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FINAL REPORT

[MedcoopNet] - Mapping Mediterranean Cooperation Networks and Governance

Understanding Cooperation Dynamics in the
Mediterranean

Final report // April 2026

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Mapping Mediterranean Cooperation Networks and Governance (MedCoopNet)

Understanding Cooperation Dynamics in the
Mediterranean

April 2026

Disclaimer

This document is a final report.

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The final version of the report will be published as soon as approved.

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Erasmus+ EU programme for education, training, youth and sport https://erasmus-plus.ec.europa.eu/projects/search/		
Creative Europe Project Results https://culture.ec.europa.eu/creative-europe/projects		
LIFE Programme https://cinea.ec.europa.eu/programmes/life_en		
EMFAF portfolio of signed projects https://dashboard.tech.ec.europa.eu/qsdigit_dashboard_mt/public/sense/app/c3c15145-227a-4b39-8061-a9ca049a4f13/sheet/d2820200-d4d9-4a26-b23b-58e323c803c2/state/analysis		

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- The geographic location of the project participants has been subjected to a cleaning and homogenisation process to match the NUTS 2024 classification and integrate missing data. Thus, the original geographic data has been modified.
- The participant organisations have been disambiguated in order to cluster different name variations under a single identifier. Also, the participant organisations have been classified according to their type, using a classification suitable to the MedCoopNet project's needs, not necessarily following the equivalent metadata contained in the original data sources. Thus, the original organisation data has been modified and/or extended..
- The projects have been thematically classified, not following the equivalent metadata contained in the original data sources. Thus, the original data has been extended with additional thematic taxonomy fields.

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Abbreviations

API	Application programming interface
CORDIS	Community Research and Development Information Service. The European Commission's primary public repository of information on EU-funded research projects.
DB	Database
EMFAF	European Maritime, Fisheries and Aquaculture Fund
IPA	Instrument for Pre-accession Assistance
HCS	Horizon Europe thematic Cluster
LLM	Large Language Model
MedCoopNet	Mapping Mediterranean Cooperation Networks and Governance
NLP	Natural Language Processing
NUTS	Nomenclature of territorial units for statistics
OLS	Ordinary Least Squares
SDG	Sustainable Development Goal(s)
UNEP	United Nation Environment Programme

Executive summary

Evidence-Based analysis of Mediterranean cooperation through EU-funded projects

The Mediterranean region presents a complex governance landscape with multiple overlapping global and regional policy actors: the UN and its agencies, EU funding instruments, and regional institutions including the Union for the Mediterranean and UNIMED. Robust analytical tools are essential to support evidence-based decision-making at regional, national, and transnational levels.

MedCoopNet (Mapping Mediterranean Cooperation Networks and Governance) is an ESPON targeted analysis proposed by 9 Mediterranean and international stakeholders led by Emilia-Romagna Region. It provides an empirical foundation to understand cooperation dynamics promoted by EU and international programmes. MedCoopNet consolidates fragmented institutional and funding data from multiple EU programmes into a comprehensive database; classifies cooperation projects thematically via semantic analysis, capturing alignment with policy frameworks (SDGs, Horizon thematic clusters) and emergent patterns from project content; and develops evidence-based understanding of cooperation dynamics across key actors, project types, themes and geographies

Methodology and data

The analysis draws on an integrated dataset of 44,685 projects involving Mediterranean cooperation, spanning 2014 to mid-2025 and representing **nearly €30 billion in EU funding.** It covers six major programmes: **Horizon 2020/Europe, Interreg, Erasmus+, LIFE, Creative Europe, and EMFAF.** Building this dataset required resolving a complex organisation disambiguation challenge — linking the same entities across multiple databases despite inconsistent naming. We addressed this using fine-tuned large language models (LLMs), rules-based methods, and semantic clustering, producing **reliable disambiguation and classification of actors into six types: higher education, research, private companies, public bodies, non-profits, and primary/secondary education.**

Thematic analysis combined two complementary approaches. Top-down classification mapped projects against Horizon Europe thematic clusters and UN Sustainable Development Goals. Bottom-up topic modelling automatically identified 80 distinct MedCoopNet topics from project titles and abstracts — ranging from technical themes such as smart grids and renewable energy to social themes such as gender equality. **Network analysis then examined how organisations and regions connect through joint projects,** measuring both overall network structure and the position of individual actors as hubs or bridges.

Key findings

Insights by funding instruments

The six programmes differ substantially in scale, design, and function. **Horizon 2020 and Horizon Europe together provide €21.1 billion— 70.5% of total MedCoopNet funding—across just 24.2% of projects, with an average EU contribution of nearly €2 million per project.** This reflects the programmes' focus on fewer, larger research and innovation consortia.

Erasmus+ presents the inverse pattern: it accounts for 64.2% of all projects but only 13.8% of funding (€4.1 billion), with an average project budget of €144,000. This reflects its role in funding numerous small-scale partnerships across education, training, and youth.

Interreg occupies a middle ground, with an average project funding of €1 million and a strong orientation towards public sector actors, who receive nearly half of its budget. LIFE, despite representing just 1% of

projects, achieves the second-highest average project funding (€1.3 million) and remains tightly focused on environmental objectives. Creative Europe and EMFAF together account for only 2.2% of projects and under 1% of funding, each serving distinct cultural and maritime niches.

The programmes also mobilise different types of actors. Private companies, universities and research organisations dominate Horizon. Public bodies and civil society organisations are central to Interreg. Erasmus+ reaches the broadest range of educational and non-profit actors. Creative Europe relies almost exclusively on cultural and civil society organisations, while EMFAF draws from research, private, and higher education sectors.

Insights by geography

EU Member States account for 70.7% of all project participations and 91% of total EU funding (€27.3 billion). Within the EU, four countries—Italy, Spain, Greece, and France—together capture 79% of total EU-member funding. The distribution shifts substantially on a per-capita basis: Cyprus leads at €741 per capita across all programmes, driven by strong relative activity in Horizon and Erasmus+. Slovenia follows at €490, leading in Interreg and Creative Europe. Italy, Spain, and Greece stand out as the primary bilateral cooperation hubs: all other EU Mediterranean countries participate with Italy in at least 47.9% of their cooperation projects.

Non-EU Mediterranean regions participate meaningfully but receive systematically lower funding relative to their participation rates. The Middle East accounts for 17.3% of project participations but only 4.9% of funding. The Balkans represent 10.9% of participations but just 3.5% of funding. North Africa remains at the periphery, with 1.1% of participations and 0.6% of funding. This structural asymmetry reflects programme architecture: most MedCoopNet programmes are designed primarily for EU Member States, with neighbourhood participation enabled through specific budget lines or association agreements.

Each programme plays a distinct geographic role. Interreg concentrates strongly on EU–Balkans cooperation, absorbing 31.4% of its MedCoopNet funding. LIFE is the most intra-EU focused programme (95.6% EU–EU). Creative Europe shows strong Balkans connectivity, directing 35.1% of its funding to EU–Balkans partnerships. EMFAF is the only programme with notable EU–Africa cooperation (16.8%). Horizon and Erasmus+ both direct around 20% of their respective budgets towards the Middle East, primarily through research collaborations and capacity-building initiatives.

Thematic insights

The thematic distribution of Mediterranean cooperation reflects both programme mandates and the priorities of the organisations involved. Across top-down taxonomies, **Digital, Industry and Space (HC4) is the largest thematic cluster, accounting for €10.3 billion or 34.5% of total funding**—driven overwhelmingly by Horizon. Culture, Creativity and Inclusive Society (HC2) is the second-largest at €7 billion and shows the broadest cross-programme relevance: Erasmus+ allocates 70.9% of its budget here, Creative Europe 95.3%, and Interreg 39.5%.

SDG alignment is strong: 77% of total MedCoopNet funding links to at least one Sustainable Development Goal. Horizon concentrates particularly on SDG 9 (Industry, Innovation and Infrastructure), SDG 7 (Affordable and Clean Energy), and SDG 13 (Climate Action). Interreg emphasises SDG 11 (Sustainable Cities and Communities) and stands out as the dominant contributor to SDG 10 (Reduced Inequality), capturing 55.3% of all cross-programme SDG 10 funding. This reflects territorial cooperation’s distinctive role in addressing regional disparities that competitive research programmes do not reach. Erasmus+ focuses strongly on SDG 4 (Quality Education).

Bottom-up topic modelling identified 80 distinct MedCoopNet topics from project content, ranging from technically oriented areas such as new materials for circular materials, biofuels and aerospace engineering, to territorially oriented topics such emergency preparedness or cultural tourism development to socially focused themes such as media literacy and gender equality. Unlike top-down

taxonomies, this approach captures how actors themselves frame their work — revealing thematic areas that cut across Horizon Europe clusters and SDG boundaries simultaneously. **Several topics receive meaningful contributions from more than one programme:** Interreg, Horizon, and Erasmus+ all fund projects in areas such as biodiversity protection, innovation ecosystems and sustainable territorial development, but largely in parallel. **Topics such as "Water and Waste Management, Irrigation, Environmental Monitoring" or "Building Energy Efficiency, Sustainable Construction and Renovation"** merge technological development, territorial sustainability, and education and skills training that **point at a continuum from ideation and development, to piloting, to coordination and to widespread adoption** of high policy relevance. **More deliberate cross-programme coordination in these shared thematic spaces could amplify coherence and impact.**

Insights on the individual institutions and their collaboration networks

The 50,152 organisations involved in Mediterranean cooperation projects display highly uneven patterns of participation and funding. Higher education institutions (HEI) and research organisations (REC) represent just 6.9% of all organisations but together absorb 44% of total EU funding. Private companies receive the largest single share (30.4%), driven by their major role in Horizon, where they capture 39.1% of programme funding. Public sector actors are central to Interreg (47.7% of its budget), while civil society and cultural organisations account for 71.9% of Creative Europe funding.

Participation is strongly programme-specific: 90.4% of actors appear in only one programme. EMFAF shows the highest cross-programme integration, with 58% of its actors also participating in Horizon and 47% in Erasmus+. LIFE exhibits a particularly strong link with Horizon (50% actor overlap), driven mainly by universities and research organisations. Creative Europe is the most isolated programme, with consistently low overlaps across all others. Participation concentration is greatest in Horizon, where the top 5% of actors account for 55% of all project participations.

Network analysis reveals markedly different collaboration topologies across programmes. Horizon generates dense, compact networks with near-universal connectivity (99% of organisations in the largest connected component) and a hub-and-spoke structure centred on major research universities and technology organisations. Erasmus+ produces the largest network (30,929 nodes) with broader geographic reach but smaller average partnership sizes. Creative Europe is the most fragmented programme, with only 66% of organisations connected and the highest modularity (0.874)—reflecting a cultural sector structured around many small, specialised partnership circles.

Capacity building through territorial cooperation

A key policy finding emerges from analysis of learning effects: regions with higher Interreg participation subsequently show greater entry of new beneficiaries into Horizon funding. Although we have not proven causation, just correlation, this suggests that territorial cooperation builds institutional capacity transferable to competitive research and innovation programmes. The effect is strongest in transition and less-developed regions, indicating that Interreg contributes to convergence objectives. Among Interreg cooperation strands, transnational cooperation shows the strongest association with subsequent Horizon participation, possibly because it exposes organisations to broader networks and more diverse collaboration opportunities, while not being as competitive as the interregional one

Additional MedCoopNet results

The findings presented above demonstrate the value of integrated, multi-programme analysis. **The MedCoopNet database and interactive web dashboard enable further exploration of EU-funded Mediterranean cooperation patterns.**

The MedCoopNet database of Mediterranean cooperative EU-funded projects

The MedCoopNet database of projects (2014-2024/25) is available in the ESPON Open Data portal, and can also be accessed and downloaded via the MedCoopNet web dashboard. **This open data facility supports further exploration and research by stakeholders and analysts.**

The MedCoopNet interactive web dashboard

The MedCoopNet web dashboard provides interactive access to the project database. Users can explore Mediterranean cooperation data through two main functions.

1. **Filtering and indicators.** The dashboard displays key indicators - project counts, funding volumes, participation statistics - that users can filter by programme, geography, theme, time period, and organisation type.
2. **Data download.** Users can download customised extracts from the full database (DB1) in spreadsheet format. After applying filters, the download function exports the matching project records with all associated metadata: beneficiary organisations, funding amounts, thematic classifications (Horizon Clusters, SDGs, MedCoopNet topics), and geographic codes. This supports further analysis in users' own tools.

The dashboard serves multiple audiences. Programme managers can identify thematic gaps or overlaps across instruments. Stakeholders and practitioners can discover potential partners working on similar themes. Regional officers can benchmark their region's participation against peers. Researchers can download data for novel analyses. **The dashboard complements this report by enabling users to explore data relevant to their specific questions and contexts, rather than relying solely on aggregate findings.**

The [dashboard](#) is available at:

<https://gis-portal.espon.eu/arcgis/apps/experiencebuilder/experience/?id=e85e1793bd16425ab2270e573e4cf4db>.

1. Policy context

The Mediterranean region presents a complex governance landscape, with the coexistence of multiple governance frameworks, cooperation initiatives, and diverse funding sources, with variable geographical coverage and thematic focus.

The **Union for the Mediterranean (UfM)**, established in 2008, which builds on the Barcelona Process going back to 1995, aims for policy, technical and financial convergence of the 43 Euro-Mediterranean partner countries around shared priorities at Ministerial level (ex. UfM Environment Agenda so called [2030GreenerMed Agenda](#); the Roadmap on Sustainable Blue Economy; etc). The UfM is a key pillar in the governance and implementation of the [Pact for the Mediterranean](#), a flagship initiative of the European Commission, jointly set out with the External Action service, to deepen cooperation and reinforce the EU's relations with its southern Mediterranean partners. The **UNEP/MAP (Barcelona Convention)** plays a key role in Mediterranean-specific environmental governance and promoted the drafting of the **Mediterranean Strategy for Sustainable Development (MSSD)**. The MSSD, led by the **Mediterranean Commission on Sustainable Development** established in 1995, provides an integrative policy framework for all stakeholders to translate the **United Nations Agenda 2030's** Sustainable Development Goals at the regional, sub-regional, national and local levels in the Mediterranean region. Another key actor is the **FAO**, through the [General Fisheries Commission of Mediterranean and Black Sea](#), which addresses fisheries and marine biodiversity in the region.

