

Report on R&I Project Cluster Analysis

Mapping and Portfolio Analysis of EUROMED R&I Cooperation

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Abbreviations

<i>Abbreviation</i>	<i>Definition</i>
<i>CSA</i>	Coordination and support
<i>DG</i>	Directorate General
<i>DMS</i>	Distribution System Modernization
<i>ENI CBC</i>	ENI CBC “Mediterranean Sea Basin Programme”
<i>EPS</i>	Electric Power Systems
<i>EU</i>	European Union
<i>H2020</i>	Horizon2020
<i>PA</i>	Priority Area
<i>PO</i>	Project/Policy officer
<i>PRIMA</i>	Partnership for Research and Innovation in the Mediterranean Area
<i>RE</i>	Renewable Energy
<i>SDG</i>	Sustainable Development Goals
<i>TCIP</i>	Theories of Change and Impact Pathways
<i>UfM</i>	Union of the Mediterranean

1 Executive summary

This report supports the first pillar of the Implementation Plan of the Union for the Mediterranean (UfM) Regional Platform in Research and Innovation by mapping and analysing a portfolio of 252 projects. The projects are funded by three programmes: H2020 (155 projects), PRIMA (60 projects) and ENI CBC (37 projects). Based on project descriptions, the relevance of the projects to the three Priority Areas (PAs) - “Health”, “Renewable Energy” and “Climate Change”, and their specific focus areas set in the Theories of Change and Impact pathways, is assessed. The main objective is to identify potential synergies, gaps and overlaps in regard to distribution of projects according to PAs and country participation in projects.

“Climate Change” is prioritised as it is the PA with the highest number of projects and the largest funding, mainly from PRIMA and H2020 programmes. PA “Renewable Energy” is the least funded and with the fewest projects supported through H2020 and ENI CBC only. Projects in the “Health” PA are financed mainly through H2020.

Most of the participating organisations, whether as project coordinators or participants, are from the EU, mainly from Italy, Spain, France, Greece, and Germany. Tunisia, Morocco, the UK, Egypt, Algeria, and Turkey are the countries outside the Union with the highest number of organisations that are involved in the reviewed projects.

Projects are also assessed according to the type of action they cover – CSA (Coordination and support), R&I and/or Capacity building actions. The analysis is made according to the number of projects covering each type of action, funding programme and PA. The majority of the projects from the whole portfolio are R&I. CSA and Capacity building projects are 61 and 76 respectively. R&I projects are mostly financed through PRIMA and H2020, and Capacity building projects are mainly funded by H2020. Most ENI CBC-funded projects cover CSA actions. H2020 projects cover mostly R&I actions, with the majority being in PA “Climate Change”. The largest share of PRIMA-funded projects is again represented by R&I actions that cover PA “Climate Change”. The majority of ENI CBC projects cover CSA actions and are also relevant to PA “Climate Change”, while the other two PAs include only 5 CSA projects each. There is only one project funded by ENI CBC that covers all three types of actions.

The portfolio coverage of Horizontal issues and Policy Recommendation (PR), presented in the Theories of Change and Impact Pathways (TCIP), is analysed as well. A significant number of projects cover more than one of the PAs, hence the horizontal issues are covered by a lot of projects. Projects covering PA “Health” and “Climate Change” are mainly H2020-funded, while projects that address issues in both PA “Health” and “Renewable Energies” are financed only through ENI CBC programme. PRIMA-funded projects cover horizontal issues only in PAs “Climate Change” and “Health”. Concerning PRs, PR 1 is the most often covered by the projects, however, a lot of projects also cover all the three PRs. Following the results and conclusions from the assessment of the projects, two recommendations are made: first, more initiatives could be directed towards projects in the renewable energy sector; second, inclusion of more non-EU countries in projects in the PAs “Renewable Energy” and “Health” should be encouraged.

2 Introduction

This report supports the first pillar of the Implementation Plan of the Union for the Mediterranean (UfM) Regional Platform in Research and Innovation by mapping and analysing an EUROMED R&I cooperation project portfolio that encompasses 252 projects funded by Horizon 2020, PRIMA and ENI CBC.

Based on the project description, the relevance of the projects to the three priorities (“Health”, “Renewable Energy” and “Climate Change”) and their specific focus areas as outlined in the [Theories of Change and Impact Pathways](#) (TCIP) is assessed. Information on the countries of origin of the lead and partner organisations is also investigated. Based on the classification and analysis, gaps and overlapping areas are identified, and potential synergies are discussed.

Project coverage of type of action (CSA, R&I and Capacity building) per funding programme and per individual PAs is also analysed, and an assessment of the coverage of the horizontal issues and Policy Recommendations in TCIP (PRs) is also made.

The report is structured in the following way: first, the strategic context is presented, then the applied methodology is outlined, followed by discussion of the assessment results. The last section outlines the conclusions made.

3 Policy Initiatives and challenges

The [Union for the Mediterranean \(UfM\) Regional Platform in Research and Innovation](#)¹ which gathers 42 states (27 EU Member States and 15 third countries) aims to promote dialogue and cooperation in order to tackle emerging global challenges. The UfM agreed on the research and innovation priorities envisioned in the Theories of Change and Impact Pathways Roadmaps and Specific focus areas, developed by the Expert Groups that were assembled by the European Commission and the UfM and were consulted with the stakeholders at large. The [Theories of Change and Impact Pathways](#)² (TCIP) were adopted by the [UfM Regional Platform in Research and Innovation in July 2021](#)³.

