of abilities.

Within this framework, there is a tool that may be used to structure and flexibilize the teaching/learning relationship: "modules" or learning units may be integrated into a variety of curricula, help in the design of study programs, and even become standalone learning opportunities.

Organizing Teaching: Flexibilization of the Curricula in Higher Education

Curricular flexibility has been the subject of considerable attention in recent years. Flexible Learning Pathways (FLP), a policy area gaining ground in the field of lifelong learning, is assumed to provide clear advantages to the learning process. This has been studied by different scholars, organizations, and international experts as a possible means to solve many of the problems posed by individuals, industry, and society with regard to higher education. FLP in higher education should, in theory, facilitate more equity and better employability in the current reality of skills mismatches and limited access to higher education systems.

FLP refers to articulated, transferable, recognizable, permeable, and multiple educational offers based on a curriculum that overcomes rigidity and linearity, which leads to thinking about new ways of conceiving the relationship between teaching and learning, and their links with individual and social needs.

The new approach to flexibility enriches the more traditional experience of flexible curricula, for example, by bridging the gap between vocational education training and higher education, or by promoting work-based learning programs, continuous professional development opportunities, microbadges and microcredentials, and flexible study modes, such as *open or distance learning*.

Modularization is one of the means of organizing several training offers, which may yield a flexible system of higher education in the current context. It is based on the principle of dividing a curriculum into small discrete units that are independent, nonsequential, and usually of short duration, which can be integrated into a variety of different study plans from one or more institutions.

Modular design ideally offers greater student autonomy in constructing a program and a greater range of entry "gates" into higher education and exit points. Modularity can enable the design of the curriculum to meet students' needs, thus moving it from the supply side (what universities aim to deliver) to the demand side (what students and their employers identify as what they want).

The very essence of modularization lies in the fact that students are at center of the teaching and learning processes. It calls for a learning environment in which students are actively engaged in the knowledge construction process and for a shift in the role of the teacher, from knowledge transmitter to learning facilitator and guide for students.

Modularization of the curricula offers advantages for students, teachers, and institutions. To students, it may offer flexibility, choice, access, and mobility. To teachers, it can open new and enlarged ways of collaboration, in particular in an international framework. To institutions, it can allow them to better

respond to the needs of employers, expand student markets, develop more efficient uses of resources, and increase opportunities for curricula breadth. The self-contained nature of modules means that they can be collaboratively programmed with various teachers, each contributing their own specialty.

However, criticism of modularization is grounded on different arguments. One is the fragmentation of the educational experience. Ideological and epistemological criticism consider modularization as a commodification of higher education "packets" of knowledge, easily forgettable, and the loss of the unity of subject knowledge. Other views focus on a loss of theoretical generalized knowledge in favor of specialized knowledge applicable only to occupational tasks. And still others highlight the impact on staff morale because of the increased workload, especially as a result of the heterogeneity of students. Moreover, some opinions consider that this kind of curricular organization can work better in time-shortened programs and in particular disciplines.

Modular courses designed with due consideration of some factors and properly implemented will have the potential to address and respond to these concerns while still retaining all the advantages of modularization. Learning-to-learn skills should be taught before students commence modular courses. Course design must allow time for adequate revision; modules should be specifically designed to integrate theory and develop problem-solving skills. Assessment used with modules is important, and guidance should be offered to teachers; it should integrate disparate modules into a meaningful whole and strive to demonstrate evidence of consistency in skill application. Consideration must also be given to ways of ensuring that adequate time is planned for practice and feedback before summative assessment takes place.

Microcredentials, a subject of considerable interest as of present, are a qualification format that certifies small pieces of training of very different types, although essentially they cannot be considered stackable learning units in the same way as modules of a longer program. The learning outcomes recognized with microcredentials can range from technical-professional to postgraduate training, or even as continuing education. Given that the learning volume of microcredentials is lower than that of a traditional degree, this type of format cannot achieve similar goals to longer-term training offers, such as critical thinking and basic training. Their stackable capacity will depend on the higher education institution's a priori decision on its modularized programs and on whether to offer its modules as independently certified microcredentials.

Organizing the Certification of Flexible Offers

The advancement of flexibility of pathways is an ongoing effort that confronts national regulations in higher education systems. Whereas a majority of countries have already introduced flexible modes to deliver programs and others have succeeded in adopting policy frameworks, instruments, and targeted measures in this regard, only a limited number of countries have a proper national regulation in place. In many cases, the quality and validation of such delivery modes still remains a challenge.

The national and international level may generate incentives through additional funding streams, although this is not always enough. Changes in learning and teaching schemes depend on the right combination of top-down guidance and structural support, as well as bottom-up dynamism.

Although national legislation allowing for the provision of microcredentials exists in several countries, only a handful have specific regulations in place. Accordingly, primary responsibility for quality assurance of microcredentials should remain with higher education institutions, while external quality assurance should be focused on the institutional approach to microcredentials and their explicit inclusion in existing internal processes. The European Higher Education Area (EHEA) has suggested, for example, that higher education institutions in Europe must clearly indicate the learning outcomes, the credits earned, and the level of the qualification framework for each microcredential, allowing for the use of digital credentials to facilitate portability, transparency, reliability of information, and verification of authenticity.

Strengths, Limits, and Challenges of Modularization: The Actors' Voices

A Clear and Common Definition?

There are no common definitions of modularization and flexibilization. Definitions depend on how these words are translated into local languages and how they are applied, even within the same country. They also depend on the history of each system and its origins.

In recent times, these concepts have appeared as a requirement or as an external incentive. In Europe, they stemmed from the objectives set out by the EHEA. In other regions, these concepts have been driven by the need for greater internationalization. Interestingly, when program flexibility appears as a government priority, higher education institutions must strive harder to obtain the financial support needed for internationalization or curricula development.

Nevertheless, while internationalization is not necessarily the cause of curricular flexibility, it can be favored by it. Thinking in "modules" can be part of a common international language that allows the articulation of programs between countries. This said, internationalization may add more stress to the process, notably because it requires flexibilization in what are traditionally very rigid higher education systems. The stress that originates at the top is reproduced at the bottom in the work of teachers, who must comply with rigid institutional and legal frameworks.

Purposes and Uses of Flexibilization and Modularization

Curricular organization in modules as a way to respond to changing external demands is often better applied to certain fields of training, levels, or modalities. In the undergraduate cycle, modularization can be better applied in specific disciplinary areas, where practice is preeminent. In basic fields, it is almost impossible, owing to the large number of prerequisites that many university programs have. It may be better suited to postgraduate or continuous learning and working, or to innovative programs with transdisciplinary approaches.

Flexibility through modules is needed for internationalization because of its usefulness in international cooperation programs, such as double degrees or joint programs, mainly at the postgraduate level. Internationalization managers at higher education institutions in the countries targeted by the Vita Global project have already asserted this fact.

Modularized programs are still far from incorporating microcredentials. Individual module certification is not yet envisaged at public policy level in any of the countries that Vita Global has targeted. Although this is a matter of debate within the European Union framework, participants of focus groups have recognized that they are far from achieving that purpose.

Flexibilization and modularization have not yet been widely valued as ways to achieve new approaches in learning and teaching from a national or domestic perspective. In most cases, internationalization and external demands have been identified as the main drivers of flexibility and modularization, at least in the countries targeted by Vita Global.

Conditions for Flexibility and Modularization

A key condition in curricular flexibility is foresight. To do this, a flexible curriculum—especially one that is organized in modules—must be programmed, or at least envisaged, in the initial design stage. The Vita Global experience demonstrates that greater flexibility is more difficult to achieve in programs that are already underway and were created with a linear character.

Students might not be prepared for choices, and some may consider that rigidity is better. A flexible curriculum creates choice and paths and depends on the curiosity of the student. To offer too much choice could be confusing for many. As such, flexibility needs to be coupled with information and guidance, since students must know when they will be asked to make decisions about their learning path. Flexibility could be more easily applied in the advanced stages of a program, and not at the beginning. During the first years, more options could also disrupt the dynamic of class groups, an important aspect for socialization.

Training of teaching and administrative staff is also key. More flexibility implies a greater capacity to adapt, and those involved should be convinced of what they are doing. It is important to convey not only the "how" but also the "why" of flexibility: for employability and internationalization, to avoid dropout, and to meet the interests of students.

Unfortunately, these changes in the organization of the curriculum do not usually impact teaching. The student-centered approach seems to take another direction, one that is more linked to practice-oriented training fields.

Public Policy: Impediments to Flexibility

To develop flexible training paths, it is necessary to review the regulations related to quality assurance and financing. However, this does not mean that public policy should further regulate curricula, but rather that it should remove existing obstacles. Today, public policy discourages flexibility in the university curriculum.

The greatest restrictions to flexibility appear in programs that must go through accreditation processes through their national agencies. Flexibility requires frequent program changes, which means multiplying paperwork processes that often take years.

Where national regulations are limiting, the greatest possibilities for flexibility are on the margins. Optional courses may be used, although they add hours to the workload of the program, which is already high in many fields. A reduction of accreditation standards would be necessary, as their rigidity often goes against what might be a more diverse and flexible educational trajectory of the students. Unofficial qualifications, self-study, and lifelong learning are other types of learning in which students may experiment with flexibility, even if they have some regulatory frameworks that bind them.

Quality assurance agencies should facilitate the validation of common modules in different countries, even when they are part of different degree programs. Internationalization managers have generally agreed that modularization facilitates internationalization. Yet the academic mobility remains exceptional and relies on creativity and imagination in order to find shortcuts to regulatory rigidity.

National higher education systems, mostly inflexible, are invited to introduce flexibility into their frameworks, in agreement with regional or global trends. Although there are agencies that have made advancements and implemented some modifications, they run the risk of regulating flexibility in such a way that its application ends up becoming inflexible.

The Institutional Level: Are Institutions Willing to Make Programs More Flexible?

Many times, teachers resist the flexibility of curricula in contradiction to the agreement at the discursive level on the need to offer more possibilities to students. This is because they do not want to resign part of the contents of their courses to curricular reform, even when these are redundant or have become obsolete. Institutions with a strong tradition in some disciplines are also responsible for placing limitations on flexibility, where appropriate and when needed.

Decisions on curricular flexibility should not fall exclusively on the faculty or on individual teachers; rather, the issue should be placed on the institutional and political agendas, and discussed with authorities and collective bodies of teachers and students. Curriculum reform produces tensions, and institutional management should be in charge of resolving them. In addition, graduality and slow change are important for making curricula more flexible, as they may build trust among teaching staff and students over time.

Sometimes the opportunities for flexibility are driven by internationalization units, with incentives coming from international programs. The Vita Global experience suggests that institutions must encourage new international initiatives while conveying to teachers the idea that the change toward flexibility is a necessary one.