Additional initiatives are in place at a smaller geographical scale, within the Mediterranean wider region, such as the EU Strategy for the Adriatic and Ionian Region (EUSAIR), WestMed Initiative and the recently announced blue economy sea-basin strategy on the Eastern Mediterranean. **EUSAIR** is a macro-regional strategy adopted in 2014 and bringing together ten participating countries (Croatia, Greece, Italy, Slovenia, Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia, San Marino) to promote effective multilevel and cross-sectoral cooperation for an economically prosperous, socially inclusive, well connected, more integrated, green and liveable Adriatic-Ionian Region. **WestMed** (Initiative for the sustainable development of the blue economy in the western Mediterranean region) covers ten countries (France, Italy, Portugal, Spain and Malta, Algeria, Libya, Mauritania, Morocco and Tunisia) willing to work together on their shared interests for the region: to increase maritime safety and security, promote sustainable blue growth and jobs, and preserve ecosystems and biodiversity. Other macroregional strategies, such as the EU strategy for the Alpine region (**EUSALP**) and the EU Strategy for the Danube Region (**EUSDR**), are partially covering the region, but do not have a prominent "Mediterranean" dimension.

Regional stakeholders and territorial actors organised themselves in a set of long-standing Mediterranean networks, which help convene stakeholders, generate projects, and align agendas across both shores. These include, among others,

- [UNIMED](#) – university/research cooperation across the basin.
- [CRPM Intermediterranean Commission \(CRPM-IMC\)](#) – coordination/advocacy platform for Mediterranean regions.
- [MedCities](#) - an association of cities representing a Mediterranean voice for local authorities
- [BUSINESSMED](#) – network of business confederations supporting private-sector cooperation.
- [ASCAME](#) – network of Mediterranean chambers of commerce and industry.

There are also initiatives aimed at integrating the different bottom-up networks in and initiatives into a more coherent framework, including **discussions on the creation of a Mediterranean Macro-Regional Strategy**.

Cooperation across borders is supported by multiple EU and international funding instruments.

Within the European Cohesion Policy, **Interreg** programmes promote cooperation at cross-border, transnational and interregional level, with three transnational programmes fully included in the Mediterranean wider region (Interreg Euro-MED Interreg South West Europe / Interreg IPA ADRION) and several cross border programmes, including the Interreg Next Med fostering cooperation with neighbouring partner countries. Besides the Interreg world, **other EU Programmes (such as Horizon, Erasmus+, Life, EMFAF, Creative Europe**, amongst others) promote cooperative projects jointly implemented by partners from different countries. Although these programmes have not a specific focus on the Mediterranean regions, under the Horizon Europe work programmes, specific Mediterranean Initiatives were approved to support the UfM Regional Platform on Research and Innovation roadmaps. Moreover, Under Horizon Europe, the European Union participates in the Partnership on Research and Innovation in the Mediterranean Area (PRIMA) addressing its objectives of tackling the existing and emerging challenges related to water, agricultural and food systems in the Mediterranean region.

Analysing these organisations' and programmes' own agendas and priorities **shows that several topics are key to many institutions**, amongst others: the promotion of sustainable economic development, better education and social cohesion, actions against climate change, sustainable seas and fisheries, the guarantee of reliable and green supply of energy, scientific and technological development, productive and sustainable agriculture, or the promotion of good governance and peaceful societies. **These priorities are however defined using a variety of vocabularies and nomenclatures that would benefit from a common thematic framing and entry-point.**

Given the **multiplicity of governance frameworks, cooperation initiatives, thematic priority setting schemas, and diverse funding sources** that intersect across the region, there is a critical **need for evidence** that delineates the spatial, thematic, and institutional underpinnings of collaborative efforts. **The emerging geography of cooperation in the Mediterranean region demands a structured analysis** to enhance governance mechanisms and align with broader global sustainability agendas, such as the UN Sustainable Development Goals (SDGs).

2. MedCoopNet project objectives and results

Within the policy context described above, robust analytical tools supporting evidence-based decision-making at regional, national, and transnational levels are essential. Answering this need, **MedCoopNet** (Mapping Mediterranean Cooperation Networks and Governance) **is an ESPON targeted analysis proposed by 9 Mediterranean and international stakeholders** (see table 1 below) led by Emilia-Romagna Region, which aims to provide a common empirical foundation to understand the actual cooperation dynamics promoted by EU and international programmes. In doing so, MedCoopNet pursues **three analytical objectives**.

- First, it **fills gaps in institutional and funding data by consolidating information from multiple EU programmes** into a comprehensive database.
- Second, it **classifies cooperation projects thematically via semantic analysis**. This captures alignment with established policy frameworks (e.g. the SDGs) and emergent patterns from project descriptions (automatically extracted MedCoopNet topics), allowing transversal and targeted thematic analysis across the integrated database.
- Third, it **develops an evidence-based understanding of cooperation dynamics**, across key actors, project types, themes and geographies, focussing on a set of specific policy questions.

Table 1: ESPON Targeted Analysis stakeholders

Lead stakeholder	Emilia-Romagna Region acting as Managing Authority of the Interreg IPA ADRION 2021-2027
Partners of the stakeholder consortium	<ul style="list-style-type: none"> • Provence-Alpes-Côte-d'Azur Region acting as Managing Authority of the Interreg Euro-MED Programme; • Autonomous Region of Sardinia acting as Managing Authority of the Interreg NEXT MED Programme; • Ministry of regional development and EU funds of Croatia acting as national authority in several Interreg Programmes and member of the EUSAIR Governing Board; • Conference of Peripheral Maritime Regions, Intermediterranean Commission; • Government of Catalonia, partner in the Dialogue4Innovation project; • Nice Côte d'Azur Metropolis Lead Partner of the Dialogue4LivingAreas project; • UNEP Coordinating Unit for the Mediterranean Action Plan, which is the Barcelona Convention Secretariat, supporting the Mediterranean Commission on Sustainable Development (MCSD); • Region Crete, Lead Partner of the Dialogue4Nature project

The **MedCoopNet** database integrates **data from six major sources** covering the 2014–2020 and 2021–2027 programming periods (as of early 2025):

- the EU Framework Programme for Research and Innovation (**Horizon 2020 and Horizon Europe**) focussed on scientific and innovation excellence,
- **European Territorial Cooperation programmes** (Interreg strands A, B and C)
- **Erasmus+** (education, training, and capacity building),
- **LIFE** (environment and climate action),
- **Creative Europe** (cultural and creative sectors),
- and **European Maritime, Fisheries and Aquaculture Fund** (EMFAF)

In total, the database encompasses **approximately 44,000 projects involving cooperation between organisations located in at least two Mediterranean countries**. As shall be clarified throughout the report, we applied multiple advanced AI techniques (natural language processing and machine learning), with human evaluation at each step to:

- **Locate project participations and organisation headquarters** within NUTS3 and NUTS2 regional boundaries,
- **Disambiguate organisations** across datasets, combining rules-based methods for information coming from diverse sources, fine-tuned LLMs for parent-child relationships (such as departments of a regional government), and semantic clustering of organisation names above similarity thresholds,
- **Classify actors by type** using a fine-tuned LLM classifier trained on the MedCoopNet dataset,
- **Classify projects according to their thematic alignment with the six Horizon Europe Clusters** using fine-tuned deep-learning classifiers with generative AI pre-annotation
- **Classify projects by SDGs** using advanced keyword matching against controlled vocabularies representing each SDG,
- **Identify emergent thematic patterns** through topic modelling, which clusters projects by semantic content independent of predefined taxonomies into the so-called **MedCoopNet topics**

Based on these data, we have also conducted **network analysis** of regions and organisations, providing both **global and local network measures** for each period, applied to (1) the overall database (2) each individual instrument. The local parameters allow us to explore how the positioning of either regions or individual organisations evolve over time. Further detail on the technical aspects of the MedCoopNet project can be found in the Methodological annex.

This dataset allows us to **examine cooperation dynamics at an unprecedented level of detail - who cooperates with whom, on what themes, through which instruments, and where**. Moreover, we can understand how territories or organisations evolve in relationship to each other, based on their position on the network. All together, the data also enables policy analysis exploring whether territorial cooperation builds capacity for more competitive funding programmes.

Presenting the results of these analysis, **this report is organised as follows:**

- Chapter 1 introduces the project, outlining its objectives and main results.
- Chapter 2 elaborates on the policy context framing Mediterranean cooperation.
- Chapter 3 details the database construction methodology and data integration processes.
- Chapter 4 analyses the distribution of projects and organisations by funding instrument and geography.
- Chapter 5 examines the thematic distribution of Mediterranean cooperation projects.
- Chapter 6 explores the involvement of actors in Mediterranean cooperation, focusing on their types, distribution, and collaboration patterns.
- Chapter 7 develops a policy analysis focussing on the capacity building and learning effects, particularly examining how participation in Interreg programmes relates to subsequent engagement with Horizon funding and draws conclusions and articulates policy implications for future programming and governance priorities in the Mediterranean
- Chapter 8 draws together the MedCoopNet conclusions

The project results are delivered in different forms, apart from the present report:

⇒ **The MedCoopNet database of Mediterranean cooperative EU-funded projects**

The MedCoopNet database of projects (2014-2024/25) is the result of EU-funded project data gathering and integration, geolocalisation of project participations and organisation headquarters, thematic analysis via AI/NLP, and the normalisation of the relationship between projects, their related organisations, and their

related region (at NUTS2 and NUTS3 level), for each participation. This database is available in the ESPON Open Data portal, and can also be accessed and downloaded via the MedCoopNet web dashboard. The **Methodological annex** to this Report provides the full documentation on these processes, and details on the information contained in the database, as well as its limitations.

This open data facility supports further exploration and research by stakeholders and analysts.

⇒The MedCoopNet web dashboard

The MedCoopNet web dashboard provides interactive access to the project database. Users can explore Mediterranean cooperation data through two main functions.

3. **Filtering and indicators.** The dashboard displays key indicators - project counts, funding volumes, participation statistics - that users can filter by programme, geography, theme, time period, and organisation type. This enables quick answers to questions such as: "How much Horizon funding went to Greek organisations working on sustainable agriculture?" or "Which programmes have the highest participation of private companies in SDG 12?"
4. **Data download.** Users can download customised extracts from the full database (DB1) in spreadsheet format. After applying filters, the download function exports the matching project records with all associated metadata: beneficiary organisations, funding amounts, thematic classifications (Horizon Clusters, SDGs, MedCoopNet topics), and geographic codes. This supports further analysis in users' own tools.

The dashboard serves multiple audiences. Programme managers can identify thematic gaps or overlaps across instruments. Stakeholders and practitioners can discover potential partners working on similar themes. Regional officers can benchmark their region's participation against peers. Researchers can download data for novel analyses. **The dashboard complements this report by enabling users to explore data relevant to their specific questions and contexts, rather than relying solely on aggregate findings.**

The [dashboard](#) is available at:

<https://gis-portal.espon.eu/arcgis/apps/experiencebuilder/experience/?id=e85e1793bd16425ab2270e573e4cf4db>.

3 Database construction and data integration, normalisation and enrichment

3.1 Data gathering and database construction

We have constructed an integrated dataset covering six EU programmes and funding sources, as summarised in Table 2. The selection of data sources followed the initial request of the Targeted Analysis to integrate at least Horizon and Interreg projects, and was expanded in agreement with the project stakeholder *Steering Committee* to include four additional EU Funding Programmes which are either thematically or quantitatively relevant, and where bottom-up dynamics emerge, involving diverse actors in self-organised partnerships.

Geographically, we defined the Mediterranean perimeter alongside the project's steering committee through a combination of country codes and NUTS codes (levels 1 and 2), covering EU Mediterranean regions plus neighbouring countries, covering 29 countries, from Mauritania to Moldova, on the Northern and Southern shores, as presented below in maps 1 and 2 and in detail in Annex 2. A project was included in the analysis if it involved cooperation between at least two partners located within this perimeter and belonging to at least two different countries.

The final database contains 44,685 projects involving cooperation between organisations located in at least two Mediterranean countries, representing nearly €30 billion in EU funding and 385,739 individual project participations.

Table 2: EU-funded project data sources integrated in MedCoopnet

Programme	# projects with beneficiaries in at least two Med countries	EU contribution to MedCoopNet projects	# participations with at least two Med countries	Latest project start date in the DB
Horizon 2020 and Europe	10,823	€21,116,114,391	179,650	2026-02-01
Interreg	3,755	€3,807,559,622	23,984	2025-04-04
Erasmus+ (excluding Individual Mobility grants)	28,685	€4,089,624,514	171,111	2025-08-30
LIFE	461	€618,817,270	4,329	2025-05-01
Creative Europe	888	€219,373,989	6,063	2025-06-01
EMFAF (European Maritime, Fisheries and Aquaculture Fund)	73	€45,632,653	602	2024-11-01
Grand total	44,685	€29,897,122,441	385,739	

The creation of the database, required a set of manual and AI-based steps detailed in the following sections, namely:

- Thematic project classification via semantic techniques
- Harmonisation across different administrative data sources
- Territorial coding
- Matching and disambiguation of MedCoopNet beneficiary organisations
- Classification by type of MedCoopNet beneficiary organisations
- Mapping of project-level collaboration networks and computation of global network parameters (for different sub-networks) and local network parameters (for each organisation), both at the institutional level and regional level

3.2 Thematic project classification via semantic techniques

The MedCoopNet database classifies all projects according to three complementary thematic taxonomies, summarised in table 3 below. Two are top-down classifications: the Horizon Europe thematic Clusters (HCs) and the UN Sustainable Development Goals (SDGs), both acting as proxy taxonomies for diverse territorial challenges. The third is a bottom-up taxonomy derived through topic modelling.

Each taxonomy serves a distinct purpose. The HCs provide a high-level classification system with six taxons. This framework integrates technological, sectorial and challenge-oriented notions, aligning with the thematic priorities of Horizon, the largest programme. The SDGs offer greater granularity with sixteen taxons, each defined in terms of sustainability and inclusiveness challenges. These goals serve as reference points for policy-makers, networking and coordination instances and organisations across the region. Finally, the bottom-up topics provide the most granular view of MedCoopNet's thematic activities, and it emerges from the project texts themselves, with no reference to external systems. Furthermore, crossing these topics with the top-down taxonomies can provide further detail of the content of projects within each HC or SDG category. Please note that the two top-down taxonomies allow for multiple classification (a project being thematically-related to several HCs or SDGs) while the bottom-up taxonomy is exclusive (one project, one topic).