The EU and the Mediterranean intent to strengthen their partnership based on three fundamental principles as follows: co-decision, co-ownership, and shared benefits. Horizon Europe is the EU's key funding programme for research and innovation with a budget of €95.5 billion available for 7 years (2021 to 2027).⁴

TCIP aims to build up a comprehensive universal ground for the UfM member states concerning the future research and innovation and capacity-building activities in three identified priority areas (PAs) targeting stronger regional collaboration in R&I. The PAs are arranged in a hierarchical order from the one with the highest importance as follows: Health, Renewable Energies, and Climate Change. For every PA, the TCIP provides a situation analysis and describes the relevant Specific focus area. The situation analysis provides a brief overview of the current situation in the UfM priority areas in the Mediterranean region that is evaluated using a SWOT analysis. The Specific focus areas outline the specific challenges they address, their links with the SDG, the Research & Innovation agenda and the capacity building agenda, as well as the interlinkages between the Specific focus areas in all priority areas. The document outlines the importance of working towards healthy, resilient, inclusive and secure Euro-Mediterranean societies.

The UfM platform on R&I is developing an Implementation plan, which will emphasize both existing and newly created frameworks and initiatives. This plan envisions to have 4 fundamental pillars as follows: Pillar 1: Mapping/Portfolio Analysis of EUROMED R&I Cooperation which is the leading topic of the project. The aim is to promote already acquired knowledge, foster synergies and prevent duplication. Therefore, a search and a mapping activity will be executed leading to an overall evaluation of the Horizon Programmes' project and result. Consequently, this exercise will bring competitive advantage to the region. Due to the limitations of the Framework Programmes in terms of R&I solutions, the search strategy will be accessible for other EU programmes. The implementation Pillar 1 is followed by Pillar 2: Integration of needed actions into existing programmes, Pillar 3: Stakeholders' Communication and coordination R&I platform in the region, Pillar 4: Monitoring and Evaluation and Learning (MEL). The Implementation plan is yet to be approved and officially accepted.

¹ <https://ufmsecretariat.org/new-research-and-innovation-agenda/>

² [2021-06-21_UfM-Platform_Theories-of-Change-and-IPs_and_Horizontal-Integration_Final-Version.pdf](https://ufmsecretariat.org/2021-06-21_UfM-Platform_Theories-of-Change-and-IPs_and_Horizontal-Integration_Final-Version.pdf) (ufmsecretariat.org)

³ <https://ufmsecretariat.org/what-we-do/platforms/>

⁴ [Mediterranean \(europa.eu\)](https://europa.eu)

4 Methodology applied

Based on the information from project descriptions and project abstracts, as provided in public data sources ([CORDIS](#), [italietunisie.eu](#), [enicbmed.eu](#), [era-learn.eu](#)) and also, by the Commission services, the relevance of the projects regarding the three priorities of the specific focus areas and the corresponding specific focus areas is assessed. The assessment is facilitated by using as guidance the specific topic and technological aspect and the methodological approach of the research as outlined in the TCIP. These are presented in the table below for each specific Priority area (PA).

Priority area	Technological development and efficiency	Methodological Approach
H1	<ul style="list-style-type: none"> - Establishing an epidemic preparedness and response EPR Intelligence hub for rapid action coordination among Euro-Mediterranean countries. - Technologies enabling system approach for sustainable and resilient health systems and societies. - More equitable access to health services and technologies (in particular for the most vulnerable). - Smarter and greener cities enabling healthier behaviour. 	<ul style="list-style-type: none"> - Pilot projects and demonstrations studies (Case studies to identify success elements and key obstacles to effectively implement transdisciplinary participative research; Build on Euro-Mediterranean success (based on previous and new projects); Develop capacities in health emergency preparedness; Pilot projects are the occasion to learn and put into practice open science approach) - Implementation research (Prevention programmes; Health systems resilience and disaster and crisis management; Include Social Sciences in particular Behavioural Science, Economic Sciences, Media and Communication).
RE1	<ul style="list-style-type: none"> - Identification and definition of the quantities relevant for a Renewable Energies scenario - Identification of database that could be shared within UfM countries - Stimulating the share of information/best practice in RE policy 	<ul style="list-style-type: none"> - Identification and definition of the quantities relevant for the Renewable Energies scenario - Identification of database and related digital platform that could be shared within UfM Countries - Stimulating the share of information/best practice in RE policy
RE2	<ul style="list-style-type: none"> - Matching energy production/storage/consumption - Technical capabilities to self-management - Digitalization & Renewable Energies & Isolated activities 	<ul style="list-style-type: none"> - Analysis of energy management, production and storage systems and specifications regarding less populated areas' needs - Development of energy production and storage technologies and its integration to suit these areas' activities - Digitalization of management system to become a smart city system self-sufficient
RE3	<ul style="list-style-type: none"> - Identification of technical / commercial loss zones - Identification of loss zones in systems impeded with customer-owned renewable-based Distributed Generation (DG) - Developing a relation between the electric loss percentage and electricity tariff 	<ul style="list-style-type: none"> - Identification of technical / commercial loss zones - Identification of loss zones in systems impeded with customer-owned renewable-based Distributed Generation (DG) - Developing a relation between the electric loss percentage and electricity tariff
RE4	<ul style="list-style-type: none"> - Identification of the best hydrogen production process using renewable energies to resolve and compensate the intermittency and excess of electricity production of these resources 	<ul style="list-style-type: none"> - Identification of the solar energy processes which can be conducted to produce hydrogen: water electrolysis using solar generated electricity or direct solar water splitting

