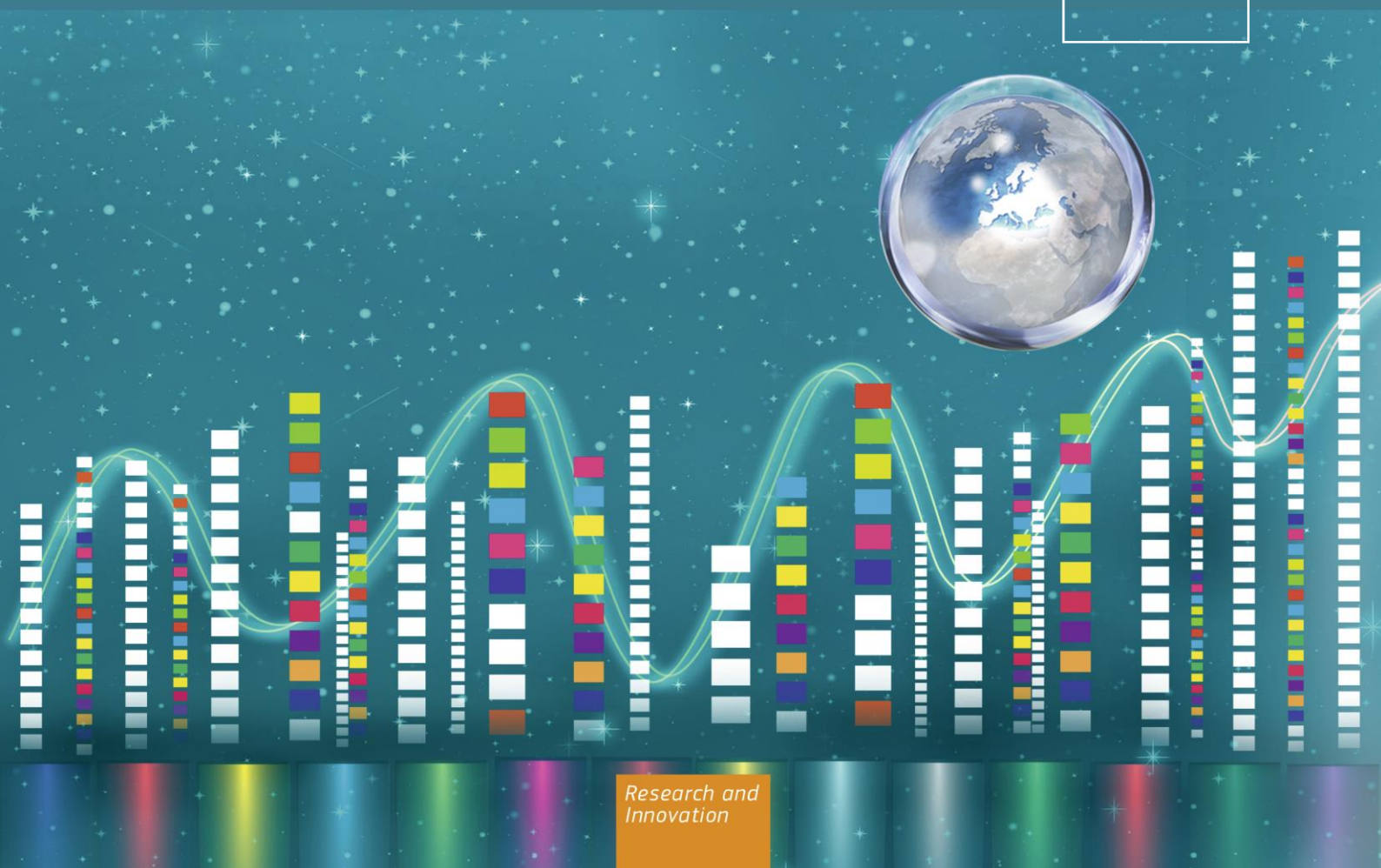




Evaluation study on the European Framework Programmes for Research and Innovation for addressing Global Challenges and Industrial Competitiveness Focus on activities related to the Green Transition

Interim Evaluation of the Partnership for Research and
Innovation in the Mediterranean Area (PRIMA)

Independent
Expert
Report



Research and
Innovation

Evaluation study on the European Framework Programmes for Research and Innovation for addressing Global Challenges and Industrial Competitiveness -Focus on activities related to the Green Transition

Interim Evaluation of the Partnership for Research and Innovation in the Mediterranean Area (PRIMA)

European Commission

Directorate-General for Research and Innovation

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Manuscript completed in August 2022

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PDF	ISBN 978-92-68-04525-1	doi: 10.2777/70428	KI-04-23-642-EN-N
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Luxembourg: Publications Office of the European Union, 2023

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Innovation in the Mediterranean Area (PRIMA)*

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Quality Review:

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List of abbreviations

AWP	Annual work plan
EC	European Commission
ERA	European Research Area
ERA-Net	European Research Area Networks
EU	European Union
EU PS	Participating EU Member States
FP	Framework Programme
GDP	Gross Domestic Product
IA	Innovation Action
KPI	Key Performance Indicator
NFA	National Funding Authority
SM PS	Southern Mediterranean Participating States
PRIMA-IS	PRIMA Foundation
PS	Participating States
PSIA	Participant States Initiated Activities
R&I	Research and Innovation
RIA	Research and Innovation Action
SDG	Sustainable Development Goal
SMEs	Small and medium-sized enterprises
SRIA	Strategic Research and Innovation Agenda
UfM	Union for the Mediterranean
WEFE	Water-Energy-Food-Ecosystem

EXECUTIVE SUMMARY

The present report evaluates the public-public “Partnership for Research and Innovation in the Mediterranean Area” (PRIMA), which was established by Decision (EU) 2017/ 1324 (Basic Act). PRIMA fosters joint research and innovation (“R&I”) approaches to improve water provision, sustainable agriculture and food production in the Mediterranean area. PRIMA is funded through a financial commitment of EUR 274 million from the participating states and a EUR 220 million contribution from the EU through its R&I Framework Programme (FP). The funding system is organized into three Sections: Section 1 is funded by the EC but managed by PRIMA-IS. Section 2 is managed by PRIMA-IS and funded by the National Funding Authorities (NFAs) of Participating States (PS). Finally, Section 3 consists of activities managed and funded individually by the PS, which are evaluated as contributing to PRIMA’s objectives.

The current report aims at supporting the European Commission in fulfilling its obligation to conduct an interim evaluation of PRIMA according to Article 14 of the Basic Act. It focuses on the assessment criteria of effectiveness, efficiency, relevance, coherence and added value to the European Union (EU). It covers the period from the inception of PRIMA (2017) until March 2022. As the ongoing Covid-19 pandemic affected the progress of projects funded under PRIMA, the projects from the first Call funded by the partnership were extended in time and are still running. Therefore, the evaluation particularly focuses on the development of the structure, the implementation processes and the overall progress of PRIMA. Its main sources of information are public documents from PRIMA (e.g. Basic Act, Annual Work Plans, Strategic Research and Innovation Agenda). A series of interviews with PRIMA stakeholders of different types and different geographical origins complements the desk research.

According to the reviewed information, the general and specific objectives of PRIMA have been and remain relevant for the Participating States (PS) and the Mediterranean R&I ecosystem. PRIMA is highly relevant for tackling the climate-change-related challenges that Mediterranean countries face. The allocation of project funding to different topics is in line with the importance of each thematic area. In addition, the approach by which IPRIMA aims to reach its objectives is important as well rigorously following the values of co-ownership, mutual interest, shared benefit and the principle of equal footing. Thanks to this, PRIMA enables cooperation as equal partners between the EU and its southern neighbours. Moreover, the partnership provides the necessary environment to encourage and strengthen the collaboration among its Southern Mediterranean Participating States (SM PS), which are less used to multinational cooperation than the EU Member States.

The evaluation reveals that PRIMA has well managed to reach internal and external coherence. While it is difficult to obtain meaningful data about the degree of alignment between PRIMA and national/regional initiatives or policies, PRIMA SRIA seems well aligned to national and international related R&I priorities, and there are indications that PRIMA complements well to the Mediterranean R&I ecosystem. Thanks to its thematic focuses, the partnership contributes to wider EU policies such as the European Green Deal, the EU Strategy on Adaptation to Climate Change, the Farm to Fork Strategy, the Circular Economy Action Plan, and the Zero pollution Action Plan. In addition, the mix of Research and Innovation Actions (RIAs) and Innovation Actions (IAs) can be considered adequate.

PRIMA has implemented fair and efficient principles and procedures. Stakeholders are generally satisfied with PRIMA-IS and consider its work helpful, efficient and responsive. The procedures under Section 1 are straightforward as they are in line with H2020 procedures. However, the reviewed information suggests that Section 2 could benefit from greater efficiency. In addition, PRIMA-IS should continue undertaking efforts to improve the indicator system to allow for better monitoring. In particular, the indicators to measure progress regarding PRIMA’s objectives from the Basic act warrant improvement.

PRIMA-IS has been effective in establishing functioning and trusted structures and processes. While it is difficult to measure some of the specific objectives of PRIMA due to the lack of suitable indicators, there are indications that PRIMA is contributing well to the alignment of the political agendas of the PS. While cooperation between SM PS remains limited, it has at least improved. Moreover, PRIMA contributes to the completion of the European Research Area and strengthens the R&I funding and implementation capacities in the Mediterranean countries, particularly of actors from SM PS. PRIMA funds leverage the funding of these PS and allow their R&I actors to develop their capabilities to cooperate in multinational research projects. PRIMA thereby potentially brings them closer to succeeding in very competitive EU funding initiatives.

The EU added value of PRIMA is high as the pooling of cross-national resources and efforts towards the challenges of the Mediterranean would not have been achieved with national or regional efforts only. The partnership constitutes the right ecosystem to enable tailored approaches for the joint issues of the Mediterranean region in terms of topics and funding levels. In addition, by ensuring equal treatment and voice for all PS, PRIMA has developed into a potent tool of science diplomacy, which may help strengthen the R&I and other relations between the EU and SM PS, as well as relations among the latter.

Overall, the evaluation comes to a positive conclusion about PRIMA and its progress. The partnership addresses some of the most urgent challenges of the Mediterranean region. In addition, it provides opportunities for actors from SM PS to develop their R&I capacities. In doing so, it contributes to key EU political priorities, objectives and initiatives like the European Green Deal or the Sustainable Development Goals. At the same time, it helps to strengthen the relations and the collaboration between the EU and its southern neighbours.

For the further exploitation of the potential of PRIMA, the following actions are recommended:

- **Work towards harmonising national administrative procedures regarding Section 2** to strengthen the reliability, speed and overall efficiency. Options could be, e.g. the introduction of common catalogues of eligible costs, more homogenous amounts of funding or the synchronisation of reporting schedules.
- **De-risk the preparation of proposals for applicants** to sustain the interest of the relevant R&I communities. Therefore, an assessment and potential modification of the application process or tailoring of the calls may be appropriate to lower the total effort of applicants.
- **Optimise Section 3** to increase its effectiveness. Options could be, e.g. to simplify some of the reporting requirements, so that they become easier to fulfil by countries that dispose of only limited resources, or to emphasise exchange, networking and training.
- **Support community building and project exchange** to exploit synergies between projects and foster lasting communities. Corresponding means could be, e.g. organising events for early-stage projects to learn from those further advanced, events for exchange between projects with a similar thematic focus, or networking and brokerage events.
- **Invest in capacity building** to enable actors from the SM PS to participate more actively in PRIMA. Options could be, e.g. additional training seminars for proposal writing or in-depth training on project coordination.
- **Adjust Key Performance Indicators** to better monitor the impacts of PRIMA, particularly regarding its objectives from the Basic Act. Also, project impact should be monitored regularly or via follow-ups after a certain amount of time after a project finishes.
- **Ramp up communication and dissemination** to sustain the high political commitment to PRIMA in the long term.
- **Boost southern-southern cooperation** to improve the relationships between SM PS. Besides public diplomacy, ways to do so could be, e.g. specific events to broker consortia participation among southern PS or the adaptation of project evaluation criteria, so that they favour proposals where participants from several SM PS actively interact with each other.

1. Introduction

This evaluation report assesses the public-public “*Partnership for Research and Innovation in the Mediterranean Area*” (PRIMA), which was established with Decision (EU) 2017/ 1324 (Basic Act) in (2017). It is part of the evaluation “Evaluation study on the *European Framework Programmes for Research and Innovation for addressing Global Challenges and Industrial Competitiveness - Focus on activities related to the green transition –RTD/2021/SC/023*”.

The presented interim evaluation of PRIMA aims to support the European Commission (EC) in fulfilling its legal obligation from Article 14 Basic Act. It covers the period from the implementation of PRIMA in 2017 until today and mainly focuses on the partnership’s 2018-2021 Annual Work Plans (AWPs). The overall purpose of the study is to review the current status and the achievements of PRIMA and to provide impulses to support PRIMA’s implementation and inform possible mid-term adjustments. As none of the projects funded by PRIMA has finished yet, the focus of the evaluation lies less on long-term impacts but the structure, implementation processes and the current progress of the Programme. In particular, it is evaluated whether there has been significant progress regarding the specific objectives, as these are not fully dependent on the exploitation of the achieved results in the projects. Nevertheless, tentative aspects of outcomes and impacts are addressed to the extent possible. As mandated by the Terms of reference for the “Green Transition” evaluation, the evaluation focuses on the assessment criteria effectiveness, efficiency, relevance, coherence and added value to the European Union (EU).