Table 3: The three thematic classifications available in MedCoopNet

Type of classification	Taxonomy name	Number of taxons	Classification methodology
Top-down - multiple	Horizon Europe clusters (HCs) , as listed in the Horizon Europe Work Programme 2025 ¹	6	Deep learning classifiers
Top-down - multiple	Sustainable Development Goals (SDGs) , as listed in the United Nations Agenda 2030 ²	16 (all but SDG 17) ³	Advanced keyword matching against a controlled vocabulary
Bottom-up - exclusive	MedCoopNet Topics, automatically extracted from clustering the project titles and abstracts	80	Topic modelling

¹https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2025/wp-1-general-introduction_horizon-2025_en.pdf, retrieved on 07/01/2026

² <https://sdgs.un.org/2030agenda>, retrieved on 07/01/2026

³ The methodology doesn't cover SDG17 "Partnership for the goals", since the very nature of this SDG, oriented towards interinstitutional and interterritorial collaboration and shared governance would easily be confounded with the descriptions of MedCoopNet projects, which are by definition collaborative.

For the Horizon Europe Clusters, the project developed a fine-tuned multi-label classifier based on [SPECTER2-base](#), a scientific language model. We trained the classifier using generative AI pre-annotation with an ensemble approach. Two large language models ran in parallel (MetaLlama-3.1-8B-Instruct and DeepSeek-R1-Distill-Llama-70B), with a third resolving disagreements (Microsoft WizardLM). Human annotators then validated and refined these classifications systematically. The resulting classifier achieved 92% precision, 90% recall, and a 91% F1-score across the six Horizon Europe Clusters: Health; Culture, Creativity and Inclusive Society; Civil Security for Society; Digital, Industry and Space; Climate, Energy and Mobility; and Food, Bioeconomy, Natural Resources, Agriculture and Environment.

For SDG classification, we applied advanced keyword matching methods against controlled vocabularies describing the semantic perimeter of each goal. This approach uses an [open controlled vocabulary](#) developed and published by SIRIS Academic, which links textual content to the SDGs (all except SDG 17⁴) through carefully curated keyword lists.

It must be noted that top-down classifications of projects are based on thematic relatedness of the project's title and abstract to the underlying taxonomies. This means that projects can contribute or be related to HCs or SDGs, but not be classified into them if no direct semantic link can be found in their descriptive texts.

Complementing these top-down approaches, topic modelling enables thematic patterns to emerge directly from project content. This NLP-based technique clusters documents with similar semantic content, independent of predefined classification systems. We applied topic modelling across the full corpus of projects, revealing sub-themes and cross-cutting issues that structured taxonomies might obscure.

3.3 Harmonisation across heterogeneous administrative data sources

Integrating data from six EU funding programmes presented substantial harmonisation challenges. Each programme maintains its own administrative systems, data formats, and metadata structures. Horizon data comes from CORDIS in XML format; Interreg data from Keep.eu in spreadsheet format; Erasmus+ and Creative Europe through APIs returning JSON; EMFAF and LIFE through dedicated dashboards and portals. The database covers both the 2014–2020 and 2021–2027 programming periods.

The harmonisation process standardised project-level information (titles, abstracts, start and end dates, funding amounts) and partner-level information (organisation names, addresses, roles, financial contributions) into a unified relational database structure. Particular challenges arose from inconsistent treatment of financial data: while Horizon and Interreg provide partner-level funding allocations, Erasmus+ and Creative Europe report only project totals. For these programmes, budgets were distributed equally across beneficiaries to enable comparative analysis.

3.4 Territorial coding

Reliable geographic analysis requires consistent territorial coding across all data sources. We adopted the 2024 NUTS classification (Nomenclature of Territorial Units for Statistics) classification as the reference standard, coding all project participations to NUTS-3 level where possible.

Several challenges complicated this process. Source data often contained missing NUTS codes, partial information (NUTS-2 without NUTS-3), or deprecated codes from earlier NUTS versions. We addressed these through a multi-step approach.

Where data sources provided geographic coordinates, these were matched against official NUTS shapefiles to derive the corresponding NUTS-3 code. Where coordinates were unavailable or inaccurate, the project reconciled partner town names against Wikidata using OpenRefine's reconciliation service. Each city name

⁴ SDG 17 Partnerships for the Goals

was fuzzily matched against Wikidata entities of type "administrative territorial entity," with the country name providing additional verification. Once the Wikidata entry was identified, coordinates were retrieved and mapped to NUTS-3 areas.

It must be noted that this geographic information is made available through the MedCoopNet web dashboard and related databases and used in the current report's analytics, but they are also used internally for organisation disambiguation, as presented in the next section.

3.5 Matching and disambiguation of MedCoopNet beneficiary organisations

A critical challenge in multi-programme analysis is that the same organisation may appear under different names, spellings, or legal entities within and across datasets. For example, the University of Zagreb might appear as "Sveučilište u Zagrebu," "University of Zagreb," "UNIZG," or through individual faculties. Without disambiguation, analysis would fragment a single institution's participation across multiple database entries.

We developed a hybrid disambiguation methodology combining three approaches. First, rules-based methods matched organisations using VAT and PIC numbers (Participant Identification Code) where available, making sure that locations and organisation types were compatible. Second, we fine-tuned large language models to identify parent-child relationships, linking faculties and departments to their parent universities or governments. Third, semantic clustering grouped organisations based on name similarity when location and type were compatible.

This process used the AffilGood tool, an institution name disambiguation system developed by SIRIS Academic, alongside manual curation of ambiguous cases: approx. 4,000 potential merger pairs were manually reviewed by the project team. This led to a 22.2% reduction in the number of different beneficiaries, from the original 64,500 to 50,000. This significantly improved data quality for analytics, notably for the most active organisations. Taking Spain-located beneficiary organisations as example, the share of EU funding captured by the top 20% of actors by number of project participations doubled from 25% to 50% after processing.

3.6 Classification by type of MedCoopNet beneficiary organisations

Beyond disambiguation, organisations required classification by type to enable analysis of quadruple-helix collaboration patterns. The project built upon the CORDIS functional classification (higher education, research centre, for-profit company, public organisation, others) while introducing important refinements.

A key innovation was distinguishing non-tertiary education establishments - schools, high schools, and vocational education and training institutions - which frequently appear in Erasmus+ and were previously conflated with higher education institutions or public bodies. The project developed a fine-tuned LLM classifier trained on the MedCoopNet dataset itself to assign organisation types, and benefited from the original data sources metadata when available and consistent across funding programmes.

Classification proceeded semi-automatically: cases with low confidence scores or discrepancies between sources underwent manual review.

A systematic evaluation of the classification results was conducted using stratified random sampling, developed by volunteer experts, stakeholder representatives and project team members⁵. For each sampled cluster, a human evaluator assessed whether the assigned organisation type was correct based on the cluster name, member organisations, and any available contextual information. Of the 240 evaluated samples, 225

⁵ The authors of the report would like to acknowledge the support to all those that took part in the classification process.

were correctly classified (93.75% accuracy).

A separate validation was conducted focusing on the largest actors (by participation count). Of the 240 largest actors evaluated, 230 were correctly classified (95.83% accuracy), indicating that classification accuracy is higher for more prominent organisations that typically have clearer institutional profiles.

At the scale of this dataset, some misclassification is inevitable. Two factors drive this. First, the different legal and regulatory landscapes across MedCoopNet countries create inconsistencies that cannot always be resolved systematically; where direct equivalence is absent, classifications reflect institutional *function* rather than legal mandate, prioritising comparability. Second, public information on some organisations is limited, particularly where boundaries are ambiguous — between education, consulting, and development functions, or between for-profit, non-profit, and public bodies.

In conclusion, this refined classification of beneficiary organisations enables more precise analysis of collaboration ecosystems, allowing distinctions between research-intensive partnerships, education-focused networks, and public-private collaborations.

Nevertheless, classification can be incorrect for individual organisations, given the difficulty of the effort and the size of the dataset. These are most relevant when dealing with raw data accessible through the MedCoopNet databases and web dashboard. More information on the disambiguation and classification process of beneficiary, are described in the Methodological annex.

3.7 Mapping of project-level collaboration networks and computation of global and local network parameters

To examine collaboration patterns within MedCoopNet, we use a network analysis framework designed to capture how organisations and regions are connected through jointly funded projects. The objective is to understand the structure, composition, and evolution of cooperation networks across funding programmes, thematic priorities, and geographical contexts.

The analysis focuses on collaborative relationships, rather than individual participations, allowing the identification of central actors, recurring partnerships, and structural features of cooperation that are not observable through aggregate participation statistics alone.

The network analysis is conducted at two complementary levels:

- Institutional networks, where individual organisations are treated as actors linked through joint project participation.
- Regional networks, where regions (at NUTS2 level⁶) are represented based on the collaborative activity of organisations located within them, enabling a territorial perspective on cooperation patterns.

Collaboration networks are constructed by linking actors that participate in the same project. Each project therefore contributes a set of connections between all participating organisations or regions. To reflect the persistence of collaboration beyond a single year and to smooth short-term fluctuations, projects are analysed within overlapping three-year time windows. This temporal framing allows the study to track the evolution of networks over time, including network growth or contraction, the entry and exit of actors, and the consolidation or fragmentation of collaboration structures.

Once constructed, networks are analysed using parameters that describe both their overall structure and the position of individual actors within them. These parameters allow the analysis to move from a descriptive

⁶ Although the MedCoopNet database has NUTS3 granularity, we have developed analytics at the NUTS2 level, since this is where most regional policies operate, including regional R&I policy-making efforts like smart specialisation, supported by Cohesion Policy.

mapping of connections to an interpretation of how collaboration systems function, how cohesive they are, and which actors play strategically important roles. In particular:

- **Global parameters** describe the network as a whole and provide information on the organisation, cohesion, and fragmentation of collaboration systems.
- **Local parameters** focus on individual actors (either organisations or regions) and describe their relative position and function within the collaboration network.

Annex I details the specifications of the network parameters that have been computed in order to drive the analysis in Chapter 6, section 6.6 of this report.

3.8 Limitations and considerations

Users of the report, dashboard, and databases should consider the following limitations when reusing the data or interpreting findings.

- **MedCoopNet covers six EU funding programmes but excludes other relevant instruments** and cooperation programmes by the EU, States, supranational organisations and philanthropic actors. The six selected programmes share common characteristics: they fund collaborative projects through competitive calls, involve multiple partners across countries, and maintain publicly accessible project databases. This selection enables consistent analysis but means that MedCoopNet captures only a portion of Mediterranean project-based cooperation activity, affecting geographic, thematic and type of actor analysis. It must be noted also that for the MedCoopNet databases integrated, only projects with collaboration between actors located in two Med countries are considered, leaving out single-beneficiary projects, intra-national collaborations and collaborative projects between a Med actor and non-Med actors.
- **Temporal asymmetry.** The 2014–2020 period is substantially more complete than 2021–2027, where projects funded after early 2025 are not included.
- **Financial data caveats.** The data sources for Horizon, Interreg, LIFE and EMFAF provide partner-level funding. For Erasmus+ and Creative Europe, this breakdown was not available, so we distributed project budgets equally across beneficiaries - an assumption that affects organisation-level statistics.
- **Geographic coding limitations.** Some NUTS assignments are approximate due to missing or outdated information in source data. Users requiring precise territorial analysis should verify assignments for specific organisations.
- **Top-down thematic classifications set a lower bound on thematic coverage and are inadequate for fine-grained project and programme-level monitoring and evaluation processes.** Thematic classifications (such as SDGs or Horizon Clusters) are based on predefined categories and therefore provide only a general indication of a project's thematic focus. They are not sufficiently detailed for fine-grained monitoring and evaluation at project or programme level. These classifications rely on identifying semantic links between project titles or abstracts and the taxonomy used.

As a result, a project may contribute to certain thematic areas (e.g. specific SDGs or Horizon Clusters) without being classified under them, if these links are not explicitly reflected in the project description.

For this reason, thematic classifications should be understood as a broad mapping tool, rather than a comprehensive or fully reliable method for analysing project contributions. More targeted and context-specific approaches are required to assess thematic orientations and impacts in a systematic way.

- **Thematic classifications are probabilistic.** The Horizon Cluster classifier achieved 91% accuracy - meaning roughly one in ten projects may be misclassified. Topic modelling assigns each project to one topic, though many span multiple themes. Treat thematic statistics as indicative rather than definitive.
- **Organisation disambiguation** reduced fragmentation by 22%, but some errors remain. Distinct organisations may have been incorrectly merged, or duplicates may persist for actors with limited participation. Furthermore, **disambiguation is an open-ended technical challenge.** No disambiguation process can reach 100% quality, because a 100% benchmark cannot be identified ex-ante, and because the institutional landscape changes over the years, which requires executive decisions over individual mergers that could be debated.
- **Organisation classification can be incorrect for individual organisations, given the difficulty of the effort and the size of the dataset.** These are most relevant when dealing with raw data accessible through the MedCoopNet databases and web dashboard.
- **The policy analysis** (*Chapter 7 Policy Analysis: from Cohesion to Competitiveness, evidence of learning spillovers from Interreg to Horizon*) **linking Interreg activity to future increased activity in Horizon establishes correlation, not causation**

We advise readers and users to:

- **Treat findings as one input for decisions, not definitive evidence** - particularly for specific countries, regions, or organisations where aggregate patterns may not hold.
- **Consult the methodological annex before conducting novel analyses** with the full MedCoopNet project database.
- **Be cautious with small-sample analyses** - error rates acceptable at aggregate level may distort findings for narrow subsets
- **Do not use thematic classifications as the sole basis for detailed project or programme-level monitoring and evaluation.** Do complement them with more sensitive, fit-for-purpose methods, such as qualitative analysis, expert review, or dedicated thematic assessments, to ensure a more accurate understanding of project contributions
- **Cross-check thematic classifications against project descriptions when precision matters**
- **Verify organisation information** before using it for partnership decisions.