Priority area	Technological development and efficiency	Methodological Approach
	<ul style="list-style-type: none"> - Resolve the problems of storage and the transport of green H₂ between South-East and North Mediterranean Countries - Development of research in the field of H₂ distribution networks and infrastructures in Mediterranean countries 	<ul style="list-style-type: none"> - A combination of solar and wind power or others REs can provide a high load factor for the electrolysis process, and so lead to competitive cost of green hydrogen - The cost of electricity production from Renewable energies should fall more in the future for sites with good solar and wind resources (<10-20 € per MWh).
CC1	<ul style="list-style-type: none"> - Investigate methods to enhance and Recharge water aquifer - Develop techniques for water harvesting at macro and micro levels - Investigate the potential of using brackish and effluent water in restoration of range land - Investigate energy efficient strategies for water desalination 	<ul style="list-style-type: none"> - Cooperative teamwork among researchers in the field of civil engineering (water) and hydrology and environmental and water resource management specialists. The joint effort is to locate sites suitable to build reservoir (small dams) for recharging purposes, to develop technologies to facilitate soil permeability in these locations, and to assess local environmental impacts - Cooperation among hydrologists, agriculturist (horticulture, agronomy, range land and water specialists: To develop techniques to harvest water and plants at the field and individual plant (shrubs) - Cooperation among agriculturists (range land specialists) soil chemists, ecologists - Cooperation among researchers in civil and mechanical engineering and water specialists
CC2	<ul style="list-style-type: none"> - Introduce new sustainable agricultural systems i.e., aquaponic, hydroponic, aeroponic coupled with using geothermal heating and cooling systems - Investigate management-based adaptation and measures 	<ul style="list-style-type: none"> - Cooperation among scientists in horticulture soil chemists and experts in fisheries - Cooperation among horticulturists, plant breeders, agronomists - Integrated AquaPonic systems for improving food production sustainability and brackish water use and recycling
CC3	<ul style="list-style-type: none"> - Building resilient rural communities - Investigate climate change adaptation and mitigation measures - Germplasm collection 	<ul style="list-style-type: none"> - Extensive, socio-economic studies and research on food technology and nutrition - Cooperative work among agronomist, range land specialist, ecologists and conservation scientists and forestry technologists - Research in botany, zoology, horticulture, agronomy and animal production specialists.

In addition, information on the countries of origin for the lead and participating organisations is collected, as well as information on the budget and the funding mechanism and/or instrument (mainly for H2020 projects).

The information is organised as an electronic table that allows for analysis and identification of priorities and/or specific focus areas that are under-/over-represented in the portfolio and for spotting imbalances in the representation of some countries in priorities and specific focus areas.

The projects are assessed according to the type of actions they cover – CSA, R&I and/or Capacity building. For the H2020 projects, the mapping is based on the funding scheme of a project and is described in the

correspondence table below – all Marie Skłodowska-Curie Actions projects are put in the Capacity building category, CSA funded projects are labelled accordingly, and the projects funded under the remaining schemes are put in the R&I category. For the PRIMA and ENI CBC projects, the evaluation is expert based. For those two programmes, a project can cover more than one type of action.

Table 1. Correspondence between H2020 funding scheme and type of action

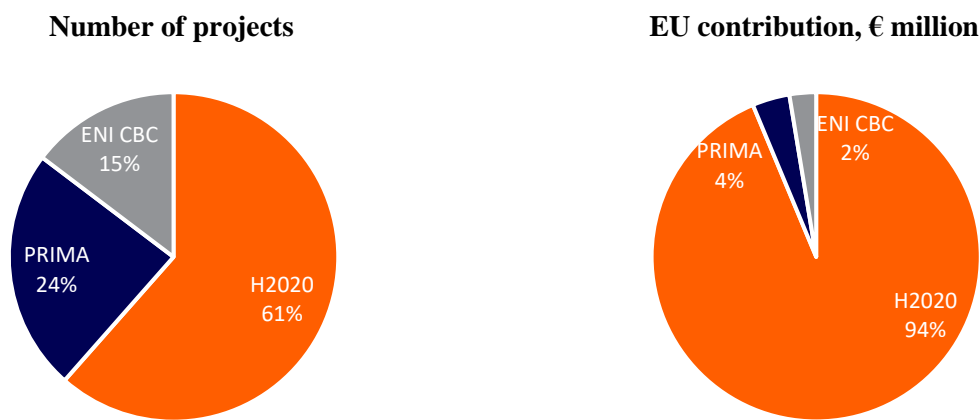
H2020 funding scheme	Category
CSA	Coordination and support
ECSEL-IA	Research & Innovation
ERA-NET-Cofund	Research & Innovation
ERC-ADG	Research & Innovation
FCH2-IA	Research & Innovation
RIA	Research & Innovation
IA	Research & Innovation
MSCA-COFUND-FP	Capacity building
MSCA-IF-GF	Capacity building
MSCA-ITN-ETN	Capacity building
MSCA-RISE	Capacity building

Lastly, the project coverage of the horizontal issues and the Policy Recommendation in the TCIP is analysed – if a project is found to be relevant to more than one PA then it is assumed that the project has high horizontal value.

