Targeted consultation of Knowledge Alliances

Analysis of the survey responses

1 Introduction

This report summarises the findings from the survey as part of the targeted consultation of Knowledge Alliances to contribute to the co-creation of a European Strategy supporting the transformation of higher education institutions (HEIs). This is part of the consultations the European Commission is currently undertaking with the Members States, different stakeholders and umbrella organisations. It takes into account findings of a large-scale document review, which captured the needs, challenges and future vision of higher education institutions (HEIs), based on publicly available documents and position papers.

The main objective of this survey was to tap into the expertise of the Knowledge Alliances funded under Erasmus+ (2014-2020) and their experience in developing new, innovative, and multidisciplinary approaches to teaching and learning, stimulating entrepreneurial skills and competences of higher education and company staff.

The Knowledge Alliances, in the future called Alliances for Innovation under the Erasmus+ programme 2021/27, are cross-cutting projects that have been developed in a number of fields: entrepreneurship and digital education, green and circular economy, social innovation, health and medical sectors, agriculture, food, arts, design and many more.

The online survey consisted of **19 questions** in total and was open for a four-week period between 29th April and 26th May 2021. The total number of replies obtained is **245** including representatives of HEIs (54% of the respondents), enterprises participating in the Knowledge Alliance (30%) and other participants (15%).

2 Participants

The replies demonstrate that a good balance exists across the different types of organisations participating in Knowledge Alliances, making it representative for the target group. 134 of the respondents, corresponding to the 54% of the answers received, participated in the survey as representatives of an HEI participating in the Knowledge Alliance. Another 75 respondents, 30%, participated as an enterprise (e.g. business) representative participating in the Knowledge Alliance, and, finally, 38, corresponding to 15% of the respondents are included in the category Other (NGO; Youth Association; Research Institute; Think tank; etc.)

Figure 1 shows the extent to which the respondent organisation also participates in other related initiatives (European University Alliances; Centres of VET Excellence; Knowledge and Innovation Community of the European Institute of Innovation and Technology; use of HEInnovate to support its institutional development).
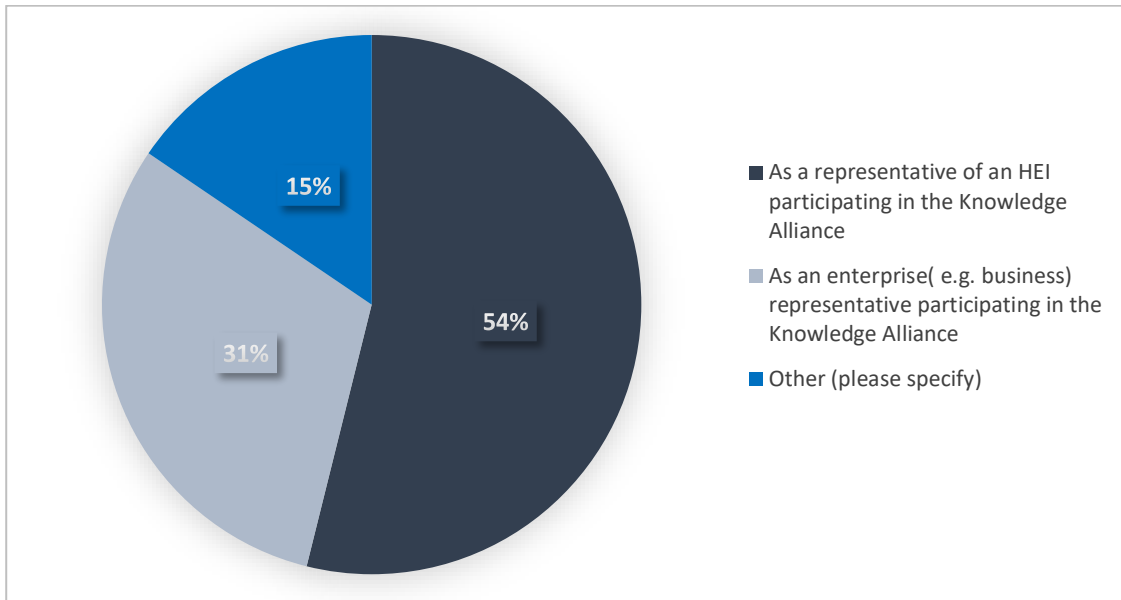

Figure 1: Q5 Profile of respondents

Considering the responses given by HEIs, a large number (40%) is not taking part in any of the above-mentioned initiatives. On the other hand, 43% of the responding organisations were participating in a European University Alliance, 8% in a Knowledge and Innovation Community of the European Institute of Innovation and Technology, another 3% were using HEInnovate to support their institutional development and 3% of the organisations were taking part in a Centre of VET Excellence.
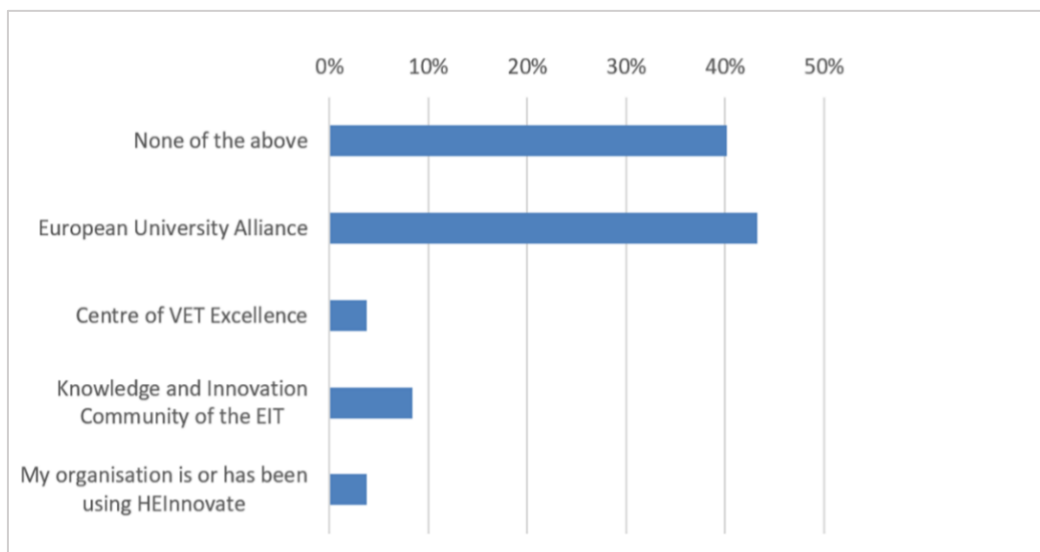

Figure 2: Q6 Participation of HEI respondents in related initiatives

Concerning businesses and other organisations participating in the survey, 77% are not taking part in any of the above-mentioned initiatives. On the other hand, 9% of the responding organisations were participating in a European University Alliance, 6% in a Knowledge and Innovation Community of the European Institute of Innovation and Technology, another 4% were using HEInnovate to support their institutional development and 5% of the organisations were taking part in a Centre of VET Excellence.

3 Results achieved by the Knowledge Alliances

3.1 Impacts beyond the consortium of partners

One of the main objectives of the Knowledge Alliances is to create knowledge and results that can be used beyond the consortium partners and create broader impacts. The transformation of universities promoted by the project requires a much deeper level of cooperation between universities and a transdisciplinary co-creation of knowledge with citizens and other actors in the quadruple helix, linking education, research, innovation and service to society.

Question 7 investigated this issue and allowed respondents to describe how results have been or will be taken-up beyond the partner organisations.

The open question determined the emergence of a range of categories, which can be combined in the following points:

1. **Deep interaction** and **integration** among HEIs, business and the other actors involved
   Many respondents put in evidence the role of Knowledge Alliances in bringing the enterprises together with leading HEIs and each other. The process of collectively delivering activities with common goals (i.e. boosting innovation and enhancing education) will build strong relationships, develop understanding and identify opportunities.

2. Internationalisation
   Some of the projects included a combination of experts from different disciplines in order to enrich the overall approach from different angles.

3. Sharing of **good practices** and **spin-off benefits** (micro-credentials)
   From a group of answers, it emerged how some of the alliances were set up in such a way that they will continue to be active and grow, especially after the end of the project. Moreover, many KAs produced follow-up initiatives within but also beyond the consortium. Some respondents also considered the important role of Train-the-Trainer seminars and Dual Bachelor Courses in their work.

4. **Digitalisation** and development of **digital practices**
   Some projects developed and used digital collaborative and learning tools (HUB, Online World Café) and participated in initiatives such as SL Hackathon.

5. Promotion of **new forms** of **teaching** and l**earning**

Some respondents highlighted that their project resulted in the production of new and innovative modules and course components embedding entrepreneurship in curricula, as well as technological trends.

6. Meeting the demands of the **labour market**
Many projects led to an improvement in the level of employability of students (graduates and PhD) and the acquisition of a range of skills requested by the labour market.