4. Project and organisation distribution by funding instrument and geographies

The following 3 chapters (chapter 4, 5 and 6) present a descriptive analysis of Mediterranean cooperation across the EU funding programmes covered by the MedCoopNet database. **We examine cooperation patterns from five perspectives:** distribution of projects and funding across programmes; geographical dynamics; thematic distribution using Horizon Europe clusters and Sustainable Development Goals; bottom-up thematic analysis through topic modelling; and participation patterns by type of organisation.

Together, these analyses are novel and valuable per se, and also establish the empirical foundation for the policy analysis in Chapter 7. They reveal that Mediterranean cooperation is shaped primarily by programme design and eligibility rules rather than by emergent thematic priorities, while also identifying areas of thematic complementarity and potential gaps in the collective portfolio.

4.1. Distribution of projects and organisations across funding instruments

In this section we look at the distribution of projects, EU funding, and actors across programmes. The distribution of projects is shown, in table 4 below, both in absolute numbers and as percentage, considering only projects within the perimeter of analysis, that is, with at least two participants in the Mediterranean basin. Similarly, the distribution of funding (among the projects in the perimeter of analysis) is shown in millions of Euros and percentage, and the average funding per project is also reported. Finally, the distribution of Mediterranean basin actors (that is, only organisations present in the Mediterranean basin are considered) is shown in terms of the number of different organisations in each programme⁷, the average number of projects per organisation, and the average funding per organisation. These averages are also calculated from the granular data.

Horizon, Erasmus+, and Interreg provide the bulk of EU funding. Together, these three programmes account for 97% of the total EU funding across the programmes (€29,075 million of €29,959 million) and 96.8% of the total projects (43,267 of 44,685). **Two contrasting patterns emerge from this data: Erasmus+ dominates in terms of project volume, with nearly two-thirds of all projects, while Horizon captures over 70% of total EU funding.**

⁷ A single organisation can participate in multiple programmes.

Table 4: Project, funding, and actor distribution by EU funding programme

Programme	Projects with at least two Mediterranean countries		EU funding to Mediterranean basin beneficiaries in MedCoopNet projects			Beneficiary organisations in Mediterranean basin		
	Number	Share	Funding (million Euros)	Share	Average funding per project	Number of distinct organisations involved	Average number of MedCoopNet projects per Med organisation	Average aggregate EU funding per organisation
Horizon 2020 and Europe	10,823	24.2%	€21,135	70.5%	€1,964,261	14,341	4.7	€1,596,936
Interreg	3,755	8.4%	€3,818	12.7%	€1,016,690	7,251	2.6	€528,178
Erasmus+ (excluding Individual Mobility grants)	28,685	64.2%	€4,122	13.8%	€143,911	31,192	3.3	€132,271
LIFE	461	1.0%	€619	2.1%	€1,342,337	1,749	1.6	€367,469
Creative Europe	888	2.0%	€219	0.7%	€247,043	1,877	1.6	€116,875
EMFAF (European Maritime, Fisheries and Aquaculture Fund)	73	0.2%	€46	0.2%	€625,105	285	1.5	€169,638
All programmes	44,685	100%	€29,959	100%		50,152		

Horizon is the funding powerhouse. The Horizon 2020 and Horizon Europe framework programmes are the **most significant source of EU funding in the Mediterranean basin**. They provide the overwhelming majority of funding, **totaling over €21.1 billion over the 10 year period**, which represents 70.5% of the total funding across the programmes. They also command the highest average funding per project (€1,964,261), and the highest average funding per organisation (€1,596,936). Conversely, Horizon accounts for a smaller share of projects (24.2%) and involves fewer actors (14,341) compared to Erasmus+. **This indicates a focus on fewer, larger, and more budget-intensive research and innovation projects.**

MedCoopNet illustrative project	
Project title, link and start year	HYdrogen DEMonstrator for Aviation (2020)
MedCoopNet topic title	<i>“Aerospace Engineering. Maritime Technology. Off-shore Wind and Marine Energy”</i>
Programme	Horizon Europe
EU contribution to MedCoopNet participants	€ 33 M

Erasmus+ dominates project volume and beneficiary reach, but with low average funding. The Erasmus+ programme accounts for the vast majority of projects, totaling 28,685 projects, which is 64.2% of the total across the programmes. It also involves **the highest number of actors, with 31,192 organisations**. However, despite the high volume, the **average EU funding per project in Erasmus+ is the lowest (€143,911)**, with the average funding per organisation being the second lowest (€132,271). This suggests the programme funds a large number of small-scale cooperation initiatives.

MedCoopNet illustrative project	
Project title, link and start year	DIGI4ME - Health sector skill alliance for creating innovative and efficient VET programmes and improving the digital Skills of medical physics and health professionals (2020)
MedCoopNet topic title	<i>“Industry Skills. Vocational and Workplace Training. Qualifications.”</i>
Programme	Erasmus+
EU contribution to MedCoopNet participants	€ 0,87 M

Interreg and LIFE offer moderate-to-high project funding. Interreg and LIFE occupy a middle ground in terms of project size, offering a higher average funding per project than Erasmus+ but lower than Horizon. Interreg has a lower share of projects (8.4%), but a significantly high average funding per project (€1,016,690) and average funding per beneficiary (€528,178). LIFE has the second-highest average funding per project (€1,342,337), which is notable given its very small share of the total projects (1%) and a small number of participating actors (1,749).

Creative Europe and EMFAF represent a very small portion of the overall cooperative effort. These programmes combined account for only 2.2% of all projects (Creative Europe 2.0%, EMFAF 0.2%), and represent less than 1% of the total EU funding across the programmes (Creative Europe 0.7%, EMFAF 0.2%).

Different levels of sustained engagement and repeat participation. Horizon fosters the deepest level of project engagement among the Mediterranean basin actors (4.7 average projects per organisation), while programmes like LIFE, Creative Europe, and EMFAF have a much less frequent project involvement per organisation (1.6 average projects in both LIFE and Creative Europe, 1.5 in EMFAF), also due to the smaller size of these funds.

4.2 Geographical insights from the distribution of Mediterranean cooperation projects

Distribution of project funding by broad geographical area

Before analysing cooperation patterns across broad geographical areas, this section first outlines the overall distribution of project participation and EU funding across broad Mediterranean geographical areas, namely:

Table 5: Definition of the broad geographical areas

Countries by broad geographical area		
European Union	BG (Bulgaria), CY (Cyprus), EL (Greece), ES (Spain), FR (France), HR (Croatia),	IT (Italy), MT (Malta), PT (Portugal), RO (Romania), SI (Slovenia)
Balkans (+ Moldova)	AL (Albania), BA (Bosnia and Her.), MD (Moldova), ME (Montenegro),	MK (North Macedonia), RS (Serbia), XK (Kosovo)
Middle East	IL (Israel), JO (Jordan), LB (Lebanon)	PS (Palestine), SY (Syria), TR (Türkiye)
North Africa	DZ (Algeria), EG (Egypt), LY (Libya),	MA (Morocco), MR (Mauritania), TN (Tunisia)

Table 6 reports, for each broad geographical area, both the number and share of project participations and the corresponding volume and share of EU funding. The following patterns emerge from this overview:

EU-based participation overwhelmingly dominates both activity and funding. EU Member States account for the vast majority of engagement, **representing 70.7% of all project participations (44,098) and capturing an even larger share of EU funding (91.0%, €27.3 billion)**. This concentration confirms, as expected, that Mediterranean cooperation is centred on EU actors. Nevertheless, it is interesting to note that 30% of participants (accounting for 9% of funding) are outside the EU.

Table 6: Distribution of project participation and EU funding by broad geographical areas

Broad geographical areas	Project Participation		EU Funding	
	Number	Share	Number	Share
EU	44,098	70.74%	27,273,348,831.00	91.03%
North Africa	663	1.06%	180,552,730.60	0.60%
Balkans	6,813	10.93%	1,052,636,664.00	3.51%
Middle East	10,757	17.26%	1,452,640,616.00	4.85%

The share of participants from non-EU areas of the Med, is higher than the corresponding share of funding. The **Middle East** accounts for a sizable share of project participations (17.3%, 10,757 participations) but receives only 4.9% of total EU funding (€1.45 billion). Similarly, **the Balkans** represent 10.9% of participation (6,813) but capture just 3.5% of funding (€1.05 billion). In both cases, participation levels are relatively high compared to funding volumes, **suggesting that partners in these regions are more often involved in projects (programmes) with limited financial allocations or more peripheral roles as indicated in table 6.**

Africa remains marginal in both participation and funding terms. African partners account for **only 1.1% of project participations (663) and receive 0.6% of total EU funding (€181 million).** This places Africa clearly at the periphery of the Mediterranean cooperation landscape covered by the dataset, both in terms of scale and financial engagement.

Overall, funding intensity is strongly concentrated in EU territories and organisations, following programme funding allocations and eligibility rules. Across all broad regions, the comparison between participation shares and funding shares reveals a consistent pattern: EU actors combine high participation with very high funding intensity, while neighbouring regions participate more modestly and receive disproportionately lower funding. This baseline distribution provides essential context for interpreting the cooperation patterns and programme-specific roles discussed in the following chapters. **This EU-centric pattern reflects programme architecture, not merely capacity differences.** Most MedCoopNet programmes are designed primarily for EU Member States, with neighbourhood participation enabled through specific budget lines or association agreements. Non-EU Mediterranean partners often join as "associated" or "third country" participants with different funding eligibility. The participation-to-funding ratio reveals this clearly: Middle Eastern partners account for 17% of participation but only 5% of funding. They frequently join projects in roles with lower financial allocations. This structural asymmetry requires attention at the programme architecture level.

Distribution of project funding by cross-regional cooperation

Building on the regional distribution presented above, **the following analysis examines how EU funding programmes translate these participation patterns into specific forms of cross-regional cooperation.** Projects are categorised depending on the geographic spread of their beneficiary consortia. As table 7 below shows: **EU-funded Mediterranean cooperation is predominantly EU-to-EU in nature:** projects where all beneficiaries are located in the EU, **account for 63.8% of projects. This dominance is even more pronounced when looking at funding:** EU-EU cooperation represents between 61% and 96% of programme funding, depending on the instrument, reflecting both programme design and the concentration of research, cultural, and administrative capacity within EU Member States.

Table 7⁸: Mediterranean cooperation between broad geographical areas, by share of EU funding programme

	Share of projects by geographic cooperation	Horizon	Erasmus+	Interreg	LIFE	Creative Europe	EMFAF
EU-EU	63.82%	68.36%	60.77%	61.17%	95.57%	61.06%	70.46%
EU-Africa	0.70%	0.75%	1.95%	0.86%	0%	1.96%	16.79%
EU-Balkans	11.43%	6.71%	12.81%	31.44%	2.86%	35.12%	0.72%
EU-Middle East	20.46%	20.50%	19.77%	2.01%	1.20%	0.44%	6.33%
EU-PanMed	3.60%	3.68%	4.70%	4.53%	0.36%	1.42%	5.69%
	100%	100%	100%	100%	100%	100%	100%

Note: The first column indicates the share of project participation (%) across all programmes, while the programme columns show the distribution of funding within each programme (%) by geographic cooperation pairs. A project is classified as Pan Med if it has partners from at least three broad geographical areas.

However, each funding programme plays a distinct role in connecting different parts of the Mediterranean:

- **Erasmus+ plays a broader bridging role across the Mediterranean.** Although EU-EU projects represent 60.8% of Erasmus+ funding, the programme allocates meaningful shares to EU–Middle East (19.8%) and Balkans–EU cooperation (12.8%), reflecting its emphasis on mobility, institutional partnerships, and capacity building. Africa–EU cooperation remains limited in funding terms (below 2%), despite Erasmus+'s relatively inclusive geographic scope.
- **Horizon shows a relatively diversified geographic profile.** While EU-EU cooperation accounts for 68.4% of Horizon funding, a substantial share is directed towards EU–Middle East cooperation (20.5%), reflecting strong research collaboration with the region (most notably Israel). While Africa–EU and Balkans–EU cooperation remains marginal within the programme.
- **Interreg is strongly oriented towards Balkans–EU cooperation,** which absorbs 31.4% of programme funding in the Mediterranean basin, despite representing 11.4% of project participation overall. EU-EU cooperation still represents the majority of Interreg funding (61.2%), while engagement with the Middle East and Africa remains very limited.

⁸ All projects have been assigned to one category based on the area of origin of partners. The different geographical aggregations are described below:

- Africa: DZ (Algeria), EG (Egypt), LY (Libya), MA (Morocco), MR (Mauritania), TN (Tunisia)
- Balkans and Moldova: AL (Albania), BA (Bosnia and Her.), MD (Moldova), ME (Montenegro), MK (North Macedonia), RS (Serbia), XK (Kosovo)
- EU: BG (Bulgaria), CY (Cyprus), EL (Greece), ES (Spain), FR (France), HR (Croatia), IT (Italy), MT (Malta), PT (Portugal), RO (Romania), SI (Slovenia)
- Middle East: IL (Israel), JO (Jordan), LB (Lebanon), PS (Palestine), SY (Syria), TR (Türkiye)

A project is classified as Pan Med if it has partners from at least three macro-regions.

