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Erasmus+ National Impact Assessment Study Report of the Capacity Building in Higher Education (CBHE) action - Phase I

Jordan

June 2021

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More information on Erasmus+ programme in Jordan is available on the internet on (<http://erasmus-plus.org.jo>)

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List of Acronyms:-

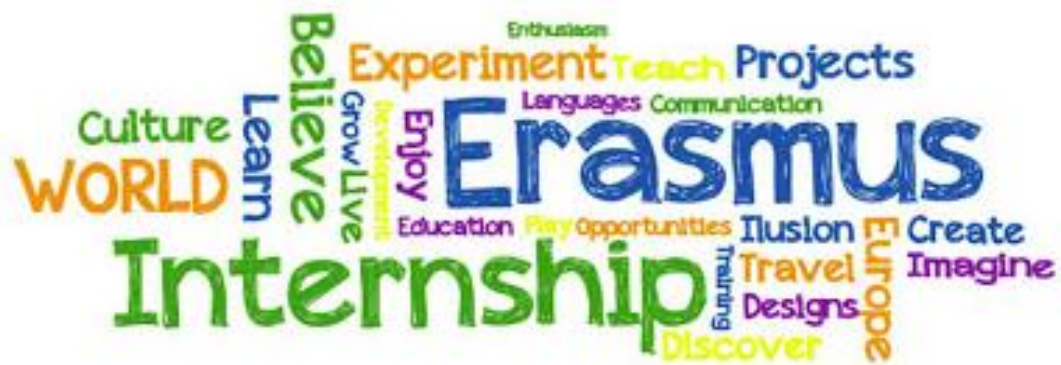
Acronym	Full Name
AQACHEI	Accreditation and Quality Assurance Commission for Higher Education Institutions
CBHE	Capacity Building in the Field of Higher Education Action
EACEA	European Education and Culture Executive Agency
EC	European Commission
HEI	Higher Education Institution
GJU	German-Jordanian University
JUST	Jordan University of Science and Technology
UJ	University of Jordan
PSUT	Princess Sumaya University for Technology
MOHE	Ministry of Higher Education and Scientific Research
NEO-JO	National Erasmus+ Office - Jordan
OER	Open Education Resources
HRM	Human Resource Management
JP	Joint Project
SP	Structural Project
ICT	Information and Communication Technology
SME	Small and Medium Enterprises
STEM	Science, Technology, Engineering and Math.

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1. EXECUTIVE SUMMARY

1.1 Introduction

Erasmus+ is the European Union programme for education, training, youth, and sports. The Capacity Building for Higher Education (CBHE), one of Erasmus+ actions, aims at enabling European higher education institutions (HEIs) to actively contribute to emerging and developing parts of the world through the modernization and development of educational systems in partner countries, which contributes to the sustainable development of the economies and societies. The CBHE action funds two types of projects; joint projects (JPs), and structural projects (SPs). Joint projects aim to develop the HEIs through curricula development and enhancing HEIs governance and competencies. Structural projects address key challenges facing educational systems such as accreditation and quality of HE.

Activities in both projects align with pre-established national and/or regional priorities and fall under one of the following three areas:

1. Curricula development/reform
2. Modernizing HEIs governance and management
3. Strengthening of relations between HEIs and the wider economic and social environment

This report assesses the sustainability and impact of Phase 1 of CBHE action (Y2015-Y2020) at the national level in Jordan. The impact assessment report studied fully completed CBHE action projects, where the grant holder(s) and/or partner(s) are Jordanian entities.

During phase 1 of CBHE Action, Jordanian partners were involved in implementing a total of 24 projects, 21 of these projects were fully completed and assessed. **19 out of the 21 assessed projects were joint projects and 2 were structural. The 2 structural projects were: the Modernization of Institutional Management of Innovation and Research in South Neighboring Countries (MIMIr), and the Toward a National Qualification Framework in Jordan (NQF-J).**

In terms of activities diversification:

- 11 projects addressed curricula reform/development,
- Five projects addressed modernization of governance, management and functioning of HEIs projects, and
- Five projects addressed Strengthening of relations between HEIs and the wider economic and social environment projects.

The impact assessment used a mixed-methods approach including desktop research, surveys, one-on-one interviews, and on-site visits to sample facilities.

1.2 Impact of CBHE Action in Jordan

1.2.1 Impact at Policy Level

To assess the impact at the HE policy level, two factors were considered - the impact on HE national policy reforms and the responsiveness to priority sectors as identified in national policies.

National policy reforms in higher education are long process that requires setting enabling foundations, aligning several building blocks, and persistence. The CBHE action through the “Toward a National Qualification Framework for Jordan” Project (NQF-J), contributed to setting the foundations for a national qualification framework. **CBHE enabled the transfer of EU experiences to a qualifications framework, a better understanding of existing¹ gaps and challenges in this context at a national level, and momentum at the front of public-private reform dialogue.**

Achievements from the NQF, along with the improved understanding of the process and EU case studies, lay the foundation for further developing the NQF in Jordan. Efficient and effective progress in Jordan requires a more focused vision, realistic and attainable scope, institutionalization of effort, so that it is not affected by changes in decision-makers at the MOHE, and a series of consequently related activities that build on the created foundation.

Regarding the impact on national priority sectors, Jordan’s participation in CBHE **responded to several national-level economic development policies and directions, such as support to identified priority sectors, and uplifting quality and marketability of national products.** Evidence of this impact was clear in several projects and is elaborated in the full report. Examples include The MEDiterranean Public HEALTH Alliance (MED-Health) project which responded to the national priority to enhance the quality of public health services. Another example is the Fostering Academia-Industry Collaboration in Food Safety and Quality (FOODQA) project which enabled four national food industries to attain the required certification to export to EU. All 11 curricula reform projects respond to enhancing the quality of education as a national priority as per the National Human Resources Development Strategy 2016-2025.

Another national policy that was addressed by CBHE is the policy to increase clean energy use, which was addressed by several clean energy projects under CBHE, such as Development of Environmental Engineering and injection of climate change concept for Undergraduate curriculum: EU experience for Jordan and Syria (E-Green) and Smart Control Systems for Energy Management: new master’s degree (SEM-SEM).

¹ The NQF project faced several challenges including; changes in decision makers at MOHE and AQACHEI, which negatively affected the progress in the project. Additionally, it was clearly noted during the interviews that the aspired scope of the NQF for Jordan was extremely wide and not mapped in stages. The scope aimed by AQACHEI in one non-phased plan includes KG to PhD, and all types of education; Academic, professional and vocational.

1.2.2 Impact at the Institutional level

CBHE **enhanced institutional capacities in terms of policies, systems, offerings, and technology deployment.** CBHE impacts on degree programmes modernization through technology inclusion, curricula upgrading and development, and facilities were clear and evident with supported data of number of modern degrees and number of enrolled students. The easiest to measure in terms of impact were facilities and curricula development aspects.

Sustaining and expanding impact through the institutionalization of results was evident in the areas of institutional development.

- The curricula developed/upgraded were adopted as part of the degrees offered and were found still active and enrolling students.
- Collaboration on joint degree programs with EU and partner countries expanded, after the project's closure.
- Facilities use, maintenance, and upgrading became part of the institutional system and its budget.
- Technology enhancement through CBHE in forms of automated systems such as HR management systems, were adopted and institutionalized. One of the most difficult impact areas to measure is the personal development of HE staff. However, this aspect remained part of the HEI's HR policy, and they can recall key lessons learned, providing examples of how the learning has been deployed in their organization.
- An interesting aspect of impact emerged through interviews regarding capitalizing on CBHE projects. There were several examples of HEIs that implemented a CBHE project through the 2015 call, and built on their experience, designing complementary activities in subsequent calls. A good example is how Jordan University for Science & Technology built on INVENT project **"Promotion of Innovation Culture in the Higher Education in Jordan"** awarded in 2015, in designing the MediTec **"Training for Medical Education via innovative e-Technology"** in 2017.
- The existence of facilities, technology, trained staff, and, in some cases, educational technology systems such as the OER, strengthened and **enhanced the ability of HEIs to cater to students and deliver online in response to the COVID-19 pandemic and activation of Defense Law Ref. 11[1]**. This impact was noted during interviews. Through the CBHE action, labs were used to deliver online classes and training, transforming them into multi-functional labs. The experience of COVID-19 brought to the surface the importance and adaptability of facilities, technology, and IT skills, particularly at HEIs with less access to equipment and technology.

1.2.3 Impact at Individual level; Students and HEI Staff

CBHE **enhanced youth's access to quality education programmes and access to international and regional learning through joint programmes and training courses.** This is measured by the number of enrolled students, their distribution, and vulnerability status. The **impact of CBHE on employability, career development, and entrepreneurship was not tracked and measured** by implementing partners. Most curricula development activities enhanced masters-level programmes in which the majority of students are

already employed. Less focus was given to undergraduate academic curricula and professional qualifications. All HEIs have databases of graduates but these databases do not enable the tracking of employment, career development, and entrepreneurial activities of students. The databases are primarily used for announcements and invitations to graduates' annual day at each university.

Survey data highlighted CBHE's impact on the personal development of students. **The majority of students ranked the impact as high on their personal development and skills** however, this is an end-beneficiary perception, and cannot be considered as a factual, evidence-based impact.

1.3 Inclusiveness

Involvement of national partners through the CBHE action showed the inclusion of HEIs in governorates outside of major urban areas. Yet, the wide variance, in terms of participation (recurrent partner), was much higher for stronger HEIs. The three oldest and strongest universities; the University of Jordan, Princess Sumaya University for Technology (PSUT), and Jordan University of Science and Technology (JUST), were partners in 49 of the total 98 partnership opportunities by Jordanian partners. In other words, around 50% of partnerships were by these three universities. This imbalance in participation is a natural result of the accumulated experiences and greater capacities at leading HEIs located in major cities. Participation of non-academic and individual partners was found limited.

In terms of social inclusion and gender equality, **CBHE projects included vulnerable students, refugees, and students in poverty areas, but have not yet included students with disabilities.** The impact measurement of the most vulnerable students was seen through the number of opportunities created, but the long-term impact is not tracked by implementing entities.

In terms of gender equality, implementing entities were found to have gender-segregated databases for students yet, the involvement of staff and non-academic partners was not gender-sensitive. Although the percentage of females in HE in Jordan is higher than males, suggesting their involvement should be higher, all CBHE project coordinators were males, which may indicate a weak gender balance at the HEI decision-making and project design level.

1.4 Regional and Cross Regional Collaboration

The CBHE action allowed Jordanian HEIs to collaborate with HEIs and enterprises from programme and partner countries. Within the southern Mediterranean region, Jordanian HEIs collaborated with Algeria, Egypt, Lebanon, Libya, Morocco, Palestine, Syria, and Tunisia. In terms of cross-regional collaboration, Jordanian HEIs partnered with Turkey, as a non-EU program country, and 21 EU program countries in addition to Ukraine and Russia.

