



Erasmus + Capacity Building in Higher Education (CBHE) action

Algeria's National Impact Study - Report on closed projects for period 2015-2017

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List of acronyms

- CBHE:** Capacity Building in Higher Education
- ECTS:** European Credits Transfer System
- EMJMD:** Erasmus Mundus Joint Master Degrees
- HEI:** Higher Education Institution
- ICM:** International Credit Mobility
- ILO:** International Labour Organisation
- JM:** Jean Monnet
- LMD:** Licence, Master, Doctorat
- MESRS:** Ministry of Higher Education
- PB:** Professional Bachelor

Introduction

Erasmus+ is the European Union funded programme for the period 2014-2020, it supports the fields of Education, Training, Youth and Sport.

Erasmus+ provides Algeria as a partner country within Region 3 (South Mediterranean) the opportunities in the fields of Youth and Higher Education to participate in the following actions of its International Dimension: Learning Mobility of Individuals (Key Action 1), Cooperation for innovation and the exchange of good practices (Key Action 2), Support for policy reform (Key Action 3) and the specific action: Jean Monnet activities.

Higher Education in Algeria is eligible to seize the opportunities provided by Erasmus+ for higher education in four main actions: International Credit Mobility (ICM), Erasmus Mundus Joint Master Degrees (EMJMDs), Capacity Building in Higher Education (CBHE) and Jean Monnet activities (JM).

The Capacity Building in Higher Education (CBHE) projects are the transnational cooperation projects between the higher education institutions in the programme countries and the partner countries such as Algeria, they support modernisation of Higher Education and the development of higher education institutions (HEIs) to improve the education quality for students.

The CBHE projects can either be joint or structural. While Joint projects are targeting the impact on the institutions, structural projects address the impact on the system through the modernisation of governance, the Quality Assurance and recognition, which require the participation of ministries in the consortia of these projects. The CBHE projects can have one of three main formats: National targeting one partner country, Regional targeting partner countries within the same region and Cross regional targeting partner countries in two different regions or more.

In the context of Algeria, 28 CBHE projects have been selected following the 6 calls for proposals in the period **2015-2020** in line with the national and/or regional priorities (Annex 2), a total number of the joint projects is 20 whereas the total number of the structural projects is 8. The total number of national projects is 9 with 4 nationally coordinated, 18 regional projects and 1 cross-regional project. Thus, the total of Algerian higher education institutions involved in these 28 selected projects are 40 in addition to 8 non higher education institutions. (Annex 4)

For the period between **2015-2017**, a total of 11 CBHE projects were closed, 3 of which are structural projects and 8 joint projects. One of these projects was a national project targeting Algeria, 9 were regional projects targeting HEIs within the South Mediterranean region only (Region 3) and one cross-regional project targeting both the South Mediterranean region (Region 3) and the ACP region (Region 11). These projects can also be classified based on the regional priorities that they addressed as follows: 5 projects addressing “curriculum development”, 4 projects addressed “improving management and operation of higher education” and 2 projects addressed “developing the Higher Education sector within society at large”.

The 11 closed projects' consortia regrouped a total of 20 Algerian higher education institutions, the Algerian Ministry of Higher Education and Scientific Research in addition to 8 socio-economic partners and 114 international partners were fully involved (65 partners from 15 programme countries and 49 partners from 9 partner countries).

This impact study was based on the following sources:

- The received answers of the questionnaire (Comprised of the questions listed below) sent to the 18 Algerian partner HEIs and 8 socio-economic partners of each CBHE project's consortium. However, it should be noted that only 19 answers (76%) were received.

Questions:

- What has been achieved and why?
- Why would it not have been possible without EU Partners?
- Who profited it directly from the activities and how?
- What are the academic, economic, social and environmental long term impacts and who will be affected?
- How do the different projects compare (effectiveness, efficiency and addressing priorities) and how are they complementary in order to reinforce impact (if applicable)?
- What are the main lessons learned?
- The information and deliverables posted on the different projects' websites (10 out of 11 projects).
- The monitoring feedbacks and reports.
- A cluster meeting held on November 21st, 2019 with the EACEA representative at the university of Mostaganem.
- 8 interviews conducted via telephone calls and 2 zoom meetings with 13 active implicated persons (1 Rector, 2 Directors, 7 Vice-Rectors and 3 administrative staff members)

In this context, the study will be divided into 6 main sections as follows:

First, the aims and objectives that motivated the making of this report are presented and explained. Then, the impact and sustainability of the concerned CBHE projects are discussed based on two major aspects: institutional development and development of individuals.

The CBHE impact on policy development is then discussed, where the relation between CBHE projects and higher education reforms is presented. After that, the inclusiveness aspect of these projects is presented followed by the trends according to the environment aspect and the technology aspect.

Finally, the study conclusions are presented, with a summary of the observed challenges that affected the implementation of the CBHE projects, followed by the lessons learned.

1. Aims and objectives of the report

This report aims at evaluating the impact of the 11 closed CBHE projects selected between 2015 and 2017 (Listed below). It provides an overall insight into the project results and impact on different levels.

The 11 covered CBHE projects by this study are listed as follows:

1. **Project title:** Co-construction d'une offre de formation à finalité d'employabilité élevée
Acronym: COFFEE
Reference: 561812-EPP-1-2015-1-FR-EPPKA2-CBHE-SP
2. **Project title:** South Mediterranean Welding centre for education, training and quality control
Acronym: SMWeld
Reference: 561786-EPP-1-2015-1-SE-EPPKA2-CBHE-JP
3. **Project title:** Regional PhD School based on Innovative HydroPlatform in Water and Environment to Enhance MAGhreb Inter-Research Centres
Acronym: MAGIC
Reference: 561750-EPP-1-2015-1-MA-EPPKA2-CBHE-JP
4. **Project title:** Modernising Human Resource management In South Mediterranean higher Education
Acronym: RISE
Reference: 561810-EPP-1-2015-1-JO-EPPKA2-CBHE-JP
5. **Project title:** Boosting Environmental Protection and Energy Efficient Buildings In Mediterranean Region
Acronym: PROEMED
Reference: 573644-EPP-1-2016-1-IT-EPPKA2-CBHE-JP
6. **Project title:** Dialogue Interculturel, REseaux et Mobilité en MEDiterranée
Acronym: DIRE-MED
Reference: 574184-EPP-1-2016-1-IT-EPPKA2-CBHE-JP
7. **Project title:** Solutions Académiques pour le Territoire Euro-Méditerranéen Leader D'innovations Et Transferts Technologiques d'excellence
Acronym: SATELIT
Reference: 574015-EPP-1-2016-1-FR-EPPKA2-CBHE-SP
8. **Project title:** Qualité en enseignement supérieur pour les énergies renouvelables en Afrique du Nord et de l'Ouest
Acronym: AFREQEN
Reference: 573852-EPP-1-2016-1-FR-EPPKA2-CBHE-JP
9. **Project title:** Euro-African Network of Excellence for Entrepreneurship and Innovation
Acronym: INSTART

Reference: 573967-EPP-1-2016-1-ES-EPPKA2-CBHE-JP

10. Project title: Mediterranean Network of National Information Centres on the Recognition of Qualifications

Acronym: MERIC-net

Reference: 573868-EPP-1-2016-1-FR-EPPKA2-CBHE-SP

11. Project title: International Credit Mobility: A new Challenge for the Mediterranean Region

Acronym: ICMED

Reference: 586295-EPP-1-2017-1-IT-EPPKA2-CBHE-JP

2. CBHE impact and sustainability

2.1 Institutional Development

2.1.1. Curricula Reform

The curricula development projects intend to ensure the modernisation and the launching of new study programmes in line with the Bologna process, as well as the introduction of innovative learning and teaching methods.