The methodology consists of various approaches and sources. The main input came from the PRIMA Foundation (PRIMA-IS), which is the Dedicated Implementation Structure of PRIMA. Its evaluation input report (Prima 2022) provided a detailed account of statistics, indicators and explanations of key developments like changes in the implementation. In addition, PRIMA-IS made available an assessment study, which the foundation had commissioned concerning this evaluation (CSES 2022). Moreover, there has been extensive exchange on both reports and additional information that PRIMA has delivered.

Furthermore, all existing documents of PRIMA, e.g. Ex-Ante Assessment, Basic Act, Statutes, Website, PRIMA Intelligent Analytical Tool (available on the website), as well as relevant publications for evaluations for public-public partnerships, have been reviewed. Overall, as far as possible quantitative assessments (e.g. also via publication analysis) have been performed and complemented by qualitative insights. Ultimately, 15 interviews have been conducted with stakeholders of different types and geographical origins.

2. The Initiative, the Context and Background

PRIMA's legal base is Article 185 of the Treaty on the Functioning of the European Union as well as Article 26 on "Public-public partnerships" of Regulation (EU) No 1291/2013, the regulation governing Horizon 2020 (H2020)¹. Article 26 explains that corresponding initiatives are partnerships between Member States (and Associated Countries) and the EU. It further mandates a high level of commitment by the participating countries to integrate at scientific, management and financial levels, as well as the need for a Dedicated Implementation Structure. Article 185 partnerships imply that the Participating States (PS) voluntarily integrate their research efforts and define and commit themselves to a joint research programme to the added value of the EU. The EU contribution stems from the budgets of Societal Challenges 2 and 5. It aims to contribute to the goals of these challenges (e.g. food security, sustainable agro-food value chains, a resource/water efficient and climate change-resilient sustainable economy and society). In particular, PRIMA is expected to contribute to the Sustainable Development Goals (SDGs) Zero Hunger (SDG 2), Clean Water and Sanitation (SDG 6), Reduced Inequalities (SDG 10), and Responsible Consumption and Production (SDG 12). PRIMA was the last public-public partnership to be launched under H2020. The Basic Act, which entered into force in July 2017, defined the implementation of PRIMA as a ten-year initiative with a run time from 2018 to 2028.

According to Article 2 of the Basic Act, *"the general objectives of PRIMA are to build R&I capacities and to develop knowledge and common innovative solutions from agro-food systems, to make them sustainable, and for integrated water provision and management in the Mediterranean area, to make those systems and that provision and management more climate resilient, efficient, cost-effective and environmentally and socially sustainable, and to contribute to solving water scarcity, food security, nutrition, health, well-being and migration problems upstream"*.

These overall objectives are in line with the priorities of H2020. From them follows a set of four specific objectives, which are listed in the same article:

"(a) the formulation of a long-term, common, strategic agenda in the area of agro-food systems, to make them sustainable, and in the area of integrated water provision and management;

(b) the orientation of relevant national research and innovation programmes towards the implementation of the strategic agenda;

(c) the involvement of all relevant public and private sector actors in implementing the strategic agenda by pooling knowledge and financial resources to achieve the necessary critical mass;

(d) the strengthening of the research and innovation funding capacities and of the implementation capabilities of all actors involved including SMEs, academia, non-governmental organisations and local research centres".

The Basic Act further defines that the EU financial contribution and the PS' contribution to PRIMA should be equal – under a particular ceiling - to achieve a high leverage effect and ensure a stronger integration of the PS programmes (Recital 19, Basic Act).

PRIMA addresses the Mediterranean region's environmental, sustainability and socio-economic challenges by contributing to the development of its R&I ecosystem and better regional coordination and integration. Like other Article 185 initiatives, PRIMA thus has a political perspective (policy alignment) and a financial element (funding research and innovation activities with national and EU funds according to the AWP).

Among the different EU Research and Innovation (R&I) partnerships, PRIMA constitutes a distinct initiative as one of its key aims is to integrate Mediterranean Third Countries into the European Research Area (ERA). It aims to ensure transparency and equality for all the participating partners. Recital 27 of the Basic Act specifies that PRIMA-IS *"should aim to provide, through the annual work plan, an appropriate share of its funding, approximately 25% of the Union financial contribution, reflecting the*

¹ PRIMA was launched under H2020. It thus follows the provisions of Regulation (EU) No 1291/2013.

commitments of Mediterranean Partner Countries to PRIMA, to legal entities established in targeted third countries considered to be Participating States.”

While not spelt out explicitly in the Basic Act, the reviewed information indicates that PRIMA features a significant component of science diplomacy, i.e. “the use of science for foreign policy purposes” (Fägersten 2022, p. 5). Given the importance of agro-food and water systems for the Southern Mediterranean PS (SM PS) (see chapter 4.1) and by boosting R&I that addresses related issues, PRIMA might likewise contribute to lowering migration pressure as it improves domestic living and working conditions. In addition, creating a trust-based relationship with the SM PS is very important for European policy. The introduction of PRIMA was regarded as suitable to improve EU-Southern Mediterranean relations. The partnership may thus contribute to the European objectives to tighten the bonds between the EU and its southern neighbours

To summarise, with its overarching goal to contribute to the sustainability and stability of the region, PRIMA aims to achieve multiple objectives. These range from thematic goals to address societal needs in the Mediterranean area and specific objectives that address advances towards an integrated European and Mediterranean Research Area to science diplomacy goals for the collaboration with the EU’s southern neighbours.

In contrast to other Article 185 initiatives in H2020, PRIMA has no legal predecessor. While there have been partnerships between different national agencies in earlier ERA-Nets, and initiatives towards the Mediterranean area existed, the incorporation of PRIMA as a public-public partnership on the EU level was completely new. Hence, key activities and expected outputs of the partnership included the set-up of efficient and trust-building structures and procedures in the first years of its establishment to pave the way for successful working. While this task required considerable effort, it was further complicated by the Covid-19 pandemic. In line with that, as no PRIMA project has finished yet, it is not easy to assess the partnership’s quantitative impact.

To reach the outlined objectives, activities of the PRIMA programme address multiple levels:

- The political/policy/programme level – PRIMA’s role is to support the increased coordination of national research and innovation agendas by funding projects, supporting innovation and policy, and monitoring and evaluation of the implementation of the PRIMA programme.
- The project level involving R&I performing consortia – Recital 22 of the Basic Act states that *“PRIMA should support all types of re-search and innovation activities, including research, development and innovation projects, innovative demonstrators and pilot plants, capacity building, training, awareness-raising and dissemination actions, and researcher mobility, addressing a wide range of Technology Readiness Levels and ensuring an appropriate balance between small and large projects.”*

3. Implementation and State-of-Play

3.1. Structure of PRIMA

Overview

Currently, 19 countries are formal PS of PRIMA, 11 EU Member States (Croatia, Cyprus, France, Germany, Greece, Italy, Luxembourg, Malta, Portugal, Slovenia, Spain), 3 Associated Countries of H2020 (Israel, Tunisia and Turkey) and 5 Third Countries from the Southern Mediterranean area (Algeria, Egypt, Jordan, Lebanon and Morocco). PRIMA is implemented mainly through transnational calls for proposals on three different programming levels in the three thematic areas of

- Management of water
- Farming systems, and
- Agro-food value chain.

Since 2019, there have also been calls for so-called Water-Energy-Food-Ecosystem (WEFE) Nexus projects. Here, inter-disciplinary research projects are funded that aim to deliver synergies across water, farming and agro-food, thus catering to the topics' deep interconnection.

Projects are either funded under H2020 or from national sources. PRIMA has a financial commitment of EUR 274 million from the PS as in-kind or financial contributions and a EUR 220 million contribution from the EU through its H2020 R&I Framework Programme (FP).

Governance Structure

Figure 1 depicts a simplified version of the governance structure of PRIMA. With the partnership's inception in August 2017, PRIMA-IS was established. It is responsible for the partnership implementation is headquartered in Barcelona. PRIMA-IS supports the PRIMA Steering Committee and the Board of Trustees, which consists of one representative from each PS. The European Commission (EC) and the Union for the Mediterranean (UfM) participate as observers on the Board. In addition, a Scientific Advisory Board (also known as the Scientific Advisory Committee), consisting of different scientists, provides input for the best direction of R&I efforts.

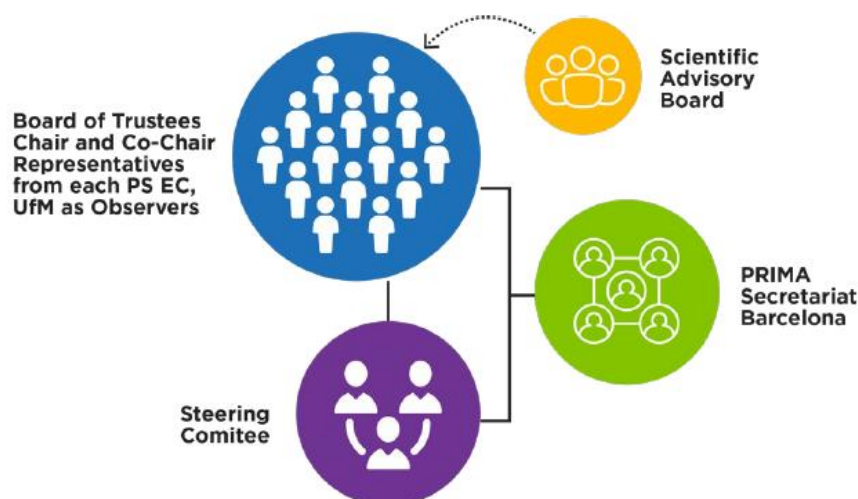


Figure 1 PRIMA Foundation overview. Source: PRIMA (2022)

In line with its objective of science diplomacy, to build trust among the PS, PRIMA's governance follows the principle of equal footing. It, therefore, applies principles of co-decision, co-financing and co-management in the design/structure and operation of the governance bodies, in the evaluation panels' constitution, and within PRIMA secretariat staff. As a result, around one-half of staff comes from EU-PS and the other half from the SM PS.

Funding system

The programme comprises three different modes of project financing, so-called sections, which differ in their origin of funding and management:

- Section 1 – Actions and activities organised, managed and funded by PRIMA-IS according to H2020 rules and funded by the EC
- Section 2 – Activities selected following transnational open and competitive calls for proposals organised by PRIMA-IS and funded by the National Funding Authorities (NFAs) of PS
- Section 3 – Activities and actions organised, managed and funded individually by the PS

Section 1 grants are funded by financial means provided directly by the EU. While PRIMA-IS manages them, the application and administrative processes follow the H2020 rules. These calls require only a single joint application to PRIMA's submission portal.

Section 2 grants are funded by the PS, who are represented in the successful project consortia. PRIMA-IS manages the application, and the NFAs are not involved in the process, which scientific evaluators lead. However, after a successful evaluation by PRIMA, the NFAs, represented in the winning consortia, take over the further administrative procedures that orient to national regulations. This, e.g. means some NFAs (i.e. MUR/Italy, AEI/Spain and HCST/Jordan, GSRT/Greece, TUBITAK/Turkey) require two applications: one joint application for PRIMA and one application for the respective NFA, after the successful review by PRIMA.

Section 3 contains PS-led initiatives that have officially been evaluated as contributing to PRIMA's objectives. These are mainly Participant States Initiated Activities (PSIAs), which are national bilateral or multilateral research programmes implemented, managed and funded by the PS that contribute to the goals and activities of PRIMA. PSIAs can be complementary to the activities funded through PRIMA calls for proposals. They either address research gaps not fully addressed by PRIMA projects or target organisations such as Small and medium-sized enterprises (SMEs) that in some PS are not eligible under Section 2 calls (PRIMA 2022). There is a specific procedure for the reporting of national programmes to PRIMA to ensure a high congruency regarding the goals of PRIMA and to ensure that programme implementation has taken place. In addition to PSIAs, Section 3 also consists of "Other Activities" implemented by PS supporting PRIMA. Activities include capacity building, brokerage events, dissemination activities, publishing reports, mutual learning workshops and knowledge hubs (such as the PRIMA Observatory on Innovation).

Strategic Research and Innovation Agenda / Annual Work Plans

The PRIMA programme implementation follows a long-term Strategic Research and Innovation Agenda (SRIA), which provides the vision and strategic direction for the partnership's actions and is the basis for setting out the PRIMA AWP. The SRIA defines three main thematic areas:

1. Management of Water: Integrated and sustainable management of water for arid and semi-arid Mediterranean areas
2. Farming Systems: Sustainable farming systems under Mediterranean environmental constraints
3. Agro-food value chain: Sustainable Mediterranean agro-food value chains for regional and local development.

In addition, these areas' interconnections have been addressed through the WEFE Nexus theme since 2019.

The programme is implemented via AWP, which outline the calls for proposals and other activities envisaged for the upcoming 12 months. AWP are elaborated by PRIMA-IS, different governing bodies and in collaboration with the EC.

The AWP contain calls for each of the three thematic areas and the WEFE Nexus theme. Most calls have almost exclusively IA or RIA projects. In contrast, the nationally-funded Section 2 projects contain mostly RIAs because of funding restrictions of some NFAs related to these calls. While the first calls in

the AWP 2018 had a rather broad focus, from 2019 onwards, the yearly priorities have become more tailored.