The learning gained through regional and cross-regional collaboration was highlighted as one of the primary gains in each interview. The complexity of running multi-partner, multi-region projects is still one of the main challenges facing partners in less developed locations, e.g. universities of less experience in CBHE and EU funding modality. The most

powerful impact emerging from the interviews was when lessons learned, examples of existing advanced systems, and policies and programs were explained by coordinators in thorough and clear details, as if the case study visit took place a few days back, which is impressive. **Collaboration among partnering entities was enhanced and sustained, reflected by the increased number of regional and cross-regional agreements signed by several projects after they ended and illustrated in the full report.**



Photo credit: [EC website](#)

1.5 Key Challenges and Recommendations

1.5.1 Key Challenges:

Several challenges were identified, some related to the CBHE programme, and some related to projects implemented under the CBHE action.

Programme challenges and gaps centered around the complexity of requirements at the proposal development and implementation phases. This may risk minimizing the opportunity and participation of less experienced and marginalized entities. The existing gap to enabling cumulative sustainable interaction and learning between partners, alumni, and beneficiaries of CBHE projects, the challenge in creating impact at the HE policy level within the currently limited timeframe and budget, and the weakness in both the private sector and individual inclusion as partners in CBHE projects.

For implemented projects, the challenges and gaps were related to the academic-oriented approach, instead of an economic and societal driven approach in designing economy-related projects. Additionally, there were challenges regarding:

- The limited knowledge transfer at the national level from experienced, recurrent HEIs to less experienced ones.
- Weaknesses in the inclusion of marginalized groups, specifically persons with disabilities, refugees, and poverty mandated entities,

- The weak tracking of impact on employability, entrepreneurship, gender imbalance at the project coordination and partner representation level.
- Challenges and costs related to maintaining websites/pages created for CBHE projects active and functioning after the end of the funding.
- Challenges in meeting EU requirements mainly those related to supplies procurement.

1.5.2 Recommendations

As a result of the impact assessment, two categories of recommendations were identified; programme-level recommendations to enhance the efficacy of the CBHE funding and recommendations for upcoming CBHE projects in Jordan that bridge identified gaps and enhance the impact of implemented projects.

Programme recommendations include:

1. Enable awarding projects of longer implementation periods and larger budgets, such as those addressing HE policies and reforms.
2. Create a funding scheme with smaller budgets and simpler reporting requirements to target less advantaged applicants, such as first-time applicants and applicants representing marginalized groups.
3. Encourage increased private sector and individual participation through amendments on the proposal evaluation grid to reflect higher points when the private sector and subject matter experts partner in the application.
4. Facilitate and support sustainability through allocating funding for the creation and maintenance of a program portal, where all CBHE projects can be presented and accessed by alumni.
5. Increased funding allocations for, and better distribution, of facilities.

The other category of recommendations is intended for future applicants of CBHE funding seeks to enhance diversity, relevance, and the impact of CBHE projects.

1. Design economic-development-driven projects in close collaboration with the private sector at the proposal development phase.
2. Increase the inclusion of the private sector and subject matter experts as partners in applications.
3. Capitalize on the experience and knowledge of the three recurrent implementers of CBHE projects by including knowledge transfer and technical support to less experienced Jordanian HEIs.
4. Capitalize on the existing pool of students by enabling proper, active e-databases and communication.
5. Improve impact tracking through the institutionalization of impact tracking tools.
6. Increase the inclusion of marginalized groups such as persons with disabilities, refugees, and impoverished communities.
7. Improve the gender balance at the project coordination and decision-making levels.



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Erasmus+ National Impact Assessment Study Report

of the
Capacity Building in Higher Education (CBHE) action - Phase I

The Full Report

Jordan

June 2021



2 INTRODUCTION

Erasmus+ is the European Union (EU) programme for education, training, youth, and sports and was implemented from 2014-2020, hereinafter referred to as Phase I. The program supports academic and youth mobility and cooperation projects that involve partners from program countries and partner countries. Partner countries are located all over the world, including Jordan².

A total of **53** CBHE projects were funded during Phase I, in which Jordan is a partner with program countries, and Jordan acts as a Grant Holder for **16** of these projects.

The National Erasmus+ Office in Jordan, under the supervision of the European Education and Culture Executive Agency (EACEA), conducted this impact study of the Erasmus+ program in Jordan.

CBHE Action Activities are:

Category 1	Curricula Development
Category 2	Modernization of policies, governance and management of higher education systems
Category 3	Strengthening relations between HEIs and the widening economic and social environment

At the time of this report, 21 projects were completed and assessed through a desktop review of project information page, project websites, analysis of surveys with grant holders and students, interviews with key informants, and project coordinators. Facilities provided through CBHE action were assessed in two locations, the University of Jordan and Zarqa University. Other locations were not accessible because of physical visit limitations imposed due to Covid-19 restrictions. Facilities visited in the two mentioned universities represented a sample of facilities provided for eight projects.

This report presents the findings of the impact assessment, selected best practices, gaps noted, and recommendations for Phase II of Erasmus+ CBHE action.

² For more information on Programme Countries and Partner Countries of Erasmus+ Programme, visit Erasmus+ page URL https://ec.europa.eu/programmemes/erasmus-plus/about/who-can-take-part_en

2.1 AIM AND OBJECTIVES OF THE REPORT

This national impact assessment study comes at the end of Phase I of the Erasmus+ CBHE action and aims at using the results to inform current CBHE projects, facilitate exploitation of identified good practices, and use the recommendations to help in the design of Phase II of the CBHE action.

The study assessed the impact of the implemented CBHE projects at the individual, institutional, and higher education policy levels.

2.2 CBHE ACTION & PROJECTS INCLUDED IN THE ASSESSMENT

Erasmus+ CBHE Action has funded **53** projects during from 2015 to 2020. The list of projects funded each year, along with hyperlinks to projects' websites can be found in **Annex 1: List of CBHE projects funded from 2015 to 2020**.

Year	No. of CBHE projects funded
2015	16
2016	7
2017	8
2018	6
2019	8
2020	8
Total	53

Table 1: Number of CBHE projects per year

2.2.1 Assessed projects distribution by awarding year

At the time of the assessment assignment, 21 projects were closed and assessed. The list of the assessed projects is presented in Table 3.

The majority of the projects included in the impact assessment were awarded in 2015 (15 projects), five projects were awarded in 2016, and one project was awarded in 2017.

Year	2015	2016	2017	Total
Number of projects	15	5	1	21

Table 2: Distribution of assessed projects by year of award

2.2.2 Distribution of projects by action type

Two types of projects are funded through the CBHE action: structural projects (SPs) and joint projects. Joint projects (JPs) aim to develop HEIs capacities, such as governance of the institution and curricula development. Structural projects (SPs) aim to address challenges facing the educational system at partner countries, such as quality and accreditation.

Two of the assessed projects were structural projects, while 19 were joint projects.

CALL YEAR	PROJECT IDENTIFIER	JOINT/ STRUCTURAL	PROJECT TITLE	TOPICS/CATEGORY
2015	561527-EPP-1-2015-1-BG-EPPKA2-CBHE-JP	Joint	Improving Higher Education Quality in Jordan using Mobile Technologies for Better Integration of Disadvantaged Groups to Socio-economic Diversity	Curriculum development
2015	561703-EPP-1-2015-1-UK-EPPKA2-CBHE-JP	Joint	Smart Control Systems for Energy Management: New Masters Degree	Curriculum development
2015	561748-EPP-1-2015-1-PS-EPPKA2-CBHE-JP	Joint	The MEDiterranean Public HEALTH Alliance (MED-HEALTH)	Curriculum development
2015	561768-EPP-1-2015-1-PL-EPPKA2-CBHE-JP	Joint	Master Curriculum, Capacity Building and Network Development in Traffic Safety in Egypt, Jordan, and Lebanon	Curriculum development
2015	561776-EPP-1-2015-1-PS-EPPKA2-CBHE-JP	Joint	Development of Health Informatics integrated curricula in Computing and Health-oriented undergraduate degrees	Curriculum development
2015	561818-EPP-1-2015-1-ES-EPPKA2-CBHE-JP	Joint	Masters in Health Informatics	Curriculum development
2015	561940-EPP-1-2015-1-JO-EPPKA2-CBHE-JP	Joint	Modernization of teaching methodologies in higher education: EU experience for Jordan and Palestinian territory	Curriculum development
2016	573758-EPP-1-2016-1-JO-EPPKA2-CBHE-JP	Joint	Establishment of an Interdisciplinary Clinical Master Programme in Rehabilitation Sciences at JUST	Curriculum development
2016	573881-EPP-1-2016-1-EL-EPPKA2-CBHE-JP	Joint	Developing a MSc. Programme in Climate Change, Sustainable Agriculture and Food Security	Curriculum development
2016	573927-EPP-1-2016-1-JO-EPPKA2-CBHE-JP	Joint	Development of Environmental Engineering and injection of climate change concept for Undergraduate curriculum: EU experience for Jordan and Syria.	Curriculum development
2017	586070-EPP-1-2017-1-SE-EPPKA2-CBHE-JP	Joint	Geodesy and geoinformatics for sustainable development in Jordan	Curriculum development
2015	561651-EPP-1-2015-1-IT-EPPKA2-CBHE-JP	Joint	A bottom-up approach for opening up education in South-Mediterranean countries	Modernisation of governance, management and functioning of HEIs
2015	561708-EPP-1-2015-1-DE-EPPKA2-CBHE-JP	Joint	Vocational training center for undergraduate university students and teachers in Jordan	Modernisation of governance, management and functioning of HEIs

2015	561810-EPP-1-2015-1-JO-EPPKA2-CBHE-JP	Joint	modernising human Resource management In South mediterranean higher Education	Modernisation of governance, management and functioning of HEIs
2016	573665-EPP-1-2016-1-IT-EPPKA2-CBHE-JP	Joint	Refugees Education Support in mena CoUntriEs	Modernisation of governance, management and functioning of HEIs
2015	561548-EPP-1-2015-1-ES-EPPKA2-CBHE-SP	Structural	Modernisation of Institutional Management of Innovation and Research in South Neighbouring Countries	Modernisation of policies, governance and management of higher education systems
2015	561577-EPP-1-2015-1-FI-EPPKA2-CBHE-JP	Joint	Joint Programmes and Framework for Doctoral Education in Software Engineering	Strengthening of relations between HEIs and the wider economic and social environment
2015	561877-EPP-1-2015-1-IT-EPPKA2-CBHE-JP	Joint	Developing skills in the field of integrated energy planning in Med Landscapes	Strengthening of relations between HEIs and the wider economic and social environment
2015	561996-EPP-1-2015-1-JO-EPPKA2-CBHE-JP	Joint	Promotion of Innovation Culture in the Higher Education in Jordan	Strengthening of relations between HEIs and the wider economic and social environment
2016	574010-EPP-1-2016-1-JO-EPPKA2-CBHE-JP	Joint	Fostering Academia-Industry Collaboration in Food Safety and Quality	Strengthening of relations between HEIs and the wider economic and social environment
2015	561895-EPP-1-2015-1-ES-EPPKA2-CBHE-SP	Structural	Towards a National Qualifications Framework for Jordan	Strengthening of relations between higher education systems and the wider economic and social environment

Table 3: Distribution of assessed projects by year, action type and category

2.2.3 Distribution of projects by activity type

In terms of the types of activities implemented, 11 projects (52%) addressed curricula reform/development, five projects (24%) addressed modernization of policies, governance, and management of higher education systems, and five projects (24%) addressed strengthening relations between HEIs and the widening economic and social environment.