3.2 Barriers beyond the partner organisations in the take up of results

Knowledge Alliances aim to strengthen the link between teaching, research, innovation and knowledge transfer through cooperation between all types of HEIs from all types of regions, with all types of organisations and across all areas of activity or diversity of disciplines or profiles.

Question 8 addressed the most important barriers that organizations taking part in the survey faced in the take-up of results beyond the consortium of partners. 153 participants replied to the open question, and interesting ideas for improvement emerged from their comments.

Among the main challenges encountered by the organizations, the following points can be listed:

1. **Funding** and economic incentives
Lack of structural funding that could allow HEIs or training institutions to expand their training offer (e.g. investments in personnel). Furthermore, to create a larger impact, projects that have been successful should get opportunities to continue their research and development with funded follow-up projects.

2. The Covid-19 **pandemic**
Some of the responding organisations highlighted the effects of reduced face-to-face communication, determined by the pandemic, on the implementation of the projects. Implementation requires trust between the individuals and organizations and this trust can only be established through formal and informal personal contact. The Covid-19 pandemic has prevented the strengthening of relations between the various partners and a greater involvement of the corporate partners.

3. A **multidisciplinary** and **international partnership**
A potential challenge is to balance the insights, opinions and ways of communicating with the different members of the consortium.
Moreover, the absence of a common space in Europe, with regard to the education system, is a limit for being able to carry out this type of project for which it is necessary to find solutions respecting the academic regulations specific to each country. The possibility to build up a common framework concerning the education system would help to simplify procedures and to align the different countries.
Collaboration between companies, universities and research centres generally takes the form of transfers of knowledge, creation of new useful products, new jobs, and business models. However, efficient knowledge transfer in European research institutions is hindered by various factors, including cultural differences between the business and science communities, lack of incentives, legal barriers, and fragmented markets for knowledge and technology.

1. Lack of **involvement of national governments**
   A limited involvement of national governments in EU strategic initiatives such as the Knowledge Alliances was seen as a challenge by some of the respondents. Some of these key learnings could be adopted and subsequently supported on a national level.

2. **Dissemination** of the results
   Many organisations found difficulties in promoting strategies to disseminate and implement the results in an adequate way. Efforts have been made to design and make training platforms operable, prepare materials and to collect data, but what is necessary is to spread the word and attract the interest of companies, workers and other institutions. A challenge for the organisations was thus maintaining post-project momentum and mainstreaming the results within university structures.
   A focus was also placed on the health crisis and COVID pandemic as a barrier to physical dissemination.

3. Promoting **new forms** of **teaching** and **learning**
   Some of the organisations encountered low flexibility of HEIs to introduce changes in their curricula or teaching paths and methods, and integrate new training modules. Higher Education Institutions have stronger barriers to adopt innovative teaching and learning solutions because their structure and curricula are quite fixed.

3.3 Definition and measurement of success for the work of the Knowledge Alliances

In **question 9,** the representatives of the Knowledge Alliances were asked to define and measure the success of their work, also including, if applicable, defined indicators and targets. The replies to this open question were 153.

A small number of participants (2) stated that their project was still at the initial level, and it was thus not possible to concretely measure the results.

Among the results achieved by the KAs that responded to the survey it is possible to identify:

1. **Development** of new forms of **teaching a**nd **learning**
   Some of the respondents referred to the development of new, innovative and multidisciplinary approaches to teaching and learning by turning attention to the challenges of sustainability.

2. **Skills development**
   Achieving success for some Knowledge Alliances means being able to develop entrepreneurship competences, especially the missing ones, both in HEIs and in business. Through learning mobilities and learning activities, some Knowledge Alliances fostered the acquisition of new professional skills of students and researchers, as well as academic staff, in order to enhance employability and entrepreneurship.

3. **Mobility** and **exchange** of knowledge
   Some of the Knowledge Alliances promoted the exchange of staff members between industry and HEIs, in order to foster the flow of knowledge.

4. Sharing of **best practices** and **spin-off effects**

    The success of some of the Alliances will be particularly demonstrated by the concrete and long-lasting implementation of training courses, degree programs, train-the-trainer concepts, also after the end of the project and, above all, by new institutions, in order to meet the actual market needs.

    Another element for the success was the adoption and the re-use of the approach and the materials in other projects and contexts. KAs were also able to see the impact of their project by the number of universities which implemented the studies developed in it.

5. Share of the **engagement**

    The success of some KAs was measured on the number of target groups and stakeholders involved in workshops, the high level of participation of students in courses, masterclasses and other related projects promoted by the KAs, the audience in talks and paper presentations, the engagement of communities through the project newsletters, the high participation in the international competition for entrepreneurship and the scientific publications and project proposals.

6. Recognition as a **success story**

    Some KAs mentioned, among the indicators of success of their project, the recognition given by the European Commission as an example of a success story or good practice.

3.4 Collaboration among Knowledge Alliances

Question 10 evidences the level of collaboration established between the Knowledge Alliances and their interest in creating new partnerships.

44% of the respondents did not collaborate with other Knowledge Alliances but would be interested in joining forces in the future, while fewer than 1% did not collaborate and would not be interested in establishing partnerships with other KAs. Regarding the Knowledge Alliances which have collaborated with others, 25% of the respondents have already been collaborating with some KAs occasionally, while 18% have regular collaboration with some KAs. Only 12% do not know.

Figure 3 shows the level of collaboration and the interest showed by the respondents in collaborating with other Knowledge Alliances.
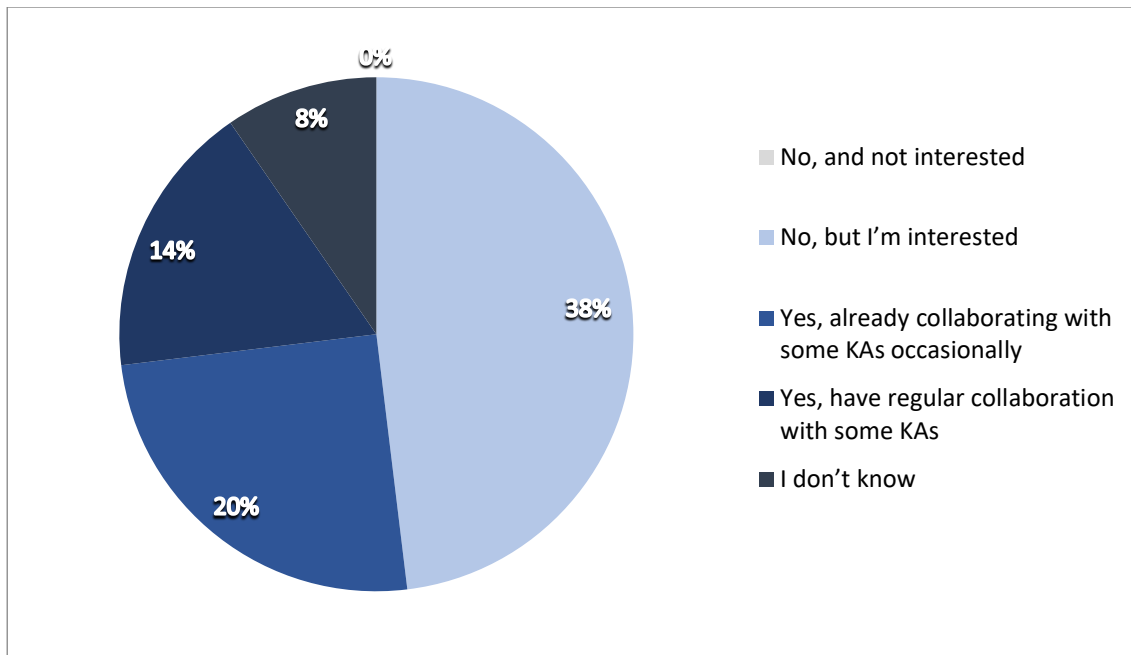
Figure 3: Q10 Level of collaboration among Knowledge Alliances

3.5 Contribution to priorities of the European Commission

The aim of question 11, 12 and 13 of the survey is to have a better understanding on the level of contribution to the political priorities of the European Commission (2019-24) provided by each Knowledge Alliance. For each Priority selected, the respondents should also indicate at least one Domain and at least one Policy Area.