Advantages and Challenges of Modularization

If universities will not offer what students need and sometimes enthusiastically request, they will find it elsewhere. It is essential to establish a horizon of flexibility based on students and beyond the traditional structures of institutions and teachers.

The pandemic was a great ally of flexibility. It forced many to use new resources and technologies, and to solve problems in teaching that usually collided with bureaucratic limitations. It seems that the question is no longer whether to do it, but how. And this requires the collaboration and generosity of institutions and faculty.

It is necessary to consider the degree of maturity of the students and the diversity of their profiles, since curricular flexibility can be an advantage, although not for everyone. Students with a capacity for self-management and autonomy must be nurtured. Many current students may not possess these qualities. The management of flexibility at the institutional level is key in terms of teacher support and training.

Flexibility for teachers is a challenge. It requires adaptation and is time consuming, mostly when its purposes are not well communicated. Teachers feel discouraged, as most institutions do not support them structurally. If these problems are resolved institutionally, flexibility will become more common practice.

Conclusions

Module-based higher education curricula offered particular challenges and opportunities for the Vita Global project and for a broader policy discussion. The Vita Global project highlights six potential strengths of a curriculum organized in modules:

• It can serve a great variety of purposes and bridge the gap between the so-called academic teaching and learning and the so-called professional teaching and learning.

• It can be used to build many different training processes leading to variable and pertinent diplomas or qualifications.

• It can be easily internationalized both from the perspective of lecturers and students. This is extremely important, in particular in the post-COVID-19 era.

• In particular at master level, modules can allow to set up programs that can be offered both in their entirety or "à la carte," allowing students to follow one or more modules.

• Modules may help promote team teaching and could be used by lecturers to broaden and deepen their knowledge in specific areas of the topics they are meant to teach. When developed internationally or cross-disciplinarily, they allow lecturers to learn from their fellow colleagues. Modules organized at the international level, in a cooperative effort, can recreate the community of lecturers and students, united in the learning process.

The challenge of this approach lies in bringing these "units of learning" under some coherent framework in terms of academic curriculum and institutional organization. The best way to face this challenge is by a collaborative effort between professors and HEIs.

INTRODUCTION

During the last decade, the context of higher education worldwide has changed, and even more so after the pandemic. The number of students has increased, but also have their profiles. Today's students comprise both traditional and nontraditional learners, including working adults, part-time students, international students, people returning to higher education, and migrants. All of these groups, many of them overlapping in category, have different motivations and learning needs. The traditional higher education student will be just one type among many other student profiles.

As a consequence of this new scenario, and with the encouragement of international organizations concerned about the future of higher education in an increasingly global world, more and diverse higher education institutions have begun to respond to these varying needs by reorganizing their teaching offers. However, these transformations tend to occur on a small scale and appear somewhat disorganized, with little articulation between offers and poor clarity about recognition of the acquired competencies and skills. In some cases, the new and innovative educational offers are quite limited, with very few possibilities to continue studies, and vary in terms of targets and quality.

The difficulties to carry out the necessary transformations in higher education may be explained by two main reasons. First, academic practices have existed for centuries, created under rigid institutional structures and curricular frameworks, with little capacity to adapt to a changing context. Second, higher education governance and regulatory structures may lack coordination, as different ministries and agencies oversee higher education and training. In addition, in many countries, governance reforms over the last decades have favored competition—rather than collaboration—among institutions, and educational innovation has been impaired by strong differences in institutional cultures.

This higher education reality in many countries has provoked a fragmentation at system level and a subsequent inequity among students, which deepened during the pandemic. The closure of schools impacted over 80% of the world's student population and, at the higher education level, over 220 million postsecondary students have had their studies interrupted or significantly disrupted because of COVID-19. That is more than 90% of the total higher education population, with a pronounced effect on lower-income students (World Bank 2020). Some institutions were well prepared to offer distance and online education, while others were poorly prepared and unable to mitigate the consequences of COVID-19 (OEI 2022).

According to OECD (2021) data, graduate unemployment affected both young people and women in particular. The total unemployment rate in OECD countries increased from 5.2% in February 2020 to 8.7% in May 2020 for young people (between 15 and 24 years old) and from 11.2% to 18.7% for women during the same period.

Many specialists, authors, and organizations agree that flexible learning pathways (FLP) in higher education systems might play a significant role in supporting diverse learners in this complex context. Whether students are entering, moving through, leaving, or returning to higher education, the more flexible these learning pathways are, the more likely higher education systems will be able to adapt to change and new challenges (Martin 2020). Several initiatives have been focused on developing such pathways, looking for innovative approaches to organizing study programs that respond to the current challenges.

Higher education should play a key role in providing skills and qualifications that prepare graduates for employment. In light of the pandemic, it must reinforce its role. This requires that higher education institutions and employers join efforts in the creation of training systems that focus on skills development. There are at least two preconditions to achieve this purpose, which involve breaking with traditional approaches that

have been rooted for centuries. On the one hand, the challenge is to reorganize teaching, with a focus on greater curricular flexibility. On the other, and even more importantly, we must rethink learning, recognizing the student as the protagonist of the labor force and of society's current and future needs.

As Martin and Godonoga (2020) concluded, further research is needed to understand how policies for flexible learning pathways work together as a whole and to learn how these instruments translate into institutional practices, interacting with institutional priorities and organizational cultures.

It is within this framework that the Vita Global project (2018–2022), funded by the European Union under the Erasmus+ program and coordinated by Rovira i Virgili University and OBREAL Global, has prepared this study, deemed a "white paper" for its policy dimension, in order to contribute with new perspectives to the discussion on rendering higher education training offers more flexible and effective.

While designing of the project, it was assumed that the best way to collaborate was by promoting programs organized in coconstructed, international modules. Modularization, as defined in the project, is a form of curricular design in higher education that better enables one to a) broaden the spectrum of influence of the university; b) focus on learning and the "learner"; and c) engage in the internationalization of the curriculum in a growing global higher education context.

Vita Global, which connects universities of different missions and capacities in diverse countries and regions (Europe, South America, South Africa, the Caucasus) is premised on the development of collaborative study modules in the viticultural and enology sector, with the ultimate purpose of internationalizing and flexibilizing study programs while rendering them more locally relevant. Although the project has a strong practical academic dimension, it has also been positioned as a starting point to explore more abstract conceptualizations of "modularization," "internationalization of the curricula," and their applications in different fields of professional training and higher education systems. This approach unpacks the implicit traditional models of the relationship between teaching and learning, an aspect that has become central for any analysis of curricular flexibility and one that has been addressed in the first part of this report.

Vita Global has also established guidelines to analyze the experiences of modularization in different systems of higher education around the world. On this basis, the second part of this report showcases the voice of the actors involved in the project, notably from nine countries. The experience in the project is then reviewed by identifying good practices but also the problems and risks that arise in the design of modularized curricula as a means to ensure flexible learning paths in higher education. Observations and recommendations are offered on how best to approach and link together the concepts of modularization, flexibilization, and internationalization of learning in the future.

ORGANIZING LEARNING: STUDENTS AT THE CENTER

The Problem: What Type of Teaching for What Type of Learning?

Flexibilization of the curriculum cannot be thought of separately from meaningful learning, and this means moving away from a perspective centered on the teacher and teaching to a focus on the learning process, with students as protagonists. Today, it is crucial to incorporate into any proposal of change the idea that twenty-first century students learn neither exclusively from their teachers nor exclusively from the higher education institution. Teaching and learning are often presented and discussed as if they were the two sides of the same coin. Abandoning this bi-univocal perspective will allow one engage in a discussion about what type of teaching for what type of learning.

"the role of the teacher can no longer be considered that of a monopolistic provider of knowledge."

Whatever the answer to this question, a conclusion must be necessarily accepted: the role of the teacher can no longer be considered that of a monopolistic provider of knowledge. Learners have a very wide array of sources of knowledge at their disposal, which they use all the time, which complement what they learn in class, and which very often are more effective than any teaching.

The problem with the traditional organization of the curriculum that leads to academic diplomas is that teachers are, in a corporate sense, the ones who decide what should be taught and how. For centuries, in most European continental universities, the focus has been on teaching, and the main actors have been the lecturers. They were the ones who decided what had to be learned, what to teach and how—namely, through lectures and by studying textbooks.

This conception came under question in recent decades with the distinction between "compulsory" courses and "optional" courses, the introduction of credit systems, the emphasis on different competencies, and the progressive dissociation between academic diplomas and "official" diplomas with professional effects. Nevertheless, experience has shown that the professorial corporation is remarkably consistent and manages to translate different means of teaching and learning into what are essentially the same academic practices. The profound structural changes of the Bologna Process, for example, did not automatically lead to changes in learning. Many systems adapted their way of teaching and learning to the new rules with reservations, but without profound changes or effects (Gaebel and Zhang 2018).

An Approach to Rethinking Learning for the Organization of Teaching

A new approach should take as a starting point a very simple idea that is meaningfully absent from most literature on the topic: students do not learn because they are taught; they learn because (and if) they study. In addition, students who learn more do so because they work harder at studying the different materials at their disposal, whether provided by the lecturers or not. Moreover, students who work harder do so because they have a stronger motivation, whether environmentally or intrinsically driven. From this perspective, teaching seems to be one of the sources for their study, and indeed has a role in a proper student-centered approach. Increasing students' motivation, rigorousness, and self-discipline should remain an essential objective of teachers and any higher education reform (Klemenčič et al. 2020; ESU 2020).

This different way of understanding the learning process should lead to a general rethinking of the organization of the curricula, and provoke new questions. For example, what should students learn throughout an extensive curriculum? It is often assumed that "excellence," in terms of academic standards, and "usefulness," in terms of labor market requirements, are in themselves contradictory. Is this apparent contradiction not a result of a relatively myopic view of both assertions (academic standards conceived simply as acquisitions of the specific knowledge that teachers consider necessary and labor market requirements conceived as the specific conditions for a particular job)? Is it not true that capacity for innovation, learning to learn, producing knowledge, and solving problems are capacities needed from both perspectives? On the other hand, it is often the case that external market influences simply do not favor flexibility in study paths but rather strengthen the corporatist views of the academy and its linear relationship with certain jobs.

Assuming that students normally remain enrolled in HEIs for a relatively long period (three to five years), a new approach to learning should offer an answer to two questions: what should HEI students learn during this rather long time period? And how, during this time period, must the lecturers' activity be organized in order to contribute to this learning process?

The following four ideas my represent the basis for an agreement on what to expect from HEI graduates, encompassing the requirements of both academic quality and the labor market.

> • The level of knowledge in higher education must be deeper than the predominant one in secondary education.

> • The knowledge to be acquired by students must combine some degree of generality and specificity.