In this context, almost 45 % of the selected CBHE projects addressed this objective. The projects **COFFEE**, **SM-WELD**, **PROEMED**, **MAGIC** and **AFREQEN** are compliant with both the European Credit Transfer System (ECTS) and the LMD system applied in Algeria.

MAGIC - Regional PhD School based on Innovative hydroPlatform in Water and environment to enhance MAGhreb Inter-Research Centres (*Project reference: 561750-EPP-1-2015-1-MA-EPPKA2-CBHE-JP*):

This joint project aimed to create a PhD school in Maghreb in water & environment, improve existing prerequisite courses and develop new modern courses through a regional Hydroplatform establishment based on open GIS and model softwares. The project also intended to address the water strategies in Maghreb (2010-2030).

Although the project's objectives were ambitious and very useful to the Maghreb region, this project did not achieve its goals due to managerial issues, which led to its closure in February 2018.

SM-WELD - South Mediterranean Welding Centre for Education, training and Quality Control (*Project reference: 561786-EPP-1-2015-1-SE-EPPKA2-CBHE-JP*)

The project aimed to implement education training and certification system in welding in Algeria and Tunisia, based on harmonised European standards.

Given the unavailability of accredited welding-centred training in Algeria, SM-WELD not only met this need but also provides a high-quality training offer in welding with the international standard ISO 3834 / EN 1090-2. The project resulted in:

- The creation of the South Mediterranean Welding Centre for Education Training and Quality Control, SM-WELD, in September 25th, 2018 hosted at CTMC (Centre Technique Métal Construction du Groupe IMETAL).
- The creation of a new 2-year Master entitled “Technologies de soudage” in the university of Constantine 1, which created the first Master in the field of welding in Algeria, comprising modules developed within SM-WELD equivalent to 45 ECTS. To date, 26 students were enrolled and 16 students were successfully graduated while the remaining 10 students are currently in their first Master year.
- The integration by the University of Sciences and Technologies Houari Boumediene (USTHB) of the developed modules equivalent to 45 ECTS in an existing Master “Fabrication Mécanique”. These courses were developed in accordance with international certifying programmes IIW (International Institute of Welding) and EWF (European Welding Federation).
- The certification test’s success rate is 78% with 25 successful participants out of the total 32 participants. 04 students from USTHB, 03 trainees from CTMC and engineers from 07 enterprises.
- The training of 117 trainees through 3 SM-WELD certifying trainings.
- The production of 6 welding magazines.
- The implementation of 29 seminars and conferences.
- The participation in 6 international fairs.
- The presentation of SM-WELD welding centre at the 3rd international congress of the Arab Union – Iron and Steel in Amman, Jordan in 2018.
- The presentation of SM-WELD welding centre at the meeting of the Arab Union – Iron and Steel in Kuwait in 2019.

AFREQEN - Qualité en enseignement supérieur pour les énergies renouvelables en Afrique du Nord et de l'Ouest (*Project reference: 573852-EPP-1-2016-1-FR-EPPKA2-CBHE-JP*)

The project aims to increase the adaptability of higher and professional education system in North and Western Africa in the field of renewable energies and environment through the development of professional aspects in education and the implementation within the institutions of a quality process of continuous improvement of training modules. In this context, one of the two Algerian partners ENSA (Ecole Nationale Supérieure Agronomique) was responsible for the evaluation of the training modules.

These modules were introduced as chapters within existing modules of the training “Machinisme Agricole et Agro-Equipements”. Two modules were subject to the modernisation of curriculum:

- “Électrotechnique” where a chapter concerning “sensors” was added;
- “Utilisation de l’énergie électrique en agriculture” where a chapter about “the sizing of photovoltaic installation” was added.

A national seminar was held in ENSA, Algiers on the 20th and 21st of June 2018 (Link: <http://www.ensa.dz/projet-afreqen-erasmus/>), with the participation of 368 students, 186 of which were trainees. The implementation process of the developed modules within the framework of the project is still ongoing.

PROEMED - Boosting Environmental Protection and Energy Efficient Buildings In Mediterranean Region (*Project reference: 573644-EPP-1-2016-1-IT-EPPKA2-CBHE-JP*)

This curriculum development joint project aimed to design, establish and implement new Master study programmes on “Environmental Protection and Energy Efficient Buildings” in Algerian, Moroccan and Tunisian universities.

This project resulted in the creation and accreditation of 2 professional Master level programmes in environmental protection and energy efficiency in building, with 16 enrolled students who successfully graduated.

The university of Mostaganem developed a curriculum entitled " Efficacité Energétique des Bâtiments " with a total of 120 credits (ECTS) corresponding to 1822.5 hours of teaching, distributed as follows:

- 79 credits (66%) for the Fundamental Unit (UEF) corresponding to 877.5 hours of teaching (Courses, Practical works, directed works, and personal work).
- 31 credits (26%) for the Methodology Unit (UEM) corresponding to 562.5 hours of teaching (Courses, Practical works, directed works, and personal work).
- 10 credits (8%) for the Discovery Unit (UED) corresponding to 382.5 hours of teaching (Courses and personal work).

As for the university of Tlemcen, the developed curriculum is entitled " Efficacité énergétique dans les bâtiments de construction" with a total of 120 credits (ECTS) corresponding to 1080 hours of teaching, distributed as follows:

- 74 credits (61.67%) for the Fundamental Unit (UEF) corresponding to 517.5 hours of teaching (Courses and directed works).
- 28 credits (23.33%) for the Methodology Unit (UEM) corresponding to 270 hours of teaching (Courses and practical works).
- 12 credits (10%) for the Discovery Unit (UED) corresponding to 157.5 hours of teaching (Courses and directed works).
- 6 Credits (5%) for the Transversal Unit (UET) corresponding to 135 hours of teaching (Courses).