From the responses obtained, the first EC Priority (2019-24) is 2 - A Europe fit for the digital age, with 57% of the share, followed by 3- An economy that works for people, with 40%, and 1 - A European Green Deal, with 39%. Figure 4 shows the share of the six EC Priorities.
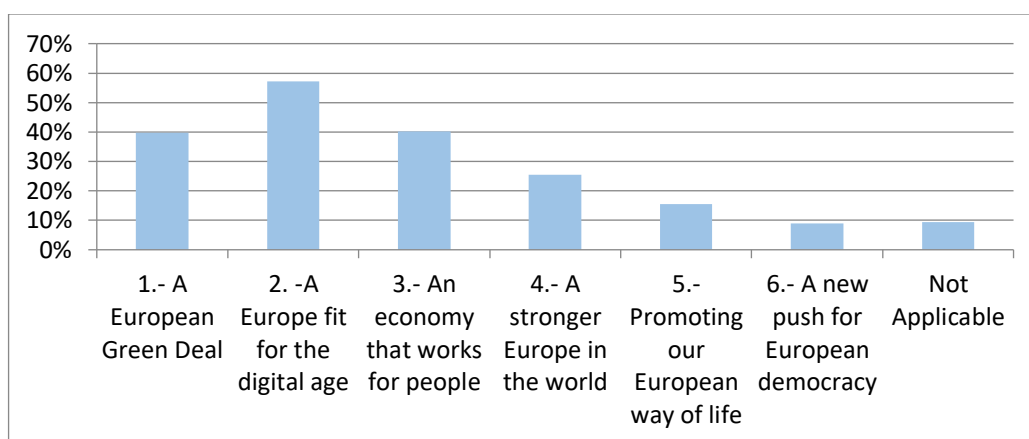

Figure 4: Q11 Level of contribution to EC Priorities

With regards to the Domains, question 12 shows that 68% of the respondents selected D.2.2. - Empowering people through education and skills, 51% D.2.1. - The digital age and 32% D.3.2.- Supporting small business. On the other hand, only 1% chose D.5.3.- Internal security.

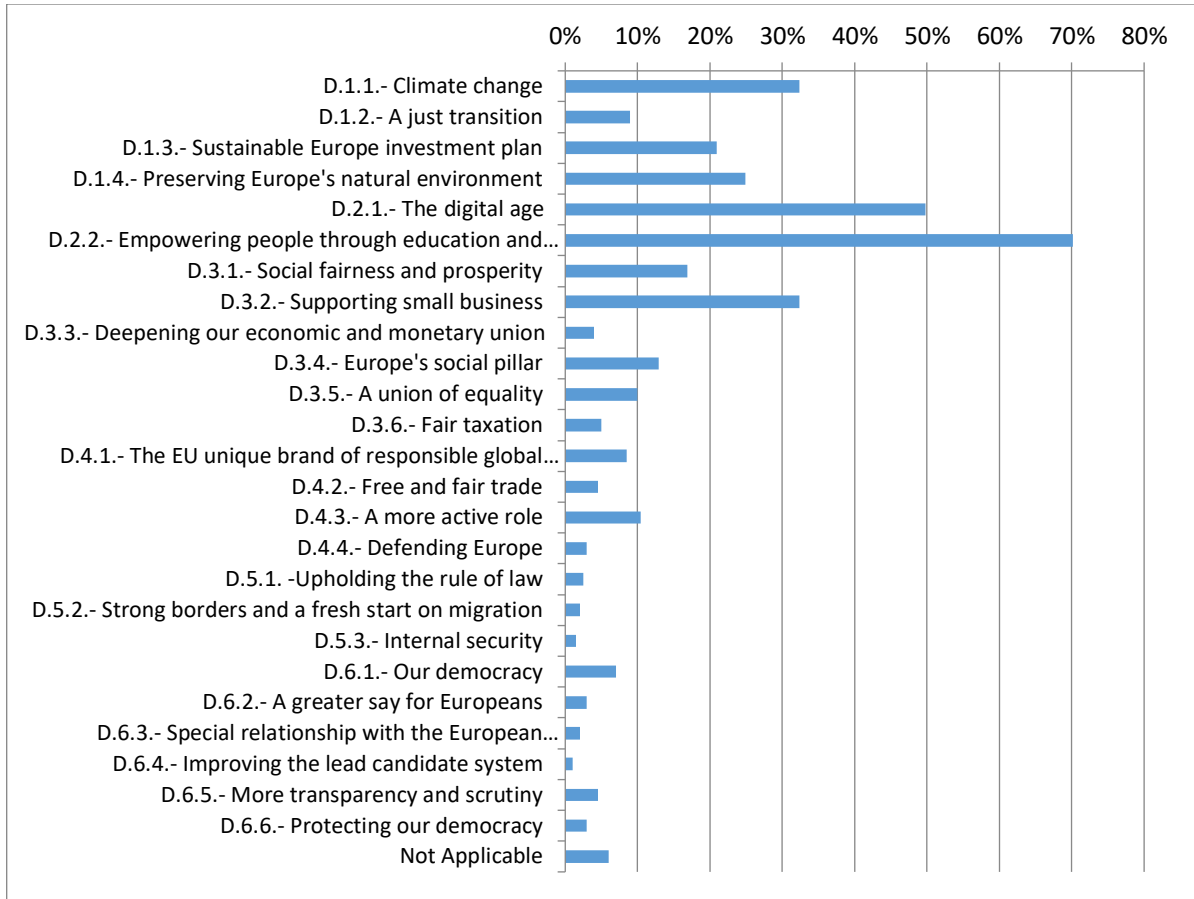Figure 5 shows the percentage of the different Domains.

Figure 5: Q12 Domains

Question 13 focused on the Policy areas. This section shows a high level of responses for P.3.5.- Jobs, growth and investment and P.3.6.- Youth employment, both with 30%.

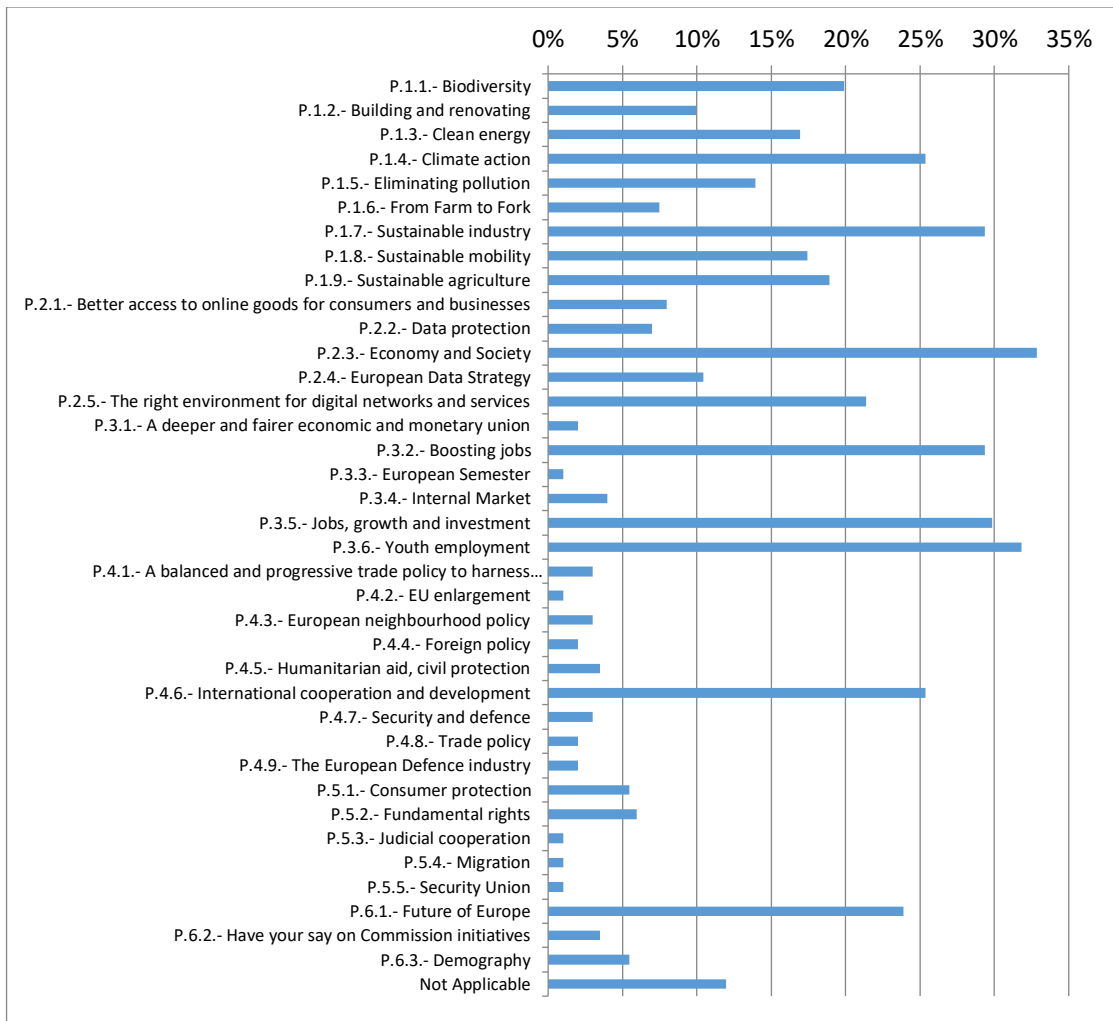Figure 6 shows the percentage of the different Policy areas.