5 Results

The portfolio consists of a total of 252 projects financed through three programmes: 155 projects are funded by Horizon 2020 programme, 60 projects are funded by PRIMA and 37 projects by ENI CBC. H2020 projects are mostly financed through Marie Skłodowska-Curie Actions (58 projects) and Research and innovation actions (RIA) (46 projects). The total EU contribution for all projects in the portfolio⁵ is € 623.4 million. H2020 is the programme with the highest amount of funds from the three funding programmes – € 584,2 million, which is 93,7% of the total funding for the projects in the clusters. PRIMA and ENI CBC provide €22,9 million and €16,3 million, respectively.

Figure 1. Distribution of project portfolio per funding programme.

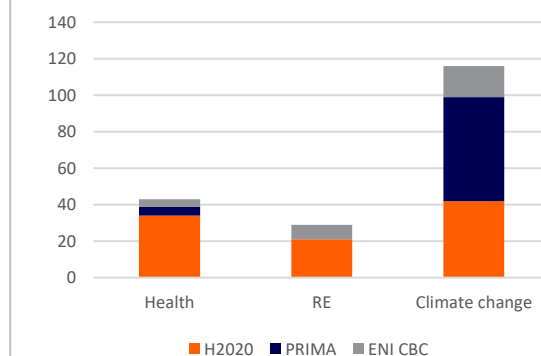


Source: CORDIS, italietunisie.eu, enicbmed.eu, era-learn.eu

PA “Climate Change” is targeted by the highest number of projects, which are mainly funded by PRIMA and H2020. PA “Health” includes 43 projects, majority of which are funded by H2020. Projects related to “Renewable Energy” are the smallest group of projects, again largely funded by H2020, but also by ENI CBC.

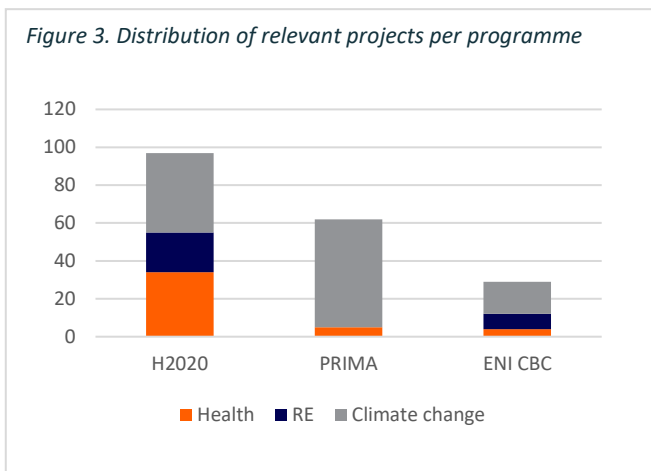
The H2020 programme funds mostly “Climate Change” and “Health” related projects. The highest number of ENI CBC-funded projects from the whole portfolio falls in PA “Climate Change”. H2020 and ENI CBC fund

Figure 2. Distribution of relevant projects per PA



⁵ Both those that are assessed as relevant to the specific focus areas and as non-relevant.

Figure 3. Distribution of relevant projects per programme



projects related to PA “Renewable Energies”. Almost all of the PRIMA-funded projects are relevant to PA “Climate Change”, and a few are relevant to PA “Health”.

Table 2 and Table 3 show systematically the results from the analysis of the portfolio. There are significant differences between the distribution of projects according to the three PAs and in terms of country representation.

Climate change

Almost half of the portfolio, 116 projects or 46%, are relevant to PA “Climate Change”. The specific focus area “Sustainable Agricultural Production” is the one with the highest number of projects in each of the funding programmes, while the “Impact of Water Scarcity and Drought in Rural Areas” area has the lowest. An example of a project in the water-related specific focus area is [HubIS](#), which aims to support and boost innovations that deal with sustainable irrigation systems and thus help farmers and water users associations in the Mediterranean. [FOFC](#) falls in the specific focus area “Sustainable Agricultural Production”. The project studies the effect of climate change on food security. [Fish-PhotoCAT](#) is in the same focus area and also covers “Biodiversity in Climate Change” objective. The project aims to protect aquatic biodiversity and environments by introducing a photocatalytic water purification technology to be used in the aquaculture industry.

Projects in this this PA are mostly financed through PRIMA and not H2020, like in the other two PAs. The five countries with the most participating organisations in general (i.e., both as leaders and participants) are Italy, France, Spain, Tunisia and Greece. The top five countries that act as coordinators in “Climate Change” projects are Italy, Spain, France, Greece and Germany. In terms of participation in these projects, most organisations originate from Italy, Spain, Tunisia, France and Greece. The non-EU countries that participate in the highest number of projects in this PA are Tunisia, Morocco, Egypt, Algeria, and Turkey while among the non-EU countries the United Kingdom and Tunisia lead the most projects. Nevertheless, the coordinating countries are most often from the EU.

Table 2. Number of projects per Priority areas and Specific focus areas.