3.2. State of Play

While there have been prior initiatives for the Mediterranean area (e.g. ERA-NETs), PRIMA does not build on an actual predecessor as other Art 185 partnerships in H2020. Hence, an implementation structure had to be developed first. Directly after the setup of PRIMA-IS, the AWP and first calls were launched in 2018. So far, four calls and the project submission selection have taken place, and 168 projects have been selected for funding (Table 1).

Table 1: Submissions and funded projects in 2018-2021

	2018		2019		2020		2021	
	Section 1	Section 2	Section 1	Section2	Section 1	Section2	Section1	Section2
Submissions	484	396	309	178	335	161	313	140
Number of eligible proposals	456	362	278	154	315	153	298	137
Not admissible and eligible proposals	28	34	31	24	18	8	13	3
Funded projects	9	26	18	30	15	31	11	28
Total number of partners	103	215	169	248	183	268	150	235
Total funding in million EUR	17,9	26,8	27,5	26,8	33,2	30,8	32,0	29,2
Average partners /project	11	8	9	8	12	8	13	8
Average funding/project in million EUR	2	1,05	1,5	0,9	2,2	1	2,9	1.03

Source: PRIMA (2022)

For all years, there has been a high number of submissions. The interest is more elevated in Section 1 than in Section 2 because in Section 2 different NFAs with partly different funding rules are involved, and project volumes are smaller.

Participation in calls has decreased in both sections over time. Potential explanations are, on the one hand, that the initiative was already known by the community when the first calls started and that these were rather broadly formulated. Conversely, in recent years, the topics have been more tailored. On the other hand, interviewees stressed the challenges of the administrative procedures in Section 2 and the limited success rates that may have deterred potential applicants. Success rates differ between the two sections. The success rates for Section 1 are below 5%. Also, the success rate for Section 2 is rather modest but increased from around 6.6% in 2018 to about 20% in 2021.

Overall, there are 53 Section 1 projects and 115 Section 2 projects. Whereas there are significantly more Section 2 projects, the difference in accumulated project funding over the last four years is rather small. That is, Section 2 projects are considerably smaller than Section 1 projects. For Section 1 projects starting in 2021, the average funding per project has risen to around EUR 3 million. Section 2 projects are smaller (around EUR 1 million in 2021). The number of beneficiaries increased in both sections from 2018 and 2020 and declined a bit in 2021 (but above 2018). For both sections, it has been an explicit strategy of PRIMA to increase the average funding value because of efficiency considerations and to encourage participation in bigger projects.

Currently (May 2022), all projects are still running. The total funding for PRIMA, including EU and national funding (excluding in-kind contributions), is EUR 353 million from 2018-2021. The EU funds in Section 1 allocated to projects in 2018-2021 amount to EUR 110 million. In addition, the financial contributions allocated from PS to Section 2 calls from 2018 to 2021 total EUR 114 million. Section 3 funding amounts to EUR 129 million.

Participation by type of beneficiaries

Most beneficiaries come from the public sector. Higher education establishments represent the highest number of beneficiaries in PRIMA (Table 1). This category includes universities, institutes, laboratories and research councils, and accounts for 41.3% of all beneficiaries from 2018-2021. Other research organisations represent 28,8% of beneficiaries. Private for-profit organisations account for a bit less than 20%, most of them (5 of 6) being SMEs. The majority of SMEs (57%) participate in Section 1, where the share of private stakeholders is considerably higher than in Section 2 (43%) (PRIMA 2022, p.94). That is probably the case because, in Section 2, not all PS reimburse costs for firms, and the budget-per-project is lower. The participation rate of private actors is the highest in the WEFE Nexus calls (only Section 1 calls) and Agro-Food calls. Most private for-profit stakeholders are from EU PS (~72%).

Table 2: Participation by type of beneficiaries²

Year/ section	Total	Higher education establishments	Research organisations	Public body	Private for-profit organisations	Other
Grand Total						
Total (2018- 2021)	1571	649 (41.3%)	453 (28.8%)	51 (3.2%)	297 (18.9%)	121 (7.7%)
By year						
2018	318	130	101	12	62	13
2019	417	164	120	14	78	41
2020	451	179	138	11	91	32
2021	385	176	94	14	66 (35
By section						
Section 1	605	174 (28.8%)	144 (23.8%)	30 (5.0%)	176 (29.1%)	81 (13.4%)
Section2	966	475 (49.2%)	309 (32.0%)	21 (2.2%)	121 (12.5%)	40 (4.1%)

Source: CSES (2022)

National Participation

For the analysis of national participation, it is important to consider that a key participation rule for Section 1 and 2 projects is that at least three independent legal entities collaborate. Legal entities shall be established in three different PS, of which: (i) at least one is from an EU Member State or third country associated with H2020, (ii) and at least one is established in a Third Country bordering the Mediterranean Sea.

Regarding the number of beneficiaries, Italy and Spain rank number 1, followed by Tunisia and France (Table 1). Non-EU PS participants represent 38% of all beneficiaries in Section 1 and Section 2 calls. Next to Tunisia, Morocco, Turkey, and Algeria have the highest number of beneficiaries among the SM PS.

² There is different information regarding the numbers of beneficiaries in PRIMA (2022), CSES (2022) as well as in PRIMA Intelligent Analytical Tool (available on Website). As most detailed relevant information was provided CSES (2022), this data was selected for the report. While the other sources differ in their number, the statements would be remain the same. For the preparation of the final report PRIMA will be conducted to finally consolidate the numbers in Table 2.

The participation of countries differs only to a limited extent between the sections (PRIMA 2022). This is despite the significant difference in funding modalities: Section 2 is dependent on the amount committed by the PS, and hence to a considerable extent, the participation is more or less ex-ante defined, while Section 1 is based only on EU funding with competitive calls and open, independently from which PS the beneficiary comes from. The interviewees indicated that the similar performance of countries in both sections might relate to the prominence of the topics and cooperation among the southern Mediterranean regions in some countries (e.g. Spain, Italy) and strong national activities to support national entities to participate in PRIMA.

The participation of countries differs only to a limited extent between the thematic areas, with farming having a slightly higher participation rate of SM PS.³

Table 3: Participation by countries

Country	Number of projects	Number of beneficiaries	Number of Coordinators	Received Funding in million EUR (Section 1+2)
EU Members				
Croatia	10	18	-	2.1
Cyprus	14	20	-	1.6
France	89	144	15	21.6
Germany	54	67	13	16.7
Greece	69	116	15	17.4
Italy	129	273	60	51.9
Luxembourg	2	2	-	0.3
Malta	7	9	-	1.9
Portugal	51	83	9	8.4
Slovenia	9	12	-	0.9
Spain	120	230	44	36.2
Total EU PS	554 (57.4%)	974 (61.9%)	156 (92.8%)	159 (71.9%)
Participating Third Countries				
Algeria	62	85	-	7.4
Egypt	56	75	1	9.3
Israel	12	16	1	2.6
Jordan	17	21	-	2.6
Lebanon	31	40	1	5.6
Morocco	71	118	2	11.5
Tunisia	103	155	2	12.7
Turkey	59	89	5	10.4
Total SM PS	411 (42.6%)	599 (38.1%)	12 (7.2%)	62.1 (28.1%)

Source: CSES (2022), PRIMA (2022)

Regarding financial contribution, SM PS received around EUR 62 million or 28% of total funds. Of these, EUR 35.9 million were obtained from the EU financial contribution budget (Section 1). This presents a share of around 32%, exceeding the target share foreseen in the Basic Act of 25%. In Section 2 calls (national funds), non-EU PS received approximately 23% of funds, corresponding to EUR 26.2 million

³ PRIMA Intelligent Analytical Tool 2018-2021. Accessible via <https://prima-med.org/who-we-are/prima-in-numbers/>

in national funds. The fact that the shares of funding for SM PS are lower in Section 2 than in Section 1 reflects the lower national financial commitments of SM PS in Section 2.

Section 3: PS invested EUR 73 million in 13 PSIAs (

Table 4). Mainly due to national Covid-19 containment measures, several of the PS programmes included in the AWP were not implemented. From 2018 to 2021, 13 PSIAs out of 53 initially planned were launched, and 397 projects are running within the 13 PSIAs. According to PRIMA-IS, most PSIAs relate to R&I activities targeting private companies to foster competitiveness by developing new or improved products, processes, and services focused on fulfilling economic, environmental, and social challenges (PRIMA 2022).

Table 4: Amounts disbursed to PSIAs by country

Country	Disbursed amounts in EUR
Spain	70,228,808
France	2,539,998
Israel	554,500
Germany	101,582
Total	73,424,888

Source: PRIMA (2022)

Regarding national distribution, it has to be stated that only four countries contributed to the disbursed amounts. Spanish organisations paid most of the corresponding funding (EUR 70 million), accounting for 95.6%. In addition to these R&I activities, Malta and Turkey have launched PSIAs (e.g. training workshops, mobility of researchers) in collaboration with other PS, aiming to strengthen participation and coordination of less represented PRIMA PS and, in particular, SM PS (PRIMA 2022).

4. Evaluation Findings

4.1. Relevance

The reviewed information indicates that the specific objectives of PRIMA have been and remain relevant for the PS and the Mediterranean R&I ecosystem. Through its thematic and specific objectives and implementation, the partnership addresses key challenges of the Mediterranean region.

Stakeholder needs in the Mediterranean Area

The Mediterranean area features distinct conditions regarding its water and agro-food systems, which are heterogeneous across the PS. To start with, agriculture constitutes a major economic sector regarding its share in the gross domestic product (GDP) for several PS. In particular, agriculture is economically important to various SM PS (Figure 2).

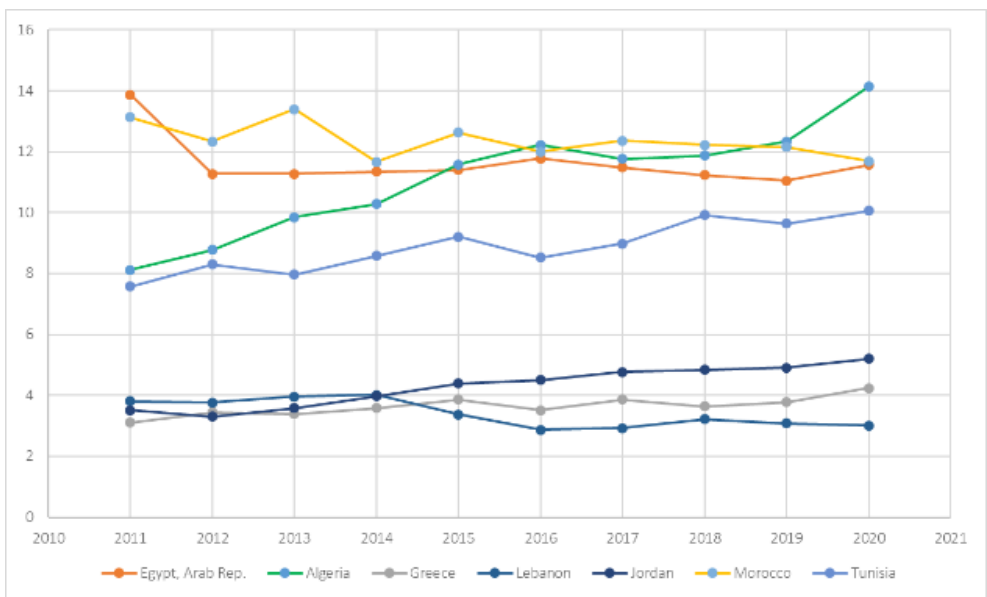


Figure 3: Development of the contribution of agriculture, forestry, and fishing to the GDP in %. Source: Own visualisation, based on Worldbank (accessed in 2022)

By a similar token, agriculture is also a major source of employment in some PS (Figure 4).

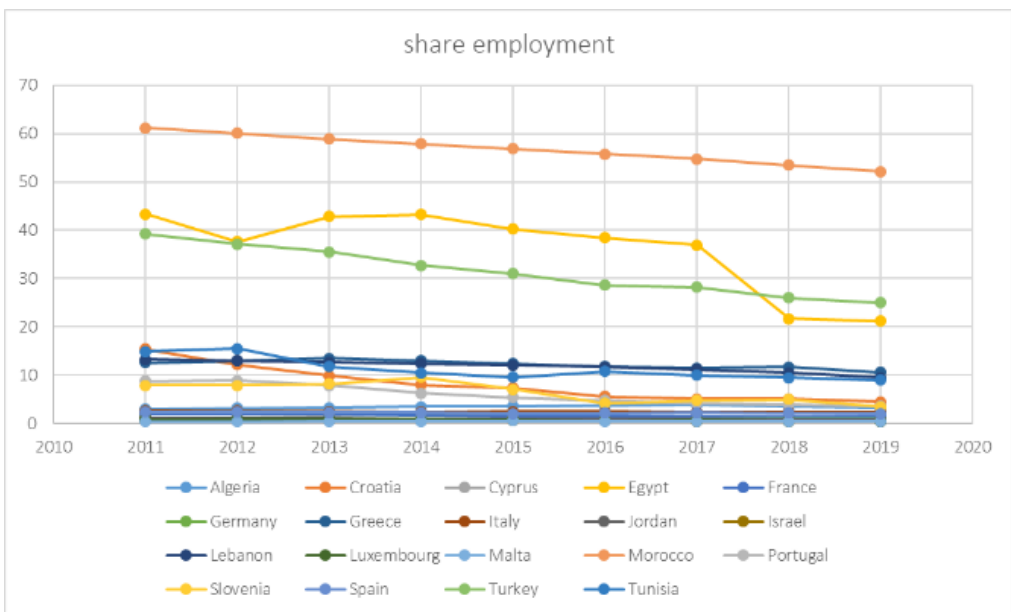


Figure 5: Development of the share of the population employed in agriculture, forestry, and fishing (in %). Source: Own calculation, based on World Bank (accessed in 2022)

Closely related to the agro-food system, water constitutes another key challenge for almost all PS. Certain areas in the Mediterranean Area are subject to severe water stress⁴ (Figure 6). Notably, this applies to PS such as Lebanon, Turkey, Greece, and Spain.