Figure 6: Q13 Policy areas

From this section of questions (Q11-Q13), there emerges a clear interest of the respondent Knowledge Alliances, as well as of the other organisations participating in the survey, in digitalisation and digital development, sustainability and the commitment to Green Deal and the participation of young people in the labour market.

An interesting point to highlight is a slight difference between the responses given by HEIs and businesses taking part in the survey concerning EC Priorities. According to the results analysed, although both priorities 1 – A European Green Deal and 3 - An economy that works for people present a high number of responses, Higher Education Institutions tended to focus on Priority 1 while businesses focused on Priority 3. From the answers obtained, both the groups also put the focus on Priority 2 - A Europe fit for the digital age.

4. Challenges in the Higher Education sector

4.1 Importance of challenge area(s) for HEIs, businesses and other organisations

In **question 14** the respondents who participated in the survey as representatives of higher education institutions were asked to address a set of challenge areas based on their importance

for them against the background of their experience in the Knowledge Alliance, as well as on the difficulty of addressing them.

Responding business representatives were also invited to provide their external view on how important and difficult the challenges were for the Higher Education Institutions they were collaborating with.

Higher education institutions and businesses responding to the question were in total **164.**

Considering firstly the level of importance of the challenges encountered by the participants, namely the HEIs and businesses, they highlighted Sustainability as the most important challenge area, with 39%, followed by Meeting the demands of the changing labour market (LLL) and Promoting new forms of teaching and learning, both with 22%. Funding models and sustainable funding, with 15% of the share of responses, and Digitisation of Higher Education, with 12%, are among the highly important challenge areas according to the results.

On the other hand, Academic freedom, institutional autonomy, with 19% of the responses, Recognition of qualifications and Supporting student well-being, with 13%, are not considered important challenge areas by the HEIs. Finally, among the challenge areas which are considered not important any more it is possible to catalogue Academic freedom, institutional autonomy with 5% of the recorded responses.

Figure 6 gives a picture of how HEIs and businesses perceived the challenge areas in the list as the most important, highly important, important, not important, not important any more and N/A.
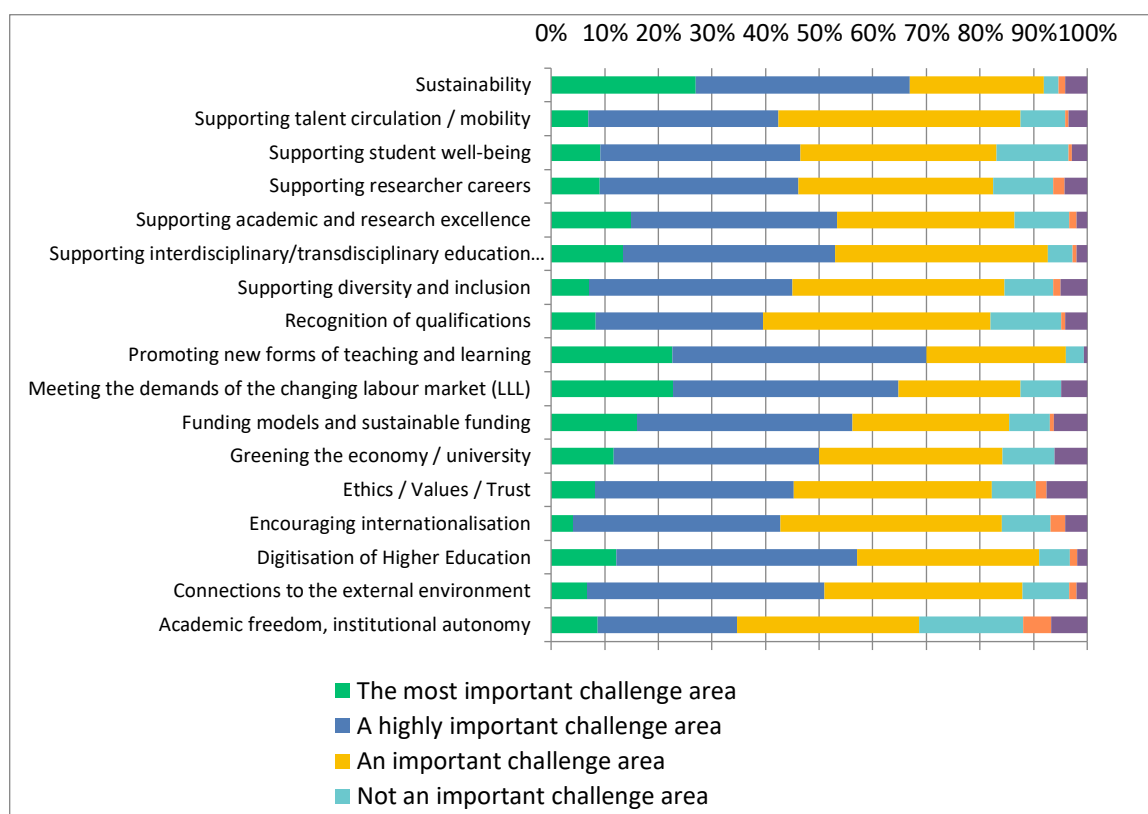

Figure 6: Q14 Level of importance of the challenge areas

From the results, a difference emerges in the way HEIs and businesses perceive the challenge area(s) presented in the survey as important.

As a matter of fact, HEIs focused their attention on Promoting new forms of teaching and learning, with 74%, and Supporting academic and research excellence, with 64%. While, the majority of non-HEIs have highlighted Digitalisation of Higher Education and Greening the economy/ university among the most or highly important challenges with 55% and 54% respectively.

On the other hand, Meeting the demands of the changing labour market (LLL) and Sustainability were indicated both by HEIs, businesses and other organizations as the most or highly important challenges.

Figure 7 and 8 give a full picture of the different results obtained between HEIs, business and other organisations taking part in the survey.
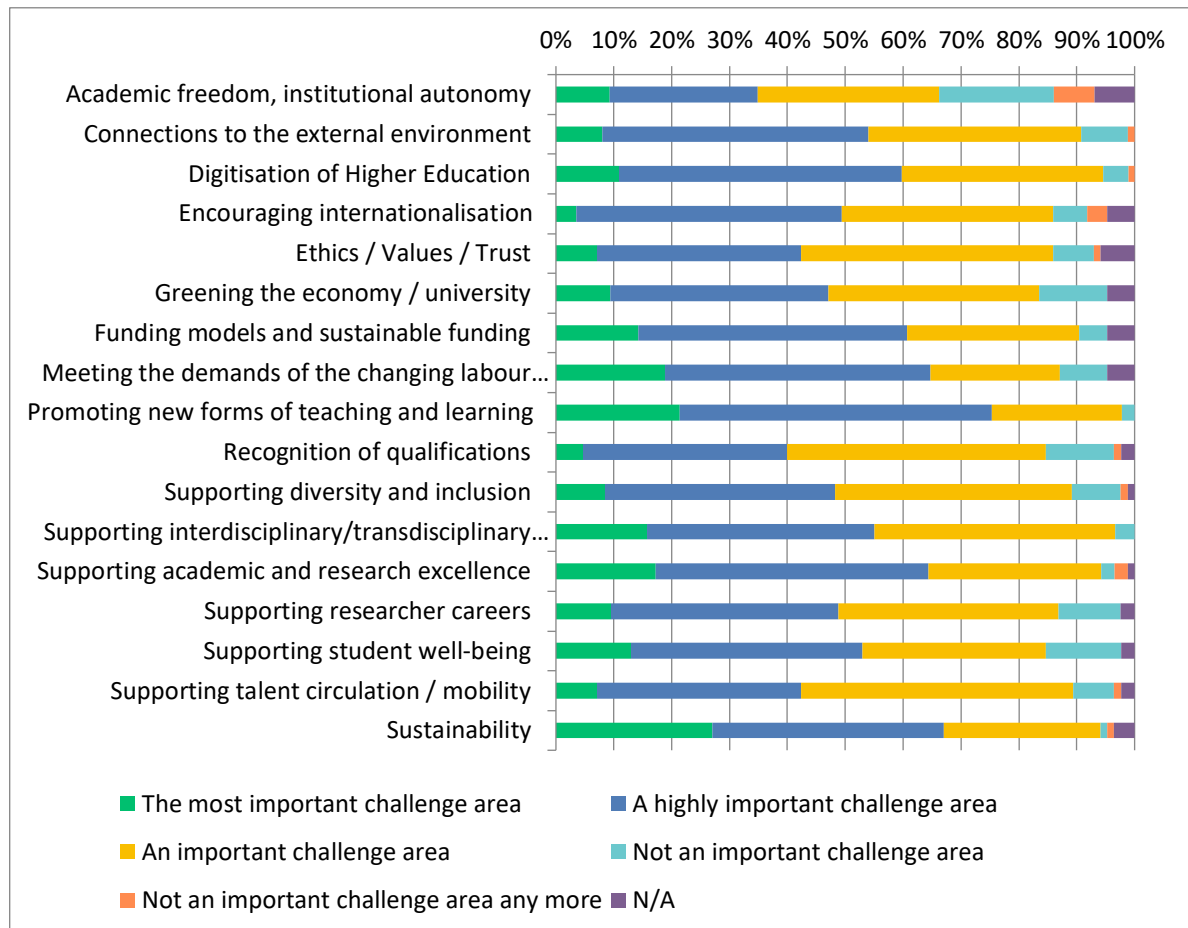