COFFEE - Co-construction d’une Offre de Formation à Finalité d’Employabilité Elevée (*Project reference: 561812-EPP-1-2015-1-FR-EPPKA2-CBHE-SP*)

The COFFEE project succeeded in accrediting 17 new professional Bachelors, co-designed with relevant companies and enterprises in Algeria, by addressing specific profiles and skills requested by the local labour market, such as industrial maintenance, building rehabilitation and e-commerce. The consortium includes the Ministry for Higher Education and Research (MESRS), nine Algerian universities as well as two organisations representing industry and six European partners.

The professional Bachelors were co-designed with more than 137 Algerian socioeconomic partners by addressing specific profiles and skills requested by the local labour market.

Over 862 students were enrolled in the developed Bachelor programmes within the 9 Algerian universities.

2.1.2 Internationalisation

The internationalisation of the higher education sector is one of the Algerian national and regional priorities. CBHE projects give the opportunity to the Algerian institutions to get involved in international cooperation projects, to become more competitive in the global education market and to enhance their visibility and attractiveness.

CBHE projects have an impact on administrative staff. This applies particularly to staff from the offices for international affairs and staff responsible for project financial management, who have to be well acquainted with the regulations and procedures relating to project implementation.

Dealing with international projects, they considerably improve their language skills. Moreover, the equipment budget has allowed administrative staff to purchase new technology and to use their newly acquired skills for the benefit of their home HEI. Some CBHE projects specifically target staff from the offices for international affairs.

The following projects particularly supported the internationalisation of Higher Education Institutions in Algeria:

DIRE-MED - Dialogue Interculturel, REseaux et Mobilité en MEDiterranée

(Project reference: 574184-EPP-1-2016-1-IT-EPPKA2-CBHE-JP)

This joint project aimed to strengthen the capacities of the International Relations Offices (IROs) of higher education institutions (HEIs) of partner countries in order to configure them as Offices of international opportunities.

The project reinforced the skills of the IROs staff of the HEIs in order to increase the competitiveness of the universities concerned and contribute to consolidating cooperation between them. Using mobility and internationalization activities as a powerful tool for international opening, the result of capacity building for HEI staff and university-society dialogue, resulted in the creation of a framework for academic cooperation in the Mediterranean basin

The IROs are now able, not only to offer international opportunities for their internal university community, but also to companies, associations, industries and stakeholders which can approach the Offices to push for (future) more international and better prepared trainees and employees, studies and research with an international vocation and, in general, creating closer university-business and university-society relationships.

The project resulted in the following:

- The identification of 14 categories of best practices and 42 practices implemented by the partners,
- The structuration and capacity strengthening of international relations' offices following seminars and training visits,

- The signature of an agreement and experience sharing between the two Algerian universities (the universities of Alger 1 and Sétif 2).
- The signature of 8 cooperation agreements with external stakeholders and 5 other agreements between the partners.
- The signature of a MOU with the Erasmus Students network and the university of Sétif 2.
- The creation of the DIRE-MED network and the UNIMED sub-network for mobility and intercultural dialogue.
- 52 individuals (12 students and 40 staff) benefited from trainings, study visits, mobilities (South-North and South-South).

Numerous strategic and procedural documents were also created and adopted to support internationalisation and modernisation at the institutional level. These included guidelines for learning outcomes at HEIs, strategies for university internationalisation, systems for monitoring the quality of the education process, and the adoption of protocols and procedures, which help to improve the service provided by the international relations offices:

ICMED - International Credit Mobility: a new challenge for the Mediterranean Region (*Project reference: 586295-EPP-1-2017-1-IT-EPPKA2-CBHE-JP*)

This project resulted in:

- The development of an internationalisation strategy. In consequence, the number of ICM partners for University of Sciences and Technologies of Oran (USTO) increased from 3 partners in 2016 to 22 partners in 2021 and from 8 partners for the university of Biskra in 2018 to 15 partners in 2020.
- Students' Guide, USTO Erasmus+ website and a Facebook page, application platform to ICM mobilities, acquisition of ICM management software.

AFREQEN - Qualité en enseignement supérieur pour les énergies renouvelables en Afrique du Nord et de l'Ouest (*Project reference: 573852-EPP-1-2016-1-FR-EPPKA2-CBHE-JP*)

This cross-regional project (targeting region 3 and region 11) boosted the internationalisation and the visibility of Algerian higher education institutions not only within the South Mediterranean region (Region 3) but also within the ACP region (Region 11).

2.1.3 Equipment acquisition

The provision of funds to improve the technical structure and capacities of Algerian HEIs is an important element of CBHE as the Algerian universities often lack modern and labour market orientated training facilities.

Adequate provision of equipment in laboratories and centres is an important means of support for teaching purposes.

Approximatively EUR 617 891, 75 were invested in equipment for the 10 CBHE projects implemented in Algeria (Annex 1). **95.5%** of the acquired equipment is hardware while the

remaining 4.9% is software. The acquired hardware equipment falls under one of three categories:

- **Laboratories equipment:** 58.4% of the hardware equipment was dedicated for laboratories such as 3D printers, welding machines, vibrometers, Liquid gas absorption, demonstration bench, false document detection device...
- **IT hardware:** 19.8% such as laptops, desktops, printers, servers...
- **Multimedia equipment:** 16.9% of the hardware equipment was dedicated for multimedia use, such as cameras, projectors, projection screens, Video conference systems, TVs, Green screen, microphones...

