Abstract: This article describes the development of Europe-wide higher education and research. The European Higher Education Area (EHEA) is an educational initiative of the European Commission designed to increase staff and student mobility and improve the employability of graduates. In addition, the ERASMUS programme has enabled millions of students to study abroad. In the field of research, the European Union is pursuing the vision of a unified European Research Area (ERA), open to the whole world and allowing the free transfer of researchers, scientific knowledge, and technologies. To link ERA and EHEA, European University Networks have been established to develop “European Joint Degrees” to educate highly qualified future graduates with European values. The European University on Responsible Consumption And PROduction (EURECA-PRO) has the ambitious goal of not only strengthening the EHEA and ERA but also of mapping the circularity of materials and material flows, including their environmental impacts, in teaching and research.

Keywords: European Higher Education, European Universities, European University, EURECA-PRO, Montanuniversität Leoben, Technische Universität Bergakademie Freiberg, Technical University of Crete, University of León, Silesian University of Technology, University of Petroșani, Mittweida University of Applied Sciences, Hasselt University

Zusammenfassung: Dieser Artikel beschreibt die Entwicklung europaweiter Hochschulbildung und Forschung. Der Europäische Hochschulraum (EHR) ist eine Bildungsinitiative der Europäischen Kommission, die die Mobilität des Personals und der Studierenden erhöht und die Beschäftigungsfähigkeit der Absolventen verbessert soll. Zusätzlich ermöglicht das ERASMUS-Programm Millionen von Studierenden ein Studium im Ausland. Im Bereich der Forschung verfolgt die Europäische Union die Vision eines einheitlichen Europäischen Forschungsraums (EFR), der der ganzen Welt offensteht und den freien Transfer von Forschern, wissenschaftlichen Erkenntnissen und Technologien ermöglicht. Um EFR und EHR miteinander zu koppeln wurden European University Netzwerke eingerichtet, die „European Joint Degrees“ entwickeln, um hochqualifizierte zukünftige Absolventen mit europäischen Werten auszubilden. Die European University on Responsible Consumption And PROduction (EURECA-PRO) verfolgt das ehrgeizige Ziel, nicht nur den EFR und EHR zu stärken, sondern auch die Zirkularität von Materialien und Materialflüssen, einschließlich deren Umweltauswirkungen, in Lehre und Forschung abzubilden.

Schrödinger’s cat: Die (R)Evolution der europäischen Bildungspolitik: Europäische Hochschulallianzen

1. Introduction

The creation of the European Union was aimed at putting an end to the numerous bloody wars between neighbouring countries that resulted in World War II. Since 1950, the European Coal and Steel Community has been the beginning of the economic and political unification of European countries to ensure lasting peace. The European Union is thus, if you will, the biggest peace project in history. Unfor-
Fortunately, we have not taken all European countries onboard yet.

Especially in times like these, we need to be reminded how important it is to strive for peace throughout Europe. The cruel conflict in the neighbouring country of this very one we are gathering in today reminds us that the freedom work is never done. Democracy is not for granted once installed. It is a constant work in progress so that it does not slip through our fingers. It may seem like a stable and steady state. It seems like it is a logical system to live in and it seems unthinkable for us that anyone would want to undermine it because the thought seems so unreasonable and illogical. We have learned, however, that democracy is a fragile thing and that, now more than ever, we have to come together to safeguard it.

Uniting Europe in peace is no small task to take on. We have a landscape of fragmented histories and derived beliefs, fragmented languages and cultures, different governments, and ideas of the future. We differ in our innovation capacities and education systems, our infrastructure and our GDPs (Gross domestic products), and the organization of our social systems. If this was a company we had to take over with the task of harmonizing the 27 departments, we would certainly hesitate at first and wonder if it could be done. In the end, we would definitely take on the challenge because we deeply believe that it can be done. The secret is that our differences make us stronger. Our diversity enriches our collaboration. We have to be aware of this and learn how to utilize this correctly. Our different perspectives, ideas, and capabilities will yield much greater and more creative results as if we had done this all by ourselves in our own little silos.

2. Joint European Higher Education and Research

An important contribution to the political unification of European countries to ensure lasting peace is certainly the idea of a joint European wide higher education and research approach. These comprise the European Higher Education Area and the European Research Area. They generate what we need for a stable society: Capable Europeans that are culturally connected.