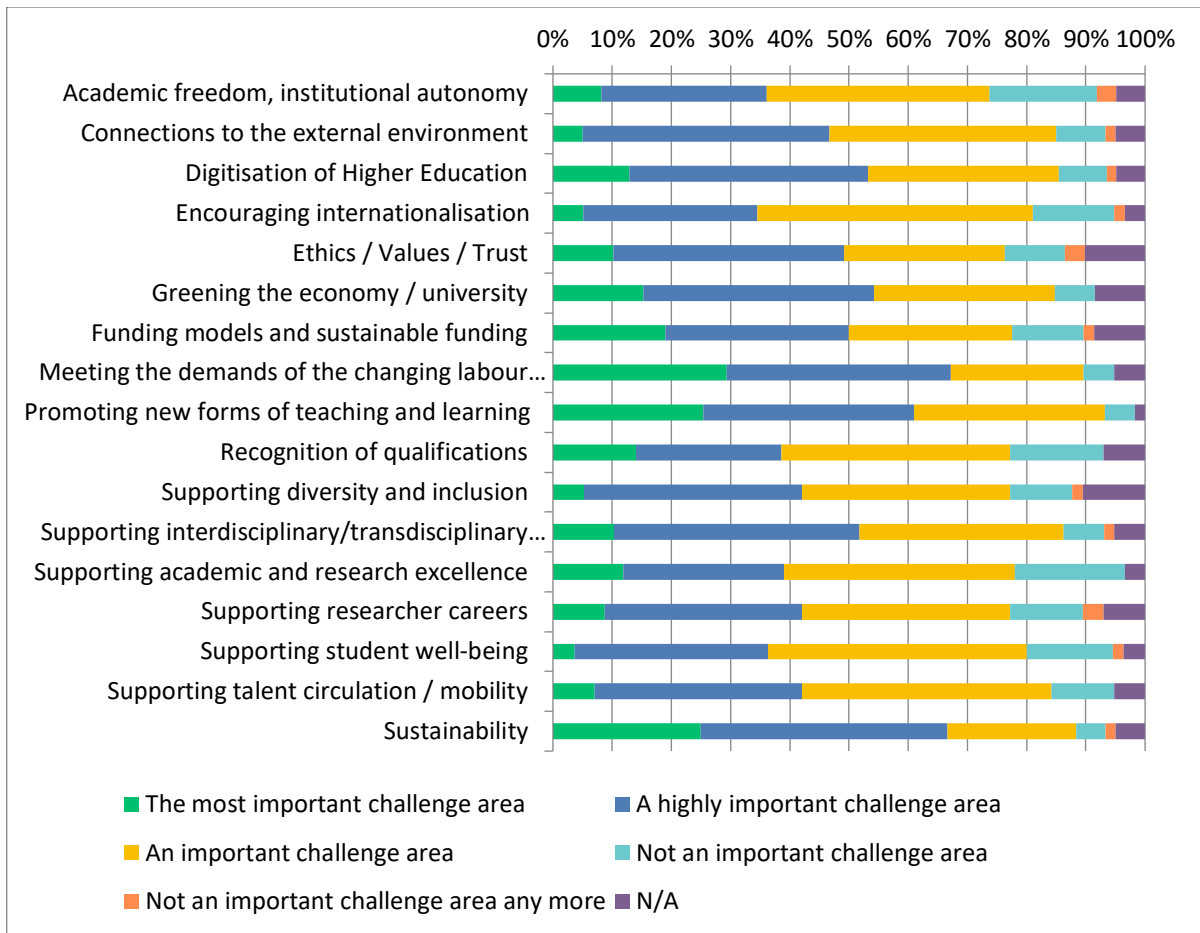*Figure 7: Q14 Level of importance of the challenge areas (HEIs)*

Figure 8: Q14 Level of importance of the challenge areas (non-HEIs)

4.2 Difficulty in addressing the challenge area(s) for HEIs, businesses and other organisations

With regard to the level of difficulty that the respondent HEIs and businesses collaborating with HEIs faced in addressing the different challenges embedded in the set, the most difficult to address was Funding models and sustainable funding, with 10%, followed by Sustainability with 7% of the answers and Supporting researcher careers with 6%. With 23%, Meeting the demands of the changing labour market (LLL) was pitched as a highly difficult challenge to address.

Differently, Encouraging internationalisation with 45% of the responses, Ethics / Values / Trust with 43% and Supporting talent circulation / mobility with 37% were among the challenges that HEIs and businesses collaborating with HEIs did not find difficult to address.

Figure 9 gives a picture of how HEIs and businesses perceived the challenge areas in the list as The most difficult to address, Highly difficult to address, Difficult to address, Not difficult to address or if it is Already (being) addressed.
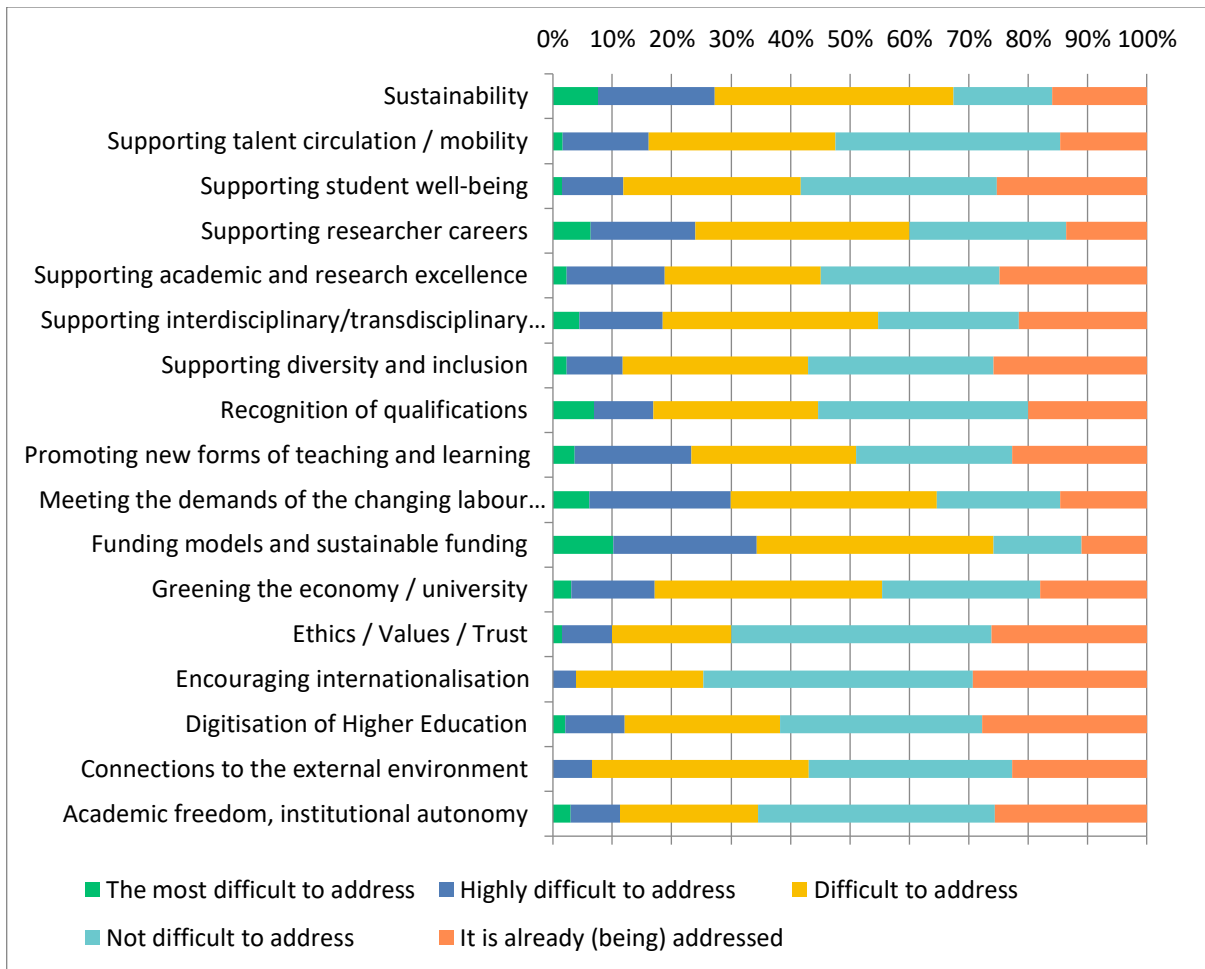
Figure 9: Q14 Level of difficulty to address to the challenge areas

From the data, both HEIs and businesses and other organisations found Meeting the demands of the changing labour market (LLL), Promoting new forms of teaching and learning, as well as Sustainability most or highly difficult to address. Furthermore, among the challenge areas, HEIs found Funding models and sustainable fundings most or highly difficult to address, while businesses and other organisations focused on Supporting interdisciplinary / transdisciplinary education and research and Greening the economy/ University.