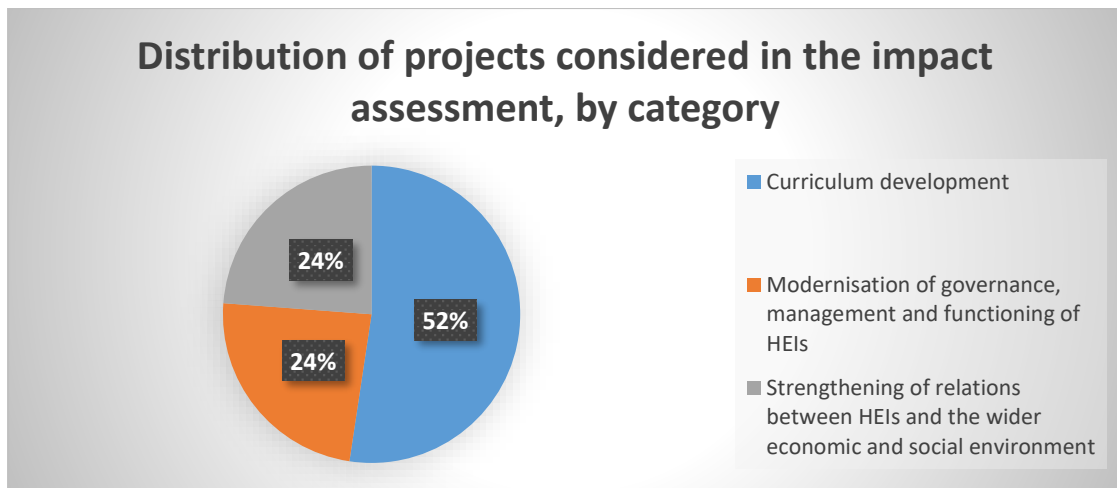


Figure 1: Distribution of Assessed Projects by Activity Type (Category)

2.3 METHODOLOGY

The impact assessment was conducted through:

- Desktop review of relevant documents and websites.
- Analysis of the two impact survey results (**19 surveys** from grant holders/ local coordinators and **38 surveys by students** involved with or who benefitted from the completed projects)
- Two projects were studied through information provided by the grant holders/local coordinator.
- Nine in-depth **one-on-one interviews were conducted**.
- Site visits to **facilities of eight projects, located in two Universities**, the University of Jordan and Zarqa University.

Desk Review

The desktop review included the review of the project description page listed on the Erasmus+ Jordan website³, monitoring and progress reports for each project, and the project website. Additionally, key reports related to the Erasmus+ programme and HE sector in Jordan were reviewed. The full list of reviewed documents can be found in Annex 2: List of desk research documents and webpages.

Analysis of the impact assessment surveys

Two surveys were conducted by the National Erasmus+ Office – Jordan (NEO-JO) to facilitate the impact assessment. One survey was addressed to grant holders and national coordinators, and the other addressed to students that benefited from CBHE action projects.

³ URL <http://erasmus-plus.org.io/en/Projects/Capacity-Building-in-Higher-Education-CBHE>

Survey for CBHE grant holders and local coordinators

This survey included 101 questions and was filled by grant holders and local coordinators for the closed projects.

The survey measured a wide range of aspects related to the immediate results and impact created from the fund. The survey also included questions addressing challenges, lessons learned, and recommendations.

The entries of this survey were provided by NEO-JO and were used as the wider base for the impact assessment. The analysis of survey entries was complemented later on by one on one interviews and physical visits.

Survey for students involved in Erasmus + CBHE projects

The students' survey consisted of 30 questions with the option for respondents to include personal information. Data gathered by the survey explored a wide range of immediate results as well as the long-term impact resulting from their involvement in the Erasmus+ CBHE projects. Entries also provide data on respondents' characteristics, including vulnerability poverty, disability, refugee. There was a total of **38** respondents to student survey. The data was then analyzed and included in this assessment report.

Questionnaires used for both surveys can be found in Annex 3: Survey Questionnaire for CBHE Grant Holders and Local Coordinators and Annex 4: Survey Questionnaire for CBHE Students.

In-depth interviews and facilities assessment visits

A total of nine interviews were conducted with key stakeholders and projects implementing entities (Table 4)

#	Entity/Project	Interviewee	Note
1	Ministry of Higher Education & Scientific Research (MOHE)	Mrs. Buthaina Al Share' Head of Policy & Planning Unit Mrs. Rinad Noufal Head of International Projects Unit	National Stakeholder
2	Accreditation and Qualification Commission for Higher Education Institutions (AQACHEI)	Prof. Thafer Yousef Assaraira President, AQACHEI	National Stakeholder, and a partner of the NQF-J project Project ref. 561895 CBHE: Category 2
3	Development of a MSc programme in Climate Change, Sustainable Agriculture and Food Security (CCSAFS)	Prof. Ahmed Al Salaymeh	Local coordinator for project ref. 573881 CBHE: Category 1
4	Modernization of Teaching		Grant holder for project ref.

	Methodologies in Higher Education: EU Experience For Jordan and Palestinian Territory (METHODS)		561940 CBHE: Category 1
5	Promotion of Innovation Culture in the Higher Education in Jordan (INVENT)	Prof. Fahmi Abu Alrub	Grant holder for project ref. 561996 CBHEI: Category 3
6	Fostering Academia-Industry Collaboration in Food Safety and Quality (FOODQA)		Grant holder for project ref. 574010 CBHE: Category 3
7	Modernising Human Resource Management in South Mediterranean Higher Education – (RISE)	Prof. Walid Salameh	Grant holder for project ref. 574010 CBHE: Category 2
8	Refugees Education Support in MENA Countries (RESCUE)	Dr. Ashraf Shaqadan	Partner of roject ref. 573665 CBHE: Category 2
9	The MEDiterranean Public HEALTH Alliance (MED-HEALTH)		Partner of project ref. 561748 CBHE: Category 1

Table 4: List of interviews conducted

Site visits to facilities provided through the CBHE action helped to assess the status, usage, sustainability plans, and discuss the impact with attendants at locations.

ref.	Facility Visited	Project
1	Education lab	Modernization of Teaching Methodologies in Higher Education: EU Experience For Jordan And Palestinian Territory (METHODS): Category 1
2	Food Lab	Fostering Academia-Industry Collaboration in Food Safety and Quality (FOODQA): Category 3
3	Geo and GIS lab	Development of a MSc programme in Climate Change, Sustainable Agriculture and Food Security (CCSAFS): Category 1
4	Electrical Applications lab	561527-Improving Higher Education Quality in Jordan using Mobile Technologies for Better Integration of Disadvantaged Groups to Socio-economic Diversity (mEquity): Category 1
5* ⁴	Environment and Climate Change lab	573927-Development of Environmental Engineering and injection of climate change concept for Undergraduate curriculum: EU experience for Jordan and Syria (EGREEN): Category 1
6*	Renewable Energy lab	585740-High Level Renewable and Energy Efficiency Master Courses (HEBA)*: Category 1
7*	Energy Lab	561703-Smart Control Systems for Energy Management: New Master Degree (SEM SEM): Category 1
8	R-SOS unit for Students' Support	573665-Refugees Education Support in MENA Countries (RESCUE): Category 2

Table 5: List of facilities visited

⁴ Facilities provided for projects 5,6 and 7 were located in one joint venue at the Faculty of Engineering of the University of Jordan

* HEBA project was not among the assessed projects.

Limitations of the assessment

- The inability to assess facilities outside Amman due to limitations and the closure of premises due to Covid-19 restrictions.
- The student survey was filled by 38 students and of those 19 completed projects. The 38 filled questionnaires are not a representative sample, and the sampling was not designed based on a scientific research method. The responses analyzed should be considered as indicative and not quantitative.

3 SUSTAINABILITY AND IMPACT OF IMPLEMENTED PROJECTS

3.1 IMPACT AT NATIONAL POLICY LEVEL

3.1.1 HE NATIONAL POLICIES AND REFORMS

Factors such as technological developments, rapid changes in employment needs, and globalization greatly influence socio-economic development. In addition to these factors, Jordan is also influenced by demographic changes influenced by higher fertility rates of refugee communities and the increase in youth seeking higher education opportunities. As a result, the country's education system is facing serious challenges. The Jordanian government is constantly enhancing the higher education system, increasing its capacity and diversifying options available for students to align with current national, regional, and global market needs. Graduates of the HEIs are expected to contribute to societal and economic growth in the country and respond to required competencies in the other markets.

In Jordan, education is fragmented between vocation, professional, technical, and academic. This is due to cultural perceptions of non-academic qualifications, weak governance and recognition of professional qualifications, the high dependence of public HEIs financing on public budgets, and the increasing demand for academic higher education opportunities, all of which the Jordanian government has been attempting to address over the past years.

Through the CBHE action, the Jordanian HE sector had the opportunity to be introduced to the Bologna Process, a multidisciplinary academic programme development, focusing on a student-centered approach and educational qualification framework of European and regional countries. This intense learning at the sector level, boosted several reforms at institutional levels within HEIs, including governance and process reforms. It also sparked the establishment of a National Qualification Framework for Jordan; the most relevant project addressing reforms at HE sector level is project ref. 561895 entitled "Towards National Qualification Framework for Jordan (NQF-J)".

The NQF-J project funded by the Erasmus+ programme aims at reforming national policies and regulations related to academic and professional qualifications in Jordan. Based on the NQF progress and monitoring reports, and interviews conducted with the AQACHEI, the CBHE action has greatly contributed to paving the road for HE sector reforms on qualifications framework through enabling existence of stronger foundation for reforms:

- Case studies and examples from EU programme countries have been conducted and documented.
- Benchmarking has been conducted and Ireland was identified as a role model.
- Gaps in education qualifications between Jordan and EU countries are now clear and known.