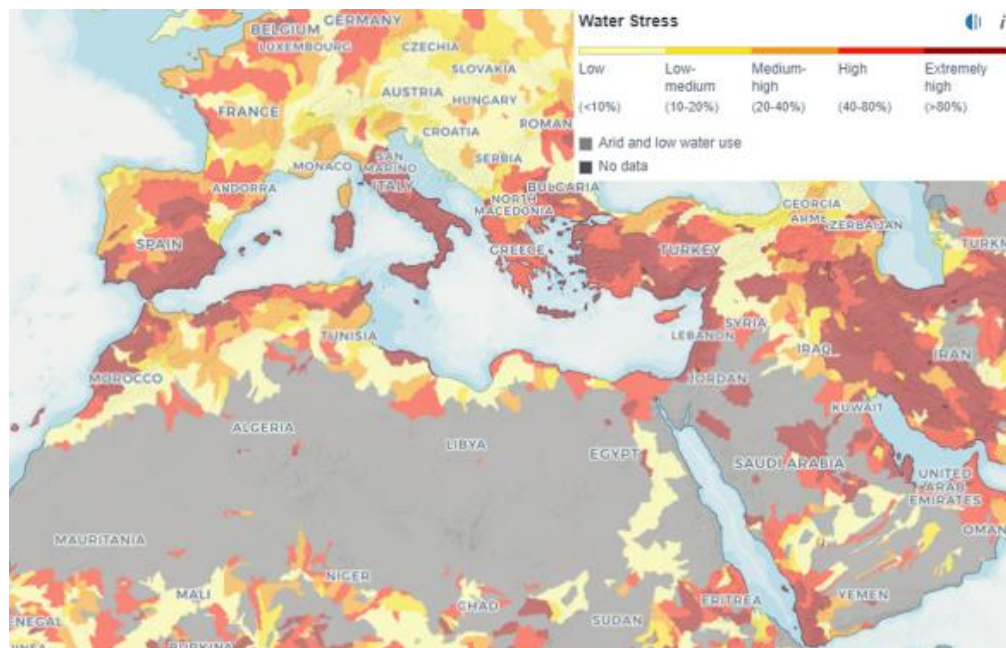


Figure 7: Water stress levels in the Mediterranean region. Source: adapted from World Resource Institute (accessed in 2022)

Even under optimistic assumptions, researchers expect water scarcity levels in most PS to increase in the future (Figure 8).

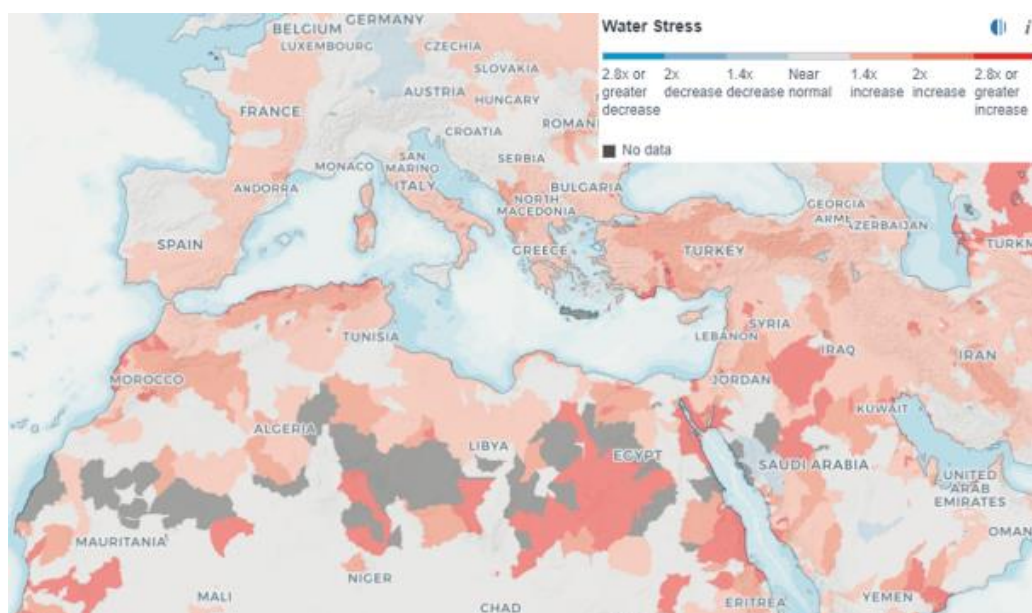


Figure 9: Water stress level developments in the Mediterranean region. Source: adapted from World Resource Institute (accessed in 2022)

Persistent water scarcity can be linked to negative ecological (e.g. the loss of soil moisture), social (e.g. the lack of access to quality drinking water), and economic (e.g. the decrease in agricultural incomes) consequences. The European Environment Agency (2021) estimates that about 20% of the European territory and 30% of the European population are affected yearly by water stress. Moreover, the World Bank (2017) indicates that the economies of SM PS are particularly vulnerable to increased water stress,

⁴ The ratio between the consumptive and non-consumptive withdrawal of water and the available renewable surface and groundwater supplies (World Resource Institute, no date provided).

with 71% of the GDP of the Middle East and North Africa region being exposed to it, compared to 22% worldwide. By the same token, some of the SM PS suffer from rather low food security levels: While the annual Global Food Security Index from autumn 2021 ranked PS from the EU in the upper percentiles (France 9th, Germany 11th, Italy 18th, Portugal 21st, Spain 24th, and Greece 27th), PS from outside the EU tend to rank considerably lower, with Turkey holding the highest place among them (48th) and Egypt the lowest (62nd)(Economist 2022)⁵. Moreover, the current situation with the Ukrainian-Russian conflict threatens food security in many countries. There is a common reliance among the Mediterranean countries on the agricultural sector and, in turn, on water sources. In particular, this is the case for SM PS. Present or future issues in the fields of agro-food and water management may therefore considerably contribute to social instability in these states. However, instability in the Southern Mediterranean region may ultimately translate into problems for societies within the EU as well by driving migration.

Since the challenges associated with water and agro-food systems tend to be complex and multidimensional, coordinated and joint efforts seem reasonable to address them. That there has been, and continues to be, an array of political and R&I initiatives to address the various ailments of the Mediterranean region⁶ indicates the enduring need for tailored multilateral interventions. PRIMA is advantageously positioned to facilitate these political and R&I initiatives as it can directly feed relevant insights from its R&I projects into the policy arena.

Addressing the needs of PRIMA stakeholders and flexibility of operation

Almost all stakeholders regard the PRIMA SRIA as highly relevant for addressing the problems faced by the PS regarding climate change⁷. The interviewees indicated that the thematic areas lined out in the SRIA address the needs of the stakeholders and PS very well and that its main themes of food security, sustainable farming systems, and sustainable water management have become even more important since the inception of PRIMA. In addition, the SRIA states challenges and objectives on a rather broad level. This allows PRIMA to be operationally flexible (see, for example, the introduction of Nexus projects). Many stakeholders value this agility because it enables the partnership to cater to current thematic developments and challenges in its annual AWP. Most interviewees also regarded the specification of the objectives in the calls as adequate. The high relevance that the R&I stakeholders attribute to the calls is reflected in the large number of proposals submitted each year, especially in the thematic area of farming. Moreover, it manifests in the considerable amounts that the PS have committed to PRIMA.

Beyond creating thematic knowledge to tackle some of the most pressing issues of the Mediterranean region, PRIMA can also be considered relevant in strengthening the cooperation between the SM PS. This is important since SM PS are less used to multinational cooperation. Also, the interviewees indicated that many participants from SM PS consider participation in PRIMA particularly prestigious.

4.2. Coherence

Concerning internal coherence, the gathered data suggest that PRIMA has managed to strike a balance in terms of the instruments applied and the topics addressed.

For the different funding instruments, there are indications that the use of RIAs and IAs constitutes “a good mix” (CSES 2022, p. 47) between basic research and research whose results could easily be translated.

Projects related to farming systems accounted for the majority of projects between 2018 and 2021 (Table 5). As agriculture and farming are important for communities across the Mediterranean region, the benefit of focusing on this sector is particularly large. Thus, it appears reasonable to dedicate the

⁵ The index does not cover all PS, missing Croatia, Cyprus, Lebanon, Luxembourg, Malta and Slovenia. Being ranked 12th, Israel constitutes an exception among the non-EU PS.

⁶ Corresponding examples are the European Neighbourhood Instrument Cross-Border Cooperation Mediterranean (ENI CBC MED) program 2014-2020 or the European Cooperation Programme for the Mediterranean area (INTERREG-MED), the UfM, or individual ERA-NETs.

⁷ A few interviewees nonetheless indicate the need to update the SRIA, which was devised in 2018.

most funding to strengthening its R&I capacities, increasing stakeholder involvement and developing critical mass. Moreover, there have been indications of thematic links between projects under different topics. For example, agro-food projects may have a water management component, as water management projects sometimes consider farming systems. Hence there are no hard boundaries between the thematic areas.

Moreover, the addition of Nexus projects that target the WEFE Nexus in 2019 can be seen as a further step to harmonise the PRIMA project portfolio aside from techno-scientific silos.

Table 6: Distribution of project numbers and funding volumes among the PRIMA topics

		2018	2019	2020	2021	Total	Share in Total 2018-2021 in %
Number of projects	Farming	15	20	23	23	81	48.2
	Water	12	10	9	6	37	22.0
	Agro-Food	8	15	12	8	43	25.6
	Nexus	0	3	2	2	7	4.2
	Total	35	48	46	39	168	
Amount of funding in million EUR	Farming	19	23	28	30	100	44.4
	Water	16	11	14	11	52	23.1
	Agro-Food	11	16	16	12	55	24.4
	Nexus	0	4	6	8	18	8.0
	Total	46	54	64	61	225	

Source. Data compiled from project lists provided by PRIMA-IS

Concerning external coherence, PRIMA shares links with an array of EU, multi- or international political (Table 7) and/or R&I (Table 8) initiatives and actors. While this means an opportunity for harnessing synergies, on the one hand, it raises the necessity for active coordination to avoid unnecessary redundancies on the other hand. To do so, PRIMA-IS actively engages in a variety of activities to synchronize with the most important initiatives. Moreover, regarding the future, PRIMA-IS has taken steps to coordinate with entities of the Horizon Europe FP of similar thematic focus, such as the EU Mission “A Soil Deal for Europe” or candidate partnerships like the European Partnership Water Security for the Planet (Water4All). Lastly, PRIMA-IS has been in contact with relevant initiatives that could facilitate the translation of PRIMA results into practice, such as the EIT Food and the KIC Climate.

Table 9: List of the most relevant political initiatives and actors, their thematic links to PRIMA, and the activities by PRIMA-IS to coordinate with them

Initiative Name	Initiative type	Thematic link with PRIMA	Type of activities PRIMA does coordinate with Initiative	Aim of activities
UfM (Union for the Mediterranean)	Political EU Mediterranean	The thematic focus on the Mediterranean Region	Joint workshops with UfM staff Co-organisation of conferences and major events (i.e. COP 27 Pavilion)	Better thematic coordination
IEMed (European Institute of the Mediterranean)	Political EU Mediterranean	The thematic focus on the Mediterranean Region	Joint webinars and conference	Better visibility for PRIMA

Initiative Name	Initiative type	Thematic link with PRIMA	Type of activities PRIMA does coordinate with Initiative	Aim of activities
GWP (Global Water Partnership)	Political International	The thematic focus on water	Collaboration WEFE Nexus Conference	Better visibility for PRIMA
UNSDSN Mediterranean (United Nations Sustainable Development Solutions Network Mediterranean hub)	Political International	The regional focus on the Mediterranean	Joint meetings and webinars	Better visibility for PRIMA
ASCAME (Association of the Mediterranean Chambers of Commerce and Industry)	Political EU Mediterranean	The thematic focus on the Mediterranean Region	Collaboration for the MedaWeek participation	Better visibility for PRIMA and the funded projects
FAO (Food and Agriculture Organization)	Political R&I International	Activities addressing the same thematic area Sustainable Food Systems	Joint workshops with FAO within the SFS-MED (Sustainable Food Systems in the Mediterranean)	Better scientific coordination, regional focus in the Mediterranean

Table 10: List of the most relevant R&I initiatives and actors, their thematic links to PRIMA, and the activities by PRIMA-IS to coordinate with them

Initiative Name	Initiative type	Thematic link with PRIMA	Type of activities PRIMA does coordinate with Initiative	Aim of activities
Water JPI (Water Joint Programming Initiative)	R&I EU	Activities addressing the same thematic area (water)	Water JPI activities are open to PRIMA partners, such as the Water JPI Workshop at the Cairo Water Week Contribution to SRIAs	Better scientific coordination in the definition of the priorities to be addressed in the AWP's to ensure complementarities and avoid duplications at the implementation level: to exchange best practices, avoid duplications and increase the impact
JRC (Joint Research Centre)	R&I EU	Activities addressing the WEFE nexus approach in the Mediterranean	Co-organisation of the WEFE Conference Active contacts within the Governing Board of the WEFE Nexus Community of Practice	Better scientific coordination