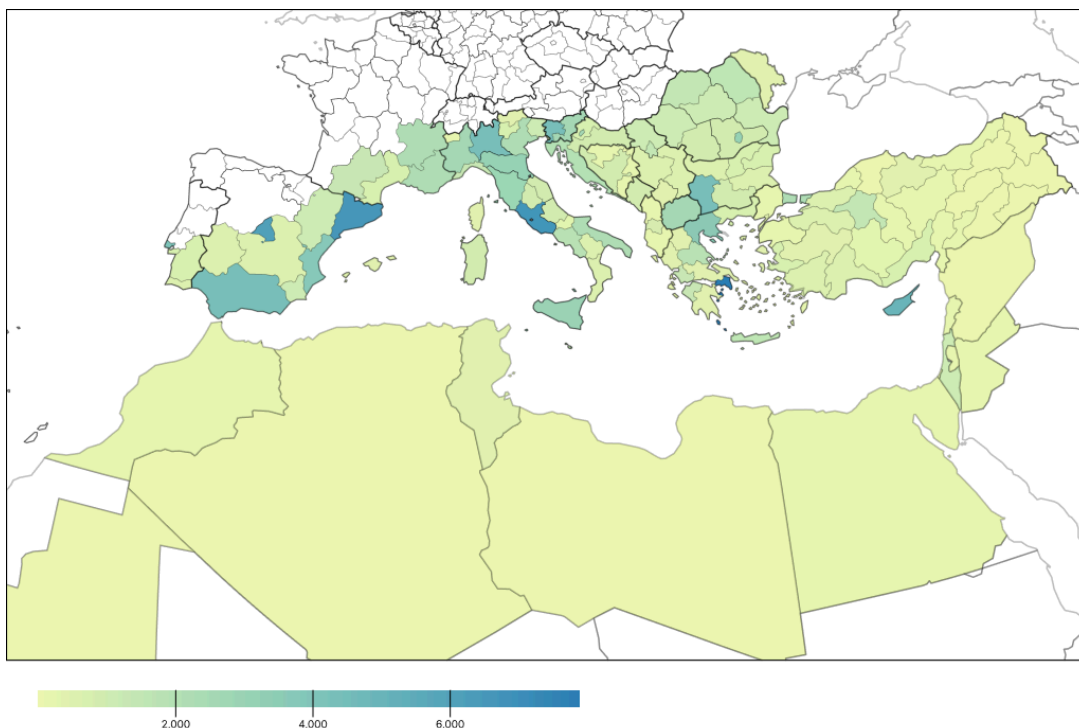
MedCoopNet illustrative project	
Project title, link and start year	Forest Monitoring System for Early Fire Detection and Assessment in the Balkan-Med Area (2017)
MedCoopNet topic title	<i>"Biodiversity Conservation. Ecosystem Management (incl. Forest). Sustainable Territorial Development"</i>
Programme	Interreg
EU contribution to MedCoopNet participants	€ 1,42 M

- **LIFE is by far the most intra-EU focused programme.** EU-EU cooperation accounts for 95.6% of LIFE funding, with only marginal allocations to EU–Middle East (1.2%) and Balkans–EU (2.9%) partnerships, reflecting the programme's regulatory and implementation-oriented nature in the fields of environment and climate policy.
- **Creative Europe** displays a markedly different pattern. While EU-EU cooperation accounts for 61.1% of funding, **the programme shows strong engagement with the Balkans:** 35.1% of Creative Europe funding involve EU and Balkan partners. This highlights the cultural sector's role as a vector of integration and soft connectivity with neighbouring regions. Other cooperation types play only a minor role.
- **EMFAF**, though small in overall volume, **plays a highly specialised role in Mediterranean cooperation.** While EU-EU projects account for 70.5% of EMFAF funding, **the programme stands out for its strong engagement in Africa–EU cooperation, which absorbs nearly 17% of its funding.** This reflects EMFAF's targeted mandate in fisheries and maritime governance.

MedCoopNet illustrative project	
Project title, link and start year	STARFISH 4.0: Demonstration of an autonomous connected device and digital tools for safety of artisanal fishermen and sustainable management of small-scale fisheries (2020)
MedCoopNet topic title	<i>"Marine Ecosystems. Coastal and Wetland Management. Biodiversity Conservation"</i>
Programme	EMFAF
EU contribution to MedCoopNet participants	€ 0,75 M

The funding distribution across countries reveals stark concentration. Italy (€8.9 billion), Spain (€6.6 billion), and Greece (€4.0 billion) together capture nearly two-thirds of total EU funding in the database. France, Romania, Portugal, and Slovenia form a second tier, each receiving €1–2 billion. Non-EU Mediterranean countries receive substantially less: Türkiye (€743 million) and Israel (€589 million) lead, while North African and Middle Eastern partners typically receive under €100 million each. Map 1 below shows the uneven distribution of Mediterranean cooperation projects received across regions.

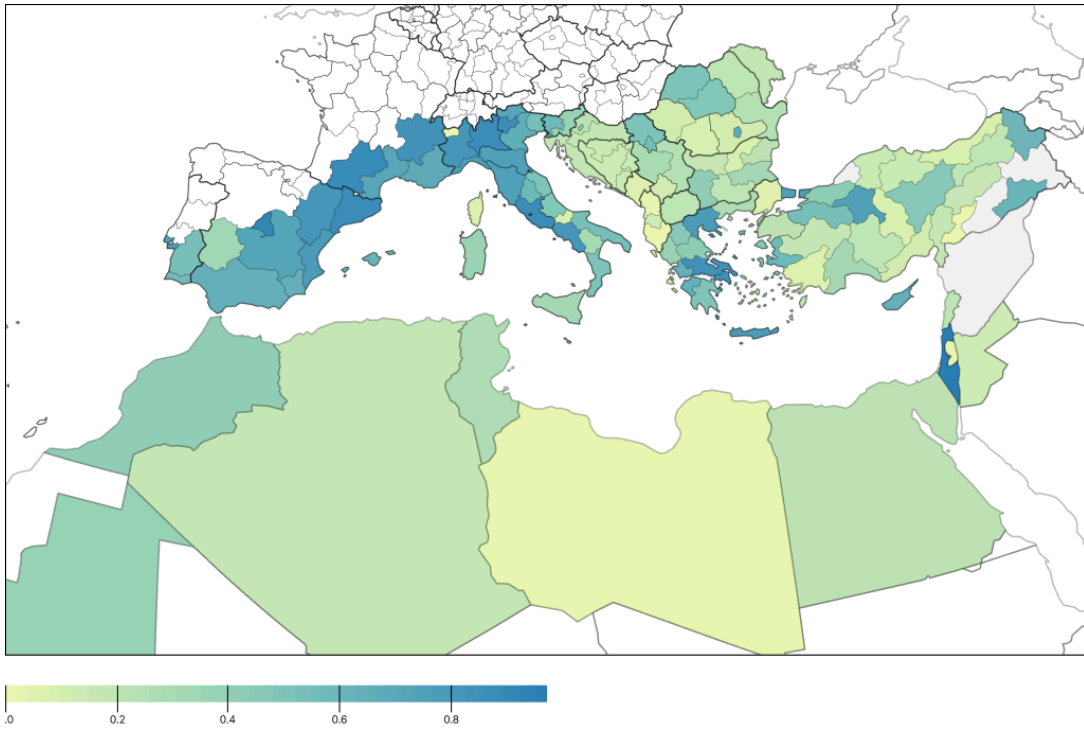
Map 1: Total number of MedCoopNet projects by region (NUTS)



The maps 2, 3 and 4 below report the proportion of Horizon, Erasmus and Interreg funding over total EU funding. The darker the color of the map, the larger the proportion of a given fund in the region or country. Territories in the maps are presented at NUTS2 level, unless this geographic unit is not available in the data, notably for African and Middle-Eastern countries.

The maps and tables presented suggest that geographical cooperation is shaped primarily by programme eligibility rules and existing institutional capacity rather than by thematic priorities or policy intent. Erasmus+ plays a distinctive role in extending participation beyond the EU, while Horizon being relatively more present in western EU countries and Interreg relatively more common in the Eastern European part of the Mediterranean basin (as defined by the study).

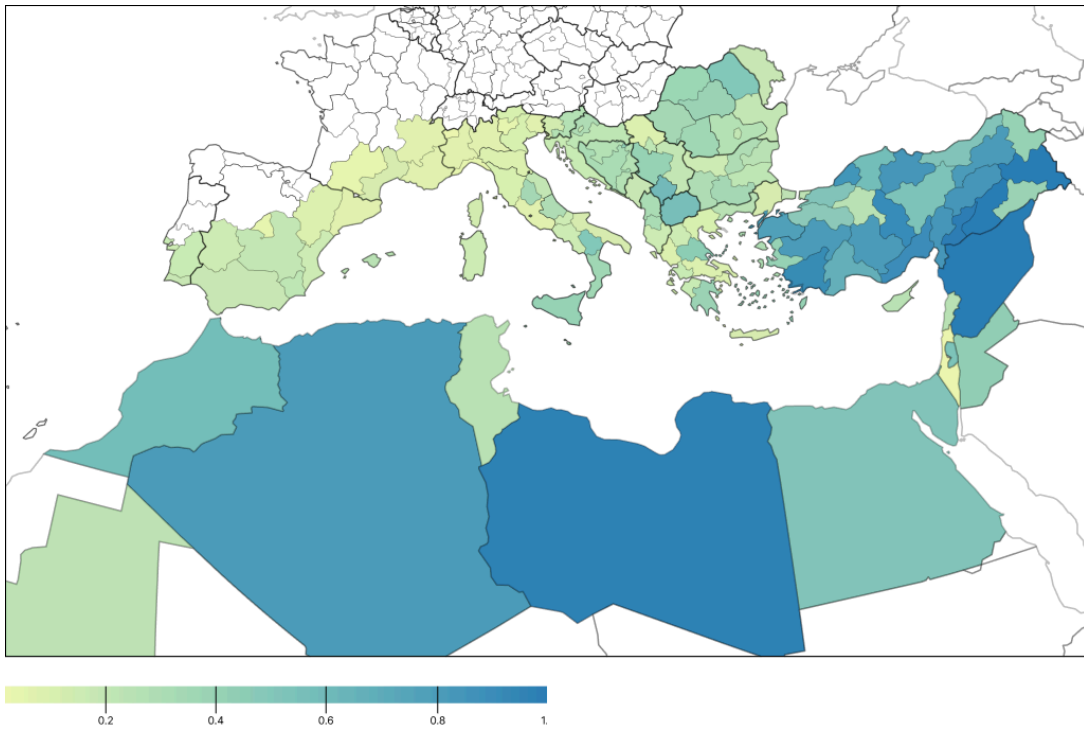
Map 2: Proportion of Horizon funding over total EU funding



ESPON  Co-funded by the European Union
Interreg

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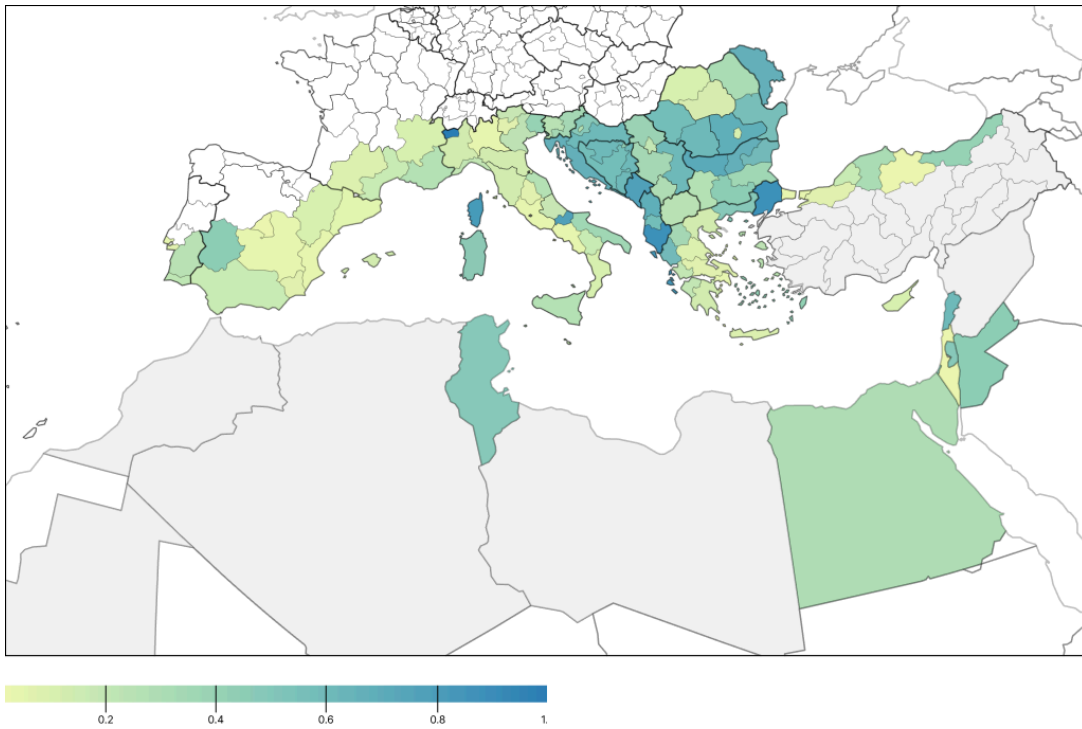
Map 3: Proportion of Erasmus+ funding over total EU funding



ESPON  Co-funded by the European Union
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Map 4: Proportion of Interreg funding over total EU funding



Insights on Mediterranean cooperation across EU countries

The previous section underlined the dominance of EU member states in the funding received for Mediterranean cooperation projects. To better understand the involvement of EU countries in Mediterranean cooperation projects, Table 8 shows the funding received by each EU country in both absolute and relative numbers (per capita) for each of the six programmes being considered

Table 8: Distribution of programme funding (absolute and per capita) among the Mediterranean basin's EU countries

Country	Horizon		Interreg		Life+		Erasmus+		Creative Europe		EMFAF		All programmes	
	Total funding	Funding per capita	Total funding	Funding per capita	Total funding	Funding per capita	Total funding	Funding per capita	Total funding	Funding per capita	Total funding	Funding per capita	Total funding	Funding per capita
Bulgaria	243 M€	37.71€	285 M€	44.24€	24 M€	3.74€	217 M€	33.67€	6 M€	0.96€	2 M€	0.31€	777 M€	120.63€
Croatia	233 M€	60.15€	340 M€	87.74€	21 M€	5.42€	153 M€	39.42€	17 M€	4.40€	1 M€	0.22€	765 M€	197.35€
Cyprus	466 M€	475.14€	57 M€	57.94€	23 M€	23.66€	174 M€	177.38€	6 M€	5.66€	2 M€	1.63€	726 M€	741.42€
France	1,626 M€	23.69€	281 M€	4.10€	24 M€	0.35€	133 M€	1.94€	13 M€	0.19€	3 M€	0.05€	2,081 M€	30.32€
Greece	3,062 M€	294.19€	344 M€	33.00€	82 M€	7.85€	499 M€	47.96€	19 M€	1.87€	8 M€	0.77€	4,014 M€	385.65€
Italy	6,752 M€	114.58€	982 M€	16.67€	209 M€	3.54€	874 M€	14.82€	49 M€	0.82€	13 M€	0.22€	8,878 M€	150.64€
Malta	65 M€	113.67€	25 M€	43.76€	3 M€	5.97€	49 M€	84.76€	2 M€	3.43€	1 M€	1.83€	146 M€	253.41€
Portugal	767 M€	71.40€	61 M€	5.64€	38 M€	3.56€	178 M€	16.57€	13 M€	1.24€	3 M€	0.24€	1,060 M€	98.64€
Romania	495 M€	26.01€	323 M€	16.96€	11 M€	0.56€	340 M€	17.84€	13 M€	0.67€	3 M€	0.14€	1,184 M€	62.18€
Slovenia	567 M€	266.09€	252 M€	118.18€	26 M€	12.26€	176 M€	82.64€	22 M€	10.32€	1 M€	0.42€	1,044 M€	489.91€
Spain	5,509 M€	112.25€	289 M€	5.89€	152 M€	3.09€	613 M€	12.50€	28 M€	0.57€	8 M€	0.16€	6,599 M€	134.46€
Total funding for EU countries	19,786 M€	85.71€	3,238 M€	14.03€	613 M€	2.65€	3,405 M€	14.75€	188 M€	0.81€	44 M€	0.19€	27,273 M€	118.15€

Within the EU too, the distribution of funding from Mediterranean cooperation projects is unevenly distributed, with a couple of countries representing a sizable share of all funding. Together, Italy, Spain, Greece and France account for 79% of the total Mediterranean cooperation funding within the EU. Given its size and geographical situation, Italy is across all programmes the country that attracts the most absolute funding, with Spain and Greece being second or third depending on the funding programme.