Category	H2020	PRIMA	ENI CBC	Total*
Number of projects	155	60	37	252
Funding (total EU contribution, € million)	584.2	22.9	16.3	623.4
PA “Health”	36	5	8	49
Towards healthy, resilient, inclusive, and secure Euro-Mediterranean societies	36	5	8	49

Category	H2020	PRIMA	ENI CBC	Total*
PA “Renewable Energy”	21	0	9	30
Overview of RE Scenarios, harmonized RE Smart Database and Communication within the region	7	0	3	10
Modernization of the electric power systems (Smart Grid, Smart Cities and local RE generation)	14	0	8	22
Distribution system modernization	2	0	0	2
Advanced technologies Green hydrogen production, storage, and infrastructures implementation	7	0	0	7
PA “Climate Change”	43	57	17	117
Impact of Water Scarcity and Drought in Rural Areas	12	17	6	35
Sustainable Agricultural Production	24	45	7	76
Biodiversity in Climate Change	15	20	6	41
Not relevant	69	2	8	79

* The difference between the total number of projects per Priority Area and the sum of the projects from each of the Specific focus areas in a Priority Area is because there are projects which cover more than one Specific focus area.

Health

There are 43 projects that are relevant to the PA “Health”. The majority, or 34 projects, are financed through H2020. A lot of the “Health” projects are in relevant to PA “Climate Change”, but never to PA “Renewable Energy”. Examples of “Health” projects are [LungCARD](#) and [PML-THERAPY](#), which aim at contributing to the healing and identifying of the cancer disease. Another example is [TEC-MED](#), which aims to develop a framework plan for the improvement of social care services for elderly people in the Mediterranean region. Italy, Spain, France, Tunisia, and Greece are the top five countries with the biggest share of projects, either as coordinators or participants. The EU members that have the highest share of “Health” projects as coordinators are Italy, Spain, France, Greece, Portugal and Germany, and the top non-EU coordinating countries are again the United Kingdom and Tunisia. Concerning participation in projects in this PA, the top EU states are Italy, Spain, France and Greece, while Tunisia, the UK, Turkey, Morocco, and Egypt are the non-EU states that participate in the most “Health”-related projects. Here, as in PA “Climate Change”, EU member states are the countries that usually coordinate the projects and have the highest number of projects in general, except for Tunisia.

Renewable Energy

There are 29 projects relevant to PA “Renewable Energy” and the majority are connected with the specific focus area “Modernization of the electric power systems”, while the focus area “Distribution System Modernization” has only 2 relevant projects. A good example of a project in the “Modernization of the electric power systems” is [SOLPART](#), which aims to develop a nonstop high temperature solar process for particle treatment in energy intensive industries, like the cement industry for instance. The project [SEACAP 4 SDG](#) aims to reduce energy consumption in public buildings in a few Mediterranean countries. Four “Renewable Energy” projects (three H2020 and one ENI CBC) are also relevant to PA “Climate Change”. Most of the projects in this PA are funded by H2020, and 8 projects are financed through the ENI CBC programme.

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There are no PRIMA-funded projects that fall into this PA. Again, the top five countries with most projects (both as coordinators and partners) are Spain, Italy, France, Germany, and Greece. The top five EU member states, which lead the biggest share of projects, are the same five countries. The only non-EU countries that coordinate projects in this PA are the United Kingdom, Tunisia, and Australia. Spain, Italy, France, Germany, and Greece are the EU participants in the highest number of “Renewable Energy” projects. The non-EU countries that participate in the most projects in this PA are Morocco, the United Kingdom, Tunisia, Jordan, and Egypt.

There are 79 projects or 31.3% of the portfolio, which are **not relevant** to any of the PAs. The majority of them, 69 projects, are financed through H2020.

Most organisations, participating in the relevant projects as coordinators/lead or as a partner, are from Italy, Spain, and France. The projects are usually coordinated by EU organisations, mostly from Italy, Spain, France, Greece and Germany. The non-EU countries with the highest number of projects (lead or participant) are Tunisia, Morocco, the United Kingdom, Egypt, and Algeria. Non-EU countries are very rarely leaders in the projects. The United Kingdom and Tunisia are the two non-EU members that have the most projects as leaders.

Project relevance according to type of action (CSA, R&I and Capacity building)

The projects in the portfolio cover three types of action – CSA, R&I, and Capacity building. Some projects cover two or all three types of actions. R&I projects represent the biggest share of the whole portfolio (111), and CSA and Capacity building projects are 61 and 76 respectively. In terms of funding programmes, PRIMA projects have the most R&I projects 50, followed by 49 H2020 projects. ENI CBC- funded projects have the lowest number of R&I projects. CSA projects are mostly supported through ENI CBC and PRIMA programmes. The most Capacity building projects are funded by H2020 programme.

Table 3. Number of projects per type of action and funding programme

Type of action	H2020	PRIMA**	ENI CBC**	Total
Total portfolio*	86	58	29	
CSA	11	20	20	51
R&I	49	50	13	112
Capacity Building	26	10	14	50

* The number of projects in the table excludes not relevant projects.

** In some cases, projects cover more than one type of action, and the total count includes projects covering only one, two and three types of action, hence the difference in the total count.

All H2020-funded projects cover only one type of action. The majority of H2020 projects are R&I projects, in second place are Capacity building and the lowest number are CSA projects.

PRIMA-funded projects are mostly R&I projects. There are a few PRIMA projects that are only CSA, and a lot of projects are R&I in combination with either CSA or Capacity building actions. There are 6 projects that cover all three types of actions. All PRIMA-funded Capacity building projects (10) are also R&I projects, and 6 projects cover CSA and Capacity building simultaneously.

ENI CBC-funded projects are mainly CSA – there are 9 projects that cover only CSA, 8 projects that cover CSA and Capacity building actions and 4 projects that are both CSA and R&I. There is one project, TRESOR, which covers the three types of actions. Two ENI CBC project are only Capacity building projects, other Capacity building projects cover also CSA (8) and R&I (6) actions.