Undoubtedly, today more than ever, the existence of a modern, competency-based, market-driven, globally recognized, education qualification framework for Jordan will

contribute greatly to sector reforms and thus to societal and economic development in the country if pursued in a better more focused approach in future projects.

The “Modernisation of Institutional Management of Innovation and Research in South Neighbouring Countries” (MIMIr), is the second structural project supported. MIMIr project was implemented by five partners in Jordan including MOHE. **The project impact was evident through adopting “Innovation and Creativity” subject as an undergraduate degree requirement to all specializations and in all Jordanian universities⁵.**

In addition to the standard “Innovation and Creativity” module required for all undergraduate subjects, the Faculty of Engineering at JUST developed a tailored module for engineering students entitled “Innovation and Creativity in Engineering”, and included the latter as part of the requirement for BSc in Engineering.

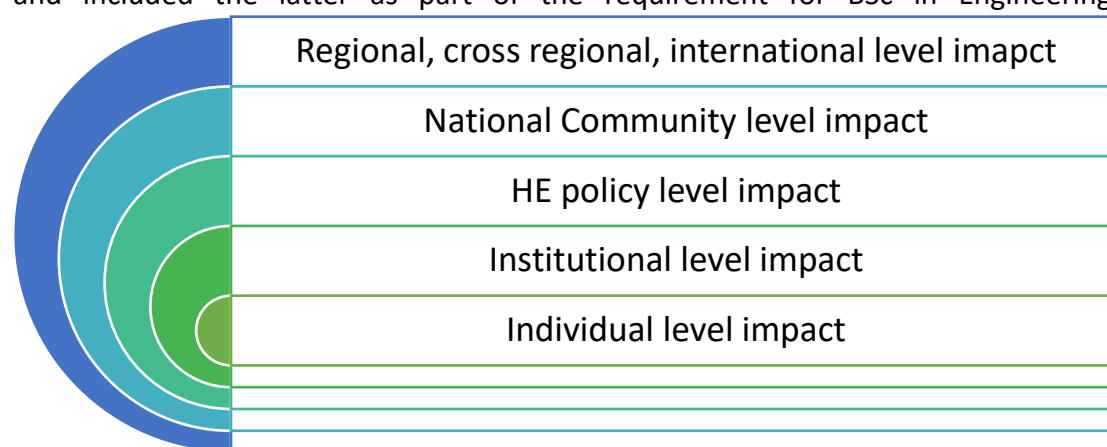


Figure 2: Levels of impact

⁵ Based on the interview with MIMIr Project Partner from UJ

3.1.2 RESPONSIVENESS TO NATIONAL POLICIES IN RELATION TO PRIORITY ISSUES/SECTORS

The Erasmus+ programme aligns its actions with national and regional priorities. The National Erasmus+ office is hosted at the MOHE and communicates intensively with the MOHE on national HE sector priorities.

The Government of Jordan identified the manufacturing industries, ICT, and tourism as priority sectors for economic growth in Jordan.

At the core of the development agenda for Jordan are enhancing public services, with a special focus on transportation and health. Additional priorities include enhancing quality and exports of locally manufactured products, and increasing green energy consumption.

The CBHE action, through implemented projects in Jordan, responded perfectly to these national policies and directions for priority sectors.

There are many examples of how the CBHE action responded, including: Smart Control Systems for Energy Management: a new master's degree programme (SEM-SEM), The Mediterranean Public Health Alliance (Med-Health), Establishment of an Interdisciplinary Clinical Master Programme in Rehabilitation Sciences at JUST (JUST-CRS), Development of Environmental Engineering and Injection of Climate Change Concept for Undergraduate Curriculum: EU Experience for Jordan and Syria (EGREEN), Fostering Academia-Industry Collaboration in Food Safety and Quality (FOODQA), and Innovation for the Leather Industry in Jordan and Egypt (INNOLEA).

IT and technology took different approaches. The first approach considers IT and technology as an integrated tool to support curricula development such as the "Master's in Health Informatics (HEAL+)" which integrated technology in health analysis.

The second approach addressed IT as an integrated tool for the modernization of policies, governance, and management of HE systems. This aims to strengthen relations between HEIs and the widening economic and social environment, such as

*"The existing Center for Innovation Transfer (CIT) established through CBHE action funding located at JUST, has produced **8 innovations** of registered patents.*

During the peak of COVID-19 pandemic in Jordan, the CIT managed to produce shields and masks and distributed them to medical front line staff. The CIT is currently working on innovating locally designed ventilator to support the efforts in combating COVID-19 impact on humans' health."

Local Coordinator of INVENT project

in the case of “Modernising Human Resource Management in South Mediterranean Higher Education (RISE)” which used technology to advance HRM systems.

***The Mediterranean Public HEALTH Alliance (MED-Health)** established an MSc degree programme in public health management in South Mediterranean. The project enhanced the competitiveness of professionals in public health and responds to one of the pressing priorities of enhancing quality of public health services.*

***The HiCure project “Development of Health Informatics”** integrated curricula in Computing and Health-oriented undergraduate degrees. The project used student-centered learning approach based on Bologna Process, and prepared undergraduate students to their Master level degree in Health Informatics.*

***Development of Environmental Engineering and injection of climate change concept for Undergraduate curriculum: EU experience for Jordan and Syria (EGREEN).** The project developed 14 courses in water, energy, and environment and integrated them into several study programmes such as; mechanical engineering, chemical engineering, environmental engineering, architecture, and civil engineering, including an appropriate laboratory component in environment. The project engaged faculty members in the development of interactive instruction techniques for lectures and laboratory courses, which built their capacities through support from EU partner universities.*

***Modernization of Teaching Methodologies in Higher Education: EU Experience for Jordan and Palestinian Territory (METHODS).** The project established a technology center, which enabled the integration of technology into teaching methods. The project enabled EU HEIs experience transfer to Jordan and the Palestinian Territories through building the capacities of HEI faculty members and technical staff on use of technology in teaching.*

3.2 IMPACT ON AWARDED INSTITUTIONS

3.2.1 Impact on operating systems, policies and teaching tools

Advancement of HEIs and their reforms were evident through the policies, systems, or procedures. Examples include the impact of the CBHE action on the advancement of systems through the integration of automation and technology. One good example is the RISE project which developed the Human Resources Management systems at the partner universities, Princess Sumaya University for Technology, Tafila Technical University, and Mutah University.

The reforms in HRM systems and technology equipment through labs were institutionalized within HEI processes.

For example, the electronic forms and software developed through the RISE project, became part of the internal system.

Trained staff continued working at HEIs, and learning was incorporated into normal operations. In the same RISE project teaching plans for three majors - engineering, IT, and business - were enhanced by including the HRM systems and forms developed through CBHE action.

Technology equipment, and labs, including the vocational centers created, continued operating and were part of the curricula and teaching plans of various degrees.

Quantitative impact plans and indicators, measured by implementing HEIs requires additional work and enhancement. For example, the percentage of time saved in processing HRM issues, sales increase by SMEs who started in the incubation at the innovation centers.

The Open Med project, supported the institutional transformation of South-Mediterranean partner universities towards Open Education. Partner universities, including JUST and GJU in Jordan, developed institutional roadmaps for further developing Open Education (OE) at the institutional level. During COVID-19 lockdown and the halt of traditional in-class education, it was clearly noted that the educational institutions which integrated the OE system, managed to swiftly switch to remote education style much faster than other educational institutions, which are not familiar with OE system, or, did not manage to integrate it within their systems.

3.2.2 FACULTY CAPACITY BUILDING

In this subsection, we are addressing the capacity building of HEI staff as part of the institutional capacity.

Training delivered to HEIs' staff was diverse, combining basic topics on one hand, such as management and resources planning, and modern priority topics such as technology transfer, IP (Intellectual Property) protection and exploitation, innovation, the organization of university-enterprise cooperation, and lifelong learning.

Training modules delivered to HEIs was often made available to students. Thirteen of the 21 HEIs assessed enabled students access to training opportunities in addition to staff. Overall, the achievement in training included:

- **690** training opportunities provided to academic staff.
- **131** training opportunities provided to technical/administration staff.

The impact of the CBHE action on the capacity building of HEI staff on university-business relations was evident through the survey data. The CBHE action supported **244** training opportunities to HEI staff on university-business-related topics, compared to **31** training opportunities during the three years before the CBHE funding.

The training of HEIs' staff on university-business related topics continued after the end of CBHE projects and at a higher pace than before the CBHE's action support.

The perception of the contribution of to enhancing staff's understanding of businesses and enabling better communication with businesses was moderate as evidenced by survey data collected. This indicates the need to further enhance business concepts and communication in the future.

"The CBHE action provided HEI staff; faculty, technical and administrative, with priceless opportunities to learn from EU HEIs; techniques, systems and teaching methods. Having the chance to be trained in Europe, and be physically there observing and grasping the education culture from advanced HEIs, is a learning that lasts the lifetime. We comeback motivated and charged to transfer the change to our national HEIs.

RISE project local coordinator

3.2.3 ACADEMIC & LEARNING CURRICULA

The CBHE contributed to creating new academic programmes, most of which were at the Master degree level. **Of 21 projects assessed, 11 projects have curricula reform/development as their main activity. All the newly developed degree programmes were at the master's level.**

The CBHE action contributed to the development and updating of training courses and modules. Within the completed projects, a total of **294 training courses/modules were developed/updated**, all of which were delivered in English, and 12% of these courses were delivered in both Arabic and English languages. **Around 60% of these courses were made available online.**

Training modules were diverse with the **majority of subjects focusing on health, STEM, ICT, engineering, and research.**



Picture is taken at the end of class graduation from the Vocational Training Center for Undergraduate University Students and Teachers in Jordan (VTC), ref number 561708.

3.2.4 FACILITIES AND TECHNOLOGY UPGRADE

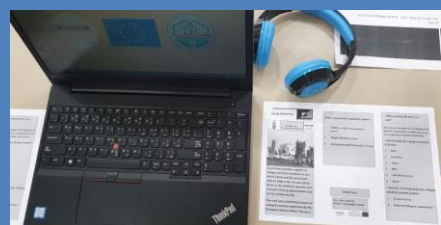
All facilities provided through the Erasmus+ CBHE action were provided to universities. The number and distribution of facilities depended on the type of project, its focus, and the services, as per awarded proposals. The majority of facilities were computers and specialized technology labs and the main items in these labs were personal computers. In some cases, there were also servers, smart screens, printers, and other related equipment.