> • This combination is what allows graduates to a) be able to apply in the workplace the specific knowledge they have acquired and b) be versatile, adaptable to new labor demands, and innovative, because they have a relatively broad knowledge base.

> • The acquisition of knowledge, however, is not sufficient: students must assimilate the need and the desire to learn throughout their lives.

Under this approach, not all courses (in the sense of pre-organized units of teaching) should play the same role and stand on the same footing. While some courses should be designed to help students acquire specialized knowledge, others should help students acquire a broader basis of knowledge, both of which HE must provide. This will allow students to be versatile and open to new demands and paths of academic and personal development. In addition, some courses should be more oriented to the acquisition of specific competencies, whereas others should focus on the acquisition of abilities and capacities.

Based on these different purposes, the length of courses should vary, depending on their purpose and content. However, in actual practice, course duration does not depend so much on objectives and content but rather on the need to justify the number of teaching hours that lecturers must perform to comply with the conditions of their contract or appointment.

This is the framework in which a specific category of teaching-for-learning units becomes relevant: "modules," or units of teaching and learning which can be integrated into a variety of different curricula and study programs. This leads one to delve into the other side of the matter: the current discussion on how to organize teaching.

ORGANIZING TEACHING: FLEXIBILIZATION OF THE CURRICULA IN HIGHER EDUCATION

Flexible Learning Pathways (FLP)

Curricular flexibility has been the subject of interest from different disciplines, organizations, and regional bodies because of its potential to solve many of today's problems, both of individuals and society. Recent literature attests to this and provides a number of recommendations.

According to Martin and Godonoga (2020, 10), FLP are defined as entries and re-entries into education systems at all ages, based on a recognition, validation, and accreditation of knowledge, skills and competences. The definition includes acknowledgment of prior achievements that allow learners to transition to more advanced stages of learning.

This implies not only that the pathways are *flexible* but also that they are *multiple*, addressing a diversity of learners and their learning needs. The definition, outlined in the Education 2030 Agenda, mentions the need to build coherent and *well-articulated* pathways in education systems, and to elevate the *value of learning* that takes place outside the boundaries of formal education. While the COVID-19 pandemic might have been a temporary crisis, is effects are still felt today. This should serve as a wake-up call for higher education systems to flexibilize their access and transfer pathways and ensure the provision of flexible educational delivery modes that serve a diverse population of learners (Martin and Furiv 2020).

From a similar perspective, the European Commission (2015) introduced the concept of "flexible educational pathways," defining them as "measures to implement *flexible regimes* for study programs and to enable the *previous educational achievements* of students to be more widely *recognized* within the higher education system. This allows students to *transfer* more easily between institutions and study programs as prior achievements can be utilised" (italics provided by the authors). Here, in addition to the previous definition, the idea of *recognition for transfer* is included.

Transferability is frequently used interchangeably with *permeability*, the latter referring to the capacity of education and training systems to enable learners to access and move among different pathways (programs, levels) and systems, and validate learning outcomes acquired in another system or in nonformal or informal settings (CEDEFOP 2014, 193).

Any coordinated and well-managed action for *recognition* involves the necessity of a *unit of measure* as part of a public policy at national or regional level. In this sense, FLP must be considered as part of a national system that accommodates all qualifications and ensures *articulations and credit transfer* at the level of cycles, programs, courses, or any other form in which education offers are organized. *Articulation* refers to "the horizontal and vertical linkages between institutions, programs and levels in a system, and to the *mobility* of learners between these institutions, programs and levels" (Mohamedbhai 2013, 32) (italics are ours).

Therefore, having the flexibility to transfer between different study programs and institutions while receiving guidance in this process can help students move to higher levels of education and therefore attain better outcomes, both in the short term and in the long term. From this perspective, FLP also implies *ending the rigidity of the higher education curriculum*, often embodied in government regulations and institutional policies. It also implies changing the practices of institutional authorities and teachers regarding recognition of learning paths or training units that are not necessarily part of the current linear and rigid curricula (Martin and Godonoga 2020).

> *" In short, FLP refer to articulated, transferable, recognizable, permeable, and multiple educational offers based on a curriculum that overcomes rigidity and linearity, enabling new ways of conceiving the relationship between teaching and learning as well as their links with individual and social needs. "*

In short, FLP refer to articulated, transferable, recognizable, permeable, and multiple educational offers based on a curriculum that overcomes rigidity and linearity, enabling new ways of conceiving the relationship between teaching and learning as well as their links with individual and social needs. Once these conditions are met, FLP provide important advantages to the current reality of higher education systems.

One advantage of this relates to *equity*. Various entry points may enable traditionally disadvantaged students, who often concentrate in segments of higher education that are of lower prestige, or those that suspended their studies for different reasons, to advance upward with more opportunities to fit their circumstances and needs.

Another advantage is increased *employability*. FLP ideally favor a greater link between the world of work and the world of education. Working professionals would have more opportunities to reenter higher education to update their knowledge and skills, and employers would find more people with the necessary skill set. A flexible offering may also contribute to labor market mobility and job quality, as skill demands in many occupations are rapidly changing.

What to Articulate and How

The new approach to flexibility enriches the more traditional experience of curricula, with study plans that allow students to make decisions about which subjects to study and how to build learning experiences toward the fulfillment of the course or degree learning outcomes, such as through additional research or outreach experiences, electives, and international mobility, all of which can be recognized formally.

Thinking about FLP involves considering different entry routes and transfer pathways in higher education. One discussion focuses on how to bridge the gap between *vocational education training (VET) and higher education*. In this sense, preparatory programs can be provided to offer better support to candidates whose background is in VET during their transition to higher education.

Nevertheless, pathways for graduation and toward employment can also be facilitated through various programs aimed at improving linkages between HEIs and the labor market. These can be *work-based learning programs*

or continuous professional development opportunities. These options may be attractive to nontraditional students, which include, as already mentioned, working adults, part-time students, international students, people returning to higher education, socioeconomically disadvantaged students, and migrants. According to Martin and Furiv (2020), Finland and the United Kingdom are good examples where HEIs work closely with industries to facilitate flexible and effective pathways toward graduation and employability.

Flexibility also increasingly involves the use of *microbadges and microcredentials*, a growing global trend. These are defined as short, certified courses that learners might stack over time. Some institutions, either in-house or in agreement with external providers, have developed MOOCs with the purpose of making their higher education offer accessible to a wider variety of learners around the globe. This phenomenon will be specifically addressed further on, given its growing expansion and the potential it has for recognition of individual learning units and their incorporation into longer programs.

FLP also implies thinking about new ways to provide educational offers through flexible study modes, for example, such as *open or distance learning*. By combining face-to-face provision with elements of distance and online learning, higher education institutions may also provide FLP to a wider and diverse range of learners, whose time may be restricted by work or other commitments. Distance learning can also be used to strengthen the role of higher education in supporting lifelong learning (Martin and Godonoga 2020).

" The question of how to flexibilize, and most notably, through which approaches and tools, has been a key point of interest for the Vita Global project."

The question of how to flexibilize, and most notably, through which approaches and tools, has been a key point of interest for the Vita Global project. *Modularization* is one of the forms of organization of training offers that may ensure the implementation of a flexible higher education system in the current context. This concept, and its relationship with other types of individual learning "units," as well as its potential as a tool for flexible learning pathways, is explored in the next sections.

Modularization: A Specific Case of Flexible Curricula
A Quick Tour of the Literature on Modularization

According to French (2015), modularization is based on the principle of dividing a curriculum into small discrete units that are independent, nonsequential, and usually of short duration. Each unit or module may be considered as a measured part of an extended learning experience leading to a specific certification, for which a specified number of units or modules are required, each of which is measured in credits (Wondifraw 2019). Modules differentiate from "traditional courses" in that they can be integrated into a variety of different study plans from one or more institutions.

Given this definition, modularization may be seen as a flexible curriculum planning mechanism. It can allow for organization of learning content that underscores the capacity of the learner to generate their own learning pathway and that of the institutions to offer a supportive learning process based on problems and challenges, and not necessarily built around the traditional organization of knowledge.

The modular curricular approach dates back to the 1950s and is based on B. F. Skinner's and others' research, which led to the formulation of different principles of teaching that later on became the main characteristic of program-based instruction, such as division of subject matter into small steps, with active participation of students. More recently, the approach has received special attention in most nations' education systems, particularly in technical and vocational education and training, as well as in higher education (Malik 2012). French (2015) argues that, in contrast to the linear degree program comprising a sequence of subjects, modularized degrees tend to be composed of standalone, independent units that may be undertaken in different orders and accumulated at different speeds.

As opposed to most traditional curriculum designs, a modular design ideally offers greater student autonomy in constructing a program and a greater range of entry gates and exit points. Modularity enables the design of the curriculum to meet students' needs, thus moving it from the supply side (what universities aim to deliver) to the demand side (what students identify as what they want) (Ali et al. 2010).

"Therefore, the very essence of modularization lies in the fact that students are at the center of the teaching-learning process."

Therefore, the very essence of modularization lies in the fact that students are at the center of the teaching-learning process. It calls for a classroom environment in which students are actively engaged in a knowledge construction process and for a shift in the role of the teacher from knowledge transmitter to facilitator of students' learning. Modularization requires a continuous follow-up and assessment of students' progress throughout the module. The practice of effective continuous assessment allows teachers to make adjustments in response to assessment evidence. This also helps students receive feedback about their learning and advice about what they can do to improve (Wondifraw 2019).

Sejpal (2013) sums up the specific *characteristics of a module*:

- Independent, self-contained, self-instructional;
- Clearly defined objectives;
- Structure sequence of knowledge;
- Utilization of a variety of media;
- Active participation by learner;
- Mastery of evaluation strategy;
- May vary in size and duration.

Scholars generally agree that modularized degree programs, if designed in the theoretical ways described above, have many advantages for students. They may offer flexibility, choice, access, and mobility. It is also widely argued that modular structures may be beneficial to universities in that they potentially allow institutions to better respond to the needs of employers, expand student markets, develop more efficient uses of resources, and increase opportunities for curricula breadth (French 2015).

Another advantage is the establishment of clearly identified goals, attainable within a specific time frame. Provision of short, self-contained learning units allows students to enroll in as many or as few as they consider that they can handle at one time. This can be particularly useful for students who are employed or whose

personal responsibilities leave less time for undertaking study. Within the parameters of the degree program, students can select those modules that are most relevant and omit those that are not considered of interest or importance (Cornford 1997).

From an education provision perspective, there are major administrative advantages stemming from this approach. Modular course content can readily be assessed and credits given, thus facilitating credit transfer. Another advantage of this approach is the efficient use of specialist teacher resources. The self-contained nature of modules means that they may be programmed with more subject experts, each presenting their own specialty, while other teachers/trainers may provide a theoretical overview or support students in the articulation of modules within a longer program (Ibid. 1997).