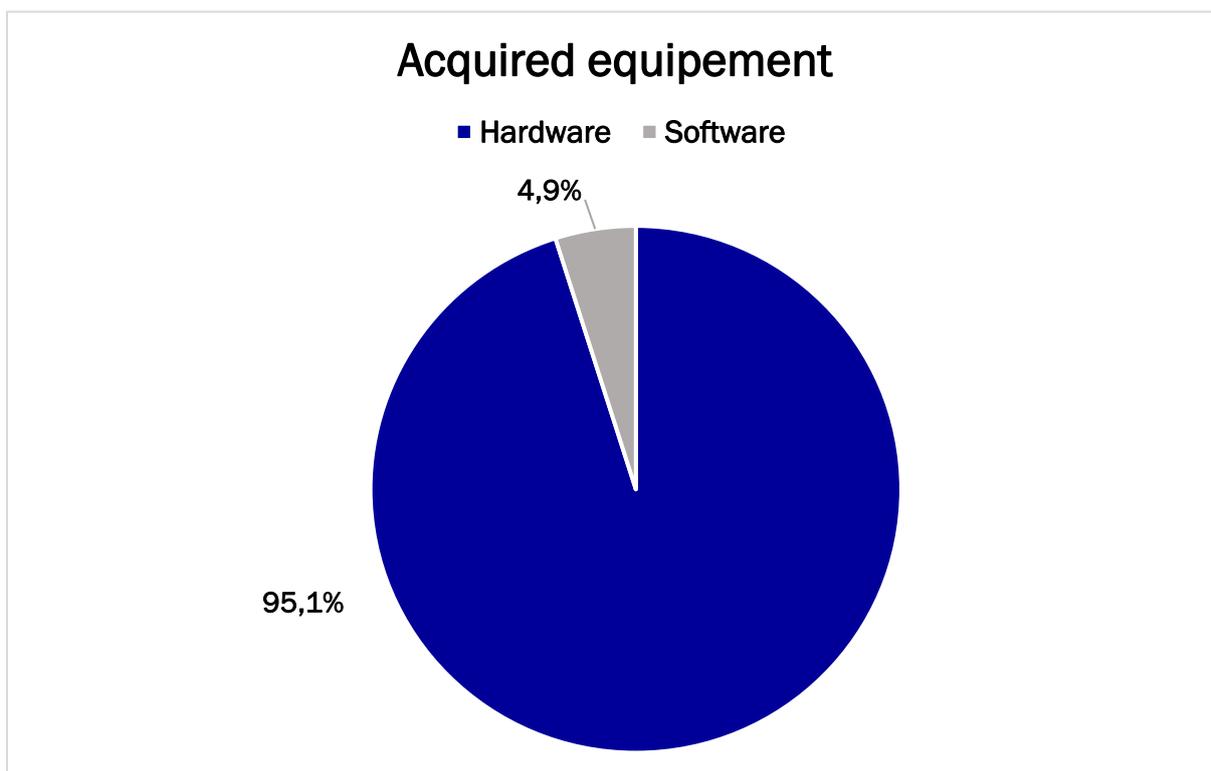


Figure 1. Distribution of the acquired equipment

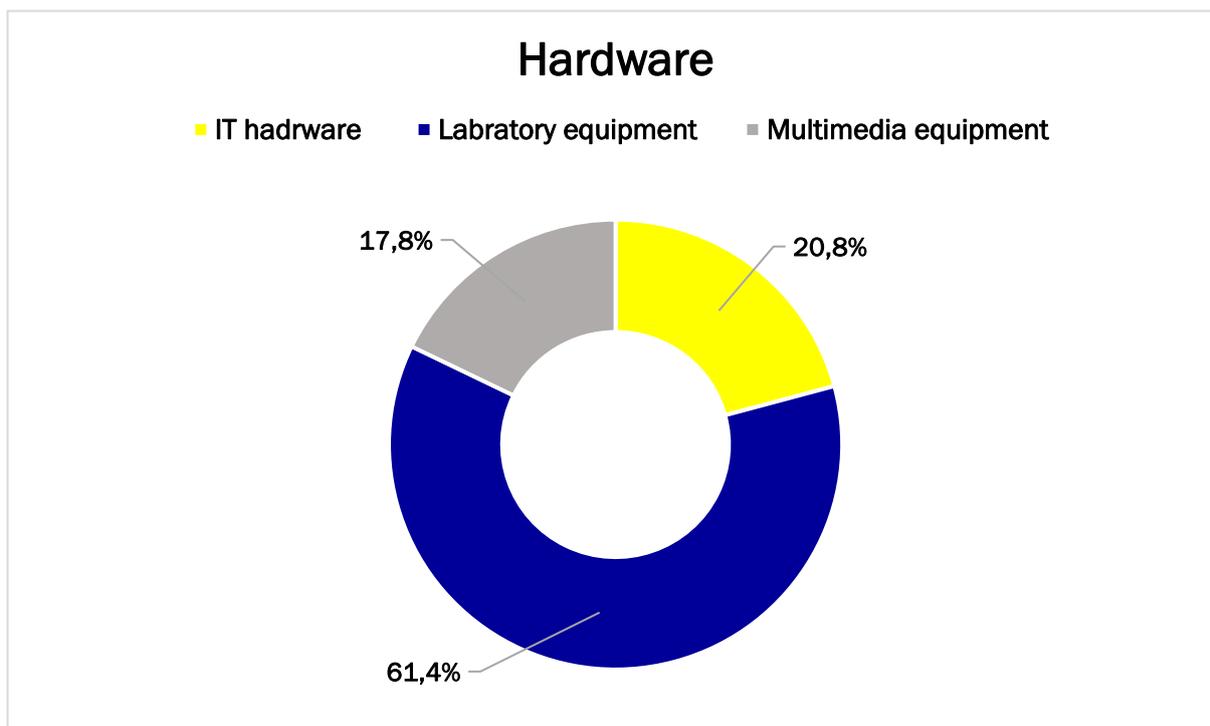


Figure 2. Distribution of the physical equipment

The detailed equipment costs per Algerian partner are indicated in the following table:

Selection year	Project acronym	Algerian HEIs	Equipment costs in euro
2015	RISE	University of Laghouat	19 047,66 €
		Université de la Formation continue (UFC)	22 729,75 €
TOTAL			41 777,41 €
2015	COFFEE	Université de Ouargla	10 300,00 €
		Université de Boumerdès	24 000,00 €
		Université de Guelma	24 000,00 €

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		Université de Constantine	24 000,00 €
		Université de Djelfa	24 000,00 €
		Université de Ghardaia	24 000,00 €
		Université Abdelhamid Ibn Badis de Mostaganem	26 190,11 €
		Université de Sidi Bel Abbès	24 000,00 €
		Université de Tlemcen	34 000,00 €
TOTAL			214 490,11 €
2015	MAGIC	Université d'Annaba	0,00 €
		Université de Mascara	0,00 €
TOTAL			0,00 €
2015	SMWELD	Université de Constantine	69 176,00 €
		USTHB	71 265,23 €
TOTAL			140 441,23 €
2016	AFREQEN	Ecole nationale supérieure agronomique - ENSA Alger	23 000,00 €
		Université de Biskra	12 321,31 €
TOTAL			35 321,31 €

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2016	DIREMED	Université de Setif 2	16 500,00 €
		Université Alger 1, Benyoucef Benkhedda	16 639,10 €
TOTAL			33 139,10 €
2016	InStart	Université de Bejaia	9 450,00 €
		Université de Guelma	9 450,00 €
TOTAL			18 900,00 €
2016	MERIC-NET	Université Alger 1, Benyoucef Benkhedda	37 500,00 €
		Université de Tlemcen	16 500,00 €
TOTAL			54 000,00 €
2016	PROEMED	Université Abdelhamid Ibn Badis de Mostaganem	11 400,00 €
		Université de Tlemcen	25 400,00 €
TOTAL			36 800,00 €
2016	SATELIT	Université de Bejaia	31 900,00 €
		Université de Constantine	31 900,00 €
TOTAL			63 800,00 €
2017	ICMED	Université de Biskra	10 600,00 €
		USTO	10 400,00 €
TOTAL			21 000,00 €

Equipment acquisition total amount	617 891,75 €
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2.2 Development for Individuals

2.2.1 Students

There is a real and diverse impact of the CBHE projects on Algerian students. They benefit from modernised or new study programmes, new or improved equipment/infrastructure and retrained professors.