Initiative Name	Initiative type	Thematic link with PRIMA	Type of activities PRIMA does coordinate with Initiative	Aim of activities
EIT-Food	R&I Education EU	Activities addressing the same thematic areas (food, water scarcity)	Training, sharing MOOCs Active contacts to identify potential cooperation opportunities in the fields of agriculture and water scarcity Joint webinars like The Rethinking Water Event	Build synergies in the area of education, training and capacity building Introducing and valorising EIT Online Courses on thematic related to food within the PRIMA community and network. Presenting to the PRIMA network of researchers of EIT Food's education/ training programmes designed to strengthen the entrepreneurial skills of key professionals such as researchers and innovators or strengthen farmers' innovation and technology skills EIT could support research results of high TRLs produced by PRIMA projects to create start-ups and commercialise their output.
RTD FP (Directorate General for Research and Innovation of the European Commission FP)	R&I Political EU	Activities addressing the same thematic areas	Synergies and transfer of knowledge among PRIMA and H2020 projects (e.g., Fit4Reuse and HYDROUSA)	Better scientific coordination At the planning level: in the definition of the priorities to be addressed in the AWP's to ensure complementarities and avoid duplications At the implementation level: To encourage coordination, exchange best practices, avoid duplications and increase the impact
INTERREG-MED (European Cooperation Programme for the Mediterranean area)	R&I EU	Activities addressing the same thematic areas and same regional focus (Mediterranean)	Synergies and transfer of knowledge among PRIMA and INTERREG MED projects	Better scientific coordination to encourage coordination, exchange best practices, avoid duplications and increase the impact
ENI CBC MED (European Neighbourhood Instrument Cross-Border Cooperation Mediterranean)	R&I EU	Activities addressing the same thematic areas and same regional focus (Mediterranean)	Synergies and transfer of knowledge among PRIMA and ENI-CBC MED projects	Better scientific coordination to encourage coordination, exchange best practices, avoid duplications and increase the impact Transfer of PRIMA results through ENICBCMED capitalisation calls

Initiative Name	Initiative type	Thematic link with PRIMA	Type of activities PRIMA does coordinate with Initiative	Aim of activities
Horizon Europe Missions	R&I EU	Activities addressing the same thematic area (climate change, inland water, soil health)	Collaboration in joint calls	Thematic coordination extends the activities of the HE Missions beyond EU borders
CIHEAM (International Center for Advanced Mediterranean Agronomic Studies)	R&I EU Mediterranean	Activities addressing the same thematic area Sustainable Food Systems	Joint workshops with CIHEAM within the Sustainable Food Systems in the Mediterranean (SFS-MED)	Better scientific coordination, regional focus in the Mediterranean
ICARDA (International Center for Agricultural Research in the Dry Areas)	R&I and training International	Activities addressing the same thematic areas and same regional focus (Mediterranean)	Training workshops to increase capacity in writing R&I proposals Setting up of the PRIMA Monitoring, Evaluation and Learning Platform	build research and innovation capacities and develop knowledge and common innovative solutions for agro-food systems
LifeWatch ERIC (E-Science European Research Infrastructure for Biodiversity and Ecosystem Research)	R&I infrastructure EU	Activities addressing the same thematic area (biodiversity)	LifeWatch ERIC cooperates with PRIMA to tackle biodiversity and ecosystem research and sustainable management in a global climate change scenario. LifeWatch ERIC has been a valuable source of data for PRIMA projects and a place for storage and sharing of PRIMA data.	Collaboration among PRIMA projects and the E-infrastructure will increase the participation of more Mediterranean countries in LifeWatch ERIC, especially among young researchers.

The reviewed information suggests that PRIMA is mostly complementary to the rest of the Mediterranean R&I ecosystem. For example, the RTD FP constitutes the most important initiative regarding R&I. Yet, while they may address similar topics, they do not particularly cater to the needs of the Mediterranean region. While filling this gap, PRIMA has been building on activities from the FP at the same time. Similarly, PRIMA complements the Water JPI, which focuses on all of the EU, including its non-Mediterranean member states. The same applies to other initiatives such as the Interreg Euro-MED 2021-2027 Programme or the ENI CBC MED Programme 2014-2020, whose foci, while in the Mediterranean, differ from the eligible actors or the funding conditions.

In addition, PRIMA contributes with its thematic focus to the wider EU policies such as the European Green Deal, the new EU Strategy on Adaptation to Climate Change, the Farm to Fork Strategy (the role in the area of R&I and sustainable food), the Circular Economy Action Plan, the Zero pollution Action Plan, and the EU Water Framework Directive (WFD).

In contrast to the multi- or international level, meaningful data about the degree of alignment between PRIMA and national/regional initiatives or policies is difficult to obtain. Nonetheless, CSES (2022) reports that some countries support initiatives complementary to PRIMA. Moreover, the researchers point out that before the inception of PRIMA, the 4PRIMA Coordination and Support Action project, which ran from 2016 to 2018, specifically addressed the question of alignment of national strategies and research programmes on food systems and water use in the Euro-Mediterranean Area with the PRIMA priorities. For this purpose, the project involved major stakeholders in its activities to develop national strategies from the very beginning.

Overall, PRIMA has thus managed to establish internal and external coherence well.

4.3. Efficiency

Overall, stakeholders are satisfied with how PRIMA-IS works to implement the partnership. PRIMA principles and procedures appear to be seen as fair and efficient. Stakeholders hold PRIMA and the members of PRIMA-IS in high esteem. The PRIMA values of co-ownership, mutual interest, shared benefit and the principle of equal footing were considered particularly relevant to enable cooperation between the EU and its southern neighbours as equal partners. The work of PRIMA-IS is largely judged helpful, efficient and responsive. Thus, the programme can be considered a relevant tool of science diplomacy that helps bring closer the EU and its Mediterranean neighbours building a sense of trust and inclusiveness.

To monitor efficiency, PRIMA-IS orients to a set of indicators from the H2020 FP, notably the

- Time To Inform (TTI), i.e. the number of days between call closure and the announcement of the results,
- Time To Grant (TTG), i.e. the number of days between the call deadline and the signature of grants,
- Time To Sign (TTS), i.e. the number of days between the informing of successful applicants and the signature of grants,
- Time To Pay (TTP), i.e. the number of days between the signature of grants and payment, e.g., pre-financing⁸.

Concerning these, the work of PRIMA-IS can be considered rather efficient. **Error! Reference source not found.** Table 11 plots the values for the different indicators for Section 1 projects against H2020 target values. A ratio above 100 can be interpreted as full target fulfilment and an improvement of PRIMA values as an increase in speed and efficiency. Except for TTS, all PRIMA values are below those flagged as desirable under H2020.

Table 12: Comparison of PRIMA efficiency values for Section 1 to H2020 target values

Efficiency Key Performance Indicator (KPI) in days	2018	2019	2020	H2020 target values	The ratio of PRIMA values to H2020 target values for 2020 in %	Improvement of PRIMA values over time in %
TTI	133	134	66	153	43.14	29.56
TTG	311	228	215	245	87.76	16.85
TTS	177	94	149 ⁹	90	165.56	8.25
TTP	2.5	10.2	10.8	30	36	107.85

Source: PRIMA (2022)

The interviewed beneficiaries indicated that the management of Section 1 was straightforward and good to handle since the processes adhere to the application and selection rules of H2020. Moreover, some valued that the projects were smaller than most H2020 RIAs or IAs, so they allowed them to work in smaller consortia, making the approach more targeted and thus more efficient.

Conversely, the reviewed information suggests that efficiency potential remains for Section 2. This mainly results from divergences between PRIMA and national procedures. For instance, as laid out in

⁸ As other Art. 185 partnerships do not rely on the same indicators, the evaluation could not compare the efficiency of PRIMA to that of the latter. Despite the idiosyncratic nature of each partnership, it nonetheless seems advisable to liaise with other partnerships to devise a set of universal indicators in order to allow of comparison.

⁹ The spike in TTS for PRIMA in 2020 is supposed to be an artefact caused by the COVID-19 pandemic.

chapter 3.2, some national provisions require the additional submission of documents or applications to NFAs after a positive project evaluation by PRIMA. These may even differ from those submitted in the first place, e.g. as some NFAs seemingly request submission in their official language(s). Similarly, national schedules may deviate from PRIMA schedules, e.g. concerning the processing of applications, which may lead to delays in project implementation. Such limited harmonisation implies additional administrative efforts for all involved partners, which means consuming resources. Nevertheless, although challenging, Section 2 is an important feature in PRIMA, which plays an important role in mobilising additional national resources.

Table 13: Comparison of PRIMA TTS efficiency values for Section 2 to H2020 target values compared to PRIMA TTS efficiency values for Section 1

Efficiency KPI in days	2018	2019	2020	H2020 target values	The ratio of PRIMA values to H2020 target values for 2020 in %	Improvement of PRIMA values over time in %
TTS Section 2	552.5	356.5	195	90	216.67	40.59
TTS Section 1	177	94	149	90	165.56	8.25
Ratio Section 2 values to Section 1 values in %	312	379	131			

Source: PRIMA (2022)

In response to the difficulties with Section 2, PRIMA-IS has been actively working to streamline procedures. It employed different activities, especially via regular Mutual Learning Exercise workshops where management, funding and procedural issues are presented, and solutions are proposed and sought with NFAs¹⁰. Moreover, PS have proven open to adaptations, as the cases of Egypt, Italy, Jordan, and Spain show, which have simplified their national administrative procedures in response to PRIMA needs. Table 8 indicates the success of the joint search for improvements. For example, before the draft of a mitigation plan to assure that all projects start within six months after the final list of selected projects for funding has been approved, contracts for 2018 projects were signed between 42 to 1063 days (median value: 289 days). After further streamlining efforts by PRIMA-IS, this span decreased to 30 to 608 days in 2019 (median value: 266 days) and 58 to 337 days in 2020 (median value: 167 days). The gap between the TTS in Section 1 and Section 2 decreased from 212% to 31% (using the median value for Section 2: from 63% to 12%).

This constant search for optimisation is another testimony to the overall efficiency of PRIMA.

Yet, the adaptation of national legal regimes to multi-, supra- or international necessities or the conference of national competencies to corresponding entities touches the very identity of states as autonomous actors. The more so as SM PS tend to feature a lower experience of the sort of cooperation relevant to the EU R&I landscape. Lastly, national regulatory set-ups do not necessarily follow efficiency considerations. Consequently, improvements for the efficiency of Section 2 can only be rather slow and incremental.

Concerning the different sections, there were indications that the efficiency of Section 3 could be higher as well. Notably, the procedures for reporting PSiAs to PRIMA-IS might exceed the resources of some

¹⁰ Topics addressed so far: Eligibility check procedures alignment, how to secure commitments and payments, the synchronization of the signature of grants agreements to beneficiaries of the same consortium and starting dates, procedure to approve the extension time to projects requesting it.

NFAs. This may prevent them from reporting their PSiAs, lowering the use of Section 3 as a tool to assess the alignment of national policies (see chapter 4.4).

While PRIMA-IS is currently running efficiently, the staffing level seems rather tight, given the additional workload that has come with the extension of project run times due to the COVID-19 pandemic. This could hamper the ability of PRIMA-IS to dedicate an adequate amount of resources to activities that could help further increase PRIMA's impact, e.g., dissemination or liaising stronger with other EU initiatives. The staffing level could thereby prove detrimental to the efficiency of PRIMA. The current administrative costs of around EUR 5.4 million between 2018-2021 present around 4.5% of the total EU contribution and lie significantly below the upper limit of 6% as defined in Art 3 (3b) of the Basic Act.

While PRIMA is running to a high degree efficiently, developing a sound indicator system is a point for PRIMA-IS to focus on further. While there have been intensive efforts to devise a comprehensive set of performance indicators, it is questionable whether the found indicators always capture what they aim to measure. In particular, the indicators to measure progress concerning the specific objectives outlined in the Basic act could be improved.

For example, the indicator of change in "collaboration patterns" could gain from existing data on how consortia structures change over the years, e.g. whether there are changes regarding the structure of consortia. By a similar token, the indicators to assess the strengthening of the R&I funding capacities and of the implementation capabilities of all actors involved, including SMEs, academia, non-governmental organisations and local research centres, are limited to inputs as they only count the numbers of activities and events, instead of measuring their impacts.¹¹

4.4. Effectiveness

The objectives of PRIMA are in line with the objectives of H2020 as well as the objectives set out in other EU policies and programmes and are visibly defined in the Basic Act. The PS have made clear financial commitments to PRIMA. They consist of either in-cash or in-kind contributions and are stated in the AWP. The documents reviewed suggest that PS's actual individual contributions can be considered an appropriate pooling of resources to foster transnational R&I. On average, around 80% of the committed funds in Section 2 were allocated later by the PS to PRIMA¹². Only in a few cases, the PS did not allocate the full committed amount. This was mainly because there were too few successful proposals with participants from the respective states. Moreover, PRIMA-IS stated to have invested large efforts to compensate for the missing funds.