Table 6 below presents the number of projects per type of action for each of the three PAs.

H2020- funded projects for the three PAs are mostly R&I projects. The majority of “Renewable Energy” and “Climate Change” projects in this programme are R&I projects while PA “Health” projects are mostly Capacity building projects, with only one H2020 project covering CSA action. H2020 “Climate Change” projects have the largest share of R&I and CSA projects.

The majority of PRIMA projects are R&I projects (or with strong R&I component) in the climate change area. All PRIMA Capacity building projects are in combination with the other types of actions and all fall into PA “Climate Change”. PA “Health” projects funded by PRIMA programme are only 5 projects – 2 CSA and 3 R&I projects. There are no PRIMA “Renewable Energy” projects.

Most ENI CBC-funded projects cover CSA actions and are relevant to PA “Climate Change”, followed by an even number of CSA projects for PAs “Health” and “Renewable Energy” (5 projects each). The number of R&I and Capacity building ENI CBC projects is almost even – 13 and 14 projects for each type of action respectively.

Table 5. Number of projects per type of action for each PA.

Type of action	H2020	PRIMA	ENI CBC	Total
PA “Health”				
CSA	1	2	5	8
R&I	17	3	3	23
Capacity Building	18	0	4	22
PA “Renewable Energy”				

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Type of action	H2020	PRIMA	ENI CBC	Total
CSA	5	0	5	10
R&I	13	0	5	18
Capacity Building	3	0	4	7
PA "Climate Change"				
CSA	6	20	12	38
R&I	28	49	7	84
Capacity Building	9	10	8	27

* The number of projects in the table excludes not relevant projects.

** In some cases, projects cover more than one type of action, and the total count includes projects covering only one, two and three types of action, hence the difference in the total count.

Horizontal issues and Policy Recommendations coverage

Concerning projects coverage of horizontal issues in the PAs, a lot of projects cover more than one PA, with the most projects falling under “Climate Change” and “Health”. There are also projects that cover all three PAs (e.g. [NAWAMED](#), [Sustainable MED Cities](#)).

The projects [GreenBuilding](#) and [BERLIN](#) cover the horizontal issues of PAs “Health” and “Renewable Energies”, as they both aim to support cost-effective energy refurbishment of buildings in order to promote renewable energy use and energy efficiency in public buildings, including a specialised hospital in Tunisia ([GreenBuilding](#)). [NAWAMED](#)’s goal is to transform the urban water management practice by replacing the use of potable water with good quality non-conventional water for domestic purposes. Therefore, the end results are reduction of water pollution, saving of both water resources and energy (for water treatment), and also a contribution to a more sustainable lifestyle and health benefits for the population. The project [Sustainable MED Cities](#) provides Mediterranean municipalities with innovative tools, methodologies and capacity-building programmes for urban regeneration and improving cities’ sustainability by reducing energy demand and CO2 emissions. The latter two projects cover all the three PAs. Energy-efficient smart cities have a positive effect on society’s wellbeing by facilitating sustainable, resilient and safe health facilities with stable energy sources. In the longer term, it would contribute to healthier societies and tackling climate change.

Cross-cutting problems that are connected with both “Health” and “Climate Change” are usually about the effect of pollution (water, air, soil, etc.) on human health. For instance, [TOXICROP](#) is a research project that aims to deliver guidelines for water management and treatment in order to prevent the process of eutrophication, which endangers animal and human health. [AquaticPollutants](#) foster collaboration between the freshwater, marine and health research areas with the goal to develop a common strategy for coping with emerging pollutants and pathogens in water resources. [ATMOS](#) deals with atmospheric pollution and aims to train young scientists and students in atmospheric studies. Thus, the project aims to tackle the negative effect of atmospheric pollution on human health and climate change and contributes to the development of a more resilient and healthy society. [NETUNIT](#) targets both air and marine pollution by developing and information exchange platform to be used by the Civil Protection services, the local health

services and other Italian and Tunisian services. Hence, it will boost good practices for dealing with atmospheric and marine pollution which threatens human health and wellbeing. Food insecurity and generally the agriculture sector and its connection to society are other major issues connected to climate change, although more indirectly. For example, the project [AGRUMIG](#) aims to address the connection between labour mobility and changes in the agriculture sector which can be challenging in a changing climate. [FOSC](#), on the other hand, will build a research and innovation network to assess the risks to food value chains posed by climate change and come up with ways to reduce food waste and deal with instability in agricultural production.

Horizontal issues of PAs “Renewable Energies” and “Climate Change” are covered by projects that often deal with sustainable water management, solar energy and other renewable energies. For example, [IntelWATT](#) will develop three TRL7 technologies that achieve water preservation along with energy production and material recovery to be applied in energy and water intensive industries, thus contributing to the acceleration of RE and saving water resources. [WASCOP](#) project’s aim is to develop an innovation for water management of CSP (concentrated solar power) plants. This would enable the increase of the usage of CSP which is one of the most promising and sustainable energies and consequently will reduce the negative effect of the use of conventional power plants on the climate. [STOI 4EWAS](#) takes another approach - its goal is to increase innovation and boost cooperation in energy, water and agriculture societal challenges research by setting up a Common Knowledge and Innovation Space.