Moreover, they are also exposed to innovative teaching and learning methods through short and long-term mobility, study periods, vocational trainings within the professional study programmes and placements abroad. Their academic and practical competences have been enhanced.

They can acquire soft and transversal skills, improve their language skills, access to well-equipped laboratories in Europe, take part in an intercultural dialogue in an international environment and produce joint publications.



Figure 3. Students' mobility in the framework of the CBHE project SM-WELD

2.2.2. Academic & administrative staff

CBHE projects also have an impact on administrative staff and academic staff. The administrative and financial staff are important in the implementation of international cooperation.

Moreover, given the nature of their work, their participation in mobility opportunities offered by CBHE projects is rare. However, dealing with international projects, they have to work in English, and through this way, they considerably improve their language skills. Moreover, the CBHE project give them the opportunity to interact with their peer from other countries and to bring them learning opportunities and give them insights into best practices in financial and grant management

The CBHE projects also gave the opportunity to academic staff to meet their peers in different countries. By working together in international consortia, they gained new insights into their academic field and were exposed to international quality standards in education. The CBHE broaden their perspectives, by bringing an international dimension to their work.



Figure 4. Staff mobility in the framework of the CBHE project SM-WELD

2.2.3 Socioeconomic actors

The socioeconomic actors were actively implicated in the implementation of CBHE projects in Algeria.

In the COFFEE project, the new professional Bachelors were co-designed with relevant companies and enterprises in Algeria, by addressing specific profiles and skills requested by the local labour market. More than 137 socioeconomic partners from various sectors and industries were involved in the project.

3. POLICY DEVELOPMENT

3.1 CBHE projects and National Education Reforms

The structural projects had a pivotal role in terms of impact on the higher education system in Algeria. Structural projects support developments and reforms in the national education systems through a cooperation between HEIs and national authorities.

Three structural projects were implemented in the covered period: **COFFEE, MERIC-NET & SATELIT.**

COFFEE addressed the issue of employability of new graduates in Algeria. The project is based on co-construction of curricula designed between universities, the Ministry of Higher Education and the socio-economic partners. The project was inclusive and reached a large number of Algerian HEIs. By the end of the project, 17 bachelor study programmes were accredited. Following the end of the project, 5 new bachelor study programmes were accredited.

Moreover, a multi-sectoral EU funded project called AFEQ (Programme d'Appui à l'Adéquation Formation-Emploi-Qualification-www.programme-afeq.org) capitalised among others on the COFFEE project's results in order to develop a programme that tackled the following questions: insertion, promotion of Vocational Training and Apprenticeship and enhancement of the relation between universities and enterprises. The following Ministries

were involved: Ministry of Labour, Employment and Social Security; Ministry of Higher Education and Scientific Research and the Ministry of National Education

COFFEE contributed to the development of the employment policy in Algeria.

Mediterranean Network of National Information Centres on the Recognition of Qualifications (MERIC-Net) (Project Reference: 573868-EPP-1-2016-1-FR-EPPKA2-CBHE-SP): The MERIC-Net project addressed difficulties affecting mobility opportunities in the South Mediterranean countries and the internationalisation of local higher education systems.

The project intended to stimulate the MERIC network (Mediterranean Recognition Information Centres) in order to facilitate recognition of qualifications within the Mediterranean Region and the contact between the recognition authorities in the Mediterranean and European region. The project managed to raise the quality of vertical and horizontal mobility in the higher education systems of Algeria, Lebanon, Morocco and Tunisia by implementing trainings for government officials and university staff to provide them with relevant knowledge on EU higher education systems, recognition practices and National Recognition Centres.

The project managed to facilitate the circulation of clear and complete information, which is useful both for credential evaluators and students.

The project managed to foster the debate at the policy level by providing the following deliverables : 4 national reports on the higher education systems of Algeria, Lebanon, Morocco and Tunisia; guidelines for the recognition of qualifications of refugees, displaced persons and persons in a refugee-like situation; report on transnational education in Lebanon, Tunisia, Lebanon and Morocco; recognition procedures and mobility flows.

4. Inclusiveness

4.1 People with fewer opportunities

CBHE projects in in Algeria can include as a priority the involvement of people with disadvantaged backgrounds and fewer opportunities compared to their peers.

RISE - Modernising Human Resource management In South Mediterranean higher Education (Project reference: 561810-EPP-1-2015-1-JO-EPPKA2-CBHE-JP)

The project contributed to the south Mediterranean Higher Education Agenda through the modernisation of human resource management The project allowed to conceive and develop institutional Human Resources strategies in South Mediterranean higher education institutions and contribute to building the Human Resource Management skills to ensure a greater efficiency organisation-wise. A regional network on Human Resource Management (MUN-HRM) was created as a forum comprised of 29 HR director from 29 different institutions from 4 countries (Algerian, Jordan, Morocco and Tunisia), to promote and facilitate sharing of professional knowledge, experiences and good practices from the diverse stakeholders from across the region and beyond to forge a common ground through

international collaboration. A guideline on best practices in HR management was also produced and published.

In the context of the inclusiveness, the project RISE addressed among others the issues of human resources management among administrative workers mainly women who rarely benefit from this type of international cooperation projects. The outreach of trainings provided by RISE was wide and inclusive, thus the good practices shared and learnt are valuable tools for their daily tasks.

4.2 Institutions located in remote regions

The CBHE action also gave the opportunity to HEIs outside the capital to be actively involved in international cooperation projects. Institutions located throughout the national territory participated in the CBHE projects, even though it were HEIs located in the main cities of the northern part of the country that more often involved in the cooperation projects.

Among the Algerian partners involved in the 11 closed CBHE projects, **15** Algerian HEIs from the northern part of the country were involved against only 5 Algerian institutions from more peripheral areas (University of Biskra, University of Ouargla, University of Laghouat, University of Djelfa and the University of Ghardaia).

5. Trend

5.1 Climate and Environment

Out of the 11 concerned CBHE projects in this study, 2 projects addressed the trend of climate and environment:

Boosting Environmental Protection and Energy Efficient Buildings In Mediterranean Region (PROEMED) (573644-EPP-1-2016-1-IT-EPPKA2-CBHE-JP), which aimed at designing, setting up and developing a new Master programme in "Environmental protection and energy efficiency in buildings", otherwise called Sustainable buildings. The developed programme is a novelty in Algeria.