Some labs included specialized technical equipment and software such as the Geo-informatics lab, metrology lab, and renewable energy lab.

The majority of the facilities provided were used for academic teaching purposes, with some labs used as a center of excellence to harness applied skills. Additionally, some were used as business incubators to boost entrepreneurship, and some were used as training centers to enable lifelong and continuous learning.

Some facilities expanded their benefit and role beyond the planned activities and due to the COVID-19 pandemic. For example, labs were utilized to conduct distance learning and remote lectures. This helped sustain the learning during classroom closure as was the case in Zarqa University which used the lab to provide classes for various majors. Some were expanded by the HEI through the purchase of new equipment after the end of the project, such as the Clinical Rehabilitation Sciences lab at JUST⁶.

The distribution of the facilities by HEI varied widely, with the Jordan University for Science and Technology and University of Jordan hosting the highest number of facilities provided. This imbalance in the distribution of facilities is a result of higher participation of these two universities in the CBHE action projects. It is also related to type



“The equipped computer lab, was a savior during the halt of in-class lectures as a result of COVID-19 Pandemic, we managed to deliver lectures using the facilities provided and thus access thousands of students remotely”

Project ref. 573665: RESCUE

Zarqa University, R.SOS Unit

“More equipment were purchased after the end of the project to maintain and expand the two laboratories established through Erasmus+ funding”.

Project ref. 573758: JUST –CRS

⁶ Information collected from the survey

and subject of awarded projects, which might reflect some gaps in skills between applying HEIs.

Some venues combined more than one of the CBHE project facility. In the School of Engineering at the University of Jordan, one lab space hosts three labs: Project ref. 573927: EGREEN, Project ref. 585740: HEBA and Project ref. 561703: SEM-SEM. The three labs in this lab space are clearly labeled for each project on the entrance sidewall.

Operating and maintaining the facilities provided through the Erasmus+ CBHE was institutionalized through the integration of their management, required staffing, care and maintenance within the institutional policies, procedures, and budgets.

Some equipment was intact, and when inquiries were made, the explanation was that these were purchased around the end of Y2019 or early beginning of Y2020 and that all labs are not in use since March 2020 due to halting in-class education according to defense order measures aimed at combatting the COVID-19 pandemic.

Of the 21 assessed projects the CBHE action established, there were **52** facilities of various types with the majority being computer labs.

Almost **50%** of the facilities were concentrated in three technology dependent projects, namely project ref. 561776: HiCure which was supported by 8 facilities/labs, and projects ref. 561996: INVENT, 574010: FOODQA, 561895: NQF-J where each one supported with 6 labs.



Three labs sharing location in Jordan University, School of Engineering



GIS lab at Jordan University

3.3 IMPACT ON STUDENTS

Each of the CBHE projects has a built-in planning section for sustainability, which translate to the implementation action plan during the implementation of projects. Erasmus+ reporting requirement include reporting on sustainability, results and impact using the Erasmus+ standard format.

Sustainability and impact aspects related to documentation of results and their tracking in the long run, were explored as part of this assessment. Projects local coordinators were asked if they have a database of students within their institutional systems, a sample was requested, and they were asked if they have tracked results after the end of the project.

It was found that HEIs do have databases of CBHE action student beneficiaries within their institutional system, the data was found accessible. Furthermore, detailed documentation of previous assessments, surveys was found to be properly documented and accessible in a timely manner.

HEIs interviewed used the data for reporting purposes to Erasmus+ and they kept updating the databases of students as part of their internal procedures. Nonetheless, tracking of impact in the long run utilizing the existing databases were found missing.

Contribution of a CBHE project to employability and other aspects of personal development was measured during the life cycle of the project. Nonetheless, the long-term tracking of impact on employability and progress of beneficiaries was missing⁷.

3.3.1 Access to Education/Learning

The CBHE action impact on creating new learning opportunities using modern educational content was evident. The CBHE action provided Jordanian students with

“The CCSAFS M.Sc. programme opened my eyes to the importance of climate change and its effect on the environment and our lives. I am a professional in the field of agribusiness and this programme gave me better understanding to clean agro-food entrepreneurship, which will help me advancing my profession”

Graduate student from Jerash University, CCSAFS M.Sc. Ref 573881.

“I feel lucky as I gained more experience than my colleagues who did not participate in Erasmus+ programmes. We had the opportunity to collaborate and meet international academics and professionals and we had the chance to be trained abroad in advanced rehabilitation centres”

A graduate of the Master of Rehabilitation Sciences developed through JUST-CRS project Ref 573758

⁷ Based on evident samples requested during the interviews with local coordinators of CBHE action

access to degree programmes created through collaboration, input, and support of EU HEIs. Within the assessed projects, **37,666** learning opportunities were provided within degree programmes, and **13,065** through non-degree training courses.

The non-degree training courses were implemented in collaboration with partner countries where **183** of the non-degree opportunities were conducted in programme countries.

The non-degree courses conducted through the support of the CBHE action were responsive to market needs, according to several published studies. Most of the covered topics focused on soft skills and tools needed for entrepreneurship, management, and leadership and teamwork. Some of the training modules addressed specific technical skills such as information processing, project planning and management, and foreign languages.

3.3.2 EMPLOYABILITY AND ENTREPRENEURIAL OPPORTUNITIES

We found that there is no long-term tracking by HEIs of employment opportunities created through the support of the CBHE action. Nonetheless, both grant holders/local coordinators and students, were asked in the survey if the modules created through the support of CBHE action have enhanced their employment opportunity. The vast majority from both segments correlate the modules with employment and entrepreneurship skills.

Thirty-eight students responded to the survey developed in preparation for this assessment. The student survey results showed that:

- 97% of students feel that they gained more experience than their colleagues who did not participate in Erasmus+.
- 94% were given tasks in their career life, that enabled them to apply knowledge and skills they learnt.
- 100% said that the courses helped them upgrade their soft skills.
- Soft skills covered in the courses were all ranked very useful and they included: leadership, teamwork, communication, problem solving, work ethics, adaptability, and interpersonal skills.

The impact of CBHE on entrepreneurship, such as the number of startups and businesses created, was measured in projects involving business incubators and centers for innovation transfer. Other projects, such as those involving new programmes development and training, did not track impact on entrepreneurship. Nonetheless, the survey addressed entrepreneurial skills and opportunities, and results of the survey showed that three out of the 35 students said that because of the CBHE training, they registered, or in the process of registering a patent. Eleven percent of students said that they started a business, 66% started to think of their own career/business, and the majority the contribution of training in facilitating access to labor market as high.

A note regarding CBHE contribution to employability is that **majority of programmes developed under the CBHE action (2015 – 2020) were accessed by already employed persons as most of the programmes were at master level degree.**



Picture from a training in Greece under INVENT project, Sept 2017

4 INCLUSIVENESS

4.1 VULNERABLE STUDENTS (POVERTY, DISABILITY, REFUGEE)

Almost one-third of the students who completed the impact assessment survey live in poverty pockets and two of the respondents are refugees. None of the students surveyed was a person with disability.

The interviews with project coordinators showed no specific activities addressing students with disabilities and modules were not customized to tailor to students with disabilities, which is an area for enhancement in the coming future.

The projects that were included in the assessment and addressed specifically inequality of opportunities based on vulnerability are “Refugees Education Support in mena CoUntriEs / RESCUE” project and “Improving Higher Education Quality in Jordan using Mobile Technologies for Better Integration of Disadvantaged Groups to Socio-economic Diversity / mEQUITY” project.

The RESCUE project provided educational opportunities to young refugees, who are one of the most vulnerable groups currently in Jordan if not the most vulnerable. Thanks to CBHE funding, the RESCUE project established a Refugee Education Support Unit (R-SOS), which was fully equipped with technology tools to be used in teaching.

After the end of funding and project closure, the R-SOS unit played vital role in ensuring the continuation of teaching during of the pause of in-class teaching due to Defense Order ref. 11 in response to COVID-19 pandemic spread in Jordan. The unit provided access to students during the lockdown and has been transformed into a multidisciplinary e-teaching facility.

The sustainability of the unit has been institutionalized as part of the internal rules, procedures and budget of building and equipment maintenance.



Picture: mEQUITY final Conference October 2018

4.2 DIVERSITY OF JORDANIAN PARTNERS

From 2015 to 2017, a total of 31 projects were awarded under this action, all of which have Jordanian partners. In total, 129 Jordanian partners participated in implementing the CBHE action projects; 98 of the partners were HEIs and the rest were distributed over Governmental entities such as Ministries and Chambers, NGOs such as associations, and business support organizations, in addition to private companies.

Year	HEI	Gov. entities	NGOs/Associations	Private Companies	Total Partners
2015	52	12	5	5	74
2016	22	1	1	1	25
2017	24	3	1	2	30
TOTAL	98	16	7	8	129

Table 6: Distribution of CBHE national partnerships by type of partner

4.3 LOCATIONS OF JORDANIAN HEIs FUNDED

CBHE action projects were implemented through HEIs from all the three regions with a total of 98 Jordanian HEI partnerships from 2015-2017. Yet, the participation of stronger more developed HEIs was dominated project partnerships. A total of 61 partnerships were from entities located in the middle region, 37 of which were to entities located in the capital Amman. This number of partners in the capital aligns with the population distribution in that around 40% of the Jordanian population live in the capital⁸. Table 7 shows the distribution of HEIs partnerships by entity, year, governorate, and region.

Figures show that majority of partnerships were by three main universities, the University of Jordan, Princess Sumaya University for Technology - both located in Amman - and Jordan University of Science and Technology (JUST) located in Irbid in the north region. Mutah University located in the southern governorate of Al Karak (9 partnerships).

This table shall be used as a tool to track diversity and inclusion of HEIs to ensure inclusiveness.

⁸ Estimated distribution of population at end of 2019 by Department of Statistics, Report link http://dosweb.dos.gov.jo/DataBank/Population_Estimares/Municipalities2019.pdf

Distribution of HEIs partnerships by Location (2015-2017)						
Region	Governorate	HEI	2015	2016	2017	Total HEI Partnerships by Region
Middle	Amman	University of Jordan	11	4	2	61 HEIs Partnerships in the Middle Region
	Amman	Princess Sumaya University for Technology	9	2	6	
	Amman	Al-Zaytoonah University	1	2	0	
	Mafrq	Al Albayt University	1	1	0	
	Zarqa	Hashemite University	3	1	2	
	Zarqa	Zarqa University	1	1	0	
	Balqa	Al Balqa Applied University	4	1	2	
	Madaba	German Jordanian university	5	1	1	
North	Irbid	Jordan University for Science and Technology	8	2	5	23 HEIs Partnerships in the Northern Region
	Irbid	Yarmouk University	2	2	2	
	Jerash	Jerash University	0	2	0	
South	Tafila	Tafila Technical University	1	0	3	14 HEIs Partnerships in the Southern Region
	Ma'an	Al-Hussein Bin Talal University	0	0	1	
	Karak	Mutah University	6	3	0	
Total			52	22	24	

Table 7: Distribution of national HEI partners by location

A database of Jordanian partners for all CBHE projects from 2015 – 2017, was created on excel to enable calculation of inclusiveness data presented in the above subsection. This database has been provided to National Erasmus+ Office in Jordan, so as to expand to other features in the future such as share of budget, if possible, number of trained, etc.