Figure 10 and 11 give a full picture of the different results obtained between HEIs, business and other organisations taking part in the survey.
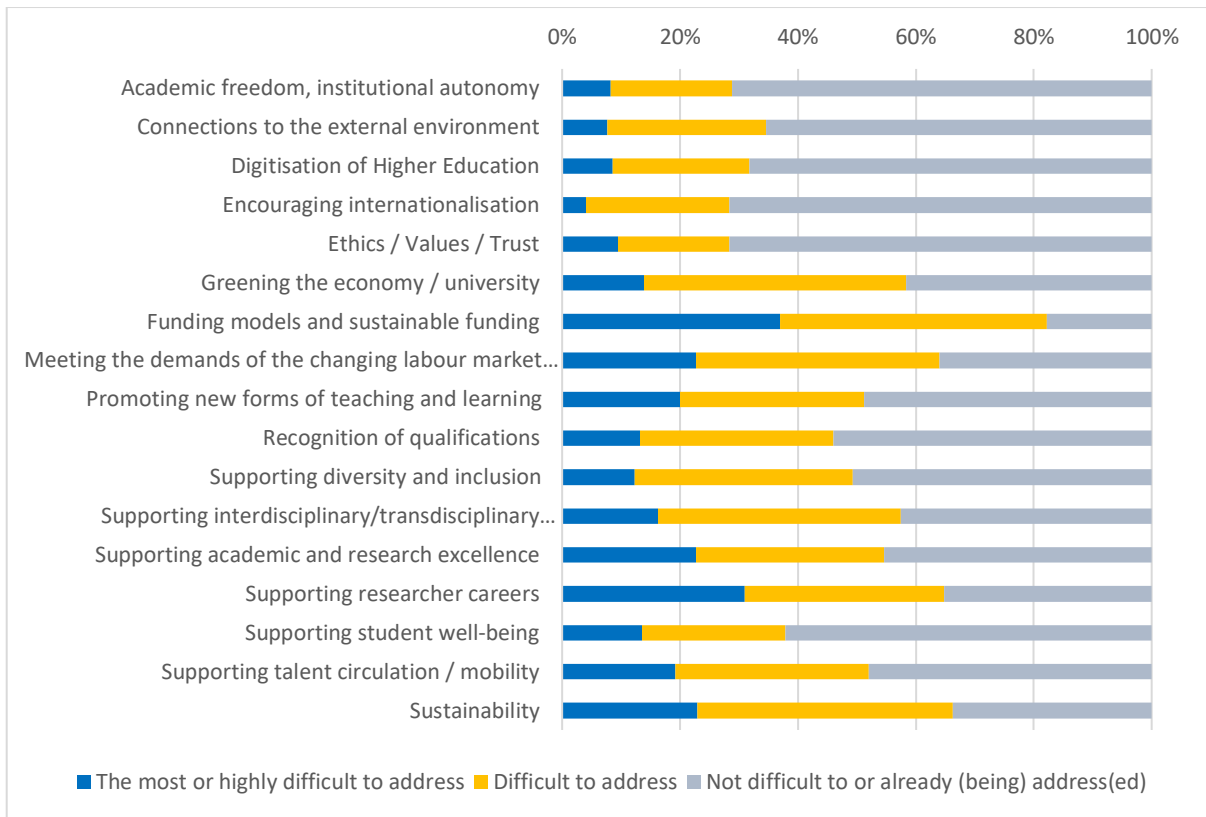
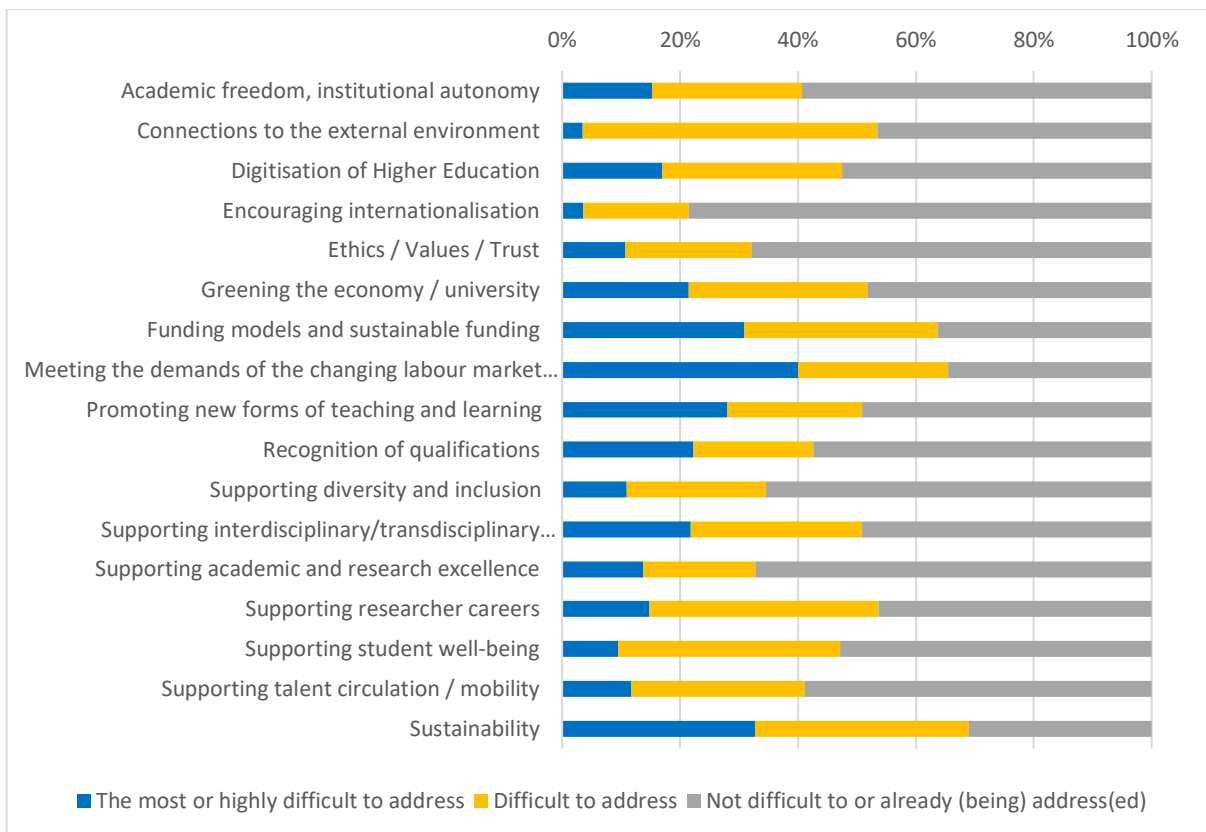*Figure 10: Q14 Level of difficulty to address the challenge areas (HEIs)*

Figure 11: Q14 Level of difficulty to address the challenge areas (non-HEIs)

In this section of the survey, HEIs and businesses collaborating with HEIs were also asked to reference, when necessary, challenges that they faced during the project but not included in the set.

In the results it emerged that they found as potential challenges the lack of proper infrastructure to support online and distance education, such as internet access and access to hardware and software and the level and nature of connection of HEIs with their surrounding ecosystem and society in addressing these challenges at an institutional, national and international (mostly EU) level.

Moreover, the respondents indicated as very important challenges and difficult to address, guaranteeing the staff and student well-being due to COVID-19 and, in addition, promoting an organisational change of the HEIs and their renewal.

In **question 15** the organisations taking part in the survey were asked to reflect on the challenge area(s) presented in question 14 that they found either the most difficult to address or which were the most important and explain why these challenge areas were, according to them, the most important / difficult to address. The respondents could select up to three selected challenge areas with an answer space of a maximum of 4,500 characters.

The aim of this question is to better understand selected challenge area(s) that is/are deemed to be the most difficult to address and/or most important from the organisations' point of view.

Moreover, the question was intended to highlight the type, level (institutional, national and EU) and nature of support required by the organisations, the barriers, key enabling and success factors, they found during the project and the role of collaboration of HEIs with their surrounding ecosystem and society in addressing these challenges.