The PRIMA-IS interviews indicated that PRIMA-IS has managed to set up an effective Dedicated Implementation Structure. Corresponding procedures constitute a crucial testimony to the programme's effectiveness. Moreover, the stakeholders acknowledged the efforts made by PRIMA-IS (and individual national Ministries before PRIMA was set up) to secure a political and financial commitment from the PS who participate in the programme today. In particular, gaining the trust of the SM PS, most of which are unused to working with the EU under similar conditions, and some of which feared being patronized in a partnership, has been a major achievement of the PRIMA- IS so far (although this is no explicit objective on its own).

Regarding Section 1, the rather low success rates are an issue of concern as they imply, of course, high efforts for a large number of actors without direct benefits in terms of funding: this may discourage potential applicants in the future.

Considering Section 2, there have been difficulties in ensuring that the proposals with the best ranking and highest quality are consistently funded. There is an issue that each year, one or more PS are 'too successful' insofar as national research teams form part of a large number of successful PRIMA grants.

¹¹ Given the current early stage of PRIMA, it was not entirely possible to determine the efficiency of the primary monitoring and evaluation system, the MEL database. For technical reasons, PRIMA-IS could not use EU evaluation IT tools and had to set-up the MEL. While the interviews showed mixed opinions on the user-friendliness of the MEL, the platform yet holds the potential to efficiently gather and provide information about PRIMA projects. That the MEL cannot only be accessed by PRIMA-IS, PS and project coordinators, but also by external stakeholders, seems an efficient way to strengthen the visibility of PRIMA.

¹² Whereas the committed amount primarily constitutes a non-binding declaration of intent, the allocation of actual funds is binding.

This means that PS risk running out of the budget without being able to co-fund their share of all successful projects. Consequently, successful PRIMA projects risk not being granted funding or losing partners whose PS cannot provide funding. As a result, some projects are awarded funds without the full consortium in place. In addition, Section 2 poses a particular challenge for more vulnerable PS, which have problems meeting their financial commitments, e.g. because of political instability and crisis. Consequently, realistic participation opportunities for beneficiaries from those countries are lower under Section 2.

As mentioned above, for PRIMA projects, as is the case for many R&I projects, a major barrier to progress has been the Covid-19 pandemic. Consequently, all projects that should have finished in 2021 had to be extended, mainly due to Covid-19. The pandemic has negatively affected PRIMA as not only labs in the PS had to close down, but also the missing travel possibilities made project progress more difficult for the many projects that include field trials or demo sites across the countries. Likewise, another relevant cause of delays in project progress has been the lacking harmonisation of how NFAs handled project administration under Section 2.

Since all projects are currently running, the solutions to the societal needs PRIMA seeks to address are still to be awaited. So far, however, for the 53 projects that passed the mid-term review, the reviewers have not voiced major points of concern (Table 14). On the contrary, data collected from projects that have passed their mid-term review indicates promising progress to achieve operational objectives given the short time. E.g. the “Total number of peer-reviewed publications” (104) and the number of products and solutions (81 in total) are already at a high level given the early stage. Moreover, the large number of demonstration sites (123) presents a promising sign of future innovative solutions, for market readiness, and user involvement in PRIMA projects (CSES 2022).

Table 15: Cross-cutting KPIs derived from 53 projects passing their midterm review

Cross-cutting KPIs	Total number of publications	Number Guidelines	Number products	Number of prototypes/pilots	Number of solutions	Number of new Methods
Total	104	5	38	8	43	10
	Number of Jobs created (temporary jobs within projects)	Number of Start-ups Created	Number of Living Labs	Number of Demo Sites	Number of Platforms/ Hubs	Number of Databases
Total	297	3	3	123	8	10

Source: PRIMA (2022)

A key question for the implementation of the developed solutions will be what happens at the end of project life, considering technology transfer, but also the maintenance pilot and demonstration plants. The interviewed beneficiaries indicated that they are aware of these issues and aim to find solutions, but it was mostly unclear yet, whether adequate solutions will be found. While different sources of funding exist, such as Horizon Europe, it remains to be seen whether these are suitable for the majority of projects. PRIMA-IS is very aware of this issue and proactively explores possibilities to extend its activities or collaborate with potential funders in the future. However, the implementation of research results after the end of the project is a general issue encountered in the past and ongoing FPs.

As in the case of efficiency, to measure the contribution of PRIMA projects to the partnership’s thematic goals, PRIMA-IS has developed a set of KPIs. However, it is too early to interpret these outputs at the current implementation stage, as these outputs can usually be expected at the end of the projects and so are likely to increase very significantly (Table 16).

Table 17: Thematic KPIs derived from 53 projects passing their midterm review in absolute numbers

Thematic area	Water management		Farming systems		Agro-food value chain	WEFE Nexus
Thematic KPIs	Non-Conventional Water Resources (NCWR) Applications	Innovative Irrigation Solutions applied in project sites	Agro ecological Principles	Local Breeds improved and/or conserved	Waste reduction & by-products valorisation solutions	Applied WEFE solutions
Total	2	4	3	1	10	1

Source: PRIMA (2022)

Another PRIMA KPI that is related more to input but connected to societal goals is the percentage of the EU financial contribution under Section 1 to climate and biodiversity-related projects (Table 18). In line with PRIMA's thematic objectives, the share of funding for climate-related projects is particularly high.

Table 19: Sustainable development and climate change, including information on climate change-related expenditure 2018-2021

	2018	2019	2020	2021
% Percentage of EU financial contribution that is climate-related in PRIMA Projects	32.2%	35.4%	42.6%	34.4%
% Percentage of EU financial contribution that is biodiversity-related in PRIMA Projects	15.2%	13.2%	28%	17.55%

Source: PRIMA (2022)

For achieving broad impact, communication and dissemination activities are important for the reputation and awareness of the programme and the diffusion of its results. Therefore, there have been significant communication and dissemination activities by the projects themselves¹³ and by PRIMA-IS, e.g. professional presentation of projects on Websites, dissemination material, and social media presence.

According to the interviewed stakeholders, there are strong efforts by PRIMA-IS toward Communication and Dissemination. Overall, PRIMA has a positive reputation and is well-known in the Mediterranean Area, particularly in the SM PS. However, the interviews indicate that the awareness of PRIMA and reception of Dissemination and Communication material differs between countries because the activities of the NFAs differ. Moreover, it appears to depend on the role of beneficiaries in projects to which extent they receive information, as coordinators receive much more information than others and do not always distribute it in the consortia. Moreover, projects are involved to a highly different degree in those activities, e.g. the Nexus projects are very much involved in events due to their more general and socio-economic related subjects.

In addition to general (thematic) objectives, the Basic Act provides a list of three specific objectives (see chapter 2), which are cross-cutting. Complementary to the above general assessment, the achievement of the specific objectives is assessed as follows.

¹³ PRIMA counts 676 events and activities for the projects.

Specific objective 1 – Alignment¹⁴ of national R&I programmes

The interviews indicate that there is strong political support for the aims and objectives of PRIMA (CSES 2022). The SRIA constitutes the key strategic document that supports the activities of PRIMA. Along the way, SRIA seems well aligned with national and international R&I priorities. The geographical scope of PRIMA is a strength since the region faces many common challenges, which are addressed in the SRIA and implemented in the whole programme. Many stakeholders value the flexibility that the SRIA grants, allowing them to take up current thematic developments and challenges in each AWP. From 2019 on, the topics have been formulated more specifically and detailing the direction of search. Hence, there is an orientation to specific needs for the common geographical area. The topics selected are considered by and large appropriate by the national stakeholders and of high interest to the PS' national R&I agendas.¹⁵ Hence, there are clear indications of the alignment toward the SRIA, which is one of the four specific objectives of PRIMA.

Moreover, as outlined above, the interviewees consider the implementation of PRIMA structures and procedures as an important achievement. Several NFAs changed their regulations or administrative procedures (see chapter 4.3). These changes do not only benefit PRIMA, but they would also be valid for possible other transnational activities as well. Beyond this evidence for aligning procedures, it proved more difficult to find indicators for the actual contribution of PRIMA to the alignment of national R&I policies and strategies, which is the second specific objective of PRIMA. This issue has, however, also been reported for other Art.185 partnerships, so it appears to be rather generic than case-specific (EC 2017). The interviews indicate that the degree of alignment may differ between PS because of the size and history of the domestic R&I systems and procedures. For example, countries with well-established R&I systems are more difficult to align than more developing ones – or the relevance of certain topics for the respective PS. However, due to the close involvement of the PS in the drafting of the SRIA, one may assume a certain level of alignment between the thematic foci of PRIMA and their political agendas.

Specific objective 2 – Critical mass

Overall, the PRIMA PS feature very different scientific systems and baseline situations in terms of the level of scientific excellence of their R&I actors. PRIMA has, therefore, helped foster scientific integration across countries that, in the absence of PRIMA, would be unlikely to have cooperated as closely in the absence of a clear funding incentive and strategic framework to facilitate cooperation.

PRIMA thus contributes to the further completion of the European Research Area (ERA), notably by overcoming the insufficient cross-border cooperation in the Mediterranean area through the funding of cross-border projects, which can be expected to yield larger impacts than uni- or bilateral efforts alone.

As already outlined, PRIMA has funded so far 168 projects with 974 beneficiaries at an overall volume of EUR 353 million. With this, non-EU actors participated in 42.5% of all projects and accounted for 38.1% of all beneficiaries. The obligation to include at least one EU and one SM PS in project consortia is usually easily fulfilled with two or more partners from each region. The SM PS can receive significant funding in Section 1 compared to the lower R&I budgets in these countries. However, the low number of coordinators from SM PS is striking (see chapter 3.2). Therefore, PRIMA supports beneficiaries from SM PS to train their cooperative research capacities, e.g. in terms of project coordination, the writing of high-quality proposals, or cross-country cooperation. While a given for the European research ecosystem, multilateral scientific cooperation tends to constitute a novelty for researchers from some countries. Therefore, their participation in PRIMA projects potentially prepares them to engage in more competitive calls in the future, such as those under the EU Horizon programs. It also constitutes a quality stamp important to R&I performing individuals and organisations.

This strong participation from SM PS is important for raising critical research mass, and the interviewees pointed out the strong scientific capabilities of SM PS beneficiaries. This can be expected to contribute

¹⁴ Alignment here is meant here in a narrow sense according to the specific objective of PRIMA regarding the orientation of relevant national research and innovation programmes towards the implementation of the strategic agenda. ERA-Learn platform takes up a broader definition of alignment, however, this is beyond the specific objective under subject here. https://www.era-learn.eu/support-for-partnerships/additional-activities/copy_of_alignment/financial-alignment-case-studies

¹⁵ There have been a few remarks that the procedures allow the NFAs little time to react. Moreover, it has likewise been suggested that too few occasions exist – especially during Covid-19 – that would have allowed to coordinate NFAs among themselves to find common agreement for the modification of calls.

to a scientific integration across the Mediterranean area, strengthening trust, inclusiveness and ownership. In addition, the gain in experience and the build-up networks, which result from participation in PRIMA, promise to facilitate the access of southern actors to transnational research funding programmes in the future.

In Annex II, selected network analyses by PRIMA-IS are included. These show a rather complex picture of cooperation networks, which may be interpreted positively that not only a few clusters emerge, but wider collaborative relationships could be established. The countries with the highest participation, i.e. Italy, Spain and Tunisia, show strong interlinkages with each other.

In addition, an analysis of country-co-authorship pairs of scientific publications from PRIMA projects (see also Annex II) shows that links between different countries are emerging, particularly between Morocco, Tunisia, Israel, Jordan, Turkey and the EU PS.

The interviews also indicated that it was very likely that the established communities and networks would exist beyond the project's lifetime. For example, one NFA stated that some members of funded PRIMA consortia had already applied together to other bi-national funding programmes. While the analysed data shows much cooperation between EU and SM PS, it likewise indicates limited cooperation among SM PS. Some beneficiaries indicate that cooperation between actors in certain countries is difficult to achieve for political reasons. Yet, at least in some cases, there have been improvements in the cooperation among PS. PRIMA-IS seeks to support stronger cooperation among SM PS in the future.

Generally, there seems to be rather little exchange between different PRIMA projects. That is, except for the Nexus project, the project coordinators stated to hardly know about the content or the progress of other projects and thus potentially forego harnessing synergies for their research.

As explained above, apart from projects under the umbrella of PRIMA, additional financial and in-kind resources are also made available to R&I activities through Section 3 projects to build critical mass. Yet, there is little formal evidence of the use and effectiveness of Section 3, as not all PS tend to report their PSIAs. A reasonable explanation seems to be that corresponding PS perceive the administrative process of reporting a PSIA as complex and laborious (see chapter 4.2). The H2020 regulations mandate the adherence to certain provisions, like verifying the legal status of institutions to be funded. There are indications that this deters NFAs from reporting or assigning funding to Section 3. For instance, according to one stakeholder, there are more programmes that, in principle, would qualify to contribute to the objectives of Section 3. Moreover, it is very difficult to assess to which extent PS, which reported their PSIAs would have conducted them without the existence of PRIMA as the EU PS mostly already had binational/ multinational funding programmes with southern Mediterranean countries in the respective thematic areas. This limits the overall contribution of Section 3 as a strategic instrument in its present form.