Qualité en enseignement supérieur pour les énergies renouvelables en Afrique du Nord et de l'Ouest (AFREQEN) (573852-EPP-1-2016-1-FR-EPPKA2-CBHE-JP), which contributed in promoting renewable energy, improving access to energy, energy efficiency, energy transition and preserving the environment in North and West Africa.

5.2 Technology

2 CBHE projects involving Algerian institutions leaned into this trend:

SATELIT - Solutions Académiques pour le Territoire Euro-méditerranéen Leader d'Innovations et Transferts technologiques d'excellence (*Project reference: 574015-EPP-1-2016-1-FR-EPPKA2-CBHE-SP*)

This structural project resulted in the creation of the University Bureau of Technology Transfer and a MOOC on innovation and Technology Transfer. 3 academic and one

administrative staff members within the university of Constantine - Mentouri benefited from mobilities.

INSTART - Euro-African Network of Excellence for Entrepreneurship and Innovation (*Project reference: 573967-EPP-1-2016-1-ES-EPPKA2-CBHE-JP*)

During the project, 4 trainings were organised (Physically and virtually) with the participation of 19 academic staff members, 20 administrative staff members and 36 students. Also, 2 events were also organised (INSTART Talk and INSTART Marathon) with the participation of 355 persons.

6. Conclusions

Algerian participation in CBHE projects for the period covered by the report remains relatively modest and below the existing potential and the increased demand from heads of institutions for better involvement in such multilateral projects. However, a positive impact of these projects was observed on the reform of the Algerian higher education system in general, which can be summed up in the following points:

- Support for national policies and North-South knowledge transfer
- Improvement of the training offers quality and the construction of new professional training offers that enrich the catalogues of university training in Algeria
- Inclusion and empowerment of students who benefited from mobilities within CBHE projects.
- Positive impact on the higher education institutions and human resources management through a strong commitment from the top-management of universities, and staff, who reported the importance and usefulness of adapting the acquired experience on the governance of HEIs in CBHE projects which allowed them to strengthened their skills and acquire new skills through the followed trainings (Training of trainers and other specialised trainings)
- Reinforcement of existing infrastructure with equipment (hardware and software) acquired within the framework of CBHE projects, highly appreciated by beneficiary institutions and which improves the quality of the work of university administrations.
- Opening of the Algerian universities involved in international university networks and a strong orientation towards an internationalisation strategy through CBHE projects, and signing of national and international conventions between the members of the consortia
- The joint coordination of the work packages of the projects enabled the Algerian partners to learn the drafting of deliverables, the setting up of a teaching unit, the management and the creation of university centres for technology transfers,
- Consolidation of university-business relations and other socio-economic actors.

6.1 Challenges

- The average number of implicated Algerian HEIs by projects is 2 to 3 institutions, except the COFFEE project, which included 12 institutions. This challenge limits the impact and the geographical coverage
- Observed weakness in the dissemination of project results and a lack of results exploitation of certain structural projects.
- Loss of trained teams after the end of the project funding.
- Lack of understanding of issues related to VAT exemption for equipment acquired in the framework of CBHE projects
- Bank management of different CBHE grants from one bank to another.
- Overlapping and redundancy observed of the topics dealt with in structural projects with other programmes beyond Erasmus +, i.e: projects on employability are conducted by the ILO and the MESRS,
- Observed difficulties in the results capitalisation and sustainability for certain structural projects due to the lack of an appropriate structure dedicated to capitalising and monitoring the results on the medium and long term.
- The involvement of the same management team members jeopardises the transfer of knowledge and experience to new people with less experience in the CBHE projects.
- Language barrier.
- Visa issues.

6.2 Lesson learned:

- The active involvement of the Ministry of Higher Education and Scientific Research takes part in the projects dealing with the curricula development secures the timely accreditation and ensures the sustainability of the curricula.
- The large size of the consortia involving Algerian partners allows a better dissemination and geographical coverage.
- The creation of dedicated national bodies such as the National Quality Assurance Agency ensures the sustainability of the project results and the implementation of the structural projects outcomes.
- Clear project management strategy within the implicated higher education institutions is necessary.
- Outputs such as booklets of best practices and guidelines ensure the sustainability of the results and their visibility after the end of the project.
- Widen the cooperation and skills exchange between the university and the enterprises in both ways, the projects that have succeeded in that regard are due to the active involvement of the non-academic partners in the curricula development and the participation in the internal assessments.
- Increase the participation of the associations in CBHE projects and open up the universities to society at large to enrich the interactions and outcomes.

- Issues related to project management can negatively impact a well-designed project with ambitious outcomes, thus the lack of timely remedy to the poor management between partners leads to the project breakdown.

Annex 1: List of equipment acquisition per project

	Software
	IT Hardware
	MultiMedia Hardware
	Laboratory Hardware

Project	Equipment
RISE	Desktop computer Core i7 Win 10 Pro
	Lap Top HP ProBOOK G4
	Laser printer A4 ;B5,A5 noir et blanc Canon LBP 6030 ,USB2.0.
	Laser printer A4 , Couleur Canon i-SENSYS LBP 7018C
	Printer Multifonctions A3 Noir et blanc Canon2204N
	Scanner A4
	Server core i7-7700,4gb,1TB ,Win 10Pro
	Printer a badge DTC 1250Efd HID-USA
	Battery Backup 600VA
	Software
	COFFEE
DBO Metre WTW	
usb flash disk	
PC fujitsu I5	
Screen HP	
Switch TP link	
Banc de demonstration de l'absorbtion de Gas liquide	
Frais de transport	
Echantiollonneur de zone de type spiralus	
Tamis inox / ref 1	
Tamis inox / ref 2	
Tamis inox / ref 3	
Tamis inox / ref 4	
couvercle de tamis	
fond de collecte	
Faritome de Phol	
grain counter	
Vacuum desiccator	
Vacuum pump	
Olive de raccordement pour tuyau Øi 8 mm, en PA	
Rubber vacuum hose, 8 x 16 mm, 2 m	
Crusher	
emballage	

COFFEE	MISE A FCA*
	Cout CPT*
	Vibration analyzer assisté par ordinateur
	Desktop computer I5
	Data show
	Screen for projection
	TV Smart 55" Brandt 4k
	Camescope
	trépier GM
	Tableau Blanc interactif
	License sublime text
	license adobe photoshop,dreamwever,muse,illustrator
	pc intel core i5 B gddr4 1t hdd screen20 pouce haute resolution license win 7 originale de marque
	Spectrophotometre
	Ph metre de paillasse
	conductimetre
	Etuve
	Server HP
	Cutter Plasma Shark 45 Série N° JA060001
	Filtre pour Découpeur Plasma
	Lunettes UV. IR5 Plasmatech
	Welding machine AC/DC MATRIX 3000 Série N° JA063004
	Welding machine Semi-automatique MAXI 405 WATER Série N° YF152017
	Welding machine Multi-procédé MP200
	Digital refractometer
	Portable conductivity meter OHAUS STARTER 300C
	PH_mètre portable OHAUS STARTER 300
	Laboratory polarimeter Princeton Instruments WXG-4
	Analytical balance OHAUSS ADVENTURER AR124CN
	Density meter