The European Higher Education Area (EHEA) is a unique international collaboration on higher education. The main goal of this initiative is to increase staff and students’ mobility and to facilitate employability of graduates. It is the result of the political will of 49 countries with different political, cultural, and academic traditions [1]. It is based on structural reforms and joint commitments as well as a common set of key-values, such as freedom of expression, autonomy for institutions, independent student unions, academic freedom, and free movement of students and staff. Through this process, all stakeholders of the area continuously adapt their higher education systems making them more compatible and strengthening their quality assurance mechanisms.

The Lisbon Treaty defines the European Research Area (ERA) as a unified research area open to the world and based on the Internal Market. The ERA enables free circulation of researchers, scientific knowledge and technology [2].

Also, in the ERA over the last two decades, a wide range of related policy reforms and initiatives have been successfully implemented, contributing towards its overarching objective. The EU needs a strong EHEA and ERA to compete in every aspect on an ever stronger and competitive world stage and continuous development is key. The objectives of these initiatives were to improve the coordination of research activities on European level, to develop human resources, and to increase the attractiveness of European research to the best researchers from all over the world. Why? To strengthen our scientific and technological bases, our competitiveness and our capacity to address grand challenges collectively. Both the EHEA and the ERA have undergone significant development over the last twenty to thirty years.

With the introduction of the ERASMUS programme (European Community Action Scheme for the Mobility of University Students) [3] in 1986, in which more than 4 million students have been supported to study abroad so far, as well as with the Bologna Process, a new era of European Education was entered. At first it was even deemed absurd and undoable to send around students within their studies, but now it has become a standard that has changed the way we think and approach education.

Already in November 2018, research ministers confirmed the need to improve ties between ERA and EHEA, one major aspect of this being the European University Networks. With the foundation of the European Universities Initiative, we are thus now taking another huge leap forward in further developing the areas.

3. European University Networks

On September 26th 2017 in his “Speech on new initiatives for Europe” at the Sorbonne in Paris, Emmanuel Macron revived the idea of the European university. The part of the speech that explicitly refers to the idea of European Universities is cited as follows:

*The strongest cement that binds the European Union together will always be culture and knowledge. This Europe, where every European recognizes their destiny in the figures adorning a Greek temple or in Mona Lisa’s smile, where they can feel European emotions in the writings of Musil or Proust, this Europe of cafés that Steiner described, this Europe that Suares called “a law, a spirit, a custom”, this Europe of landscapes and folklores, this Europe of Erasmus, the continent’s preceptor, who said every young person should “travel the continent to learn other languages” and “unlearn their natural boorish ways; this Europe, which has lived through so many wars and conflicts: what holds it together is its culture. Our fragmentation is only superficial. In fact, it is our greatest opportunity. Instead of deploiring our many languages, we should make them an asset. Europe must be a place where all students can speak at least two European...*
languages by 2024. Instead of lamenting the divisions between our countries, let’s step up exchanges. In 2024, half of students in a given age group should have spent at least six months in another European country by the time they are 25, whether they are university students or learning a trade. In this place where pioneers, like those in Bologna, Montpellier, Oxford or Salamanca, believed in the power of learning, critical thinking and culture, I want us to be worthy of this grand design.

I believe we should create European Universities—a network of universities across Europe with programs that have all their students study abroad and take classes in at least two languages. These European Universities will also be drivers of educational innovation and the quest for excellence. We should set for ourselves the goal of creating at least 20 of them by 2024. However, we must begin setting up the first of these universities as early as the next academic year, with real European semesters and real European diplomas.

We should begin creating these ties from high school. I want us to begin harmonizing and mutually recognizing secondary diplomas. As we have already done for university students through the Bologna Process, let’s launch a Sorbonne Process to create a programme accommodating exchanges, changes and transitions throughout the European secondary-school system.

Because as Mounier said, “that which is universal speaks to people in several languages, each of which reveals its own singularity.” These initiatives are not acts of resistance. They are acts of conquest for future generations. Because what remains at the end is that which unites people! It is this collegiate life together that you will experience in Paris, Milan, Berlin or Gdansk. This is what matters, what makes up this European cement, this unbreakable tie that holds Europe together, so that when governments lock horns, when policies change, there are women and men who can carry these shared histories on.

But most of all, I want you to understand that it is up to your generations to build this Europe in several languages. A multilingual Europe is a unique opportunity. Europe is not a homogeneous area into which we must all dissolve. European sophistication is an ability to see all the many parts without which Europe would not be Europe. But it is also what makes Europeans, when they travel, more than just French, just Greek, just German or just Dutch. They are European, because they have inside of them this universalism of Europe and its multilingualism.