Specific objective 3 - Strengthening of the research and innovation funding capacities and the implementation capabilities

PRIMA has implemented various projects aiming to develop innovative solutions through IAs and RIAs. Many of these potential solutions are piloted and tested in different Mediterranean countries, addressing joint regional challenges and making these solutions sustainable, inclusive and transferable beyond the Mediterranean area. Hence, PRIMA tends to improve the capacities and the performance of R&I actors to contribute to more climate-resilient solutions, e.g. reducing water scarcity or enhancing food security through improved agro-food production techniques (CSES 2022).

In addition, to research organisations, a significant number of projects also involve industrial partners¹⁶, who would have the capacity to transfer the outcomes of PRIMA projects into marketed products or services. However, the participation of SMEs very much depends on administrative and financing issues. Since some NFAs are not allowed to finance R&I activities by companies, participation by SMEs in Section 1 is larger than in Section 2. Hence, the extent to which industrial partners are involved stems

¹⁶ The high difference in private participation in section 1 and 2 makes it not straight-forward to assess the performance and to put in relation to other programmes. According to PRIMA-IS itself the participation rate is considered as reasonable: „This [SME participation] is comparable to other EU R&I programmes, mainly when R&I funding involving private entities is still an emerging concept under development in several PRIMA PS.“ (PRIMA 2022,p.98)

less from the perspective of stage and opportunities towards exploitable market results. This may be a disadvantage for technology transfer in later development stages.

Overall, PRIMA allows especially the SM PS to leverage their R&I capacities. By engaging in PRIMA, researchers from the non-PS gain access to the funding opportunities of Section 1, which the EU finances. Although funding under Section 2 is limited to national proportions, the section nonetheless allows researchers to participate in larger consortia than under national funding. In addition, as mentioned above, participants also gain experience in how collaboration works in EU programmes, thus increasing their chances for competitiveness in other funding rounds, including Horizon Europe.

4.5. EU Added Value

The added value resulting from the PRIMA partnership compared to what could have been achieved by individual PS acting independently at international, national and/or regional levels can be considered high for today and even higher for the future.

As presented in more detail in chapter 4.2 for coherence, PRIMA plays a unique role in the Mediterranean R&I ecosystem and serves objectives not covered by other initiatives. The interviewed stakeholders indicated that PRIMA had a significant impact and sizable additionality. If existing at all, alternatives to PRIMA funding take the form of national or Horizon FP funds. Because not all SM PS are associated with the latter, one may assume that actors from respective states would not have been able to execute their ideas at the same scale without PRIMA. Initiatives by individual countries would hence not have addressed the needs of the Mediterranean area as comprehensively as PRIMA.

Moreover, many funded projects contain a clear component to Mediterranean needs and climate as well as economic conditions, which could hardly be investigated otherwise. The interviewees stressed that the partnership significantly contributed to building up additional cooperation and networks to address the specific needs of the Mediterranean. Moreover, they also pointed out that, whereas they differ in the socio-economic structure of their farming sectors, EU PS may nonetheless profit from the knowledge created in PRIMA projects gained from the South as they share similar ecological features.

Apart from creating and transferring relevant knowledge at scale, PRIMA provides an added value to the EU through its application of the principle of equal footing. That is, by ensuring equal treatment and voice for all SMPS, the partnership has managed to develop into a potent tool of science diplomacy for the EU. Moreover, as indicated above, any progress towards higher political stability and sustainable development of the SM PS- has positive political effects on the EU as well, as it helps to address climate change and lowers migration pressure and, thus, unrest within EU societies. Moreover, this added value may likewise last into the future as the interviewees highlighted that PRIMA had set the foundations for future collaborations between EU and SM PS. This relates not only to structures and procedures, but PRIMA has built up a significant reputation, networks and knowledge capabilities in addressing the environmental, economic and societal needs in the Mediterranean Area. In addition, many of the involved ministries and agencies, which are active in other research fields, have aligned procedures at least to some extent and built trust among each other. Hence, there is additional potential added value – next to the actual one – for the future also beyond PRIMA or by extending the current scope within PRIMA.

To analyse to which extent additional financial resources are mobilised, PRIMA-IS uses the leverage effect as an indicator. While also used by other partnerships, in the context of PRIMA, the factor measures the ability of PRIMA to attract additional financing from PS and to multiply H2020 budget resources (Section 1), including through additional activities (Section 2 and Section 3). According to the Basic Act, “The Union financial contribution, including EFTA appropriations, shall equal the PS’ contributions to PRIMA”. So, by 2028 a minimum of EUR 1 of in-kind and/or financial contributions by PRIMA and its funding bodies shall be leveraged for each euro of EU funding. The formula contains the actual financial and in-kind contributions divided by the EC contribution (Figure 10).¹⁷

¹⁷ The leverage effect is the ratio between the costs incurred by PS and the total amount of EU funding paid to PRIMA beneficiaries at the cut-off date of the data reported in the Annual Activity Reports. PS contributions take into account not only the direct financial contributions to beneficiaries from PS (Section 2 calls), but also the costs incurred by all funding bodies in the implementation of indirect actions (in-kind contributions of Section 2 calls), and the costs of other activities (in-kind contributions for Section 3 activities) (CSES 2022).

$$\text{Leverage} = \frac{\Sigma FC PS (\text{Sec.2 fin.contr} + \text{Sec.2 inkind} + \text{Sec.3 In kind})}{\Sigma EU \text{ contribution.}^{27}}$$

Figure 11: Water stress level developments in the Mediterranean region. Source: PRIMA (2021)

The Leverage ratio has remained broadly stable during the initial few years of programme implementation (Table 20) and in all years above the target of 1, meaning that PS contribution at least equals EU contribution. The decrease in 2020 results from the delay of payments to Section 2 beneficiaries in the wake of the Covid-19 situation. In return, a significant increase in payments can be expected for 2021.

To interpret the leverage effect, it has to be remarked that only spent funds are considered, while EU R&I partnerships often calculate those or similar indicators by allocated funds. Since these tend to be higher than the volumes that are ultimately disbursed for various reasons, PRIMA effectively applies a stricter measure of leverage. On the other hand, the PS contributions consist considerably of the PSiAs with around half of the PS contributions and hence the nominator in 2018-2021. Nevertheless, the values can be regarded as promising, and it is very likely that the aimed goal that national funds are equal to the EU contribution will be exceeded.

Table 21: Components of the leverage effect calculation over the first years of the initiative (calculated on disbursed amounts in EUR)

	PS disbursed, Section 2	PS disbursed, Section 3	EU disbursed	Leverage factor
2018	20,233,270	6,419,151	17,201,751	1.55
2019	11,524,034	20,469,927	18,938,112	1.72
2020	8,160,779	13,876,980	21,347,935	1.07
2021	n/a	33,885,474	1,615,288	n/a
total 2018-2020	39,918,083	40,766,058	57,487,798	1.43

Source: PRIMA (2022)

5. Conclusions and Lessons learned

This section presents the conclusions of the interim evaluation and provides recommendations for the future design of the programme.

Overall, the evaluation is very positive about PRIMA and its progress made. The partnership addresses environmental, socio-economic and policy challenges that are crucial to the future development of a more circular and sustainable Mediterranean region. PRIMA contributes to key EU political priorities, objectives and initiatives such as the European Green Deal, in particular Farm to Fork and Biodiversity strategies, Bioeconomy Strategy, Climate Adaptation Strategy and the Circular Economy Action Plan, as well as the SDGs. At the same time, the programme greatly contributes to strengthening the relations and the collaboration between the EU and its southern neighbours. In some cases, it has even encouraged cooperation among the latter.

PRIMA-IS successfully established PRIMA as a platform to strengthen R&I and collaboration and is coherently embedded into the political landscape. While there have been significant implementation challenges and some shortcomings in the beginning, there have been continuous efforts to improve administration.

Regarding the funding structure, Sections 1 and 2 can be assessed overall as smartly designed and as a successful approach to achieve the multiple objectives of PRIMA, although Section 2 faces some practical challenges. The structure largely fosters R&I capacities based on a strong competitive selection process. At the same time, the two-tiered design allows researchers from the SM PS to benefit considerably. For example, it strengthens their capabilities to apply for and to manage transnational projects, as shown by their considerable success rates, significant funding received in Section 1, scientific co-publications, south-south cooperation. By a similar token, there are indications that participants from EU PS likewise profit by being enabled to conduct scientific high-level transnational research and align their R&I activities to the needs of the Mediterranean Area. Moreover, PRIMA structures (e.g. the multi-party Board of Trustees), principles (e.g. the principle of equal footing) and activities (e.g. work of PRIMA-IS) have contributed to the establishment of trustful relationships between the EU and the SM PS. As PRIMA thus contributes to the improvement of the relations between the EU and its southern neighbours, the programme can be seen as a useful and successful means of European science diplomacy and paves the way for future value added for a potential extension of PRIMA.

While it is too early to assess the ultimate contributions of the funded projects to the partnership's various objectives, especially due to the Covid-19 pandemic and initial administrative differences between the PS, the reviewed information suggests that they are nevertheless on track.

At the same time, the assessment also reveals some potential for improvement and corresponding recommendations concerning the programme's second half.

Harmonising national administrative procedures regarding Section 2: While different stakeholders have invested significant efforts into improving the efficiency of administrative procedures, the process remains laborious for the beneficiaries, and difficulties arise (e.g. project partners could start their work at the same time, differences in funding eligibility, cuts of funding contributions). Hence, additional efforts by PRIMA-IS and the PS are needed to harmonise procedures further and to strengthen reliability and speed, such as common catalogues of eligible costs, more homogenous amounts of funding or harmonisation of reporting schedules. In addition, mechanisms to support those southern PS that face the greatest challenges in committing and disbursing funds would be ideal. While legally difficult, some support from other countries or the EU in section 2 may help overcome some challenges with this section.

De-risk the preparation of proposals for applicants: The rather low success rates of project proposals in Section 1 mean a risky investment for consortia partners and may lower the attractiveness of PRIMA in the long term. As an increase in funding is unlikely, other possibilities (e.g. more tailored calls, further refinement of the call procedure in a two-stage call process).

Optimising PSiAs: PSiAs receive a different degree of awareness and importance from the PS, and in the longer term, the suitability of Section 3 for the strategic goals should be re-assessed by PRIMA and NFAs. In the short term, it may prove helpful to invest additional efforts into sensitising PS about the importance of PSiAs. Moreover, to unlock the full contribution potential of Section 3 towards an integrated research area, PRIMA may benefit from facilitating the reporting requirements of PSiAs as much as possible, so that they cater better to the limited resources of NFAs. Another option for

increasing the strategic relevance of the Section would be a greater emphasis on exchange, networking and training (see also next recommendations).

Support community building and project exchange: To fully exploit synergies between the projects and to foster the building of longer-lasting communities, efforts should be intensified to boost the exchange between individual projects. Related activities should go beyond exchange between coordinators but address all relevant partners. Options could be, e.g. i) to organise webinars or events for projects that have either newly been funded or are in their early stages, to facilitate learning from those that are further advanced (CSES 2022); ii) dedicated events for exchange between projects with similar challenges or thematic focus; iii) to support further activities across projects (e.g. support a common application for cross-projects Horizon Booster). Moreover, networking and brokerage events to enlarge the community and deepen interaction between the actors remain of high importance.

Capacity building: Since the inception of PRIMA, there have been different activities to support stakeholders from the countries with less developed R&I systems, which has led to some progress. However, there is still untapped potential to enable even more active participation in PRIMA further. This relates to the overall number of beneficiaries from SM PS, which could be higher, and to their roles in the projects. Therefore, additional capacity-building activities and support to better connect with the transnational community are needed to enable corresponding countries to intensify their participation. For example, this comprises additional training seminars for proposal writing, in-depth training on project coordination, etc.

Adjust KPIs: There have already been significant efforts and progress toward the continuous improvement of the KPI system. Nonetheless, current KPIs still leave room for improvement regarding their usefulness in judging the achievement of the specific objectives and the impact of projects. This concerns, e.g. the lack of KPIs to effectively measure R&I strategy alignment beyond the procedural level. Moreover, it has to be ensured that the impact of projects will be monitored adequately, beyond the mid-term review or the end review of a project, i.e. some sort of regular monitoring or follow-up after a certain amount of time after a project finishes.

Ramping up communication and dissemination: PRIMA-IS is aware that a key focus of future outreach activities should especially communicate project impacts as soon as these are available. This type of communication will be very relevant to sustain high political commitment in the long term. Moreover, there is a need for better internal communication within the project consortia. In fact, according to the interviews, presently, the news is mainly distributed among the coordinators, who may not circulate them within the consortia.

Boosting southern-southern cooperation: While some progress has been made, a further increase in cooperation among the SM PS would be beneficial. Stronger cooperation could contribute to an improvement in the relationships between these countries. Hence, there should be increased efforts to bring corresponding communities together, e.g. by specific events to broker consortia participation among SM PS. Another option would be to adapt project evaluation criteria to favour proposals (maybe for certain calls) where several participants from SM PS are actively interacting with each other¹⁸.

Some of the above suggestions require more effort by PRIMA-IS. Since the latter does not have much leeway left in terms of staffing levels, effective and efficient implementation would mandate an increase in the resource stock of PRIMA.

Potential successor initiative

In addition to the issues that can be tackled in the remaining run time of the programme, there are already intensive discussions about issues that would be relevant for a potential successor initiative.¹⁹ While it is beyond the scope of this evaluation to provide a full view on key issues for the potential design of a successor, in the following, some important aspects resulting from the interviews are discussed in the context of the evaluation results.

¹⁸ Not only in the same consortia, but working together in concrete tasks and Work packages.