All three Policy Recommendations (PR) from the [TCIP](#) are covered by projects in the portfolio. PR1 “Significantly increase the exchange and circulation of knowledge and information in the three priority areas together with the implementation of platforms for facilitating the availability and communication of timely and reliable data also accessible to stakeholders” is the most covered, however, it is also the most extensive one. A lot of projects cover two or all the three PRs. Projects like [HUBiquitous](#), which aim to create a joint Africa-Europe Startup & Innovation Ecosystem for long-term collaborations and partnerships to boost sustainable development and innovation, and the project [NEXTFOOD](#), which will develop a peer-review system for evaluation of practice-oriented research outputs with focus on sustainable agriculture and forestry, are good examples covering PR1. Both projects will generate platforms and systems that will aid and encourage the sharing of knowledge and solutions. PR2 “Promote demonstration TRANSDISCIPLINARY projects on sustainable development in the Euro-Mediterranean Region” is also represented by a lot of projects. For instance, [LEAP-RE](#) aims to develop renewable energy as a sustainable source of energy for all in Africa involving all types of stakeholders and aligning existing bilateral and multilateral frameworks. PR3 “Promote technology cooperation”. It is addressed by [ODYSSEA](#), which developed a platform integrating networks of observing and forecasting systems across the Mediterranean basin, open to various end-users through a single public portal. Thus, by engaging all actors and providing knowledge sharing through a shared platform, the project also addresses PR1.

Projects covering PAs “Health” and “Climate Change” are mainly H2020 funded projects, projects addressing issues in PAs “Health” and “Renewable Energies” are only ENI CBC projects. No projects that cover horizontal issues encompassing PAs “Climate Change” and “Renewable Energies” are financed through PRIMA.

Table 6. Number of projects covering more than one PA

PA	Health	Renewable Energies	Climate Change
Health			
Renewable Energies	4 <i>(4 ENI CBC projects)</i>		
Climate Change	19 <i>(13 H2020 projects, 4 PRIMA projects, 2 ENI CBC projects)</i>	6 <i>(4 H2020 projects, 2 ENI CBC projects)</i>	

6 Conclusions and recommendations

Projects in PA “Climate Change” are overrepresented. The analysis shows that PA “Climate Change” is the largest in terms of budget and number of projects while PA “Renewable Energy” attracts the least projects and funding. PRIMA programme funds mainly “Climate Change” and “Health” projects. H2020-funded projects cover all three PAs, but mainly PA “Climate Change”. Projects financed through ENI CBC focus mainly on “Climate Change”- related topics.

EU member states are the ones that usually coordinate projects and generally have the highest number of projects in all PAs. Italy, France and Spain are the top three EU states that have the highest number of projects as leaders or participants. Project coordinators from Italy, France, Spain, Greece and Germany usually lead the projects in all PAs, while the UK and Tunisia are the most common non-EU coordinators. Tunisia, Morocco and Egypt are the top three non-EU countries in terms of participating organisations.

A lot of projects cover more than one type of action (CSA, R&I and Capacity building). The majority of the projects cover R&I actions, while CSA and Capacity building actions are represented almost by an equal number of projects – 61 and 76 projects respectively. R&I and Capacity building projects are funded mainly by H2020, CSA projects are financed mostly through ENI CBC programme. The most represented PA – “Climate Change”, includes mainly R&I projects, and in second place Capacity building projects. On the other hand, PRIMA-funded projects cover mostly R&I actions too, and in second place CSA actions. H2020 programme funds mainly R&I and Capacity building programmes, while CSA actions are mainly financed through ENI CBC programme. The majority of “Renewable Energy” projects cover R&I actions as well, and “Health”- related projects are mainly CSA.

Numerous projects address more than one Policy Recommendation (PR); the first PR on exchange and circulation of knowledge and information has the widest coverage. Horizontal issues are also well represented by the projects in the portfolio. “Health” and “Climate Change” project are mainly financed through H2020. Projects addressing issues in both PAs “Health” and “Renewable Energies” are funded only by ENI CBC programme. PRIMA-funded projects cover horizontal issues only in PAs “Climate Change” and “Health”.

The “Renewable Energy” priority is less exploited than the others, and particularly its specific focus area “Distribution system modernization”, hence it could be beneficial to provide support in this direction. Furthermore, in this PA countries are mainly EU states, with the exception of Tunisia, the United Kingdom, Morocco, Egypt, and Algeria. The situation for PA “Health” is similar. Therefore, it could be favourable to include more non-EU member countries in projects in these two areas.