In summary, and in an ideal scenario, the main *advantages of modularization* within higher education are:

- Learning becomes more effective;

- Modules can be useful for working students and render study more efficient;

- They may enable learners to have control over their learning experience and provide them with greater responsibility;

- They can be implemented through a variety of scheduling patterns;

- Modular programs can be easily revised and upgraded by replacing one module with another, amending aspects of a single module;

- Modules are economical to use: while initial design costs may be high, modules are ultimately cost effective because they allow for plenty of economies of scale in their implementation;

- Modular provision allows learners to take one or more modules of interest without being required to register for a full program of study.

Modularization should ideally entail flexibility and learner autonomy to define a learning pathway, but in practice it rarely does, at least in the countries examined by the Vita Global project. The findings from the focus groups conducted for this study, which will be discussed further on in this paper, demonstrate that, while the Bologna Process in Europe has emphasized modularization of programs of study, this has seldom been accompanied by real flexibilization of programs of study through modularization.

Contested Aspects Related to Modularization

It has been claimed that modularization creates the possibility of *fragmentation and incoherence of the educational experience*, potentially weakens learning outcomes, and comes with epistemological, structural, and pedagogical challenges. French (2015) quotes a National GAP (Graduates Attributes Project) paper produced by the Australian Learning and Teaching Council in which it is argued that the "focus on isolated learning in single subjects" through modularization "contrasts sharply with the integrative learning possible with a whole-of-program approach." Modularization, the paper suggests, "carries the need to teach and assess discrete components of learning, often to the exclusion of more integrative learning outcomes" (National GAP 2009).

Other authors have stated that modularization may better work in *time-shortened programs* and in *particular disciplines*. While modular structures are common in disciplines such as engineering, economics, and commerce and are widely employed in business schools (Burton and Nesbit 2002), they are less well-tested in the humanities.

Some scholars note that the effects of modularization on staff "are not always so positive" (Bridges 2000, 43). In their analysis of the implementation of modularization at the University of East Anglia in the early 1990s, Rich and Scott (1997, 76) describe how "one of the general features of the modularization process is a feeling of alienation or dispossession" experienced by academic staff. Similarly, Hennessy et al. (2010) suggest that modularization may impact staff morale because of the increased workload, especially as a result of the heterogeneity of students.

Ideological and epistemological debates around modularization also arise. One of the central tensions underlying the modular debate is between the vocationally driven concerns of the marketplace and the value of quality teaching and education. Thus, the notion of modular degrees offering "key skills" may be incoherent with the acquisition of "knowledge," often viewed as being inherent to more traditional curricular structures (Bridges 2000; Poynter 2002).

French (2015) also mentions that the "strongest critics of modularization argue that it is a postmodern, neoliberal development that supports the commodification of higher education" whereby students are viewed as clients and knowledge is sacrificed for "transferable skills" (Brecher 2005). In the same sense, Wynyard (2002, 208) states that modularization entails the "McDonaldization" of higher education, which makes it easy for students to obtain "packets" of knowledge, easily forgettable, at the loss of an emphasis on the unity of subject knowledge.

The pedagogical arguments, both for and against modularization, predominantly focus on two key issues—namely, student choice and quality and academic standards. Other key pedagogical issues focus on how to best assess modular courses and whether learning outcomes are improved in modules delivered in intensive or time-shortened formats (French 2015).

Because of its fundamental characteristic of dividing learning into smaller units and the potential to fragment related information, it has been argued that vocational programs driven by labor market demand may result in "a loss of theoretical generalized knowledge in favour of specialized knowledge applicable only to occupational tasks not conceptually related to one another" (Ainley 1998, 54).

Some authors, while not opposing modularization, warn about certain risks that must be anticipated. Since a modular approach enables the learner to have control over and responsibility for their learning, modules might demand greater maturity on their part and should be better apt for more mature students (Wondifraw 2019). Moreover, the success of modularization not only depends on these characteristics but mainly requires a change from a teacher-centered perspective to a student-centered one. If this does not happen, modularization may lose its effectiveness and become another form of traditional education.

In her work on modularization in Ethiopia, Wondifraw (2019) found that the teaching-learning process was predominantly teacher-centered and limited to PowerPoint presentations. Students were described as outsiders in the process of knowledge construction, playing a recipient role, and the continuous assessment process was still perceived and practiced as continuous testing—a process in which students sat for tests and quizzes, often with no written or verbal feedback. Large class size and shortage of time were seen as challenges for making the instructional process effective in order to help students achieve the expected outcomes.

Considering the risks and arguments to the contrary, Cornford (1997) argues that modular courses designed with due consideration of several important factors and properly implemented will have the potential to ensure effective learning and yield advantages. He suggests that learning-to-learn skills should be taught and mastered before students commence modular courses. Given that modularization might tend to fragment units of knowledge, course design must allow time for adequate revision to retain knowledge. In addition, one strategy is to integrate modular knowledge into the workplace; modules should be specifically designed to incorporate theory and develop problem-solving skills. Bruner's concept of a "spiral" curriculum provides sound guidance in course design to ensure meaningful repetition, practice, and assessment. Special attention should be placed

on the types of assessment used with modules, and teachers should receive support to effectively set out an assessment plan. Assessment could be a means of integrating disparate modules into a meaningful whole and providing evidence of consistency in skill application. Finally, consideration must be given to ensuring that adequate time is planned for practice and feedback before summative assessments take place.

Microcredentials: A Specific Type of Module?

As mentioned above, "microcredentials" are currently a hot topic in global higher education. This implies certification of small units of postsecondary education learning, with content focused on a specific topic. Certification requires the demonstration of well-defined skills and competencies that have the potential to be rapidly marketable.

There are several reasons that explain the "boom" of microcredentials. One of them is that the gap between the type of education offered in traditional higher education institutions and the skills needed to work in today's world appears to be widening. In this sense, microcredentials would fill labor market niches by continually responding to changing needs. The skills needed to occupy positions linked to the green and digital economy stand out (Caballero et al. 2022). The recent attention to microcredentials stems from changing societal needs, globalization, digitalization, and the necessity to upskill and reskill the labor force, especially in the context of the recovery plans surrounding the COVID-19 crisis (Cirlan and Kelo 2022).

Moreover, microcredentials may constitute inclusion options in higher education for those who cannot follow longer degree programs, which is often the case for vulnerable populations and for lifelong learners. They are also appealing to people who have taken courses or earned higher education credits in their lives, without obtaining a degree. Microcredentials may be a way of addressing individual needs throughout life, either to update and retrain them in a profession or trade, or to cover interests related to leisure. They can be particularly useful for people who want to build their knowledge without completing a full higher education program, upskill or reskill to meet labor market needs, or develop professionally after starting work. In this regard, microcredentials are increasingly offered by higher education and vocational education and training (VET) institutions, as well as by private organizations, with the latter offers growing rapidly.

As the pandemic progressed, the potential to offer microcredentials virtually increased, especially by private third-party providers, sometimes partnering with universities or companies to offer massive open online courses (MOOCs), a phenomenon that has been expanding over the past decade. Today, policy makers and companies target these certified training options as the way to respond to new demands prompted by digitization (Caballero et al. 2022). The intention is to make skills visible and transferable, regardless of how they were obtained.

Although there is a strong interest from private companies and nongovernmental organizations, universities increasingly appear as collaborators in the ecosystem of microcredential providers. Nevertheless, in the university world there are both reactive and overoptimistic views. The former sees microcredentials as threats, to the extent that they may replace traditional degrees in the near future with more dubious quality. The latter, on the contrary, place so many expectations in these formats that they assume these will automatically become units leading to a traditional degree.

Based on the current discussion on microcredentials, its seems that the higher education sector should take advantage of its virtues while recognizing the limitations of what it is able offer. It is also clear that in a sector that is largely dominated by companies, universities need to find their place and role in microcredential provision, according to their missions and strategies. In this sense, the European University Association (2021) has stated recently that

> Micro-credentials should be seen as complementing conventional qualifications as part of lifelong learning and continuous professional development and as an entry mechanism to a degree programme.

However, they do not substitute formal qualifications as their learning outcomes and volume of learning are much smaller.

"each institution must decide whether and how to incorporate microcredentials into its educational offer, depending on the mission, the institutional profile, and the needs of its environment."

Universities have a long tradition of offering continuing education opportunities. Microcredentials should be assumed as part of that function in a new context in which people may access higher education institutions more than once throughout their lives and where such institutions are also increasingly defining their lifelong learning missions. Within this framework, each institution must decide whether and how to incorporate microcredentials into its educational offer, depending on the mission, the institutional profile, and the needs of its environment. This also requires some guidelines at the national level with the participation of all stakeholders.

One challenge for universities is the issue of recognition. The European Union, which has included microcredentials into its policy objective of a European Education Area by 2025, is funding many projects, studies, and initiatives to tackle this area and help universities become stronger microcredential providers. The European Project MICROBOL—Micro-Credentials Linked to the Bologna Key Commitments—states that microcredentials can be offered by "higher education institutions or recognised by them using recognition procedures in line with the Lisbon Recognition Convention or recognition of prior learning, where applicable.... [They] have explicitly defined learning outcomes at a QF-EHEA/NQF level, an indication of associated workload in ECTS credits, assessment methods and criteria, and are subject to quality assurance in line with the ESG," or European Standard Guidelines (MICROBOL 2020, 7).

Some concerns were raised regarding a scenario in which microcredentials could become stackable to such an extent that this could potentially lead to fulfilling requirements for the issuing of a degree. The underlying argument is that a university degree constitutes a coherent whole, a logical composition of modules, which cannot be achieved by stacking modules that might not consider specific learning pathways, mutual dependency, and coherence.

Clarifying the relationship between the concepts of modularization and "microcredentials" is therefore an important exercise. If conceptual and practical definitions remain open with modularization, in the case of microcredentials, the debates begin from a very clear definition. Yet both concepts are associated with similar potential usages and benefits, and both can be framed as tools for flexibilization.

Cirlan & Kelo (2022) argue that microcredentials are a format that certifies small pieces of training of very different types. First, the learning outcomes recognized with microcredentials may range from technical-professional to postgraduate training, or even as options of continuing education. Second, it is limited in scope, given that the learning volume resulting from microcredentials is lower than that of a traditional degree. Third, it is important to understand that it is not in the essence of microcredentials to be considered stackable learning units as if they were modules of a longer program. This can only happen in cases where a higher education institution decides a priori, in its modularized programs, to also offer its modules as independently certified microcredentials.