5 STRENGTHENING REGIONAL, CROSS-REGIONAL AND CROSS-SECTOR COLLABORATION

CBHE action closed projects (2015-2017) allowed Jordanian HEIs to cooperate with HEIs and enterprises from the following countries.

Programme Countries

Member States of the European Union (EU)			
Belgium	Greece	Cyprus	Portugal
Bulgaria	Spain	Malta	Slovakia
Denmark	France	Netherlands	Finland
Germany	Croatia	Austria	Sweden
Estonia	Italy	Poland	United Kingdom*
Ireland			
Non-EU Programme Countries			
Turkey			

Partner Countries

Partner Countries neighbouring the EU.

Eastern Partnership Countries:	Territory of Ukraine as recognised by international law
South-Mediterranean countries:	Algeria, Egypt, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia
Russian Federation:	Territory of Russia as recognised by international law

Of the 21 projects assessed, CBHE fostered the creation of a total of **258 partnerships**, most of which were amongst HEIs from the South Mediterranean Region (Region 3). Partnerships created for the implementation of CBHE projects, ranged between a minimum 6 entities and maximum 16 partners.

Cross-sector collaboration was evident through all the industrial-focused CBHE projects through the involvement of the private sector. This consisted of primarily food, textile, and medical industries in the needs assessments, curricula development, and involvement of students. Nonetheless, the collaboration was academia driven and the design of the projects had limited involvement of the private sector, economy-driving engines at early stages of design, the economic development projects of CBHE implemented by HEIs were found driven by academia. According to the RISE project coordinator (Ref 561810), “the CBHE action funded the establishment of a regional network on Human Resource Management as a forum for exchange of good practices. The forum started with nine universities from region three and the EU. Since the forum was established, it has been attracting more universities every year. Today, the forum includes 100 member universities and Erasmus+ developed the governance and management structure to cater for this expansion.”

Collaboration with non-academic entities at the partnership level in implementing the CBHE action projects was extremely limited. The number of individual, civil society, associations, and businesses was insignificant.

Collaboration in CBHE projects (N-21)								
Year Awarded	Project ref.	Project Acronym	Category	No. of partners by type				Total No. of Partners
				Non-academic (from Programme and Partners Countries)	HEIs from the Programme Countries	HEIs from Region 3 (Southern Mediterranean)	HEIs from other regions	
2015	561703	SEM SEM	Cat 1	2	3	7	0	12
2015	561818	HEAL+	Cat 1	1	3	6	0	10
2015	561877	ENEPLAN	Cat 1	4	5	9	0	18
2015	561577	PWs@PhD	Cat 1	0	4	3	4	11
2015	561748	MED-HEALTH	Cat 1	4	3	6	0	13
2015	561768	MENASAFE	Cat 1	0	4	5	0	9
2015	561776	HiCure	Cat 1	0	4	4	0	8
2015	561940	METHODS	Cat 1	1	6	8	0	15
2015	561810	RISE	Cat 2	2	4	9	0	15
2015	561527	mEQUITY	Cat 2	0	3	3	0	6
2015	561548	MIMIr	Cat 2	5	5	7	0	17
2015	561708	VTC	Cat 3	3	3	6	0	12
2015	561996	INVENT	Cat 3	8	3	4	0	15
2015	561895	NQF	cat 3	7	3	6	0	16
2016	573758	JUST-CRS	Cat 1	0	3	3	0	6
2016	573881	CCSAFS	Cat 1	2	3	8	0	13
2016	573927	Egreen	Cat 1	1	4	9	0	14
2016	573665	RESCUE	Cat 2	2	4	5	2	13
2016	574010	FOODQA	Cat 3	4	4	5	0	13
2017	586070	GEO4D	Cat 1	2	3	3	0	8
2017	561651	OpenMed	Cat 2	2	4	8	0	14
Total				50	78	124	6	258
Average				2.4	3.7	5.9	0.3	12.3

Table 8: Regional and Cross-regional collaboration for assessed projects

6 CHALLENGES

Several challenges were identified by national grant holders and local coordinators. Identified challenges were grouped and summarized as follows:

Planning Challenges

- Late involvement of market and policy stakeholders in project outputs, which require adoption by the market and endorsement by policy makers, caused weak commitment by industries at later stages. Specific examples mentioned were those related to green buildings, health and medical, and food industries.
- The underestimation of time and resources needed when planning for some activities such as:
 - New curricula development for a degree programme, and the attainment of the required approvals.
 - Travel of staff and students.
 - Procurement of equipment (planning, announcing, procuring, installing, and training).

Activities, Coordination, and Management challenges:

- Communication, coordination, and management of multi-partners projects.
- Differences in policies and requirements of partners.
- Weak orientation for new joiners.
- Challenges relevant to COVID-19 pandemic (remote teaching).
- Visa issuance requirements to EU Countries.

Financial Challenges

- Costs related to long-term maintenance of equipment and facilities.
- The burden of travel cost sharing carried by partners.
- Insufficient travel allowance rates for some destinations as per EU regulations (e.g., travel between Jordan and Palestine).

7 SUMMARY OF IDENTIFIED ISSUES/GAPS

The following impact-related gaps were identified:

- Gaps in impact at HE policies at national level.
- Weakness of institutionalized tracking of impact on employment.
- Imbalanced participation of national HEIs.
- Limited private sector involvement.
- Limited results-oriented research and development, e.g., product development, patent registration, etc.
- Imbalanced distribution of facilities among HEIs.

8 CONCLUSION & RECOMMENDATIONS FOR THE NEW CYCLE OF ERASMUS+ CBHE

8.1 CONCLUSION

There are three key conclusions reached from this impact assessment study:

CONCLUSION ONE: Undoubtedly, the Erasmus+ CBHE programme, created positive impact at various levels and in various sectors within the three category areas of the programme. The tracking of impact beyond the end of the project by implementing national partners needs to be strengthened in all three levels.

1. Individual Level: employability, entrepreneurship, etc.
2. Institutional Level: capacities, contribution to societal and economic development,
3. HE Policy Level: quality of education, responsiveness to market, etc.

On another note, several bi-products of impact were identified and noted. For example, the positive impact on cultural bridging, a better understanding of Europe and its HEIs, and the personal development of those who were part of the programme, especially those who got the chance to travel and study cases in partner countries.

CONCLUSION TWO: There is a great potential to multiply and enhance the impact of the CBHE action at the national level. This can be done through more focus on exchanging experiences at national level and enhancing the balances between social and scientific results, experienced and less experienced implementing partners, academic and non-academic partners, sector focus (industry, service, trade,), and finally, between learning/education and tangible innovation.

CONCLUSION THREE: The most impactful learning experiences were those involving the physical participation in case studies and joint meetings with partner countries. In each interview conducted, the use of examples on learned areas from visual observations in visited programme countries was repeatedly mentioned and explained in detail, as if the visit was conducted recently. It was obvious that the learning gained from the physical involvement was engraved in the memories of

those who participated. This supports the adult learning principles model that humans learn most when being involved physically in the experience. Institutional changes adopted by national implementing partners were motivated by what visiting staff/faculty members saw and experienced during best practices exchange visits.

8.2 RECOMMENDATIONS

This sub-section presents the recommendations for CBHE Phase II, grouped under main headlines. The recommended actions listed below address the gaps and challenges identified during the assessment.

Amendment to Funding Approach

- Enable phasing and a higher budget cap for HE policy reform projects, where granting is approved for two phases minimum each of which is three-years in duration. The disbursement of funds for Phase II depends on attainment of Phase I results.
- CBHE should foster a paradigm shift towards more economy driven projects - driven by economy, supported by academia - instead of the currently planned by academia to support economy model.
- Encourage more balanced participation between experienced HEIs and new joiners through enabling funding schemes allocated to less advantaged HEIs and new joiners. Requirements at smaller budget thresholds should be less complicated.
- More impact focused applications: amend the requirement criteria to include the tracking of impact indicators to be presented in the methodology section of the application.
- Revise and ease the processing and reporting requirements through use of automation as possible, in areas where implementing partners faced the highest time-consuming difficulties, i.e. approvals on procurements, travel, etc.

Capitalize the existing pool of experts and student alumni

- Transform the Erasmus+ global website into a dynamic portal that enables alumni and experts to interact or, create a dynamic portal specifically for CBHE action, where a pool of thematic experts who managed have been involved in several CBHE projects, can exchange experiences, get further opportunities to be recruited by the wider market, and serve as an advisory board to new joiners and less advantaged.
- Enable a personal identification tracking system (ID) for students of CBHE projects to be used to access the alumni space on the CBHE portal. This should be an interactive and student-centered/driven space. This will enable the multiplication of impact on individual development as well as automate the global measurement of responsiveness to vulnerability and gender equality.

Enhance CBHE Electronic Presence and Visibility: One Portal for All

To address expected the gradual phasing out of the currently established project websites and to enable stronger visibility of CBHE action, Erasmus is advised to launch a call for the design and management of a collective e-portal for CBHE action.

The creation of this portal can be announced as one of the CBHE annual calls and can be awarded based on service agreements for 3 years.

Previous partners who implemented IT and technology focused projects under CBHE action can be suitable applicants for this portal service.

The portal should enable:

- 1) Adequate space for the presentation of awarded projects, replacing the current scattered project websites.
- 2) Interactive platform space for experts, recurrent individual awardees.
- 3) Student alumni on ID accessibility.

More Scientific Industry Development Focused R&D

Only a couple of the assessed projects ended up with registration of scientific patents from the research and development activities. This does not serve economic development and advancement as needed. To address this weakness, Erasmus+ is encouraged to give more focus on scientific, industry development R&D in Phase II calls.

Although the CBHE action is not a research program, as much as a capacity building focus, impact of the enhanced capacities on society and the economy should be measured. A collaboration between CBHE and other actions, such as those related to R&D, might be useful.

More facilities and Technology Support to Less Developed/Experienced HEIs

The impact of COVID-19 pandemic on mobility, accessibility, and methods of teaching, revealed the importance of facilities that focus on technology. Universities with less equipment were able to maximize the benefit of technology and facilities provided by CBHE. Nonetheless, these were the least to receive technology and facility support through CBHE action in Phase I. Intentional prioritization of the provision of facility and technology support to less experienced applicants, new applicants and HEIs outside main cities, is important and expected to create bigger impact in the long run.