Europe must be shaped by these languages and it will always be made of the untranslatable. We must work hard to keep this. Political and journalistic debate is fueled by untranslatable notions. Let me share with you something I’ve learned: tomorrow, some people will be seeking out the small divergences and the debates around this speech, and those without any ideas of their own will be focusing on the sticking points, saying “look, there...”. But I’ve noticed that, while there are indeed sticking points at times, they are often not about fundamental issues. They are about something untranslatable, something that stems from a difference in language, in culture. The word “debt” is a perfect example: it does not have the same meaning or implications in France as it does in Germany. We need to consider this when we speak to each other.

Our political debates are always more complicated in Europe than in the rest of the world. Because, in some ways, the European Sisyphus always has his untranslatable burden to roll up the hill. But this untranslatable burden is in fact an opportunity. It is the mysterious part inside each of us, and it is the part of us that trusts in the European project. It is the fact that at a given moment, despite not speaking the same language and having these unfamiliar and complex differences, we decide to move forward together instead of letting those things drive us apart. I champion this untranslatable quality, our complex differences, because I want to imagine Sisyphus happy.

In the end, it is the young people of Europe who must ensure the movement of ideas and people, who must want Europe. This is what has always united us, more than rigid rules or borders. This is why we must trust in Europe, in what all of us have learned over the centuries, to find the path of this unity. [4]

Originally it was planned to have twenty such European universities until 2024. After the 2022 Erasmus+ call for proposals, we now have 44 European Universities involving around 340 higher education institutions in both capital cities and remote regions of 31 countries, including all EU Member States, Iceland, Norway, Serbia, and Turkey. Thus around 340 higher education institutions actually [5] work towards the vision of Higher European studies on BSc, MSc, and PhD levels. Composed of several higher education institutions in different EU member states, European universities develop joint-degree and executive-education programs as well as ambitious research and innovation projects.

An integrated and coordinated curriculum across several countries taught in different languages enables and encourages students to move between participating universities instead of staying at one institution. But the purpose of European universities is not just “European Joint Degrees”—it is much more: educating future Europeans, dedicated to European values, with the ability to work across national borders and cultures within and beyond the European Union. European Universities contribute to creating a European identity. Currently diplomas are only national. So far, European university graduates could obtain a French, German, or Italian diploma but they were not able to receive a European one. Not being able to deliver a European diploma was hindering the development of a European identity and a sense of Europeanness among its citizens, an identified aim of the European Commission: “Education and culture are the key to the future” (Jean-Claude Juncker).

4. The European University Alliance EURECA-PRO

The foundation of the European Education Alliances are not solely projects to be worked on and put into a drawer
upon completion. They aim at a much higher goal, namely a changed future—on the one hand, through structural reform to contribute to the EHEA and ERA, and on the other hand, especially in the case of EURECA-PRO, also through the development of a crucial societal topic, namely Responsible Consumption and Production.

Innovation is the key to reaching the targeted CO₂ reduction and associated sustainability practices of the EU Green Deal until 2050 [6]. Its realization is based on new technologies and processes that integrate primary and secondary resource material flows and efficient resource use in the sense of a Circular Economy as well as substitution of non SDG12, Planetary Boundaries, or Climate Neutrality compliant resources. Furthermore, responsible consumption behaviours that are aligned with societal expectations concerning the fight against climate change, biodiversity loss, or atmospheric and land system changes are required.

To meet these challenges by delivering comprehensive solutions and by educating young people with a broad targeted mind-set, University of Leoben (Austria), Technical University Freiberg (Germany), University of Petrosani (Romania), University of Leon (Spain), Technical University of Crete (Greece), Silesian University of Technology (Poland), Mittweida University of Applied Sciences (Germany) and Hasselt University (Belgium) have joined forces to create a strong and unique European University in the field of Responsible Consumption and Production: EURECA-PRO.

Responsible Consumption and Production (RCP) is one of the major factors influencing our global society and many of the biggest challenges of our time are linked to it. Without RCP patterns we are not able to sustain a healthy environment, society or economy. For this reason, EURECA-PRO has joined forces to become a true global actor and role model in the field of RCP.

EURECA-PRO therefore has a two-fold societal and planetary mission. Through its novel approach, on the one hand, it holistically contributes to the highly topical issue of Sustainable Consumption and Production under the umbrella of Sustainable Development Goal 12, and on the other hand, it effectively contributes to the transformation of the European Higher Education Area complimentary to Sustainable Development Goal 4.