Focusing on per capita funding, the distribution changes notably. Cyprus and Slovenia have significantly higher funding per capita: Cyprus dominates per capita funding overall at 741€ per inhabitant, and also for Horizon, Erasmus+ and LIFE. Slovenia has the second level overall with 490€ per capita across all programmes, and leads per capita funding for Interreg and Creative Europe. Greece is among the leading EU Med-basin countries both in terms of absolute EU funding and per-capita. It ranks 3rd in both absolute and per-capita funding when considering all programmes together.

It is worth noting that some countries (e.g. France) belong only partially to the Mediterranean basin, and therefore only some of their regions are being considered, accounting for lower per capita funding.

To further analyse within-EU MedCoopNet cooperation, Table 9 shows a matrix of bilateral cooperation intensity at the country level. Each cell in the matrix shows the share of projects of the row's country in which the column's country also participates. Please note that the total does not amount to 100% as projects may have participants from over 2 countries, and non EU countries are excluded from this table.

Table 9: Bilateral cooperation intensity between Mediterranean basin EU countries (all programmes)

	Bulgaria	Croatia	Cyprus	France	Greece	Italy	Malta	Portugal	Romania	Slovenia	Spain
Bulgaria	100.00%	12.42%	11.95%	6.22%	36.64%	47.91%	3.14%	10.10%	33.19%	14.05%	31.45%
Croatia	15.64%	100.00%	9.57%	7.53%	28.37%	52.57%	3.94%	11.89%	21.42%	28.70%	31.91%
Cyprus	17.50%	11.13%	100.00%	8.80%	61.03%	56.31%	6.17%	14.05%	21.70%	12.80%	42.50%
France	7.62%	7.34%	7.37%	100.00%	29.20%	67.03%	2.44%	12.79%	13.03%	10.71%	52.26%
Greece	16.63%	10.23%	18.92%	10.81%	100.00%	60.66%	3.82%	13.26%	22.30%	11.94%	44.07%
Italy	12.62%	11.00%	10.13%	14.39%	35.19%	100.00%	3.39%	12.93%	20.67%	13.24%	48.48%
Malta	15.22%	15.15%	20.40%	9.63%	40.73%	62.39%	100.00%	15.28%	20.86%	16.35%	41.46%
Portugal	12.39%	11.58%	11.77%	12.80%	35.83%	60.26%	3.87%	100.00%	21.17%	14.14%	51.71%
Romania	22.53%	11.55%	10.06%	7.21%	33.35%	53.29%	2.92%	11.71%	100.00%	11.83%	35.98%
Slovenia	15.60%	25.31%	9.71%	9.69%	29.20%	55.85%	3.75%	12.80%	19.35%	100.00%	36.27%
Spain	11.21%	9.03%	10.34%	15.18%	34.59%	65.59%	3.05%	15.01%	18.89%	11.64%	100.00%

Italy, Spain, and Greece stand out as the main cooperation hubs. They demonstrate exceptionally high cooperation intensity indexes as partners of all the other countries. All EU countries involved in Mediterranean cooperation projects are cooperating with Italy in at least 47.9% of their projects, with Spain in at least 31.5%, and with Greece in 28.4%. Apart from country size and geographical proximity, these cooperation patterns partially reflect policy design as implemented in the geographic perimeter of the different Interreg programmes.

5. Thematic distribution of Mediterranean cooperation projects

5.1. Thematic distribution by funding instrument using Horizon Europe thematic clusters and SDGs

Following programme and geographic facets, **in this section we explore the thematics of MedCoopNet projects**, identified via Natural Language Processing techniques (NLP), in particular, their thematic relationship and or/orientation with the Horizon Europe thematic Clusters and the SDGs. Please note that the same project can be classified in more than one HE cluster or SDG; if so, the funding is divided equally across the different classes (within each classification system).

First we present the distribution of **EU funding in Mediterranean cooperation across Horizon Europe thematic Clusters and funding programmes** (see table 10). This classification is independent from programme metadata for Horizon Europe funded projects under Pillar 2: all projects from all MedCoopNet integrated funding sources have been classified independently based on project titles and abstracts.

Please note that since a project can be classified under more than one HC, funding has been equi-distributed across categories. This means that if a project is classified both in HC 4 and HC 6, its budget is split 50% to each. As a result, funding volumes and shares per HC appear smaller than if the full budget were counted for each classification, in other words, this split may not necessarily represent the real weight of each category.

Table 10: Funding distribution by Horizon Europe Clusters related thematics

Thematic Cluster	Horizon	Erasmus+	Interreg	LIFE	Creative Europe	EMFAF	Total
HC1 - Health	2,217.8	208.2	126.6	15.3	1	0	2,569
	10.50%	5.10%	3.30%	2.50%	0.50%	0.00%	8.60%
	86.30%	8.10%	4.90%	0.60%	0.00%	0.00%	100.00%
HC2 - Culture, Creativity and Inclusive Society	2,279.4	2,900.9	1,503.4	94.5	209.1	20.3	7,007.4
	10.80%	70.90%	39.50%	15.30%	95.30%	44.50%	23.40%
	32.50%	41.40%	21.50%	1.30%	3.00%	0.30%	100.00%
HC3 - Civil Security for Society	1,421.4	64.5	335.5	5.4	0	1.5	1,828.4
	6.70%	1.60%	8.80%	0.90%	0.00%	3.30%	6.10%
	77.70%	3.50%	18.30%	0.30%	0.00%	0.10%	100.00%
HC4 - Digital, Industry and Space	9,266.5	480.8	492.7	60.2	3.9	6.2	10,310.3
	43.90%	11.80%	12.90%	9.70%	1.80%	13.60%	34.50%
	89.90%	4.70%	4.80%	0.60%	0.00%	0.10%	100.00%
HC5 - Climate, Energy and Mobility	3,491.8	169.7	699.3	170.9	2.9	7.3	4,541.8
	16.50%	4.10%	18.40%	27.60%	1.30%	16.00%	15.20%
	76.90%	3.70%	15.40%	3.80%	0.10%	0.20%	100.00%

HC6 - Food, Bioeconomy, Natural Resources, Agriculture and Environment	2,439.2	265.6	650	272.5	2.58	10.3	3,640.2
	11.60%	6.50%	17.10%	44.00%	1.20%	22.60%	12.20%
	67.00%	7.30%	17.90%	7.50%	0.10%	0.30%	100.00%
Total	21,116.1	4,089.6	3,807.6	618.8	219.4	45.6	29,897.1
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	70.60%	13.70%	12.70%	2.10%	0.70%	0.20%	100.00%

Note: The first row presents funding in million Euros. The second row is the share of the funding of each Programme in the HE Cluster. The third row is the share of all EU funding in the HE Cluster across the six programmes.

The highest number of projects and funding in MedCoopNet are related to HC4 – Digital, Industry and Space (€10.3 billion, 34.5% of total funding), with Horizon programmes contributing €9.3 billion - representing 43.9% of all Horizon funding in the database and 90% of the total HC4 funding.

Projects related to **HC2 – Culture, Creativity and Inclusive Society** total €7.0 billion and show the **strongest thematic alignment across non-Horizon programmes**. Erasmus+ directs 70.9% of its funding here (€2.9 billion), Creative Europe 95.3% (€209 million), and EMFAF 44.5% (€20 million). Interreg-funded projects fall, for 39.5% of the budget, in this cluster (€1.5 billion).

Projects related to **HC5 – Climate, Energy and Mobility** (€4.5 billion) and **HC6 – Food, Bioeconomy, Natural Resources, Agriculture and Environment** (€3.6 billion) concentrate on LIFE funding: 27.6% (€171 million) and 44.0% (€273 million) respectively. Interreg contributes substantially to both - €699 million (18.4%) and €650 million (17.1%).

HC1 – Health (€2.6 billion, 8.6% of total) and **HC3 – Civil Security for Society** (€1.8 billion, 6.1%) remain modest across all programmes, addressed primarily through Horizon's competitive research and innovation funding.

The following table (table 11) presents a similar analysis, focusing on Sustainable Development Goals (SDGs) instead of Horizon Clusters. The observed distribution patterns are primarily a reflection of programme design rather than active SDG prioritization. Essentially, the analysis confirms that the programmes are performing in line with their intended design

Table 11: Funding distribution by SDG related thematics

The first row is funding in million Euros. The indicator in the second row is the share of the funding of each programme in the SDG. The indicator in the top-right cell is the share of all EU funding in the SDGs across the six programmes.

SDG (mln E)	Horizon		Interreg		Erasmus+		LIFE		Creative EU		EMFAF		Total	
SDG 1 - No poverty	104.86	53.6%	43.32	22.1%	44.07	22.5%	2.49	1.3%	0.9	0.5%	0.03	0.0%	195.67	100.0%
	0.7%		1.3%		1.2%		0.4%		0.7%		0.1%		0.9%	
SDG 2 - Zero hunger	295.1	77.2%	31.56	8.3%	37.14	9.7%	17.65	4.6%	0.27	0.1%	0.38	0.1%	382.11	100.0%
	1.9%		0.9%		1.0%		3.1%		0.2%		1.1%		1.7%	
SDG 3 - Good health and well-being	628.85	77.7%	84.62	10.5%	86.48	10.7%	6.38	0.8%	2.53	0.3%	0.08	0.0%	808.95	100.0%
	4.2%		2.5%		2.4%		1.1%		1.9%		0.2%		3.5%	
SDG 4 - Quality education	187.82	13.3%	72.37	5.1%	1,141.03	80.6%	1.32	0.1%	11.33	0.8%	1.56	0.1%	1,415.43	100.0%
	1.2%		2.1%		31.6%		0.2%		8.4%		4.5%		6.2%	
SDG 5 - Gender equality	64.3	52.1%	5.76	4.7%	49.92	40.5%	0.36	0.3%	2.83	2.3%	0.14	0.1%	123.31	100.0%
	0.4%		0.2%		1.4%		0.1%		2.1%		0.4%		0.5%	
SDG 6 - Clean water and sanitation	273.03	69.7%	75.95	19.4%	14.3	3.6%	28.27	7.2%	0.12	0.0%	0.2	0.1%	391.86	100.0%
	1.8%		2.2%		0.4%		4.9%		0.1%		0.6%		1.7%	
SDG 7 - Affordable and clean energy	2,426.83	89.7%	153.05	5.7%	68.41	2.5%	52.54	1.9%	1.48	0.1%	2.44	0.1%	2,704.74	100.0%
	16.0%		4.5%		1.9%		9.2%		1.1%		7.0%		11.8%	
SDG 8 - Decent work and economic growth	1,248.13	52.4%	472.41	19.8%	592.22	24.9%	45.12	1.9%	20.2	0.8%	4.11	0.2%	2,382.19	100.0%
	8.2%		13.9%		16.4%		7.9%		14.9%		11.8%		10.4%	
SDG 9 - Industry, Innovation, Technology and Infrastructure	2,926.84	77.1%	508.66	13.4%	327.21	8.6%	14.35	0.4%	17.29	0.5%	2.59	0.1%	3,796.93	100.0%
	19.3%		15.0%		9.0%		2.5%		12.8%		7.5%		16.6%	
SDG 10 - Reduced inequality	237.48	33.3%	65.95	9.2%	394.51	55.3%	1.21	0.2%	14.37	2.0%	0.09	0.0%	713.61	100.0%
	1.6%		1.9%		10.9%		0.2%		10.6%		0.3%		3.1%	
SDG 11 - Sustainable cities and communities	1,683.92	66.9%	543.11	21.6%	221.62	8.8%	47.55	1.9%	20.7	0.8%	0.99	0.0%	2,517.89	100.0%
	11.1%		16.0%		6.1%		8.3%		15.3%		2.9%		11.0%	
SDG 12 - Responsible consumption and production	1,764.36	71.6%	391.75	15.9%	213.06	8.6%	74.28	3.0%	15.91	0.6%	4.73	0.2%	2,464.09	100.0%
	11.6%		11.5%		5.9%		13.0%		11.8%		13.6%		10.8%	
SDG 13 - Climate action	1,910.69	74.1%	401.03	15.5%	161.8	6.3%	90.38	3.5%	9.82	0.4%	5.61	0.2%	2,579.32	100.0%
	12.6%		11.8%		4.5%		15.8%		7.3%		16.2%		11.3%	
SDG 14 - Life below water	272.14	52.5%	183.67	35.4%	15.95	3.1%	37.34	7.2%	0.71	0.1%	8.73	1.7%	518.54	100.0%
	1.8%		5.4%		0.4%		6.5%		0.5%		25.1%		2.3%	
SDG 15 - Life on land	575.29	54.7%	276.54	26.3%	48.62	4.6%	144.26	13.7%	3.68	0.4%	2.96	0.3%	1,051.36	100.0%
	3.8%		8.1%		1.3%		25.2%		2.7%		8.5%		4.6%	
SDG 16 - Peace, justice and strong institutions	552.84	64.1%	87.62	10.2%	200.12	23.2%	8.15	0.9%	13.2	1.5%	0.09	0.0%	862.01	100.0%
	3.6%		2.6%		5.5%		1.4%		9.8%		0.3%		3.8%	
Total	15,152.4	66.1%	3,397.39	14.8%	3,616.45	15.8%	571.66	2.5%	135.34	0.6%	34.73	0.2%	22,908.0	100.0%
	100.0%		100.0%		100.0%		100.0%		100.0%		100.0%		100.0%	

The total funding for SDG-related projects is 22,908, lower than the total amount included in MedCoopNet, since not all projects are necessarily linked to an SDG. This said, **the MedCoopNet project portfolio, composed only of multi-beneficiary and internationally collaborative projects, is notably SDG-aligned, with 77% of the total funding in the database linked to SDGs.**

Horizon-Funded projects, span across all SDGs, however, they concentrate especially **on three Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, Technology and Infrastructure (19.3%, or €2.9 billion), SDG 7 – Affordable and Clean Energy (16.0%, or €2.4 billion), and SDG 13 – Climate Action (12.6%, or €1.9 billion).**

Please note that since a project can be classified under more than one SDG, funding has been equi-distributed across categories. This means that if a project supports both SDG 4 and SDG 10, its budget is split 50% to each. As a result, funding volumes and shares per SDG appear smaller than if the full budget were counted for each classification.