More professional and undergraduate degree programmes focus

The ultimate goal of the CBHE action is to enable European HEIs to contribute to the creation of sustainably developed economies and societies through developing the educational systems of partner countries. Enhancing the employment of graduates is one of the key contributions to sustainable societal and economic development. Phase I of CBHE projects focused on the modernization and development of master's

level degree programmes. The majority of master's level degree programme graduates are already employed. Accordingly, if Erasmus+, through the CBHE action, would like to see more impact on employment and career development, more focus, or at least a balance between, master's degree programmes and both professional and undergraduate programmes should be given during Phase II.

Better balance between societal and economic orientation

The CBHE projects in Jordan awarded from 2015-2017 were dominated by a scientific-industrial focus. The societal implications of the COVID-19 pandemic are expected to continue impacting societal development, particularly on aspects such as widening societal income gaps, market access imbalances, human rights and ethics, violence, gender inequalities, and soft security risks. The Erasmus+ CBHE action is advised to pay attention to the balance between a scientific and humanitarian focus in projects awarded in Phase II.

Integration of the “inclusion of less-advantaged” concept in projects

The limited data gathered during the impact assessment showed a clear gap in the inclusion of persons with disabilities. This need to be addressed in the coming projects considering the national aspects defining the less advantaged. In the Jordanian context, the less advantaged, according to the United Nations definition, include refugees, persons with identity/nationality issues, women at risk, persons with disabilities, residents and organizations in poverty pockets, and organizations in rural locations or in locations of weak infrastructure

ANNEX 1: LIST OF ERASMUS+ CBHE FUNDED PROJECTS (2015-2020)

The below list of projects funded during CBHE Action from years 2015 – 2020 where Jordan was either a partner or a lead, has hyperlinks to project description and website for each project. This list is available on the website of Erasmus+ Jordan as on hr 20:48 19th April 2021, URL <http://erasmus-plus.org.jo/en/Projects/Capacity-Building-in-Higher-Education-CBHE>

Erasmus+ CBHE Projects 2015

1. [561527 - Improving Higher Education Quality in Jordan using Mobile Technologies for Better Integration of Disadvantaged Groups to Socio-economic Diversity/ mEQUITY](#) [Project Website](#)
2. [561548 - Modernization of Institutional Management of Innovation and Research in South Neighbouring Countries/ MiMir](#) [Project Website](#)
3. [561577 - Joint Programmes and Framework for Doctoral Education in Software Engineering/ PWs@PhD](#) [Project Website](#)
4. [561638 - Development of Higher Education Teaching Modules on the Socio-economic Impacts of the Renewable Energy implementation/ DESIRE](#) [Project Website](#)
5. [561651 - A Bottom-up Approach for Opening up Education in South-Mediterranean Countries/ OpenMEd](#) [Project Website](#)
6. [561703 - Smart Control Systems for Energy Management: New Master Degree/ SEM-SEM](#) [Project Website](#)
7. [561708 - Vocational Training Center for Undergraduate University Students and Teachers in Jordan/ VTC](#) [Project Website](#)
8. [561748 - The Mediterranean Public Health Alliance/ MED-HEALTH](#) [Project Website](#)
9. [561768 - Master Curriculum, Capacity Building and Network Development in Traffic Safety in Egypt, Jordan and Lebanon/ MENASAFE](#) [Project Website](#)
10. [561776 - Development of Health Informatics Integrated Curricula in Computing and Health-Oriented Undergraduate Degrees/ HiCure](#) [Project Website](#)

11. [561810 - Modernising Human Resource Management in South Mediterranean Higher Education/ RISE](#) [Project Website](#) [Poster](#)
12. [561818 - Master in Health Informatics/ HEAL+](#) [Project Website](#)
13. [561877 Joint Programmes and Framework for Doctoral Education in Software Engineering - Developing Skills in the Field of Integrated Energy Planning in Med Landscapes/ ENEPLAN](#) [Project Website](#)
14. [561895 - Towards a National Qualifications Framework for Jordan/NQF](#) [Project Website](#)
15. [561940 - Modernization of Teaching Methodologies in Higher Education: EU experience for Jordan and Palestinian territory/ METHODS](#) [Project Website](#)
16. [561996 - Promotion of Innovation Culture in the Higher Education in Jordan/ INVENT](#) [Project Website](#)

Erasmus+ CBHE Projects 2016

1. [573522 - EuNIT – European Project design and Management in the South Mediterranean Region](#) [Project Website](#)
2. [573665 - Refugees Education Support in MENA Countries/ RESCUE](#) [Project Website](#)
3. [573758 - Establishment of an Interdisciplinary Clinical Master Programme in Rehabilitation Sciences at JUST/ JUST-CRS](#) [Project Website](#)
4. [573881 - Developing a MSc. Programme in Climate Change, Sustainable Agriculture and Food Security/ CCSAFS](#) [Project Website](#)
5. [573927 - Development of Environmental Engineering and Injection of Climate Change Concept for Undergraduated Curriculum: EU Experience for Jordan and Syria/ EGREEN](#) [Project Website](#)
6. [574010 - Fostering Academia-Industry Collaboration in Food Safety and Quality/ FOODQA](#) [Project Website](#)
7. [574063 - Pathway in Forensic Computing/ FORC](#) [Project Website](#)

Erasmus+ CBHE Projects 2017

1. [585648 - Advanced Teaching and Training on Smart grid and Grid Integration of Renewable Energy Systems/ AT-SGIRES](#) [Project Website](#)

2. [585740 - High Level Renewable and Energy Efficiency Master Courses/ HEBA Project Website](#)
3. [585822 - Innovation for the Leather Industry in Jordan and Egypt/ INNOLEA Project Website](#)
4. [585938 - E-Learning InnoVative Engineering Solutions/ e-Lives Project Website](#)
5. [585980 - Training for Medical Education via innovative eTechnology/ MediTec Project Website](#)
6. [586070 - Geodesy and Geo-informatics for Sustainable Development in Jordan/ GEO4D Project Website](#)
7. [586452 - On-line Quality Assurance and EUR-ACE Accreditation of Engineering Programmes in Mediterranean Area/ MEDACCR Project Website](#)
8. [586468 - Jordan Opportunity for Virtual Innovative Teaching and Learning/ JOVITAL Project Website](#)

Erasmus+ CBHE Projects 2018

1. [598347 - Fostering innovation in the Jordan and Moroccan textile industry / FOSTEX. Project Website.](#)
2. [598428 - Promoting youth employment in remote areas in Jordan / JOB-JO. Project Website.](#)
3. [598480 - Innovations in Water Education Programmes: Enhancing Water Security and Socio-economic Development in the Eastern Mediterranean under Climate Change / WaSec. Project Website.](#)
4. [598524 - Female Academic Role Model Empowerment, Equality and Sustainability at Universities in Mediterranean Region: towards 2030 Agenda / FREE. Project Website.](#)
5. [598726 - Building Innovation Infrastructure via Technology Transfer Offices Conducted IN Jordanian Higher Education Institutions / BITTCOIN-JO. Project Website.](#)
6. [598750 - INTERNATIONAL MASTER OF SCIENCE ON CYBER PHYSICAL SYSTEMS / MS@CPS. Project Website.](#)

Erasmus+ CBHE Projects 2019

1. [609971 -Introducing Recent Electrical Engineering Developments into undergraduate curriculum/ IREEDER](#). [Project Website](#)
2. [610004 - eMaster in Water Resources Engineering/ eMWRE](#). [Project Website](#)
3. [610091 - Establishment of Intercalated Programme in Basic Medical Sciences in Jordan/ iBMS-JO](#). [Project Website](#)
4. [610107 - FMEDiterranean countries: Towards Internationalisation at Home/ MED2laH](#). [Project Website](#)
5. [610134 - DevelopinG a MultidiscipliNary Diploma on Art ThErapy in Health Education/ HEALING](#). [Project Website](#)
6. [610227 - Neurodevelopmental CAre for REfugees/ NeuCaRe](#). [Project Website](#)
7. [610238 - traditional craft Heritage trAining, desigN and marketing in jorDan and Syria/ HANDS](#). [Project Website](#)
8. [610265 - Enhancing Teaching, Learning and Graduate Employability through University-Enterprise Cooperation/ ELEGANT](#) [Project Website](#)

Erasmus+ CBHE Projects 2020

1. [617730 - EaRth Observation Tools for the promotion of DigITal Economy](#)
2. [618103 - Disability as diversity: The inclusion of students with disabilities in higher education](#)
3. [618176 - Family Medicine Diploma Programme](#)
4. [618509 - Vocational Training Diploma on Electrical and Hybrid Vehicles](#)
5. [618535 - Developing Curricula for Artificial Intelligence and Robotics](#)
6. [618537 - University Student Capacity Building: Towards Readiness for Sustainable Development-Oriented Regional Job Market](#)
7. [619258 - the Academic Alliance for Reconciliation in the Field of Higher Education in Peace, Conflict Transformation, and Reconciliation Studies in the Middle East and North Africa](#)
8. [619299 - Development of new master programme in GLOBal Supply chain Management for Southern Mediterranean](#)

ANNEX 2: LIST OF DESK RESEARCH DOCUMENTS & WEBPAGES

- Project description sheets of projects funded through the CBHE action (2015 – 2020)
 - Monitoring and progress reports of CBHE 24 completed projects
 - Responses on the Survey for CBHE Grant Holders and Local Coordinators (projects of 2015 – 2020)
 - Responses of the Survey for the students who were involved in CBHE projects (2015-2020)
 - Online studies and reports consulted are listed below
1. [E-learning policy paper, the future of higher education in Jordan and the timetable for digital transformation in higher education, 2020](#)
 2. [National Qualification Framework, 2020](#)
 3. [Erasmus+ Virtual Exchange Impact Study, 2019](#)
 4. [National Plan to Disseminate Media and Information Literacy 2020-2023, Arabic](#)
 5. [National Plan to Disseminate Media and Information Literacy 2020-2023, Executive Summary, English](#)
 6. [Erasmus+ for Higher Education in Jordan \(Report 2019\)](#)
 7. [Procedures for development academic disciplines- New Degree Programmes Arabic](#)
 8. [Procedures for development academic disciplines- New Degree Programmes English](#)
 9. [Form / opinion of AQACHEI for establishing new programme, Arabic, English](#)
 10. [Erasmus+ for Higher Education in Jordan \(Report 2018\)](#)

ANNEX 3: SURVEY QUESTIONS FOR CBHE GRANT HOLDERS AND LOCAL COORDINATORS

The Erasmus+ Program

Capacity Building in the Field of Higher Education (CBHE)

National Impact Study

Conducted by the National Erasmus+ Office – Jordan

Survey for Jordanian Grant Holders and Local Project Coordinators

Note: This survey is for Jordanian HEIs. All numbers and answers should be for Jordan only.