EURECA-PRO actively works on charting and designing the way to create a solid foundation for achieving its two-fold long-term 2040 vision: To be the global educational core hub and interdisciplinary research and innovation leader in qualitative environmental and social framework development for sustainable consumption and production of goods. This will comprise technological, ecological, economic, societal and policy aspects and their transfer into society and industry. Staff and future graduates will have sustainable, interdisciplinary, intercultural, and systemic thinking engrained in their natural way of operation, fostering a prosperous societal development and a healthy economy while, at the same time, relieving environmental pressures. To effectively change the European Higher Education System to a more inclusive, borderless system which not only enables an envisioned academic freedom, free mobility, civic engagement, equal participation, and transparent joint governance but allows for the development of shared fundamental philosophies, common values, and solution-oriented approaches regarding social cohesion, responsible citizenship, and humanhood as well as responsible systems design.

By 2023 all participating universities will have established a Virtual European Faculty for the purpose of education, research, and collaboration. In the long term, these faculties will be the legal basis for the “EURECA-PRO Virtual University Campuses” The “Virtual European Faculty” is responsible for the proper organization of the Study Programs at three levels: Bachelor’s, Master’s, and PhD. It mandates and monitors quality standards for all courses in order to comply with internationally acknowledged quality standards for mutual international recognition of study certificates and for securing employability of graduates, especially at Bachelor’s and Master’s levels. By 2023 EURECA-PRO runs a joint European Sustainable Consumption and Production degree programme, that encompasses all 3 cycles and finishes with a Degree in European Studies on all three levels (BEST, MEST, and PhD-EST).

The programmes will be very flexible in terms of organisation and content. Students participate in courses face-to-face but also virtually, full- and part-time, and cross-disciplinary. In terms of content, they can design their own tracks and majors. This provides them with the opportunity to work on very system specific challenges. It further brings them to numerous of the partners’ institutions, as the courses they take will be spread all over. When compiling the courses, it is a prerequisite to take courses that are spread over at least three to four different organisations to ascertain mobility and in-depth cultural understanding. All this leads to a wide variety of graduates across many different disciplines.

Each one of them will have a wide understanding about the system complexities and general understanding of the inter-disciplines associated with their own but each student also has a very deep specialisation of their own subject matter. Additionally, through the integration of transversal skills into the education structures a cohesive understanding of social responsibility is given. EURECA-PRO utilises Innovative Pedagogic Methodologies and Educational Tools in the classroom.

Lighthouse Research Missions regarding sustainable consumption and production [7] are established in all relevant disciplines, and cross-institutional research groups already yield promising research results that flow into the practical education of the EST programme. Each participating university focuses on their expertise areas to achieve complementarity and an enhanced level of interdisciplinary research results. Society and industry are actively involved in the knowledge creation process through designated events and discussion fora as well as online discourse. This enables the research groups to apply real-life challenges in the definition of their LH lighthouse missions as well as in the definition of the challenges for the problem-based learning classes that are deducted from research results. Global Knowledge Alliances are formed to strengthen the LH missions. Open Science Awareness Event are frequently held to create a civic society and industry community.
An Innovation Academy and Technology and Innovation Transfer Centre is established. The Innovation Academy connects existing and developing Innovation and Entrepreneurship Centres of the partners and draws on their complementarity. The Technology and Innovation Transfer Centre connects existing and developing Technology and Innovation Transfer Offices in order to provide transfer know-how, ideas, technologies, innovations, and patents from the university to economic contexts. Innovation & Entrepreneurship training courses for students and staff are running successfully, and first cohorts have started participating in the Innovation Pipeline.

Third Mission and Science Communication is adequately prepared and carried out. It contributes to economy’s and society’s ability to access and apply the fruits of EURECA-PRO’s science and technology activities in a responsible manner. Knowledge transfer is effectively implemented, and best practice examples of industries that have managed to overcome the system barriers and complexities and put into practice responsible consumption and production challenges are shared. Training in sustainability communication for EUREACA-PRO participants is offered. Social Entrepreneurship projects are publicly implemented.

5. Conclusions

EURECA-PRO will strengthen the excellence and completeness of the EHEA and ERA by addressing the highly cultural, societal, and economic challenge of Responsible Consumption and Production, specifically in the field of materials and their flows as they form the basis of the way we develop and define our societies. Its developments include the complex matter of material flows, cycles, and application which has to be looked at in an interdisciplinary and systemic way [8].

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