ORGANIZING THE CERTIFICATION OF FLEXIBLE OFFERS

Recognition of Flexible Programs: Possibilities and Limitations

Flexible pathways face national regulations of higher education systems as a first limitation. To circumvent this, agreements are needed between different actors, from government, labor unions, and students to higher education institutions.

At the national level, it is essential to achieve coherence between the National Qualifications Frameworks and the Quality Assurance systems that should support nationally agreed learning outcomes, which in turn facilitate recognition and flexibility. An adequate mix of policies and steering instruments is needed in order to create an enabling environment for the take up of FLP, and tools such as modules and microcredentials, in higher education institutions.

Findings from an UNESCO international survey (2020) suggest that a majority of countries have already introduced flexible modes to deliver programs, offering options for part-time study, as well as distance and online learning modes. Some countries have succeeded in adopting policy frameworks, instruments, and targeted measures that support flexible learning pathways in their higher education systems (Martin and Godonga 2020). However, few countries have proper national regulation on the quality and validation of such delivery modes, and hence this remains a challenge in most countries. The issue of ensuring the quality of the educational offers that are articulated, recognized, and transferred also needs to be introduced into the discussion.

The national and international level can generate incentives through additional funding streams. Nevertheless, change in learning and teaching depends on the right combination of top-down guidance and structural support and bottom-up dynamism. The innovation push comes mainly from individual teachers, departments, and faculties. But institutional leadership and dedicated structures, such as learning centers, have an important role to play (Gaebel and Zhang 2018).

The UNESCO study on FLP conducted by Martin and Godonga (2020) found that the development of FLP was an important objective, but there were disparities between countries with regard to the extent to which the policies and practices on FLPs had been implemented, monitored, and evaluated. The findings demonstrated the need to have a coherent policy environment with practices and instruments that effectively facilitate implementation, as well as adequate financial and human resources to translate policy objectives into systematic and comprehensive institutional practices.

In regard to instruments supporting entry pathways into higher education, in many countries short-cycle qualifications (e.g., at vocational colleges) allowed for more permeability and diverse entry pathways than bachelor-level programs (e.g., at the university)—that is, through a general secondary leaving certificate, a vocational secondary certificate, or a vocational formal qualification. By contrast, bachelor-level programs were less permeable, with the most common entry paths being a general secondary-level

leaving certificate, a vocational secondary leaving certificate, and a general formal qualification from a postsecondary, nontertiary institution.

The main challenge lies in how to articulate the increasing offer of short-cycle programs with other formats, which may depend on decisions at the system level (which impact on the relationship between higher education and vocational education) and on the institutional mission. In a study commissioned by the European University Association, the vast majority of institutions confirmed interest and increased demand for more flexible provision of degree and nondegree education. Responses suggest a process of gradual change in the years to come toward more flexible education and digitally-supported learning. (Gaebel and Zhang 2018, 10).

Microcredentials: A Specific Type of Learning Recognition

The European Commission (2020) refers to microcredentials in all types of education, including nonformal and informal education, given by different kind of providers.

> A micro-credential is a proof of the learning outcomes that a learner has acquired following a short learning experience. These learning outcomes have been assessed against transparent standards. The proof is contained in a certified document that lists the name of the holder, the achieved learning outcomes, the assessment method, the awarding body and, where applicable, the qualifications framework level and the credits gained. Micro-credentials are owned by the learner, can be shared, are portable and may be combined into larger credentials or qualifications. They are underpinned by quality assurance following agreed standards.

There is an ongoing discussion regarding quality assurance of microcredentials, sparked by the difficulties that employers have faced in this field and the variability and perceived lack of transparency of microcredentials. Aspects related to recognition and portability of microcredentials have been at the center of the debate.

As mentioned above, the idea is gaining ground that the main responsibility for quality assurance should fall on universities, while external evaluation agencies should rather focus on reviewing institutions and how they account for microcredentials in their internal evaluation processes. This aspect is key, because it implies that the necessary controls should not be left at the mercy of the market, yet should also not be bureaucratized with rigid state regulations.

The survey conducted as part of the MICROBOL project in 2020 found that national legislation allows the provision of microcredentials in twenty-three countries across Europe, with specific regulations in eight of them (MICROBIOL 2020). These developments show that microcredentials have the potential to become formal qualifications in many European countries. The main conclusion of the project is that existing tools and frameworks for quality and transparency in the EHEA are already applicable to microcredentials. Higher education institutions must clearly indicate the learning outcomes, ECTS credits earned, and the level of the qualification framework for each microcredential. In addition, the use of digital credentials may facilitate portability, transparency, reliability of information, and verification of authenticity. Higher education institutions must provide transparent information on these aspects, as it will facilitate their recognition and adoption.

This set of standard elements to describe a microcredential is part of a recent EU Council Recommendation on microcredentials, which the EU finally adopted in December 2021. It encourages member states to establish EU-wide principles for the accreditation of short training courses and a set of standard elements to describe the credentials themselves. The European Commission and the European Council, similar to the EHEA and MICROBOL projects, call for the adoption of a comprehensive European approach to microcredentials, including the proper use of existing tools such as the ECTS, qualification frameworks, as well as the existing quality assurance and recognition mechanisms.

STRENGTHS, LIMITS, AND CHALLENGES OF MODULARIZATION: THE ACTORS' VOICES

Focus Groups on Flexibilization, Modularization, and Internationalization

For this study, seven focus groups were organized in seven countries belonging to the Vita Global project[1]. The purpose of the focus groups was to learn about the experiences of flexibilization and modularization of higher education curricula to identify good practices and challenges from both a university and a policy-making perspective. The discussions focused on four dimensions: the common concepts and general conditions for flexibilization; the public policy level; the institutional level, and the main advantages and current challenges. Questions were also posed on whether modularization is perceived as an opportunity for the internationalization of the curricula, as this was a departure point for the Vita Global project and its dynamic, global consortium.

Each national focus group was organized with up to eight individuals with the following profiles: teachers, international directors/managers, a public official, and an expert in university curricula. These individuals were not necessarily part of Vita Global teams in each partner institution, but they were proposed by them as a means to offer diverse voices and opinions. The almost fifty participants came from seven countries: Argentina, Chile, France, Georgia, Italy, South Africa, and Spain.

> *" many academics and policy makers do not immediately associate modularization with flexibilization"*

In general terms, the discussion showed different positions on the subject. Both experts and managers of internationalization were very positive about all the advantages of modularization and curricular flexibility, while teachers and academic managers placed the emphasis on the limitations, obstacles, and disadvantages, as well as in the conditions that would be required for these transformations. It was easier to introduce the discussion from the idea of curricular flexibility rather than modularization, which suggests that the latter concept is not sufficiently clear, at least not as a different way of organizing the curriculum. More importantly, many academics and policy makers do not immediately associate modularization with flexibilization.

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1. Vita Global joined universities and associations from Spain, France, Portugal, Italy, Georgia, South Africa, Chile, Argentina, and Uruguay.

Clear and Common Definitions?

While modularization may be one way of making the curriculum more flexible, there were already flexible curriculum modalities in many universities in the past. Therefore, there are ways to address flexibility without necessarily modularizing, from both a horizontal and a vertical view of the curriculum. In the systems of Anglo-Saxon origin, the existence of majors and minors gives students the possibility of accessing different subjects that are not necessarily associated with their main degree. They choose a main path, which has requirements but, at the same time, they may complement their degree with shorter alternative paths, which, depending on how the study plan is structured, may be focused on different disciplines or transversal areas (research, entrepreneurship, etc.).

In Spanish universities, there is some flexibility in the curriculum at the undergraduate level, with the choice of electives, which are also commonly offered in the EHEA. In Italy, the margin to incorporate flexibility is limited; elective courses can comprise 10% of the total credits, but they are not free options and must be aligned with the degree. There is also flexibility to recognize credits for studies pursued in other centers, although always in the limited optional space allowed. Several of the participants expressed that they were facing the complexity of incorporating flexible dynamics into rigid structures. Furthermore, in Europe, it was felt that these options were limited by the Bologna Process, which led to the shortening of bachelor's degrees and, therefore, to the reduction of time to incorporate electives or broader curricular paths. Time to degree is a very interesting aspect to consider when seeking flexibility, which does not yet appear in the literature on the subject.

In Latin America, the idea of a flexible curriculum collides with centuries of rigid curricular organization. Today this flexibility is associated with the existence of optional and elective subjects, or common cycles of curricular integration in large areas of knowledge, although there is not much diversity to choose from in this area. The experience of the ALFA Tuning Project[2] is mentioned, which attempted to articulate programs from different countries in the region. In Argentina, the RTF (Reconocimiento de Trayectos Formativos, or Recognition of Training Pathways)[3] program was also mentioned, which was proposed to facilitate pathways in the university system based on the recognition of such pathways.

Minor or very isolated institutional experiences were also cited. For example, an introductory subject organized by modules prior to entering the degree program, or an elective study pathway on "Latin American thought," with a modular organization for international students interested in Latin America, were two examples. It is worth mentioning that, in these cases, the modules are conceived as part of a subject or degree program, and what is accredited are not the parts or modules but the entire subject or program.

In this respect, there seem to be no major differences in meaning between "module" or "unit of learning." It depends on how these words are translated into local languages and how they are applied, even within the same country. Such was the case in South Africa, where the exchange focused directly on modules, without engaging in a discussion on a different type of curricula organization. This case stands out in contrast to the rest of the countries that were part of the project in terms of its experiences in curricular development.

In recent times, flexibility generally appears as externally incentivized. A prime example in Europe can be seen in the influence of the EHEA, whereas in other regions, it may have been prompted by internationalization trends. In Spain, for instance, there was a perception that the Bologna Process promoted international double degrees, or at least made them possible, through the validation of a more internationalized learning pathway.

One valuable experience mentioned was a type of double degree between universities in three different countries that allows students to be trained with a particular transversality in mind: agronomy and enology.

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2. http://www.tuning.unideusto.org/tuningal/index.php?option=com_frontpage&Itemid=1.
3. http://www.bnm.me.gov.ar/giga1/documentos/EL006460.pdf.

The student goes through three years of basic training and then spends the next two years at the other institutions, with a more technological orientation. In this case, this is possible because the electives of one degree are the core of another. Something similar occurs with the combination of expert training in computer science and biotechnology. Yet these double degrees are rigid (there is no choice for the students) because it is considered that all study conducted at the other partner institutions is essentially an elective component.

> *"Although internationalization is not the cause of curricular flexibility, it is apparently crucial. Thinking in "modules" is part of a common international language that allows for the articulation of programs between countries."*

Although internationalization is not the cause of curricular flexibility, it is apparently crucial. Thinking in "modules" is part of a common international language that allows for the articulation of programs between countries. Double degrees, for example, seem to be easier to develop jointly with an international partner institution than internally, with a local institution within the same country. For many, especially for internationalization managers, curricular flexibility is designed in anticipation of student mobility. It facilitates the comparison of subjects and may provide mobility windows to make mobility possible.