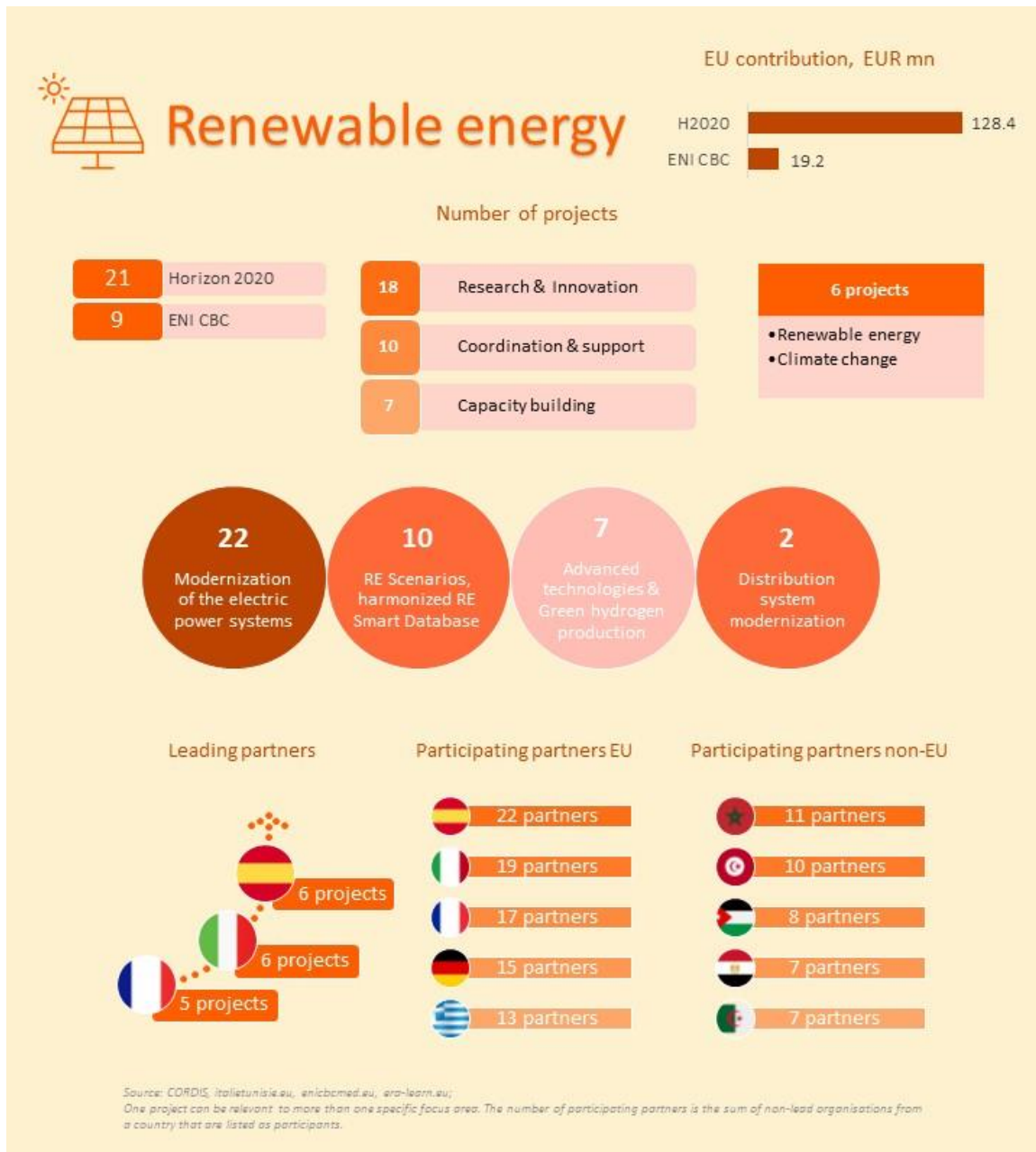
Annex 1 Project portfolio

See attached Excel file



Mapping_SouthMe
d_final.xlsx

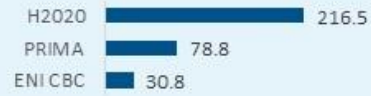
Annex 2 Visuals



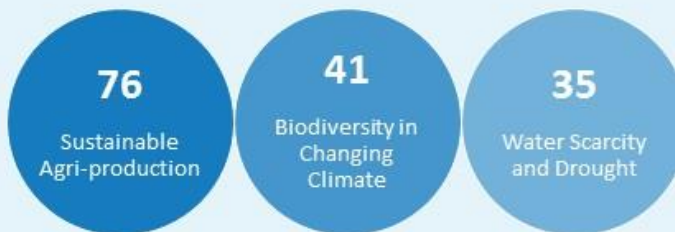


Climate change

EU contribution, EUR mn



Number of projects



Source: CORDIS, italietunisia.eu, enicbmed.eu, era-learn.eu
 One project can be relevant to more than one specific focus area. The number of participating partners is the sum of non-lead organisations from a country that are listed as participants.



Health

EU contribution, EUR mn



Number of projects



49
Healthy, resilient, inclusive, and secure Euro-Mediterranean societies

Leading partners



Participating partners EU



Participating partners non-EU



Source: CORDIS, italietunisie.eu, enicbcmed.eu, era-learn.eu;
The number of participating partners is the sum of non-lead organisations from a country that are listed as participants.

Annex 3 List of information sources

- [AGRUMIG](#)
- [ATMOS](#)
- [AquaticPollutants](#)
- [BERLIN](#)
- [CORDIS](#)
- [enicbcmed.eu](#)
- [era-learn.eu](#)
- [Fish-PhotoCAT](#)
- [FOFC](#)
- [GreenBuilding](#)
- [HubIS](#)
- [HUBiquitous](#)
- [IntelWATT](#)
- [italietunisie.eu](#)
- [LEAP-RE](#)
- [LungCARD](#)
- [NAWAMED](#)
- [NETTUNIT](#)
- [NEXTFOOD](#)
- [ODYSSEA](#)
- [PML-Therapy](#)
- [SEACAP 4 SDG](#)
- [SOLPART](#)
- [Sustainable MED Cities](#)
- [TEC-MED](#)
- [Theories of Change and Impact Pathways](#)
- [TOXICROP](#)
- [Union for the Mediterranean \(Ufm\) Regional Platform in Research and Innovation](#)
- [WASCOP](#)
- [5TOI 4EWAS](#)

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