¹⁹ As interviewees pointed out the potential successor does not have to follow up necessarily at the end of the current implementation period, but may start earlier.

Thematic focus: Beyond the presently addressed thematic areas of agro-food and water management, the Mediterranean Area also has other specific challenges and potential in common, such as the need for change to switch more completely to renewable energies or common challenges for health. The recently developed UfM R&I roadmaps identify priority thematic areas for R&I collaboration in the MENA region. Expansion of the scope of PRIMA could also be considered to the thematic areas where different mechanisms for regional collaboration already exist. Still, the application of the successful PRIMA model would increase their impact. Some stakeholders argue in favour of using the already existing structure of PRIMA to expand the scope to new thematic areas, e.g. renewable energy, climate mitigation and adaptation, health and blue economy. Moreover, the Nexus theme already links to present projects on energy topics.

At the same time, however, the thematic scope of PRIMA can already be considered rather broad for the budget available. Therefore, some interviewees suggest further narrowing down the current foci. Should the PRIMA stakeholders opt for expanding the partnership's thematic focus, this should go along with an increase in the resources available, e.g. in terms of staff and project funding. Conversely, any thematic expansion, which would reduce the resources for the existing topics (and challenges addressed), would come at the risk of losing critical mass. Any expansion of the scope should therefore ensure that funding available for each thematic area does not become too small.

Another issue to consider if the scope of PRIMA is expanded is the interaction with existing EU regional and international initiatives. The expanded scope of PRIMA should be carefully formulated to avoid duplication or allow for convergence of other initiatives with PRIMA at the right point of their programming cycle. In addition, synergies with other long-term initiatives, such as R&I missions, have to be identified and enabled.

Funding structures: as indicated in the conclusions, the current implementation structure of PRIMA is successful. In the case of a follow-up PRIMA initiative, it is important to consider the effects of a given funding design on the SM PS, which are more vulnerable than EU PS in terms of R&I funding. Any reform should strongly try to sustain the significant benefit those countries gain from their participation. This might, e.g. be not the case if project funding relied highly on national resources and commitments. An example would be a design based on co-funding alone, which would require substantial financial commitments by every PS. Instead, it seems advisable to consider funding designs which do not decrease the attractiveness of PRIMA and do not overburden vulnerable southern states.

Exploitation and market uptake of PRIMA solutions: An increasingly relevant issue in the coming years will be the further exploitation of results achieved by PRIMA projects. In particular, in pilot/demo plants, new practicable solutions are put forward. The maintenance plants themselves may be relevant for future technology transfer also. Whereas this will already be an issue in the next years, when the first projects finish, a change in the instruments and activities will likely take more time. As stated in the earlier chapters, no clear pathways of future financing possibilities for finishing projects exist.

Moreover, the number of involved SMEs that may put forward the results by themselves is reasonable but limited. Hence, additional efforts may be required to support the industry orientation and commercialisation. It is currently discussed whether PRIMA should expand its capacities and its instrument portfolio to fund projects in high TRLs which explicitly focus on the commercialisation of a particular solution²⁰. Overall, there seem to be valid arguments for and against such a step. For instance, further development of PRIMA in that direction may bear the risk that there will not be sufficient resources left to cover R&I development in earlier development stages.

Moreover, a broad portfolio in terms of maturity stage may create difficulties for an efficient operation (fewer links between projects, additional competencies in PRIMA-IS needed) as well as retaining a clear profile in the perception of the stakeholders (policymakers, potential beneficiaries). One option for a structural adaptation is to more strongly involve more NFAs (ideally across all PS) that are allowed to fund for-profit actors. Private stakeholders should be encouraged to lead projects at an advanced stage of development. Further industry focussed development is of critical value.

²⁰ Ge.g. CSES (2022,p.64) proposes „A further possibility might be to set up a small pilot programme for an SME-focused call in which SMEs might lead projects to harness technological innovation and solutions of relevance to the economic, societal and environmental sustainability challenges being addressed by PRIMA.“

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Annex

Annex I: List of Interviewees

No	Position/Role in PRIMA	Country (NFAs, projects)	Thematic topic (projects)	Funded under section (projects)	Call Year (projects)
1	European Commission	-	-	-	-
2	PRIMA-IS	-	-	-	-
3	PRIMA-IS	-	-	-	-
4	Board of Trustees	-	-	-	-
5	Scientific Advisory Committee	-	-	-	-
6	National Funding Agencies	Spain	-	-	-
7	National Funding Agencies	Lebanon			
8	National Funding Agencies	Tunisia	-	-	-
9	National Funding Agencies	France	-	-	-
10	National Funding Agencies	Israel	-	-	-
11	Project beneficiaries	Italy	Water Management	1	2018
12	Project beneficiaries	Germany	Multi-Topic	2	2019
13	Project beneficiaries	Greece	Multi-Topic	2	2018
14	Project beneficiaries	Egypt	Multi-Topic	2	2019
15	Project beneficiaries	Germany	Nexus	1	2019

Annex II: Results from network analysis

To analyse the cooperation structures inside PRIMA, a network analysis of partner countries helps to identify potential country clusters.

As a first approach, network analysis for project collaborations (2018-2021) conducted by PRIMA-IS is presented. An analysis for Section 1 shows that Spain, Italy, Tunisia and – to a little less degree – Greece shares the highest number of collaborations and build the strongest cluster (see thick blue lines). The other countries show a limited degree of clustering.

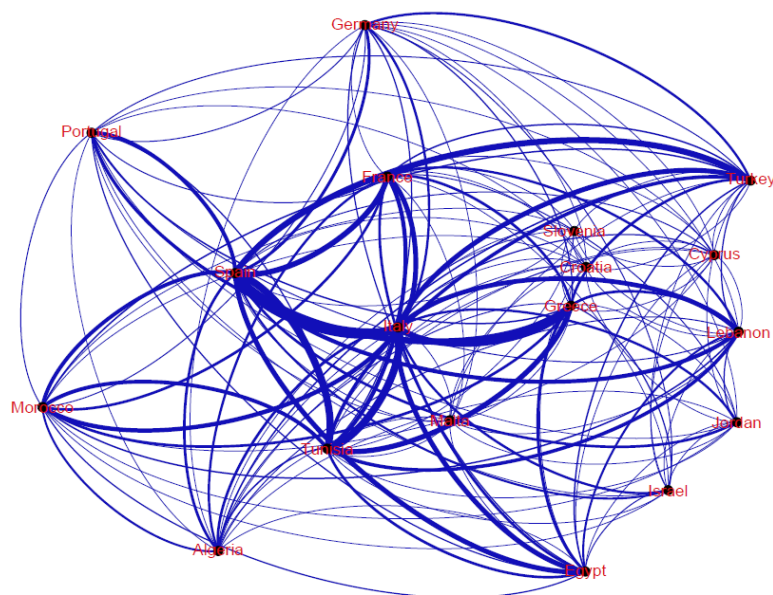


Figure 12: Network analysis of project partners in section 1. Source: PRIMA: Networking analysis - Funded Projects 2018-2021

For Section 2, France, Spain and Italy represent the strongest cluster (thick green lines). The North-African countries Tunisia, Morocco and Algeria are partly linked to this cluster. The other countries are quite diversified in their cooperation.

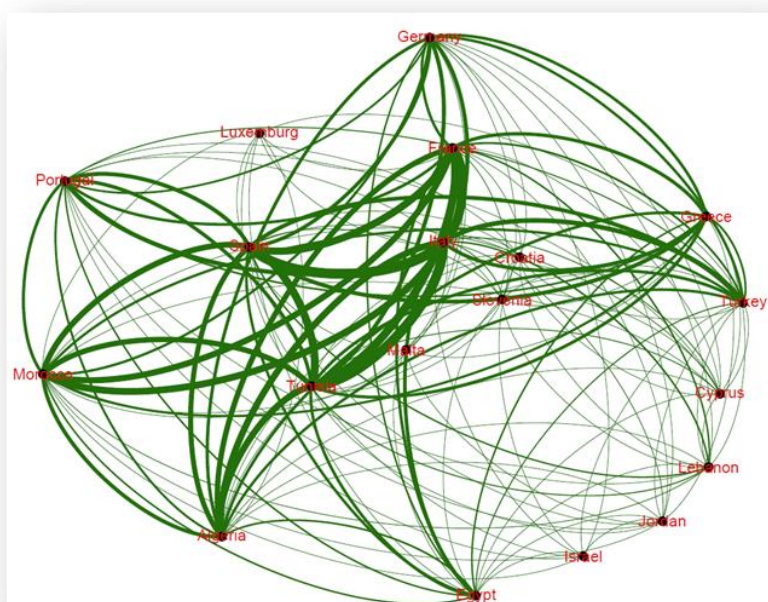


Figure 13: Network analysis of project partners in section 2. Source: PRIMA: Networking analysis - Funded Projects 2018-2021

A second approach used in this interim evaluation is a co-publication analysis in the Green Transition study conducted by the Science Metrix. This approach has the advantage that it captures actual interaction between researchers from different countries – while the above analysis based on project consortia does not indicate whether two entities in a project actually work together.

Therefore, the Scopus database was investigated for funding acknowledgements for PRIMA. In addition, the publications listed in the PRIMA input report for the evaluation were taken as the basis. For those publications linkages between the country affiliations of the authors were measured. Figure 9 also contains non-PS, as quite often more than one project and funding programme was cited and involved. Hence, other researchers or research teams outside PRIMA are also active here.

The colouring in orange vs grey indicates whether a country linkage is rare or common relative to the other international co-publications of a country. So France-Germany linkages are coloured orange because they happen a lot for both countries relatively, in general (full of Scopus). The Jordan-Germany connection is blue; it is an uncommon one to find for both countries. The thickness of the linkages represents the volume of co-publication authorship pairs. For instance, Morocco and France have a lot of co-authorships in PRIMA publications and in general, so that a thick orange link can be seen there. The results show that links between different countries are emerging, particularly between Morocco, Tunisia, Israel, Jordan, Turkey and the EU PS.

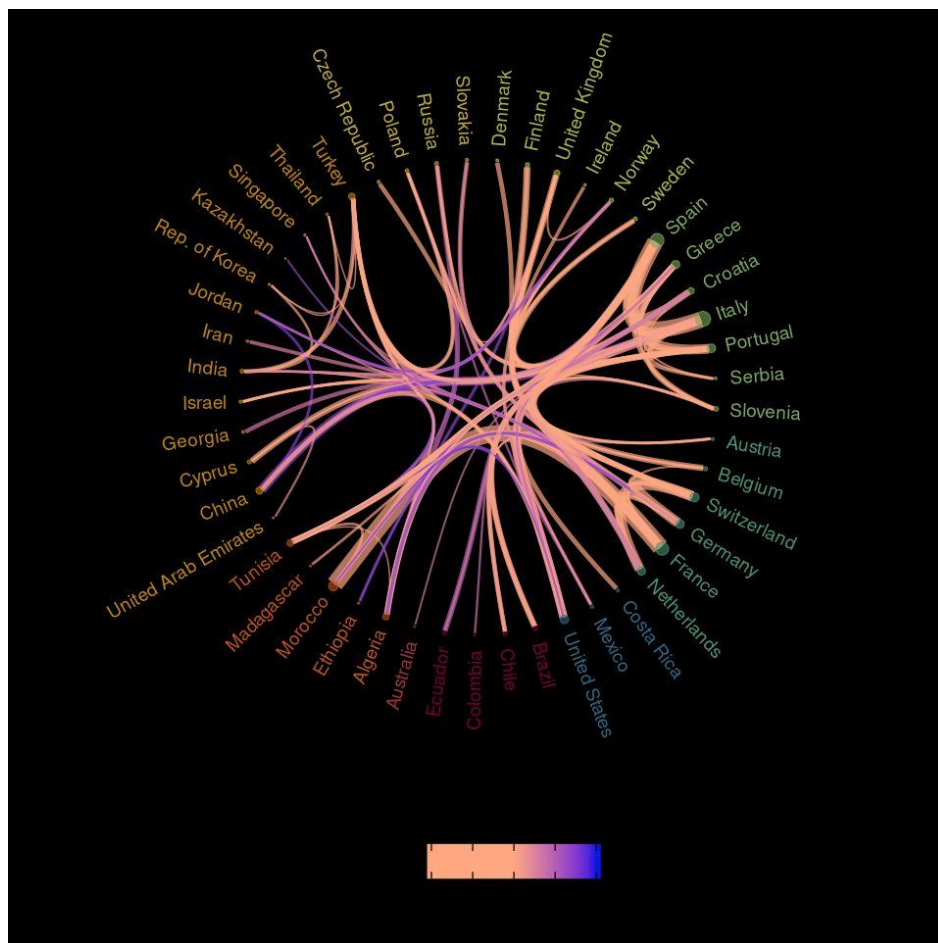


Figure 14: Co-Publication Analysis. Source: PRIMA: Science Metrix based on Scopus data

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The public-public “Partnership for Research and Innovation in the Mediterranean Area” (PRIMA), fosters joint research and innovation (“R&I”) approaches to improve water provision, sustainable agriculture and food production in the Mediterranean area.

The present report provides an interim evaluation of PRIMA and assesses the criteria of effectiveness, efficiency, relevance, coherence as well as added value to the European Union (EU). Overall, the report comes to a positive conclusion about PRIMA and its progress. In its conclusion, the report proposes recommendations concerning the programme's second half.

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