The answers of the respondents focused on a set of points:

1. **Digitalisation** of Higher Education
   New challenges induced by the Covid-19 pandemic showed an insufficient infrastructure to support online and distance education at national, regional and institutional levels. National/regional/institutional regulatory frameworks were shown to be not sufficiently supportive of online and distance learning and assessment. Digitalisation of higher education requires clear concept models and guidelines, as well as institutional conditions, frameworks, support services and continuous development of staff competences.
   The respondents remarked how digitalisation can bring opportunities for the quality, efficiency and innovation of higher education.
   Some of the possible important success factors that should be taken into account are:
   - Sufficient and sustainable funding models comprising institutional, national and European grants
   - Active support from the HE leadership and engagement of the entire institutional community
   - Provision of adequate training
   - Support for policies enabling digitalisation strategies.

Moreover, communication and collaboration of HEIs with their surrounding ecosystem will maximise the value of university partner communities and will facilitate the digitalisation process.

2. Meeting the demands of the **changing labour market** (LLL)
A closer attention to the market demand should be given, ideally through consultation or co-creation of teaching paths responding to the needs formulated from a series of business processes. HEIs need to address skills and competences that are highly requested in the labour market, especially soft skills such as innovation management, creativity, problem solving, digital skills and entrepreneurial mind-set.
The most important achievements should be:
- Understand the competences required by the labour market
- Know the competences of the learners
- Build individual learning trajectories and student journeys, instead of mass education

3. The promotion of **new forms** of **teaching** and **learning**
Teaching and learning should follow competence-oriented learning approaches.
The recent pandemic has underlined even more the importance of online forms of teaching and learning. It is important thus to produce resources that guarantee the assimilation of the different concepts without tiring the user. To achieve this, interactivity is a central concern. The idea is to keep the learner as active as possible and provide him/her with a range of diverse resources (videos, sounds, applets, games, quizzes).
A big challenge that emerged from the survey's responses is the quality of teachers and the impact that this can have on students' learning, their academic success, and their capacity for innovation, critical thinking, and reflexive intervention. The training of teachers and their professional development is an area of fundamental strategic investment in order to achieve such objectives, which involves the following:
- Combat the conservatism of teachers - based on very rooted and not very flexible conceptions and practices
- Improve and increase collaborative and reflexive practices, processes of pedagogical supervision and evaluation of teachers
- Reward and incentivise strategies for merit

4. Supporting **interdisciplinary / transdisciplinary** education and research
The respondents of the survey put in evidence that a holistic perspective is necessary in order to address effectively all the current challenges our society is facing, such as inclusion, climate change, etc.

5. **Sustainability**
In order to achieve sustainability goals, some of the responding organisations created regional and national networks to involve research centres and companies interested in this theme.
Many universities have set up specific top-level management bodies to plan and implement sustainability actions. These interventions should take place at management, research and teaching levels.

Universities are also incorporating environmental sustainability actions (green campuses, saving energy and water consumption, reducing the ecological footprint and carbon emissions, promoting public transport and recycling, economic sustainability and social commitment (volunteering, attention to vulnerable groups, attention to functional diversity, healthier campuses, etc.).

However, some of the respondents believe that the EU projects' focus should be more centred on this crucial issue.

6. **Funding** models and **sustainable funding**

Financing research and research equipment, further consumables and other materials and actions related to research activities vary country to country, depending on their national strategies and priorities as well as the wealth and commitment of governing bodies assigning the funds.

Therefore, most HEIs additionally rely on European funds through participation in EU funding schemes, provincial financial support, if there is any, provided by provincial governments, small-scale entrepreneurial actions conducted with developed entrepreneurially oriented institutions and similar.

On the other hand, private HEIs' funding relies entirely on their abilities and skills to earn funds through scholarship fees, collaboration with enterprises, sponsors and donations, again participation in EU funding schemes, which boost them to be more proactive and market-oriented, so as to manage to become self-sustaining.

7. **Political** framework

At a national level the political circumstances are a serious barrier. Slow and rigid systems, and unwieldy bureaucracy can constitute a challenge for the organisations.

A change in political decision-making process would be an enabler.

Moreover, an institutional change of the HEIs is required to address the above-mentioned challenges, readiness to change and invest efforts in the process are highly necessary.

8. Connections to the **external environment**

HEIs can advocate within their institutions for more external collaborators while the civil society itself can do more outreach activities to get in touch with HEIs.

HEIs require support on all levels to engage in meaningful activities with external stakeholders (institutional, national and EU-wide). A focus on both the local and national level is important to provide a platform for boosting the exchanges with external parties, for instance entrepreneurship support tools.

Among the barriers that the respondents found in this challenge area it is possible to highlight the necessity of easing the administrative burden placed on entrepreneurs through their collaboration on EU-funded projects.

4.2 Innovation and entrepreneurship in higher education

In **question 16**, the organisations participating in the survey were asked to indicate how important they considered the following aspects in order to foster innovation in higher education and the provision of entrepreneurial skills and competences to students:

- Mainstreaming entrepreneurship into all higher education programmes at all levels (bachelor, master, PhD)
- Fostering innovative learning and teaching methods
- HEIs translating new knowledge into learning methods and programmes
- Supporting cooperation between higher education institutions and their surrounding communities
- Strengthened innovation capacity of HEIs (such as knowledge transfer services and innovation mentoring programmes)
- Supporting HEIs in the development of entrepreneurial and innovation strategies
- Deployment of detection schemes for potential innovations and innovators in HEIs
- Strengthening the research capacity of HEI through smart specialisation
- Mobility of staff between HEIs and enterprises
- Other, please specify

From the responses obtained, with 76%, Supporting cooperation between higher education institutions and their surrounding communities is considered a highly important aspect, followed by Fostering innovative learning and teaching methods, with 71%, and Mainstreaming entrepreneurship into all higher education programmes at all levels with 58%.

Deployment of detection schemes for potential innovations and innovators in HEIs was indicated as an important aspect with 43% of the responses.

On the other hand, 3% of the respondents considered Strengthening the research capacity of HEI through smart specialisation Not important.

Figure 12 shows the aspects that the organisations consider important or less important in order to foster innovation in higher education and provide entrepreneurial skills and competences to students.
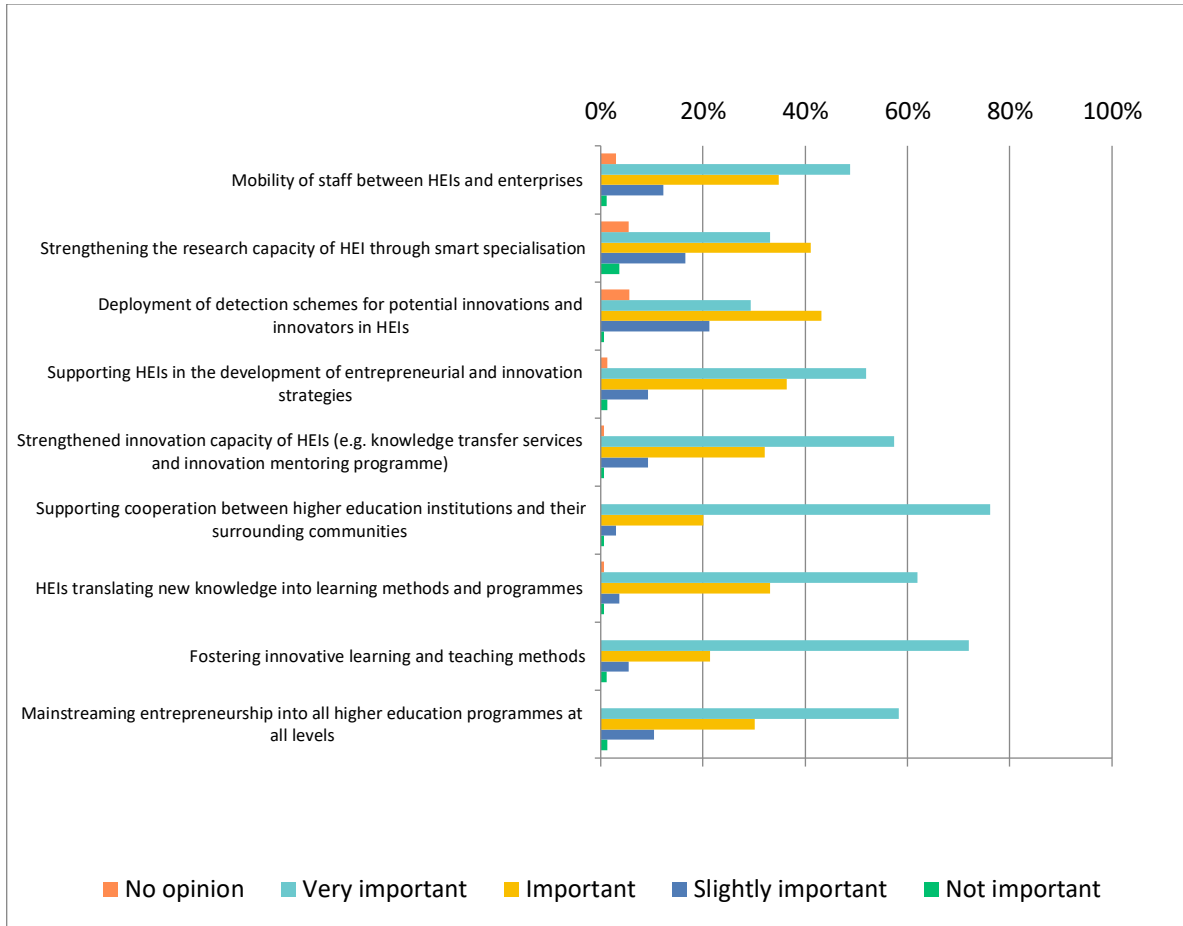
Figure 12: Q16 Organisations' perspective about factors of innovation in HEIs

From the responses obtained, HEIs consider Fostering innovative learning and teaching methods a high important aspect, with 78% of the results, followed by Supporting cooperation between higher education institutions and their surrounding communities, with 75%, and HEIs translating new knowledge into learning methods and programmes with 69%.