Mediterranean cooperation in **Interreg emphasises SDG 11 – Sustainable Cities and Communities (16.0%, €543 million), SDG 9 (15.0%, €509 million), and SDG 8 Decent work and economic growth (13.9%, €472 million), reflecting its territorial development mandate.** Notably, **Interreg's dominance in SDG 10 – Reduced Inequality (55.3% of all SDG 10 funding)** suggests territorial cooperation plays a **distinctive role in addressing disparities that competitive research programmes do not reach.**

Mediterranean cooperation in the **Erasmus+ programme exhibits a pronounced thematic focus, with the relative majority of its funding (31.6%) allocated to SDG 4 – Quality Education. This concentration is largely expected,** given the programme's fundamental mission in education and social inclusion. **Additional significant funding targets include SDG 8 – Decent Work and Economic Growth (16.4%) and SDG 10 – Reduced Inequality (10.9%).**

Mediterranean cooperation in **LIFE funding is primarily dedicated to environmental Sustainable Development Goals (SDGs), reflecting the programme's mandate.** The largest share goes to *SDG 15 – Life on Land* (25.2%, or €144 million). Significant funding is also allocated to *SDG 13 – Climate Action* (15.8%, or €90 million) and *SDG 12 – Responsible Consumption and Production* (13.0%, or €74 million).

Mediterranean cooperation in **EMFAF directs 25.1% of its funding to SDG 14 – Life Below Water (€8.7 million),** consistent with its maritime focus, **whereas in Creative Europe shows relatively balanced distribution,** with strongest presence in *SDG 11* (15.3%), *SDG 8* (14.9%), and *SDG 9* (12.8%).

The more interesting insights emerge from **gaps.** The **relatively modest aggregate funding for SDG 1 – No Poverty, SDG 5 – Gender Equality, and SDG 14 – Life Below Water signals gaps in the collective Mediterranean “bottom-up” cooperation portfolio.**

For SDG 1, the gap reflects programme design rather than stakeholder disinterest. EU funding programmes in MedCoopNet primarily support research, innovation, territorial cooperation, education, and environmental action - none of which directly targets poverty reduction as a primary objective. Other international and national social and aid programmes not covered in MedCoopNet are certainly covering this gap outside of the current project scope.

For SDG 5, the pattern is more complex. Gender equality appears as a cross-cutting principle in EU programming and is not necessarily communicated in project titles and abstracts unless gender equality is a main objective of the project. In this sense, MedCoopNet projects may advance gender objectives without being classified under SDG 5.

For SDG 14, €519 million address “Life below water”, amounting to 2.3% of classified funding - after equi-distributing project EC funding across different taxons (this figures triples to €1,4 billion if funding is not equi-distributed, since SDG14-related projects are very frequently also classified in other SDGs). EMFAF, the dedicated maritime fund, remains small (€46 million in MedCoopNet). Horizon and Interreg contribute notably to this SDG, but marine ecosystems compete for attention with terrestrial environmental priorities.

Nevertheless, as presented in the thematic analysis below, several topics are related to the wider “blue economy”, although not necessarily in challenge-oriented projects classified narrowly into SDG14

MedCoopNet illustrative project (SDG 14)	
Project title, link and start year	Enhancing COoperation in WAsTe management from VESsels in ADRION ports (2020)
MedCoopNet topic	Water and Waste Management. Irrigation. Environmental Monitoring, Protection and Remediation
Programme	Interreg
EU contribution to MedCoopNet participants	€ 1,79 M

Overall, the data reveals some thematic complementarity: where Horizon is weak (*SDG 4, SDG 10*), other programmes compensate. Finally, the fact that the smaller programmes (LIFE, Creative Europe and EMFAF) are more narrowly thematically oriented than the three larger ones is well represented in the SDG analysis; for instance, EMFAF is indeed specialised in SDG 14, but its small size is not enough to shape the aggregate portfolio. This aspect is further explored in the following section, where a finer-grained view of MedCoopNet topics is presented and linked to the 6 EU Funding programmes.

5.2. Identification of MedCoopNet topics and thematic analysis across EU Funding Programme: Insights from the Topic Modelling

Topic modelling provides a bottom-up approach to classify projects based on their textual content. Unlike top-down taxonomies such as the Sustainable Development Goals or Horizon Europe thematic Clusters, this technique analyses project descriptions and groups thematically similar content together. Each cluster then receives a label (title) that captures its dominant themes.

The analysis identified 80 distinct topics across the project database. This granularity captures the wide thematic diversity present in the MedCoopNet database. Topics range from:

- **technically-oriented areas** such as “Smart Grids. Renewable Energy Systems. Energy Storage. Energy Efficiency” or “Aviation. Maritime Systems and Transportation. Autonomous and Unmanned Vehicles”
- **socially focused themes** such as “Media Literacy. Digital Citizenship. Disinformation Prevention. Democratic Participation” or “Gender Equality. Women Empowerment. Social Inclusion”
- **environmentally-oriented ones**, such as “Marine Ecosystems. Coastal and Wetland Management. Biodiversity Conservation” or “Water and Waste Management. Irrigation. Environmental Monitoring, Protection and Remediation”.

Many also merge several components, like “Sustainable Food Systems. Culinary Innovation and Education”, or “Building Energy Efficiency. Sustainable Construction and Renovation” **which bring together technological development, sustainability, economic development and education.**

To explore visually the thematic distribution, the image below (Figure 1) presents a two-dimensional representation of the different topics: each dot is a project, located in the 2D space based on the projection of the semantic embedding⁹ representing the topic. On top, the topic labels represent all the projects (coloured dots) in their vicinity.

⁹ A semantic embedding is a numerical vector representing a text (in this case, each project in the database) that captures its meaning and contextual relationships within a high-dimensional space

Please note a key distinction between bottom-up and top-down classification in MedCoopNet. For Top-down taxonomies, we have allowed a single project to appear under multiple categories. A project examining how fishing communities address overfishing in island territories might contribute to both SDG 14 (life below water) and SDG 16 (governance). Topic modelling, by contrast, assigns each project to a single topic. This exclusive assignment reflects how projects cluster “naturally” when their content drives the classification.

The distribution of projects and funding across topics reveals important patterns. For further detail, the full list of topics, the number of related projects and their aggregate funding can be found in Annex 3. As already commented, funding distribution is strongly shaped by the features of the funding programme. **Topics dominated by Erasmus+ funding tend to contain many projects but relatively modest aggregate budgets.** “Democratic participation and bullying prevention” exemplify this pattern, with 418 projects and 44 M€ of funding. **Conversely, topics with strong Horizon Europe presence typically show higher aggregate funding levels,** for instance “Aerospace Engineering. Maritime Technology. Off-shore Wind and Marine Energy” with a similar number of projects (373) but 30 times more budget (1,364M€).

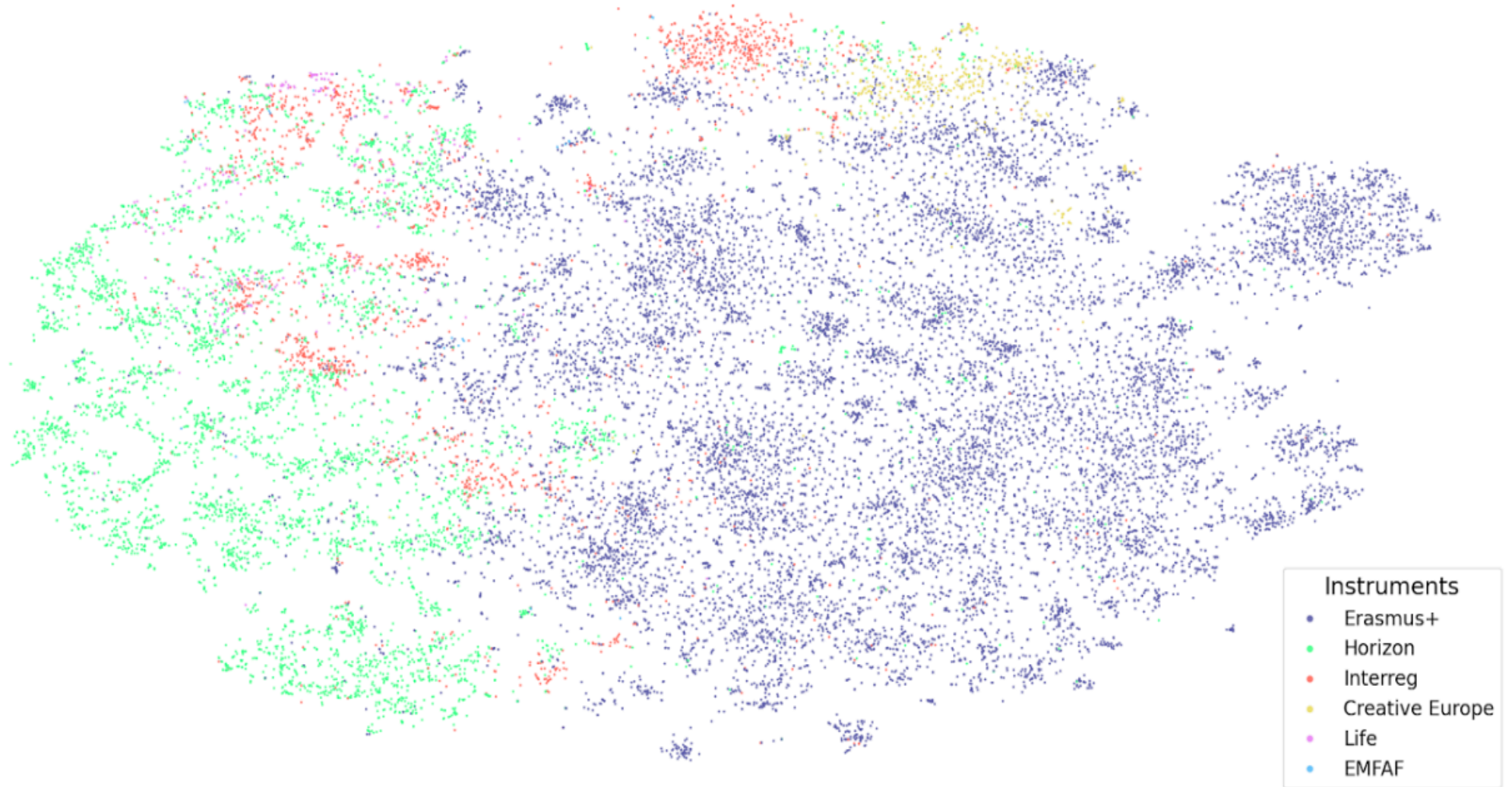
Figure 2 presents the distribution of projects in the 2D canvas by EU Funding Programme. **Projects classified in the topics to the left of the 2D canvas are more often funded by Horizon, while the topics in the lower and right-sides of the canvas are more often funded by Erasmus+ . Interreg supports topics at the top of the canvas, notably in sustainability, heritage and tourism, and at the frontier of Horizon and Erasmus areas, with several topics that share a thematic alignment across programmes,** but where Interreg projects tend to operate at a higher territorial or policy level. Such examples would be “Sustainable Territorial Development and Resilience. Energy transition. Climate Adaptation” or “Innovation Ecosystems. Technology Transfer. Business Development. Entrepreneurship”, where multiple EU funds are contributing in thematically similar projects.

The spatial separation of programmes in the semantic map reveals a structural feature of Mediterranean cooperation. Horizon occupies a distinct thematic space focused on technology, research infrastructure, and scientific advancement. Erasmus+ clusters around education, skills, social inclusion, and capacity building. Interreg bridges these domains, appearing at thematic frontiers where territorial development intersects with both research and innovation developments and social, environmental and territorial objectives.

This separation is neither accidental nor problematic - it reflects programme mandates working as intended. However, it does highlight potential coordination opportunities. Topics where multiple programmes contribute in parallel offer opportunities for cross-programme coordination and learning. For example, an organisation developing sustainable construction skills through Erasmus+ operates alongside Interreg projects on building energy efficiency and Horizon research on construction materials. Currently, these activities proceed largely in parallel. More deliberate coordination - through joint events, shared platforms, or sequenced programming - could amplify impact. - This is further explored in the following pages where thematic overlap across programmes is analysed in detail

The 80 MedCoopNet topics also reveal thematic areas that escape usual top-down taxonomies. Topics such as “Sustainable Territorial Development and Resilience. Energy transition. Climate Adaptation” or “Water and Waste Management. Irrigation. Environmental Monitoring, Protection and Remediation” cut across traditional Horizon thematic clusters and SDG boundaries. Policy-makers may find these emergent themes valuable: they reveal stakeholder priorities as expressed in project descriptions, unconstrained by predefined classification systems.

Figure 2: Semantic map (“confetti”) of topic modelling results by EU funding programme



As presented in the figure above, **the topic structure illuminates where different funding programmes converge on similar thematic areas.** Complementarily, the following Table 12 ranks the topics for which more than one fund is relevant: it presents the Specialisation Index (SI) of EU Funding Programmes into the 80 topics.