SMWELD	POSTE LINCOLN INVERTEC V270 TP 400V
	POSTE LINCOLN INVERTEC 270-SX
	POSTE LINCOLN POWERTEC 305S
	POSTE LINCOLN PLASMA INVERTEC PC210
	CUTTING TORCH HARRIS G1

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	CAGOULE ELECTRONIQUE LS LINC SCREEN II
	WELDING TORCH AVEC 6 LANCES
	THERMOMETRE INFRAROUGE ET DUROMETRE PORTATIF
	EN-40 SLIT EXTRACTION NOZZLE
	ENTONNOIR ASPIRATION
	FILTRE HEPA
	FILTRE LONGLIFE
	MINIFLEX
	PREFILTER
	ETUVEUSE 5 KG
	CONSOMABLE POUR TORCHE TIG MIG MAG ARC
	BROSSE METALIQUE, PIQUETTE, PRODUIT DE RESSUAGE
	BOITE DE BAGUETTE DE SOUDURE Ø2,5 - Ø3,2 - Ø4,2 BASIQUE + BOBINE Ø0,8 - Ø1 - Ø1,2
	WELDER'S APRON (gants, chaussure, lunettes anti uv grade 10)
	transport
	forniture et Ppse / ref 1
	forniture et Ppse / ref 2
	EuTec T / ref 1
	EuTec T / ref 2
	EuTec T / ref 3
	EuTec T / ref 4
	EuTec T / ref 5
	EuTec T / ref 6
	Etuve potative 230 V
	forniture et pse / ref 3
	torche / ref 1
	forniture et pse / ref 4
	Detendeur
	torche / ref 2
	gaine / ref 1
	gaine / ref 2
	tube contact
	Diff ceramique
	Supp tube
	Buse
SMWELD	Castomag / ref 1
	Castomag / ref 2
	forniture et pse / ref 5
	Xuper percigaz
	torch / ref 2
	Accessoire torche
	Bte 10 elec / ref 1
	Bte 10 elec / ref 2
	Bte 10 elec / ref 3

	boite access
	Casto tig / Ref 1
	Casto tig / Ref 2
	Casto tig / Ref 3
	Casto tig / Ref 4
	Casto tig / Ref 5
	Casto tig / Ref 6
	Casto tig / Ref 7
	forniture et pse / ref 6
	Accessoires
	blister / ref 1
	blister / ref 2
	blister / ref 3
	blister / ref 4
	Coffret chantier
	chariot
	Bag
	Castolin
	forniture et pse / ref 7
	forniture et pse / ref 8
	Eutalloy
	10185P E
	Chrome Tec
	Tuyau / ref 1
	Tuyau / ref 2
	siperblind / ref 1
	siperblind / ref 2
	masque elec
	gants
	tablier cuir
	lunette soudure
	Marteua à piquer
	metal brush / ref 1
	metal brush / ref 2
	kit ressuage

ISNTART	Computer All In one LENOVO, DDRAM 4 Go, HDD 500 Go, SCREEN18.5"
	inverter
	Laptop Dell 15.6" DDRAM 4 Go HDD 1 TO Core 15- 5200 UFree DOS
	multifunction printer Canon MF623
	Data Show Acer - X117 3600 Lumens HDMI -VGA
	Photocopier 2520 A3 with original toner
	Scanner PRO
	Mobile disk external data storage 1 To
kaspersky anti-virus license tree station	
MERIC-NET	Luminus :false document detection device

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AFREQEN	Hard disk lacie 2Big Quadra Usb3 8To
	ASUS Zenbook I5, 8GO / ref 1
	ASUS Zenbook I5, 8GO / ref 2
	Camescop / ref 1
	Memory cardSan Disk
	Camescop / ref 2
	Carte San Disk
	Enregistreur Monitoring video
	Fresnel LED Mono daylight
	Perche 3m
	Real presence group 310-720p
	Memoy card video
	micro emetteur/recepteur
	régie mélange Atem
	Pano led
	intercom audio multicam Kit
	Micro sennh
	HP workstation
	micro emetteur/recepteur ref 2
	Microphone lavallière sans fil ; mic/line AVX ME2 Bat BA20, BA30+
	ASUS Zenbook I5
	Camescop
	Carte san disk
	Enregistreur Hyped deck
	Frensel led mono daylight
	pano led / ref 1
Régie mélange	

AFREQEN	trépied fluide Pro
	Micro Sennh
	Carte mémoire video
	Pano led / ref 2
	Micro emetteur / recepteur
SATELIT	PC I5 / ref 1
	PC I5 / ref 2
	Printer / ref 1
	3d printer
	filament
	PC fujitsu i3
	windows 8
windows 8 media	

printer / ref 2
video projecteur
tableau blanc
processeur intel I7
carte mere msi
Ram adata
Grand tour mast cooler
DD SSD 250 Gb
DD 2Tb
Carte graphique
Alimentation
camera sony
appareil photo
micro cravate sans fil
fond vert
carte mémoire
projecteur led studio
DD SSD externe
HDD 6 To
Matière d'impression
Micro Ordinateur All In One LENOVO i
Cel. DDR 4 Go. HDD 500 Go. Screen 18.5 "
Battery Backup APC 500 VA
Laser printer Canon MFP623
Photocopieur canon IR 2520
Hard disk Exteme 1 Tr

SATELIT	Modem retour 4G
	Baie de stockage
	Cache4G, 1x4GB for ICtl DX1i200 53 HD 2.5"
	900G8 10krpm x10
	Proxxon
	Maker Ultimate 3d printer
	Proxxon tour de precison
	licence wirecast pro
licence titler live for wirecast	

DIRE-MED	Microphne baladeur
	terminal de visionconference
	Contrat de maintenance
	Dell opilex i3

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	Screen LED 43"
	Polycom CX550 Table console
	Polycom CX550 Power data Box
	Videoconferencing system; o Videoconferencing system: SVC-100: Aver Point-to-point camera, H.323 / SIP / Skype for Business. 1080p 60fps, PTZ camera 12X, Streaming, scalable up to 16 sites SVC-L00 o SVC-100 system extension license to reach 04 points simultaneously o Roland V-1HD video source connection and sharing system o Complete sound reinforcement system o Wiring and configuration o User training
	COSMOL Multiphysics
	Trnsys
	sketch pro software
	Dasbox
	Ultra compact absolute pressure sensor for Daqbox
	Capteur SHT-35
Cable DaqBox	
Sonomètre testo 815	
Analyseur de qualité des réseaux d'énergie	