On the other hand, 1% of the respondent HEIs considered Strengthening the research capacity of HEI through smart specialisation Not important.

Similarly, business and other organisations selected Supporting cooperation between higher education institutions and their surrounding communities as a high important aspect with 77%, followed by Mainstreaming entrepreneurship into all higher education programmes at all levels (bachelor, master, PhD) with 67%.

7% of the respondents consider Strengthening the research capacity of HEI through smart specialisation Not important.

Figure 13 and 14 show the differences in the results obtained between HEIs, business and other organisations.
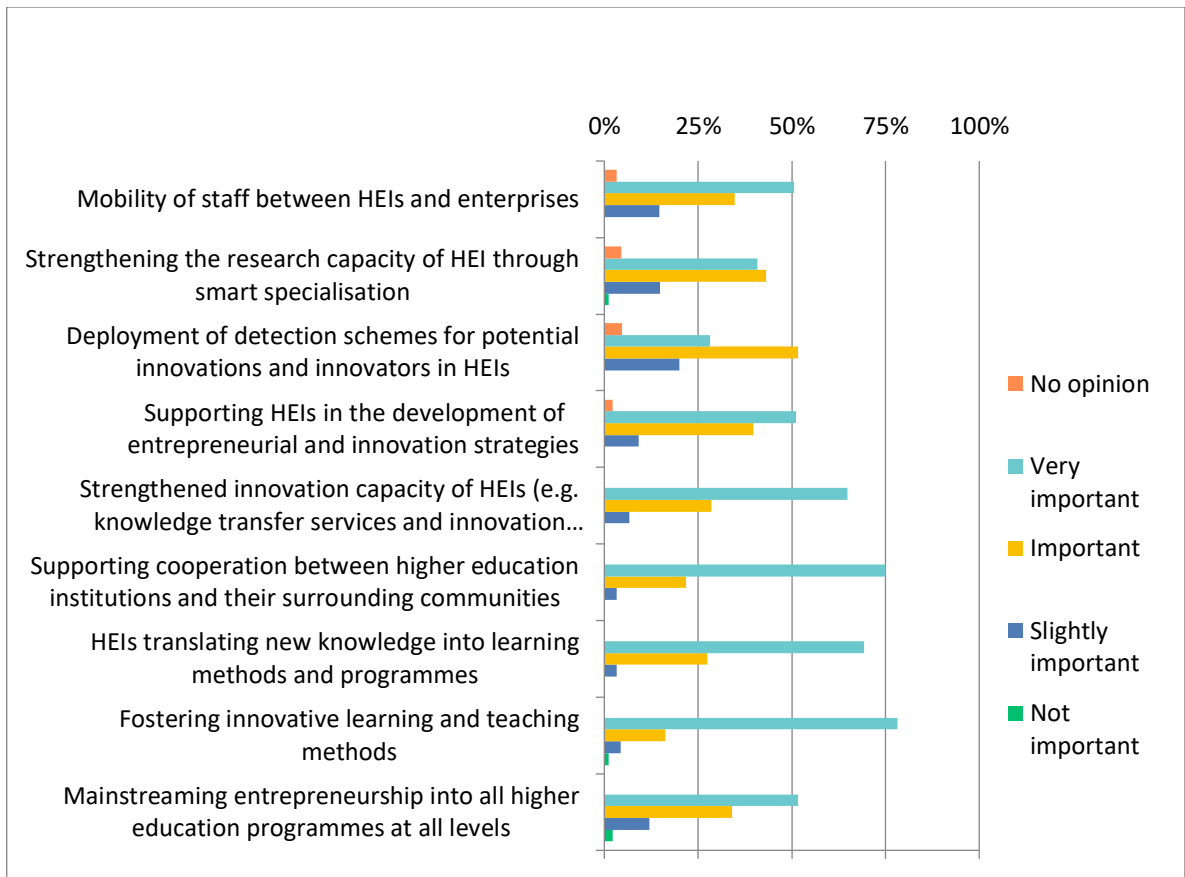
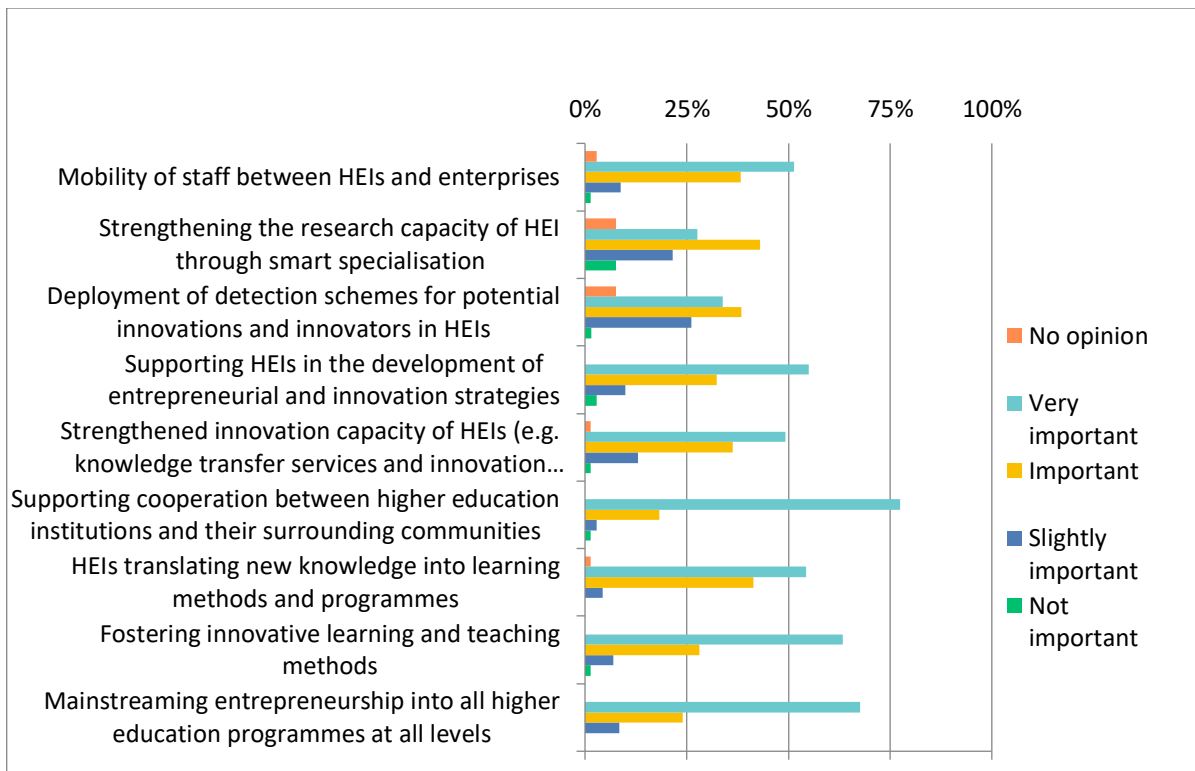*Figure 13: Q16 Perspective about factors of innovation (HEIs)*

Figure 14: Q16 Perspective about factors of innovation (non-HEIs)

5. Conclusions

A central element that emerges from the responses is a deep linkage between the issues considered the most important as well as most difficult to address, **with sustainability, meeting the demands of the changing labour market, and promoting new forms of teaching and learning** being considered the most important and most difficult to address by both HEIs and their business partners.

Moreover, the respondents to the survey referred to some crucial points, such as the need for **deeper regional and international partnerships** to face new societal issues such as energy, health (pandemics) and climate change.

In addition, from the answers received, there is clearly a need for more **human capital**, especially for the promotion of new forms of teaching and learning. Much more emphasis needs to be placed on HE modernisation and continuous training of teachers (reward, time, recognition) as well as on the sensitivity of curricula to the needs of societies, to innovations and research developments. A focus is also placed on **micro-credentials** and the further steps to close the skills gap of graduates in order to better match the demand of the labour market.

According to the participants in the survey, a constant **dialogue and collaboration between universities, businesses, and society is thus necessary**.

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