Yet some heads of academic management mentioned that internationalization introduces more stress into academic planning, because changes are imposed on systems that are inherently rigid. The stress that originates at the top in legal frameworks is reproduced in the work of teachers. Participants in both Italy and Spain stated that "we are asked to be flexible," without reflection on whether it is really better to flexibilize a program and whether there are sufficient human resources to do so. For those interviewed, it was a question of trends and external incentivization, as opposed to real institutional strategy assessment. It was argued that the European Union leads the path to internationalization, as it is the main provider of funds for higher education.

In sum, most of the participating countries spoke of modules, subjects, or units interchangeably. Those who made some distinctions were experts in curricula, which suggests that the topic may be growing in prevalence in academic theory, although it has not yet reached the practice level. In most cases, the possibility to take elective courses was identified as examples of flexible curricula; however, curricula that were designed completely "à la carte" and developed by the student were not contemplated. Interestingly, in terms of incentives—and as mentioned before—flexibility was discussed as a new trend in the European Union that countries have to follow in order to obtain financial support for internationalization.

Purposes and Uses of Flexibilizations and Modularization

One of the main reasons for organizing higher education curricula in modules is that it is a better way to respond to changing external demands. This was seen more clearly in some specific fields of training. In Georgia, modularization is a great way to involve students in the agrarian field, allowing them to find a job with practical experience during their training.

It is widely recognized that the smaller the modular unit, the easier it is to be flexible. Since for many programs the teaching units / modules are job-related, smaller units of no more than three credits may better adapt to other needs, such as those of industry. It is important, therefore, to identify which modules within a program should be explicitly adapted to the needs of the market.

Nevertheless, this provoked some tension because, although the productive system needs precise skills, students need a more versatile curriculum that is oriented to their interests and their development needs. As a result, modular programs may not be inherently related to external demands.

The usefulness of modules in international cooperation programs—whether double degrees, joint programs, or pathway articulations between education cycles, mainly at the postgraduate level—was another strong point put forth by the participating internationalization managers.

For some, although not in a generalized way, the modular organization could offer the possibility of gradually certifying skills so that they lead to a whole degree, thinking of traditional students and lifelong learners alike. In this sense, flexibility through modules is not only of benefit to international students but also to continuous learners and learners that are working. For focus group participants from South Africa and Georgia, this is one of the main purposes of study programs organized in modules. For them, employability is the main objective of this type of curriculum.

The curricular experts that participated in the focus groups, especially those from European countries, emphasized that, while being part of a larger whole, modules must have their own autonomy. For them, a modularized program would allow for the eventual recognition of microcredentials. Yet the individual certification of modules is not yet planned at the public policy level in any of these countries, as has attested the literature review on the matter. Although this is part of the debate at the European Union level, curricularists recognize that they are far from achieving that goal. In general, the participants stated that they often hear about competencies, modules, microcredits, etc., but that this has yet to effect profound changes in institutions. For several of the members of the groups from Spain and France, there was skepticism of Anglo-Saxon models, since they feared such models would commercialize higher education.

It was noted that the application of modules in study programs is less difficult in certain fields, such as applied sciences, or even at some levels more than others, such as postgraduate or continuing education. In undergraduate training, modularization may be better applied in specific disciplinary areas, where practice is preeminent, as in medicine or agriculture. In basic disciplines, this was deemed almost impossible. Courses are correlative in all these disciplines, and it is difficult to make them more flexible.

In Chile, for example, this type of modularized curricular organization has served in technical training centers because the law allows for this type of program. Workers study technical careers in stages, or in parts. There is a general view that it is easier to apply this to postgraduate training or to courses where training skills are not disciplinary (citizenship training, gender perspective, language skills).

> ## *"in most cases internationalization and external demands were identified as the main drivers of flexibility and modularization, with a need to cater to lifelong and employed workers"*

In summary, in most cases internationalization and external demands were identified as the main drivers of flexibility and modularization, with a need to cater to lifelong and employed workers. Flexibilization and modularization have not yet been valued as ways to achieve new approaches in learning and teaching. Despite the introduction of this concept, it lacks practical application.

Conditions for Flexibility and Modularization

A fundamental condition in curricular flexibility is foresight. To achieve this, a flexible curriculum, and especially one organized in modules, must be programmed from design. Participants of focus groups suggested that greater flexibility usually fails to occur in programs that are already under way and were created with a linear character. In France and Italy, other limitations were mentioned such as the rigidity of the academic calendar and the budget. On the contrary, in Georgia, modularization is seen as a way to take advantage of time and resources.

An interesting discussion arose in the French and Spanish focus groups about the risks of too much flexibility at the undergraduate level, which was also identified in the literature review. When a decision to make the curriculum more flexible is made, it is assumed that the student knows what they need to configure their own learning path. Sometimes, though, students are not prepared for choices, and hence a more rigid study path may be more appropriate. It was observed that maximizing a flexible curriculum is dependent on the curiosity of the student. To offer too much choice could be confusing. Moreover, a flexible curriculum with multiple options can take more time, and the number of years regulated for a degree may limit this. Flexibility, in this sense, could be better applied in the advanced stages of a program, and not at the beginning. In the first years of study, more options could also disrupt class groups dynamics, an important factor for socialization.

" There was considerable agreement in the fact that there is not a shared vision at the institutional level and that demands for change increase without the necessary clarity or conviction."

Focus group participants felt that flexibility needs to be coupled with information and guidance, since students must be made aware beforehand of when they will be asked to make decisions. For this, training of teaching and administrative staff is needed. It is important to convey not only the "how" but also the "why" of flexibility: for employability, to internationalize, to avoid dropout, to meet the interests of students, etc. More flexibility means a greater capacity to adapt, and for this, it is necessary that those involved are convinced of what they are doing. There was considerable agreement in the fact that there is not a shared vision at the institutional level and that demands for change increase without the necessary clarity or conviction.

These observations once again suggest that curricular flexibility in practice is limited, even when the associated terms have been incorporated into the educational jargon. There was also the feeling that these changes in the organization of the curriculum do not usually have an impact on teaching. The student-centered perspective and methodology, while persistent in policy discourse, is more linked to practice-training fields. The lack of real understanding about what flexibility and a modularized curriculum are may suggest that universities tend to remain anchored in the supply of "teaching" by aggregation, with little relation to changes in "learning," and with a strong inclination to focus on degree conferral rather than on the learning process.

The Public Policy Level: Impediments to Flexibility

There is a general agreement that serving new student profiles through more flexible offers requires reviewing the regulations related to quality assurance and financing. However, this does not mean that public policy should regulate offers by intervening in the curricula, but rather it should remove existing obstacles. In line with what has been

analyzed in the literature, the focus group participants considered that public policy today discourages the flexibility of the university curriculum. For example, in countries such as Italy, Chile, Spain, and France, there are regulations on the duration of the programs or on the amount of free optional credits allowed. Making the curriculum more flexible implies students taking longer in their educational trajectories, either because of their choices or because of their new profiles, which are no longer those of a full-time student. This conflicts with regulations.

There is widespread recognition that the greatest restrictions on flexibility are focused on programs that must go through accreditation processes through their national agencies. Flexibility may require frequent changes in study programs, and thus may lengthen the accreditation process or conflict with it. For example, it was mentioned that three years of paperwork are needed in Spain to accredit a master's degree, and each change in the program would mean delaying those times frequently. In Argentina, regulations for the national recognition of degrees, in which profile and scope must be clearly defined, are rigid, and the degree is accredited when appropriate. Another case was mentioned of a university that had its study programs organized in general cycles, with different study paths suggested. When the programs began to be regulated by the state, they had to become more rigid. Evaluators recommended previous courses as requirements, which reverted the innovative programs into rather traditional models. Both in the case of Spain and Italy, recent changes in regulations gave rise to greater curricular rigidity in contrast to previous regulations that allowed, paradoxically, greater possibilities for flexibility.

"since every diploma has the same value in the eyes of the public financing system, rigidity is necessary to maintain certain homogeneity among universities and financial equity in funding public institutions."

An explanation of this is that, since every diploma has the same value in the eyes of the public financing system, rigidity is necessary to maintain certain homogeneity among universities and financial equity in funding public institutions. Public policy, therefore, intervenes to ensure the degree is the same in each university; on their part, institutions will not innovate, at the risk of complicating accreditation or losing public funding. If spaces of free choice were to be expanded, it would be necessary to reduce the mandatory component of study programs that is linked to accreditation standards, something that remains rather taboo in countries that still have program accreditation.

"Where national regulations are limiting, the possibilities for flexibility are reduced to the margins."

The limitations of public policy are mainly concentrated at the undergraduate level. It is recognized that some type of flexibility is possible without modifying the study programs, for example, by linking contents with research or outreach, in collaboration with companies. In the case of Argentina, there is a "diploma supplement," through which nonformal training is accredited and flexibility could be applied. This is also true in South Africa, where there is room to incorporate and recognize different types of learning units under the provision for lifelong learning. In Spain, on the other hand, flexibility is better implemented in the so-called university's own qualifications, either in permanent training or in professional training programs. Where national regulations are limiting, the possibilities for flexibility are reduced to the margins.

It has been observed that, to instill a real change, the state ought to generate incentives. Such is the case in Argentina with the National System of Academic Recognition or the funding scheme for technical and professional training programs.

In several countries, the public higher education system funds programs with a specific theoretical duration for a number of years, which implies a problem for working students or women with dependent children, who cannot plan their training ahead of time. These cases are a prime example of an enormous systemic rigidity. Also, the more module options available, the higher the cost of training. In the case of Italy, for example, academic managers state that they would have no problem in making more modularized options possible, but they would need more human resources to teach these new modules. For international managers, the option of opening module offers to international students can be a means to make flexibility sustainable. The joint development of programs between different countries is seen as a rite of passage to internationalization, and hence exceptions and pathways through rigid regulations are sought and encouraged. In Europe, they are incentivized by EU funding programs.

Nevertheless, regulatory rigidities may still exist among certain countries, which often makes it difficult to integrate programs. Such is the case of Chile, where it is easier to establish links with Europe than with neighboring Latin American countries. On the other hand, a case was mentioned of a European business program that has decided to be accredited by a North American agency, allowing it to adapt more quickly to the market and, therefore, provide greater possibilities for employability.