1. Project Number:
2. Project Title and Acronym:
3. Topic of your project
 - ☐ Curriculum development
 - ☐ Modernization of policies, governance and management of higher education systems
 - ☐ Strengthening relations between HEIs and the widening economic and social environment
4. Number of non-academic partners within your project consortium
5. Number of partners from the Program countries
6. Number of partners from Region 3 (Southern Mediterranean)
7. Number of partners from other regions
8. Has the project developed a new study program /degree
 - ☐ Yes ☐ No
9. If yes, please specify the level
 - ☐ B.Sc. ☐ M.A. / M.Sc. ☐ Ph.D.
10. Number of courses/training modules developed/updated through the project
11. List these courses:
12. Number of courses/training modules developed/updated in Arabic
13. Number of courses/training modules developed/updated in English
14. List these courses:
15. Number of courses/training modules available online:
16. List these courses:
17. Number of students enrolled in the developed/updated courses/training modules per degree
18. Were these courses/training modules developed in cooperation with (check all that apply):

- ☐ Representatives from industry
 - ☐ Public authorities
 - ☐ Government research institutions
 - ☐ NGOs
 - ☐ Other non-academic partners
19. Were these courses/training modules developed using lists of learning outcomes / competencies and abilities / knowledge and skills?
- ☐ Yes ☐ No
20. Were these courses/training modules developed based on a survey of training needs?
- ☐ Yes ☐ No
21. Did these courses/training modules target students?
- ☐ Yes ☐ No
22. Did these courses/training modules target professionals?
- ☐ Yes ☐ No
23. Were there any entrepreneurship related topics involved in these courses/ training modules? For example,
- ☐ Innovation and entrepreneurial management
 - ☐ Project planning and management
 - ☐ Leadership
 - ☐ Communication
 - ☐ Teamwork and cooperation
 - ☐ Information processing
 - ☐ Foreign languages
24. Did these courses/training modules include academic staff training?
- ☐ Yes ☐ No
25. Number of academic staff trained:
26. Number of academic staff trained in Program Countries:
27. Number of academic staff trained in Partner Countries:

28. Did these courses/training modules include technical/administrative staff training?

☐ Yes ☐ No

29. Number of technical/administrative staff trained in Program Countries:

30. Number of technical/administrative staff trained in Partner Countries:

31. Did the training for academic, technical and administrative staff include topics such as

☐ Technology Transfer

☐ IP (Intellectual Property) protection and exploitation

☐ Innovation

☐ Organization of university-enterprise cooperation

☐ Project management, including financial management and resources planning

☐ Entrepreneurship

☐ Lifelong learning

32. Did these courses/training modules include student training?

☐ Yes ☐ No

33. Number of students trained in Program Countries:

34. Number of students trained in Partner Countries:

35. Do these courses include research methodology courses (to enhance Master and Ph.D. students' capacities in research, in putting methodologies into practice etc.)?

☐ Yes ☐ No ☐ To some extent

36. Did these courses/training modules contribute to enhance the ability of students and graduates to develop personal skills, career planning, job-search and career managing skills?

Scale from 1-5

37. Did these courses/training modules help students acquire practical competences/technical know-how in basic and applied research work?

Scale from 1-5

38. Do these courses/training modules enhance the accessibility of the student to labor market?

Scale from 1-5

39. If new teaching methods have been introduced in the framework of your project, did these methods include problem-based learning (PBL)?

Scale from 1-5

40. Did they make use of distance learning technologies?

Scale from 1-5

Please indicate:

41. The number of cooperation agreements signed with business before the project:
42. The number of cooperation agreements signed with business in the framework of your CBHE project:
43. The number of cooperation agreements signed with business since the end of your project:
44. The number of guest lectures given by business before the project:
45. The number of guest lectures given by business in the framework of your CBHE project:
46. The number of guest lectures given by business since the end of the project and as a project outcome:
47. The number of guest lectures given by staff from Program Countries before the project:
48. The number of guest lectures given by staff from Program Countries in the framework of your CBHE project:
49. The number of guest lectures given by staff from Program Countries since the end of the project and as a project outcome:
50. The number of projects conducted by students in cooperation with business before the project:
51. The number of projects conducted by students in cooperation with business in the framework of your CBHE project:
52. The number of projects conducted by students in cooperation with business since the end of the project and as a project outcome:
53. The number of projects conducted by students in cooperation with Program Countries Institutions before the project:
54. The number of projects conducted by students in cooperation with Program Countries Institutions in the framework of your CBHE project:
55. The number of projects conducted by students in cooperation with Program Countries Institutions since the end of the project and as a project outcome:
56. The number of Bachelor, Master and / or Ph.D. theses written in cooperation with business before the project:
57. The number of Bachelor, Master and / or Ph.D. theses written in cooperation with business in the framework of your CBHE project:
58. The number of Bachelor, Master and / or Ph.D. theses written in cooperation with business since the end of the project:
59. The number of Bachelor, Master and / or Ph.D. theses written in cooperation with Program Countries Institutions before the project:
60. The number of Bachelor, Master and / or Ph.D. theses written in cooperation with Program Countries Institutions in the framework of your CBHE project:

61. The number of Bachelor, Master and / or Ph.D. theses written in cooperation with Program Countries Institutions since the end of the project:
62. The number of industry projects involving students before the project:
63. The number of industry projects involving students and carried out in the framework of your CBHE project:
64. The number of industry projects involving students and carried out since the end of the project and as a project outcome:
65. The number of student-mobility from university to business carried out before your project
66. The number of student-mobility from university to business carried out in the framework of your CBHE project:
67. The number of student-mobility from university to business carried out since the end of the project and as a project outcome:
68. The number of training courses related to university-business cooperation organized before the project:
69. The number of training courses related to university-business cooperation organized for university staff in the framework of the project:
70. The number of university staff trained in topics related to university-business before the project:
71. The number of university staff trained in topics related to university-business in the framework of the project:
72. The number of university staff trained in topics related to university-business since the end of the project:
73. Number of projects or number of MOU signed with your project partners outside Erasmus+ frame work

In your opinion, the above project:

74. Contributed to increased quantity and quality of training provided by business to university staff
Scale from 1-5
75. Helped university staff to have a better understanding of university-business cooperation related issues
Scale from 1-5
76. Helped university staff to teach the students about university-business cooperation related issues
Scale from 1-5
77. Provided the opportunity to the university staff to interact with business better
Scale from 1-5

78. Raised the awareness of other universities about opportunities created by university- business cooperation

Scale from 1-5

79. Raised the awareness of business about university research activities in general

Scale from 1-5

80. Contributed to the increase of financial resources of other universities to develop university-business cooperation

Scale from 1-5

81. Contributed to increase the mutual trust between universities and business

Scale from 1-5

82. Contributed to enhance the students' professionals competencies

Scale from 1-5

83. Contributed to enhance the students' transversal skills

Scale from 1-5

84. Enhance the opportunities for students to access labor market

Scale from 1-5

85. What kind of facilities/structure your project created:

☐ Specialized laboratory

☐ Center of excellence

☐ Technology transfer office

☐ Business incubator

☐ Fab-lab

☐ Computer lab

☐ Virtual or augmented reality lab

☐ Training center

☐ Career counselling center

☐ Alumni office

Other, please specify

86. Please indicate number and location of these facilities:

87. Are these facilities/structure still operational?

☐ Yes ☐ No

88. Did the project involve any people with fewer opportunities:

☐ Yes ☐ No

89. If yes, please specify the group(s)

☐ Students with disabilities

☐ Refugees

☐ Females/ women

☐ People in remote areas

☐ Poverty pockets

90. If applicable, did the project enhance their opportunities in:

☐ Access to education

☐ Career/ job hunting

☒ Social integration

91. Are there any publications (scientific papers, books, guidelines, etc) that resulted from the project?

☐ Yes ☐ No

92. If yes, please insert link(s):

93. Lessons learnt (please specify):

94. Identify challenges and weaknesses in sustaining the projects' results:

95. Recommendations to other projects:

**ANNEX 4: SURVEY QUESTIONS FOR STUDENTS BENEFITED FROM CBHEI
ACTION**

**The Erasmus+ Program
Capacity Building in the field of Higher Education (CBHE)
National Impact Study
Conducted by the National Erasmus+ Office – Jordan
Survey for Students**

1. Name
2. Age
3. Gender
4. Phone
5. Nationality
6. Degree
7. Field of study
8. Year of graduation
9. Address (city, area, street)
10. Are you registered in any international organization as refugee?
11. Do you live in an area that is classified as poverty pocket?
12. Do you have any kind of disabilities (hearing, vision, physical movement, or any other)
13. If your answer to any of the questions 10, 11, or 12 is yes, please indicate if the project enhanced your opportunities in:

☐ Access to education

☐ Career/ job hunting

☐ Social integration

Year of getting your first job?

1. Name of company/organization in which you had your first job
2. Position
3. Your current job
4. Name of your current company/organization
5. Position
6. Have you ever been involved in E+ projects (training, mobility, course, workshop.....)
7. May you kindly specify? Name of course/ program
8. Did you build up any connection with the companies during you participation in Erasmus+?

9. Has this experience enabled you to be in contact with any company/organization that provided you any relevant training/ job?
10. Kind of the connection:
- ☐ Training ☐ Job ☐ Graduation project/ thesis
11. Did you feel that you gained more experience than your colleagues who did not participate in Erasmus+?
12. Were you given tasks that enabled you to apply knowledge and skills you learnt from these courses/training?
- ☐ Yes ☐ No
13. In your opinion, did this course/ training help you to upgrade your soft skills (mark all that apply)
- ☐ Leadership skills (Scale 1-5)
- ☐ Teamwork (Scale 1-5)
- ☐ Communication skills (Scale 1-5)
- ☐ Problem-solving skills (Scale 1-5)
- ☐ Work ethics (Scale 1-5)
- ☐ Flexibility / adaptability (Scale 1-5)
- ☐ Interpersonal skills (Scale 1-5)
14. Due to your participation in Erasmus+, did you register or in a process to register a patent?
15. Due to your participation in Erasmus+, did you start your own business?
16. Due to your participation in Erasmus+, did you start to think of your own business or career pathway?
17. To what extent do you think your involvement in Erasmus+ enhanced your skills?
- Scale 1 to 5
18. To what extent do you think your involvement in Erasmus+ facilitated your access to the labor market?
- Scale 1 to 5