ICMED	Système de projection interactive et impression; o Video projecteur o Tableau interactif o Laptops o Multifonction laser Kyocera o Support tableau interactif et video projecteur
	Data projector Espson
	Laptop
	Multifonction printer kyocera
	tableau blanc interactif
	Mobility Managment Software

Annex 2: Algerian National priorities & Regional priorities

		Modernisation of curriculum by developing new and innovative courses and methodologies									
		Modernisation of governance, management and functioning of higher education						Strengthening of relations between higher education and the wider economic and social environment			
		CATEGORY A Curriculum Development		CATEGORY B Improving quality of education and teaching		CATEGORY C Improving management and operation of higher education institutions		CATEGORY D Developing the Higher Education sector within society at large			
Regional priorities 2015 - 2017	Teacher training and education science Social and behavioural science Law Physical sciences Agriculture, forestry and fishery Health Environmental protection	Bologna process type reforms		Governance, strategic planning and management of higher education institutions (including human resource and financial management)	Internationalisation of higher education institutions (including recognition mechanisms and mobility, international relations capacities)	Access to and democratisation of higher education (including the disadvantaged groups of people and regions)		Development of school and vocational education at post-secondary non-tertiary education level (including in-service training for teachers and reforms to the teaching profession)	University-enterprise cooperation, entrepreneurship and employability of graduates	Knowledge triangle, innovation (reinforcing links between education, research and business)	International cooperation at regional level (among countries from the same region) or cross-regional level (among countries from different regions)
National priorities 2015 - 2017	Teacher training and education science; Arts; Life sciences; Physical sciences; Mathematics and statistics; Computing; Engineering and engineering trades; Architecture and construction; Agriculture, forestry and fishery; Veterinary	Bologna process type reforms	Learning and teaching tools, methodologies and pedagogical approaches including learning outcomes and ICT-based practices (inter alia, flexible learning paths, blended courses, virtual and real mobility, practical placements etc.)	Governance, strategic planning and management of higher education institutions (including human resource and financial management)	University services such as support services for student and staff mobility, such as student counselling and guidance, social services, academic affairs, libraries, etc.	Internationalisation of higher education institutions (including recognition mechanisms and mobility, international relations capacities)	Quality assurance processes and mechanisms (à partir de 2017)	Development of research and innovative capacities (excluding research activities)	University-enterprise cooperation, entrepreneurship and employability of graduates	Knowledge triangle, innovation (reinforcing links between education, research and business)	

Annex 3: Algerian Higher Education Institutions involved in the 2015-2017 closed projects

Year	Project	Higher Education Institutions
2015	<p>Co-construction d'une offre de formation à finalité d'employabilité élevée (COFFEE) :</p> <p>561812-EPP-1-2015-1-FR-EPPKA2-CBHE-SP</p>	<ul style="list-style-type: none"> - University of Boumerdes - University of Constantine 1 - University of Djelfa - University of Ghardaia - University of Guelma - University of Mostaganem - University of Ouargla - University of Sidi Bel Abbes - University of Tlemcen - Ministry of Higher Education and Scientific Research - Chambre of Commerce - Association for the development and promotion of the entreprise
	<p>Modernising Human Resource management In South Mediterranean higher Education (RISE):</p> <p>561810-EPP-1-2015-1-JO-EPPKA2-CBHE-JP</p>	<ul style="list-style-type: none"> - Université de la Formation Continue - UFC - University of Laghouat
	<p>South Mediterranean Welding center for education, training and quality control (SMWeld):</p> <p>561786-EPP-1-2015-1-SE-EPPKA2-CBHE-JP</p>	<ul style="list-style-type: none"> - University of Sciences and Technologies Houari Boumediene - University of Constantine 1 - Entreprise Nationale des Véhicules Industriels (SNVI) - Société des matériels de gerbage et de manutention (EPE GERMAN) - Yamani Institute of Technology
	<p>Regional PhD School based on Innovative HydroPlatform in Water and Environment to Enhance MAGhreb Inter-Research Centres (MAGIC):</p> <p>561750-EPP-1-2015-1-MA-EPPKA2-CBHE-JP</p>	<ul style="list-style-type: none"> - University of Annaba - University of Mascara

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2016	<p>Boosting Environmental Protection and Energy Efficient Buildings In Mediterranean Region (PROEMED):</p> <p>573644-EPP-1-2016-1-IT-EPPKA2-CBHE-JP</p>	<ul style="list-style-type: none"> - University of Tlemcen - University of Mostaganem - Mediterranean Institute of Technology
	<p>Dialogue Interculturel, REseaux et Mobilité en MEDiterranée (DIRE-MED):</p> <p>574184-EPP-1-2016-1-IT-EPPKA2-CBHE-JP</p>	<ul style="list-style-type: none"> - University of Setif 2 - University of Algiers 1
	<p>Solutions Académiques pour le Territoire Euro-Méditerranéen Leader D'innovations Et Transferts Technologiques d'excellence (SATELIT):</p> <p>574015-EPP-1-2016-1-FR-EPPKA2-CBHE-SP</p>	<ul style="list-style-type: none"> - University of Bejaïa - University of Constantine 1 - Ministry of Higher Education and Scientific Research - EPIC Chambre Algérienne de commerce et d'industrie (CACI)
	<p>Qualité en enseignement supérieur pour les énergies renouvelables en Afrique du Nord et de l'Ouest (AFREQEN):</p> <p>573852-EPP-1-2016-1-FR-EPPKA2-CBHE-JP</p>	<ul style="list-style-type: none"> - University of Biskra - ENSA
	<p>Euro-African Network of Excellence for Entrepreneurship and Innovation (INSTART):</p> <p>573967-EPP-1-2016-1-ES-EPPKA2-CBHE-JP</p>	<ul style="list-style-type: none"> - University of Guelma - University of Bejaia

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	<p>Mediterranean Network of National Information Centres on the Recognition of Qualifications/Meric-Net (MERIC-net):</p> <p>573868-EPP-1-2016-1-FR-EPPKA2-CBHE-SP</p>	<ul style="list-style-type: none"> - University of Tlemcen - University of Algiers 1 - MESRS
2017	<p>International Credit Mobility: A new Challenge for the Mediterranean Region (ICMED):</p> <p>586295-EPP-1-2017-1-IT-EPPKA2-CBHE-JP</p>	<ul style="list-style-type: none"> - University of Sciences and Technologies of Oran - University of Biskra

Annex 4: Figure of the Algerian selected CBHE projects in 2015-2020