These limitations among countries are also present in Europe, where different quality assurance agencies should allow for the validation of codeveloped modules implemented in different countries, even when those modules correspond to programs that lead to different degrees. The possibilities of flexibility and articulation between countries also depend on how they have organized training at BA and MA levels (4+1 or 3+2). In this regard, those responsible for internationalization agree that, without modularization, internationalization of the curricula, international mobility, and virtual modes of learning, any innovation linked to flexibility becomes unfeasible. Unfortunately, the mobilities achieved end up being exceptions based on the creativity and imagination of international managers to find shortcuts to regulatory rigidity.

South Africa, as mentioned above, is a specific case because regulations operate as guidelines or frameworks for the design of programs based on the level of qualification and other specific descriptors in fields of training. Even though there is a national act in this regard and accreditation frameworks with qualification-type descriptors for program alignment, the content of the program remains an institutional responsibility. As a result, national standards allow the existence of different programs with the same qualification system in different institutions. In this sense, flexibility in curriculum design is more feasible. External evaluation is focused on the institutional mission and program alignment to standards. Likewise, in the South African focus group, great value was given to specific cases of flexibility among institutions that articulate specific program pathways or to equivalences among institutions, both domestically and internationally. This was similar in the Georgia group.

In sum, national higher education systems, mostly inflexible, are being invited to be more flexible, either by regional and international pressure, or by student and societal demand. Although there are quality assurance agencies that are advancing in modifying accreditation procedures, the risk of regulating flexibility in such a way that it ends up making the system more inflexible is a possible consequence that must be avoided. Changes in regulations should preclude the state from intervening as much as possible. The cases of South Africa and Georgia seem to be exceptions among the group of countries studied: on the one hand, because of the former's Anglo-Saxon tradition, whereby its regulations result in incentives to develop more flexible structures, and on the other, because of the latter's interest in joining the European Union and subsequent pressure to reform.

The Institutional Level: Are Institutions Willing to Make Programs More Flexible?

Is it possible to advance in flexibility without waiting for public policy solutions, especially when there are no incentives? The focus groups showed that there are some experiences in that respect—Vita Global being one of them—which will be discussed in the following section.

While national regulations are often an obstacle, in many cases, institutions with a strong disciplinary tradition are the ones that place limitations on flexibility. In Argentina, many programs are regulated at the national level, but those that are not may be easy targets for flexibilization. Yet, beyond the agreement at the discursive level on the need to offer more possibilities to students, teachers are often the ones who do not want to give up subject content in curricular reforms, even when such content is repetitive or has become obsolete.

In this regard, the decision on curricular flexibility should not fall exclusively on the faculty but should rather be part of the institutional agenda, with not only the participation of teachers but also of all stakeholders, and students in particular. It has been observed that curriculum design produces tensions and that institutional academic management must provide leadership and direction. In addition, graduality and slow change are important for making flexible curricula more culturally acceptable within institutions.

Sometimes, opportunities for flexibility come from international units or offices, with incentives stemming from international programs such as Erasmus+. Participants of focus groups suggest that institutions must encourage new initiatives. But if teachers do not feel that the change toward flexibility is necessary, these initiatives will not take root.

Other initiatives include international institutional agreements, which allow students to progress from one study cycle to another internationally. This is common in Chile. Ironically, internal mobility between national programs is sometimes more difficult than with international ones. However, this has started to change, for example, in the first year, when students may migrate between programs due to vocational needs.

There is a basic obstacle that is not normative but rather cultural, and it is linked to mistrust or jealousy among institutions. In the case of the group from Chile, cases of new or small universities were mentioned, which despite being very innovative in terms of flexibility, have difficulties in exchanging courses with other larger institutions or institutions that have been accredited for a long time.

"Even when it is possible to make curricula more flexible, it is necessary to plan such flexibility from the initial design and within the framework of preestablished parameters, which gives students predictability. "

A good basis for flexibility is to have a system of transferable credits, which are sometimes defined at the level of individual institutions in the absence of a national system. Mention was made again of the work of international offices at universities, which identify possible paths around bureaucratic processes. Curricular flexibility in this sense depends on how institutions and people tackle certain challenges, and on their motivation to find solutions within existing constraints. This has been the general experience with Vita Global, for example, which developed international study modules that were inserted into existing programs in very different academic and regulatory contexts.

Even when it is possible to make curricula more flexible, it is necessary to plan such flexibility from the initial design and within the framework of preestablished parameters, which gives students predictability. In France, for example, a required curriculum organized by competencies (and not so much by specific disciplines) does not necessarily mean a more flexible curriculum if competencies are organized vertically. The reflective work about what is intended, then, is crucial. That level of planning may even foresee bottlenecks or module offers with no students enrolled. It might also help better manage human resources and guide students on suggested paths, according to courses availability, enrollment quotas (as is the case in Argentina), and course offers per semester.

Advantages and Challenges of Modularization

Questions were raised about the advantages and obstacles of curricular flexibility with regard to the different actors and levels involved in these processes: students, teachers, institutions, and nations or regions.

There was consensus that the trend is toward flexibilization in learning and that it is a major challenge for traditional higher education. Students need to open up to the world and learn about different realities, as well as engage with the global world of work. It is essential to root the need for and practice of flexibility among students beyond what institutions and teachers may desire or prescribe. If universities do not offer what students need, students will find it elsewhere.

The pandemic forced the use of new resources and tools in higher education, such as technology, to solve problems in teaching that usually collided with bureaucratic limitations. This context has been a conduit for flexibility—with a rich array of experiences, tools, favorable policy incentives (such as in the EU), and improving conditions; therefore, curricular flexibility will ultimately depend on what each institution seeks and strategizes. It seems that the question is no longer whether to do it, or whether it is possible, but how. And this requires the collaboration of institutional leadership, faculty, and students.

> *"Higher education institutions, it was argued, must ensure students' choices are not random, fostering and encouraging autonomy to define and decide on their training programs."*

It was only at this stage that the focus groups, when discussing the advantages of modularization, were able to observe that students were valued as the main protagonists, highlighting teaching methods applied to their learning. Higher education institutions, it was argued, must ensure students' choices are not random, fostering and encouraging autonomy to define and decide on their training programs.

The French group argued that flexibility is a problem for new students and that some rigidity is needed at this time. On the contrary, for students that are not looking for a diploma, flexibility is important. However, for teachers, flexibility can be very time consuming, mostly when it is not well communicated. Teachers can easily feel undervalued. If these problems are not resolved institutionally, flexibility will fail to yield advantages.

It could be observed, from the discussions in the different groups, that some institutions are much better prepared than others. Those who tend to advance with more ease have already been working with modular scenarios and have strong links with industry to this effect. Regardless, there is a need to come to a halt and answer the big question: "why do we do all this?," and to what extent is this linked to the mission of the university, to the graduates the university wants to train, and to society. In this process, small steps are paramount.

Finally, when asked about the advantages of flexibilization for the different countries, there was some consensus about the idea that working together toward opening minds is the best investment that can be made for future generations and the way they learn.

The Vita Global Project: A Contribution to the Debate on the Flexibilization and Internationalization of Curricula

General Approach

Vita Global has been a project with high aspirations: cocreating study modules in the field of viticulture and enology with universities from different countries and with diverse capacities, and piloting those modules and inserting them into existing study programs or building new ones. This was intended to draw important lessons as regards internationalization and the flexibilization of such programs.

Yet the project had its limitations, both in terms of design and in execution. For example, while the project *worked primarily with academics in the viticulture and wine sector*, it could have benefited from further and deeper support from *vice rectors for academic affairs*, who oversee study program design and strategic issues linked to curricula innovation. Efforts have been made to achieve these objectives in the development stages of this white paper, and this was the focus of the final Vita Global event (November 8–10, 2022, Tarragona, Spain). That said, a number of *faculty members*, who are leaders in their respective faculties and departments, have been important advocates of the higher purpose of the project (flexibilization/ modularization/internationalization) or sharpened interest in this purpose as the project progressed.

The project also involved the participation of *staff from international relations offices*, whose job was to accompany academic staff, look at matters related to the internationalization of curricula, mobility, and recognition, and support the more transversal components like this white paper.

The project had a third axis—the role of universities in the local development of the wine sector. As a result, the *project aspired to adequately articulate three levels*:

- International academic partnerships in wine-related studies;
- Flexibilization and internationalization of curricula;
- The role of universities in local development and the role of the wine sector.

Overview of Modules, Coordination, and Implementation

Six international study modules were developed on subjects of high priority to the academic and economic sectors of the countries and regions involved in the project: wine tourism (module 1), wine economy and marketing (module 4), viticulture and sustainability (module 3), microbiology and wine safety (module 2), sensory analysis (module 5), and production of sparkling wines (module 6). Each partner university in Latin America, South Africa, and Georgia subsequently elected a module or several modules, introducing them into an existing study program or, in some cases, strove to build a new study

program. The module content was adapted accordingly and the staff of the partner universities received coaching and training on the new academic content. Transversal workshops were held on the concepts and practice of modularization, internationalization of the curricula, and teaching for local development. The following table indicates the achievements of the project.

Module	Coordinator	Implementing partners	Outcomes
1. Wine Tourism Innovation	URV	TeSaU GTU UChile UTalca UNDeC UNJu	**TeSaU**: The module became a part of the already existing MA study program on viticulture and winemaking. First piloting in the 2021–2022 academic year. **GTU**: The module became a part of the already existing MA study program. **UNJu**: The module will be built into a new masters aimed at regional projection of the wine sector in Jujuy and the Quebrada de Humahuaca **UChile** has integrated the module into an existing masters program as an elective that is taught collaboratively with URV.
2. New Tendencies in Microbiology, Wine Ageing, and Wine Safety	UBx	TeSaU GTU Udelar	**TeSaU**: The module became a part of the already existing MA study program on viticulture and winemaking. First piloting in the 2021–2022 academic year. **GTU**: The module piloted in the 2021–2022 academic year in the context of an existing bachelor's degree in viticulture and winemaking. **Udelar**: The module was offered as elective to postgraduate students in the courses of enology and fermentation biotechnology. There are plans to develop a bachelor's degree in viticulture and viniculture.

3. Sustainability and Viticulture	UBx/UPorto	Udelar UNCuyo SU CPUT	**UNCuyo**: A master's degree in viticulture and enology is being reaccredited, and this module is being integrated into it. **CPUT**: The original plan was to incorporate the module content into the new postgraduate diploma in agriculture during the 2022 academic year. But, owing to national accreditation processes and delays experienced, this qualification only received accreditation during 2022 for implementation in 2023. **Udelar**: The module is to be offered as elective to postgraduate students. Plans to develop a bachelor's degree in viticulture and viniculture. **SU**: A short programme will be offered and the module will be the basis of a MOOC developed with UBx and UNCuyo.
4. Wine Marketing and Economy	UNCuyo	UNCuyo UChile UNDeC UNJu	**UNCuyo**: A new postgraduate course was developed simultaneously with the Vita Global project "Wine Law and Economics," which included modules 3 and 4.
5. Sensory Analysis	UNIBO	UTalca UNDeC UNJu	Piloted in 2021, the module is an elective course for agricultural science undergraduates at UTalca and part of the coursework for the "minor" in grape and wine growing.
6. Sparkling Wines	URV	SU UNDeC UNJu UNCuyo UTalca	Online and physical coaching has taken place, and plans have been made to incorporate it in SU and UNCuyo study programs. UNDec piloted the module in the context of the existing masters in agricultural science programme.

A Project Constantly Adapting and Evolving

The Vita Global project of the initial proposal is not necessarily the one it has become. This reflects the project's growing ambition to go beyond more static approaches to international cooperation, such as joint degree development, and push boundaries. The project has also had to adjust to the pandemic situation.

The project began in 2018 with a (thematic) needs analysis / analysis of strengths of specific partner universities, subsequently agreeing to the modules to be developed and assigning coordinators to them (as discussed in the meeting in Porto in May 2018).

The project progressed to a further discussion on the definition of "module" and to the election by partner universities of the modules they would in fact pilot/implement (formation of module groups or teams, as discussed in the meeting in Santiago de Chile in October 2019).

The discussion around the definition of module and the expectations of the program was arduous. Many faculty members preferred a more prescriptive approach linked to a defined credit range or teaching workload. Given the diverse nature of the HEI systems, the varying definitions of program length and the potentially diverse usages of the module, it was agreed to leave this for each module group to decide. Once agreed, the module content could be then customized by the university implementing it, which was usually the case.

The project attempted to foster the "cocreation" of modules—that is, all partners would in some way contribute to content development. In practice, this was hard to implement for a number of reasons. In some cases, with more technical disciplines, such as microbiology, those partners that would be piloting the module (GTU, TeSaU, and Udelar) were keener to receive the module content "prepackaged" to some extent, and then assess how to adapt and implement it in their own course frameworks, languages, etc. Modules 1, 2, and 6, were not coconstructed in the classical sense (each university bringing content and expertise), though partner universities were active in adapting and shaping them once the initial module syllabus was proposed by the coordinator.

In some instances, the approach was more transactional. In the case of module 1, URV proposed the content and then provided catered coaching sessions to the partners involved. This is not to say that some coconstruction and collaboration did not emerge later in the process. UVR, in designing a coaching program for Latin American partners in Chile in March 2022 on the topic of Wine Tourism, has learned extensively from Latin American partners and UChile in particular, and is launching a number of follow-up activities related to the module, especially in the area of collaborative teaching. Module 4 was developed by UNCuyo, but the coaching process was a much more collaborative one: input and case studies were asked from partners across the consortium and from industry in different world regions. This module came the closest to the essence of the project, notably integrating content and examples from diverse winemaking regions. The focus of the module (wine marketing) was also more conducive to this approach than that of microbiology, for instance, which is more technical.

Modules 3 and 5 were the only truly cocreated modules. Module 3 adopted a heuristic approach, engaging all partners in a series of online planning meetings. This also rendered the process more complex: the module ended up having three segments and was essentially a compilation of three minimodules. Partners could pick which of the parts they wished to implement, depending on their needs. Module 3 is still in process and, in this sense, has been more complicated in terms of the overall project delivery. Nevertheless, the way partners approached the module was more in line with the spirit of coconstruction and the spirit of Vita Global.

"The project adapted to new needs, showed flexibility regarding the implementation process, and accommodated partners with less capacity that aspire to build new programs from scratch"

The project adapted to new needs, showed flexibility regarding the implementation process, and accommodated partners with less capacity that aspire to build new programs from scratch (UNJu, UNDeC).

Of note is the South-South dimension, which grew organically throughout the project: UNCuyo offered to coordinate Module 4, and the internal Latin American knowledge transfer on this and other modules has been noteworthy.

Modularization and Flexibilization?

There has been a clear progression in the understanding of modularization and its link to flexibilization, yet some confusion has also arisen in the process. The project partners started with a more fixed concept of joint programs (this was framed as an initial objective), and hence a conceptual shift was required to better understand that the underlying purpose of the Vita Global project was related to modules.

The project had to work within existing legislative frameworks to be able to integrate the modules into partner universities. In many ways, curricula were not flexibilized, given that modules were introduced as a core part of new programs (students, though, still had little freedom of choice in the courses that comprised their program). In some cases, they were (or will be) offered as electives. What is important, though, is that the *discussion on flexibilization has accompanied and shadowed the project* and awareness has been raised. The project also introduced a discussion on microcredentials and their relation to modularization, and MOOCs are being developed as part of a sustainability strategy. This white paper is making an important contribution to this issue, calling for more flexibility and permeable study programs, more internationalization of study content and teaching, and a transformation in the mindset of teaching staff and administrators.

The project could have benefited from more attention to the topic of collaborative teaching, and not just collaborative development of the modules. This is an area for follow-up, though, and a core piece of the sustainability strategy. Several partners are already designing collaborative teaching projects and COIL (Collaborative Online International Learning) approaches (module 1, for example).

CONCLUSIONS

The experience of the Vita Global project, which included not only the project itself (the academic experience of building modules and inserting them into diverse programs in different contexts) but also focus groups and extensive literature review, has allowed partners to reach some conclusions about the contribution of this project to the global debate on flexible learning pathways, modularization, flexibilization, and internationalization of curricula.

This document took as its starting point the need to promote a new way of conceptualizing learning and teaching in higher education, notably by placing learning at the center of the agenda via the diverse forms and paths it may take. This should be the ultimate goal of any deep transformation that takes flexibility as a means to achieve that goal. The effort is enormous, and it requires a focus on the ultimate goal, as well as the feasible and progressive means to get there, despite the potential legislative, bureaucratic, or academic cultural barriers.

The focus groups' findings in this study demonstrate that, while the Bologna Process in Europe has emphasized student-centered learning and modularization, this has not necessarily had a direct impact on the flexibilization of study programs and different students pathways, albeit with some exceptions. The focus groups also demonstrated that internationalization has been an incentive to innovate the structure of study programs and to seek legislative loopholes that would allow a program to be modularized and flexibilized for international cooperation purposes. Despite these positive experiences, it has become clear that flexibilization and modularization do not always provoke a shift from the focus on teaching for learning.

Nevertheless, the process is a gradual one, as it involves changes at different levels. Loosening and adjusting regulations at the national level, mentioned as one of the main barriers to change, are essential. This may range from reassessing accreditation practices, particularly that of program accreditation, to considering higher education system funding and how it may stifle innovation in program structures. Resistance has also been observed at the level of the institutions themselves, particularly with regard to rather static teaching practices and limited incentives for change.

It is worth mentioning that the intended original contribution of this document is a completely new approach to the learning process, which goes further than most interpretations of the rather fashionable "student-centered" rhetoric. This concept still remains anchored in "teaching and learning" (often reversed as "learning and teaching") as if they were the two inseparable sides of a single coin. The new approach that this white paper endorses does indeed distinguish between lecturers and students because they are two distinct social roles, however much these roles should become instruments of a single process and objective: that of learning.

In this regard, the lack of real understanding about what makes the curriculum more flexible, and what a module is, could be a symptomatic of the fact that there is a growth in the supply of "teaching" in universities that is aggregated, with little relation to changes in "learning" and with greater emphasis on the ability to offer certificates and degrees.

Based on this framework and conditions, the Vita Global project offered a unique opportunity to explore modularization, flexibilization, and internationalization and draw conclusions for a broader discussion. Although the project was limited in what it could achieve in a four-year timeframe in the midst of a pandemic, it offered an important space to reflect on the potential to organize teaching strategies that are truly directed at enhancing learning. In this sense, Vita Global highlights six potential strengths of a curriculum organized in modules:

• It can serve a very great variety of purposes and bridge the gap between the so called academic teaching and learning and the so-called professional teaching and learning.

• It can be used to build many different learning processes leading to diverse diplomas or accreditations.

• It can be very easily internationalized both from the perspective of lecturers and of students. This is extremely important, in particular in the post-COVID-19 era. There is tremendous potential for economies of scale when it comes to preparing online study modules. Why must each HEI have its own distinct content? Can it not become common practice to develop modules collaboratively and utilize technology to teach and deliver them internationally? Why cannot universities (and their lecturers) collaborate in producing one set of modules for one or several interrelated subjects, which can then be integrated (equally or differently) by the HEIs that participate in a collaborative process?

• Modules, in particular at the master level, may allow to set up programs that can be offered both in their entirety or "à la carte," offering students the possibility to follow only one or more modules toward distinct learning purposes.

• Modules can be used to promote team teaching and can also be used by lecturers to broaden and deepen their knowledge in the specific areas they are meant to teach. They may allow lecturers to learn from their fellow colleagues. Modules organized at the international level, in a cooperative effort, can redefine the community of lecturers and students, united in the learning process.

• The challenge with this approach is how to bring these "units of learning" under some coherent framework in terms of academic curricula and institutional organization. The best way to face this challenge is by a collaborative effort between professors and academic leadership. Most probably, at least in most curricula, modules and standard courses can coexist and interrelate for a long period of time.

These opportunities require some fundamental conditions, aimed at a cultural change in the medium and long term: First, a clear communication to the higher education stakeholder community about the reason for curricular transformation. Second, an institutional and system-wide conviction is needed, advocating for added value and the advantages of such a change, which goes beyond the incentives generated by one-off project funding, for example. Third, it needs the be understood that, behind each of these efforts, there is a common vision that gives meaning to the transformation. New learning opportunities that are significant for students, valued for society, and fundamental for a changing world are premised on the fact that all people must learn throughout their lives.

The implementation of the project has raised some broader important questions that Vita Global offers for further reflection by specialists in higher education policy, including, of course, national governments and the European Commission:

• Should it not be emphasized that much of the learning that students acquired falls outside formal teaching and learning (or learning and teaching) processes, and that, even within this framework, it depends not so much on what they are taught but on how much they study?

• Has the shortening of periods for the acquisition of undergraduate degrees brought about in many countries by the Bologna Process introduced even more rigidities (and barriers to flexibility and international cooperation) than those existing previously?

• Does the often-discussed contradiction between the requirements of academic excellence and adaptability to labor market stem from an outdated and corporatist conception of academic excellence (reduced to the mastery of specific knowledge embodied in lectures and textbooks) and a narrow view of labor market requirements that fail to value transferable and transversal competencies (innovation, adaptability, curiosity, etc.)?

It is hoped that the Vita Global project experience will carry this conversation forward and inspire tangible changes in the mindsets of students, teachers, and academic leadership as wells as on the procedures and regulations implemented by governments and international organizations with an important stake in higher education policy.

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