We have computed funding specialisation (*Specialisation Index* also known as *Location Quotient* or *Revealed Comparative Advantage*), **as the percentage of funding from a given programme classified in a given topic, compared to the percentage of funding classified in said topic for all EU funding.** If the SI is bigger than one, the programme under study is more specialized on that given topic. If it is smaller than one it is underspecialized. The smaller, more thematically concentrated Programmes show extremely high and low specialisation indexes, while Horizon, being the largest and more widespread programme, presents SIs closer to 1, the nominal specialisation.

35 out of 80 MedCoopNet topics have more than one EU Programme with specialised contribution, 8 topics have 3 contributing Programmes with positive SI, while one topic “Sustainable Territorial Development and Resilience. Energy transition. Climate Adaptation” has 4 specialised contributing Programmes (Horizon Europe, Interreg, Life and EMFAF). In any case, it must be noted that small SIs in Horizon can mean a notable amount of funding, given that Horizon projects have a much larger average budget than projects in the other programmes, notably Erasmus+.

Topics related to biodiversity, agriculture, conservation and sustainable development show contribution from most programmes. Tourism and cultural heritage similarly attract funding from Interreg, Horizon Europe and Creative Europe. Socially and educationally-oriented topics led by Erasmus+ show pockets of overlap with Interreg and with the smaller thematic Programmes (Life, Creative Europe and EMFAF), when relevant (for instance: “Cultural Heritage. Cultural Education” with Creative Europe. Similarly, **Horizon-driven topics present overlap with Life and Emfaf when thematically relevant** (for instance: “Aviation. Maritime Systems and Transportation. Autonomous and Unmanned Vehicles” with EMFAF. **These overlaps indicate areas where Mediterranean stakeholders might identify complementary funding opportunities or potential for cross-programme learning.**

At the policy level, one would expect that the nature of the projects coming from different programmes is different and complementary (research and innovation, policy experimentation and mainstreaming, piloting, training and support, social aspects...), and/or that different programmes have varying degrees of selectivity, more exclusive in Horizon, more open in Interreg, Erasmus+ or the thematically-oriented programme. This diversity should lead to a more diversified portfolio of projects and contributing actors. This is further explored in the following chapters.

Table 12: Specialisation Index (SI) of EU funding programmes in the MedCoopNet topics

MedCoopNet topic label <-----> Specialisation index EU funding by Programme	Horizon Europe	Interreg	Erasmus+	Life	Creative Europe	EMFAF	Programmes with positive specialisation in the topic (SI>1)
<i>Sustainable Territorial Development and Resilience. Energy transition. Climate Adaptation</i>	1.03	1.73	0.13	1.65	0.00	1.36	4
<i>Sustainable Agriculture. Agroecology and forestry. Rural Development. Soil Management</i>	1.14	1.27	0.09	1.14	0.00	0.00	3
<i>Marine Ecosystems. Coastal and Wetland Management. Biodiversity Conservation</i>	0.70	2.66	0.12	5.83	0.00	17.63	3
<i>Biodiversity Conservation. Ecosystem Management (incl. Forest). Sustainable</i>	0.52	2.97	0.07	11.61	0.10	1.11	3

MedCoopNet topic label <-----> Specialisation index EU funding by Programme	Horizon Europe	Interreg	Erasmus+	Life	Creative Europe	EMFAF	Programmes with positive specialisation in the topic (SI>1)
Territorial Development							
Gender Equality. Women Empowerment. Social Inclusion	0.45	0.20	4.54	0.00	1.82	11.12	3
Creative Industries. Cultural Entrepreneurship. Heritage Management.	0.39	2.78	1.87	0.00	15.53	0.00	3
Social Integration and Mental Health Support. Vulnerable Populations.	0.31	2.29	3.54	0.00	0.10	1.65	3
Outdoor Recreation. Active Lifestyle Promotion. Youth Engagement through Sports	0.04	2.99	3.94	0.81	4.27	0.00	3
Social Entrepreneurship and Innovation. Employment Creation. Youth Entrepreneurship	0.02	2.33	4.99	0.00	0.00	2.08	3
Network Infrastructure. 5G 6G. Wireless Communications.	1.40	0.02	0.04	0.00	0.03	1.39	2
Aviation. Maritime Systems and Transportation. Autonomous and Unmanned Vehicles	1.39	0.11	0.01	0.07	0.00	1.37	2
Robotics. Automation. Cyber-Physical systems and Human-Machine Interaction.	1.38	0.06	0.09	0.00	0.05	1.17	2
Biofuels and Waste-to-Energy Technologies. Waste management. Circular Materials (incl. Bioplastics)	1.30	0.24	0.01	2.55	0.00	0.29	2
Smart Grids. Renewable Energy Systems. Energy Storage. Energy Efficiency	1.24	0.61	0.04	1.89	0.00	0.00	2
Building Energy Efficiency. Sustainable Construction and Renovation	1.23	0.67	0.09	1.73	0.11	0.00	2
Agronomy. Crop and Soil Protection. Sustainable Agriculture.	1.20	0.43	0.07	4.21	0.04	0.00	2
Water and Waste Management. Irrigation. Environmental Monitoring, Protection and Remediation	0.83	2.51	0.08	4.23	0.00	0.00	2
Sustainable Food Systems. Culinary Innovation and Education	0.73	0.75	2.62	0.77	1.65	0.00	2
Sustainable Transportation, Mobility and Logistics Solutions and Infrastructure	0.70	3.87	0.06	0.31	0.00	1.20	2
Local and Youth Empowerment. Sustainable Community Development.	0.46	1.18	3.68	0.51	0.85	0.00	2
Cultural and Sustainable Tourism. Heritage Valorization	0.34	5.02	0.41	0.17	8.13	0.26	2
Educational Gaming. Digital Learning Tools	0.32	0.34	5.17	0.04	0.15	10.50	2
Sustainable Construction, Energy Efficiency and related Skills, Training, Technologies and	0.24	0.96	4.98	0.71	0.00	5.31	2

MedCoopNet topic label <-----> Specialisation index EU funding by Programme	Horizon Europe	Interreg	Erasmus+	Life	Creative Europe	EMFAF	Programmes with positive specialisation in the topic (SI>1)
<i>Dissemination</i>							
<i>Cultural Heritage. Cultural Education</i>	0.19	0.14	5.73	0.00	8.23	0.00	2
<i>Arts and Creativity Education. Social Inclusion and Connection</i>	0.18	0.29	4.97	0.00	21.22	0.00	2
<i>Vocational Education. Employment Skills Development and Readiness</i>	0.13	0.36	6.23	0.00	0.00	3.72	2
<i>Workforce Integration and Employment Support for Vulnerable Groups</i>	0.13	3.06	3.79	0.00	0.00	0.00	2
<i>Sports. Physical Activity for Health and Inclusion</i>	0.11	0.20	6.43	0.00	1.68	0.00	2
<i>Outdoor Environmental Education. Community Sustainable Practices</i>	0.10	0.28	6.32	0.00	3.55	0.00	2
<i>Arts and Musical Education. Cultural and Creative Expression and Storytelling</i>	0.09	0.05	6.37	0.00	7.58	0.00	2
<i>Industry Skills. Vocational and Workplace Training. Qualifications.</i>	0.07	0.32	6.60	0.00	0.00	2.84	2
<i>Sustainable and Cultural Tourism Development</i>	0.05	6.72	0.68	0.00	0.35	7.25	2
<i>Sports Governance and Collaboration. Athletic Development. Gender Equality in Sports</i>	0.04	0.30	6.70	0.00	0.00	6.71	2
<i>Apprenticeship Systems. Workplace Learning Integration</i>	0.02	0.09	7.00	0.00	0.00	8.63	2

Note: A cell is coloured in green where $SI \geq 1$; and in yellow where $SI \geq 0.5$. The last column presents the number of EU Programmes with positive specialisation.

Continuing the analysis, and as presented earlier, Horizon, Interreg and Erasmus+ present a more diversified thematic portfolio, due both to their larger size and more transversal orientation. **To provide further detail on the main thematic within the smaller and thematically-prioritised programmes (Life, Creative Europe, EMFAF)**, table 13 presents the MedCoopNet topics with $SI > 1$ for these three programmes

Table 13: Programme-specific thematic profiles of MedCoopNet topics where Specialisation Index is larger than 1

EU Funding Programme	MedCoopNet topics with $SI > 1$
Life	<ul style="list-style-type: none"> • Biodiversity Conservation. Ecosystem Management (incl. Forest). Sustainable Territorial Development • Marine Ecosystems. Coastal and Wetland Management. Biodiversity Conservation • Water and Waste Management. Irrigation. Environmental Monitoring, Protection and Remediation • Agronomy. Crop and Soil Protection. Sustainable Agriculture. • Biofuels and Waste-to-Energy Technologies. Waste management. Circular Materials (incl. Bioplastics) • Smart Grids. Renewable Energy Systems. Energy Storage. Energy Efficiency • Building Energy Efficiency. Sustainable Construction and Renovation • Sustainable Territorial Development and Resilience. Energy transition. Climate Adaptation • Sustainable Agriculture. Agroecology and forestry. Rural Development. Soil Management

EU Funding Programme	MedCoopNet topics with SI>I
Creative Europe	<ul style="list-style-type: none"> • <i>Creative Industries. Cultural Production. Arts Education</i> • <i>Arts and Creativity Education. Social Inclusion and Connection</i> • <i>Creative Industries. Cultural Entrepreneurship. Heritage Management.</i> • <i>Cultural Heritage. Cultural Education</i> • <i>Cultural and Sustainable Tourism. Heritage Valorization</i> • <i>Arts and Musical Education. Cultural and Creative Expression and Storytelling</i> • <i>Outdoor Recreation. Active Lifestyle Promotion. Youth Engagement through Sports</i> • <i>Outdoor Environmental Education. Community Sustainable Practices</i> • <i>Gender Equality. Women Empowerment. Social Inclusion</i> • <i>Sports. Physical Activity for Health and Inclusion</i> • <i>Sustainable Food Systems. Culinary Innovation and Education</i>
EMFAF	<ul style="list-style-type: none"> • <i>Marine Ecosystems. Coastal and Wetland Management. Biodiversity Conservation</i> • <i>Gender Equality. Women Empowerment. Social Inclusion</i> • <i>Educational Gaming. Digital Learning Tools</i> • <i>Apprenticeship Systems. Workplace Learning Integration</i> • <i>Sustainable and Cultural Tourism Development</i> • <i>Sports Governance and Collaboration. Athletic Development. Gender Equality in Sports</i> • <i>Sustainable Construction, Energy Efficiency and related Skills, Training, Technologies and Dissemination</i> • <i>Vocational Education. Employment Skills Development and Readiness</i> • <i>Industry Skills. Vocational and Workplace Training. Qualifications.</i> • <i>Social Entrepreneurship and Innovation. Employment Creation. Youth Entrepreneurship</i> • <i>Social Integration and Mental Health Support. Vulnerable Populations.</i> • <i>Network Infrastructure. 5G 6G. Wireless Communications.</i> • <i>Aviation. Maritime Systems and Transportation. Autonomous and Unmanned Vehicles</i> • <i>Sustainable Territorial Development and Resilience. Energy transition. Climate Adaptation</i> • <i>Sustainable Transportation, Mobility and Logistics Solutions and Infrastructure</i> • <i>Robotics. Automation. Cyber-Physical systems and Human-Machine Interaction.</i> • <i>Biodiversity Conservation. Ecosystem Management (incl. Forest). Sustainable Territorial Development</i>

These topics reveal both the thematic orientation of each programme and its functional support for non-thematically defined activities. EMFAF illustrates this well. As the smallest programme in the database, it concentrates heavily on the first topic listed above, “Marine Ecosystems. Coastal and Wetland Management. Biodiversity Conservation”. Yet EMFAF also funds many projects in other, more functionally-determined topics, including gender, vocational training, entrepreneurship, infrastructure and policy. **This pattern demonstrates how the thematic taxonomies complement each other when analysing the content of the different EU funding programmes in MedCoopNet.**

Please note that the raw data for the thematic classification of projects can be filtered and downloaded from the projects’ web [dashboard](#), allowing policy officers and actors in the terrain to explore what projects and organisations are active in each topic. For instance, one can filter a set of topics which share a wider thematic of *sustainable construction, construction sector skills, energy efficiency and energy transition in the built environment, territorial climate adaptation*, etc. and identify which projects of each EU Programme are contributing to the wider thematic. As an illustration, table 14 presents some examples of projects classified in three MedCoopNet topics related to this wider thematic, funded by different EU Programmes.

Table 14: Examples of EU-funded projects by MedCoopNet topic and programme

MedCoopNet topic	EU Funding Programme	Project title
Building Energy Efficiency. Sustainable Construction and Renovation	Horizon	Assistant for Quality Check during Construction Execution Processes for Energy-efficient buildings
	INTERREG	Fostering Energy Efficiency by means of Smart Technologies to Retrofit Apertures and building Envelope
	Erasmus+	ECVET Training for Operators of IoT-enabled Smart Buildings
Sustainable Construction, Energy Efficiency and related Skills, Training, Technologies and Dissemination	Interreg	MED programme Networks for an Innovative Cooperation in Energy efficiency
	LIFE	Renewable Energy System Integration and Digitalization Upskilling Initiative for Sustainable Buildings
	EMFAF	Blue Careers in Net Zero Energy Ports
Sustainable Territorial Development and Resilience. Energy transition. Climate Adaptation	Horizon	Multidimensional Transition Pathway Analysis for Sustainable Futures : Exploring Alternative Paradigms and Broadening Policy Options through Innovative Scenario Development
	Interreg	PRomoting regional Sustainable Policies on Energy and Climate change mitigation Towards 2030
	EMFAF	Regions to boost National Maritime Spatial Planning

Complementarily, as introduced before, the MedCoopNet dashboard and download function can also be used to identify what topics contribute to specific SDGs and Horizon Clusters, given that projects can be classified in multiple thematic taxonomies.

6. Involvement of organisations in Mediterranean cooperation projects : types, distribution and collaboration patterns

This chapter focuses on MedCoopNet activity at the organisation level. The first section looks at the overall distribution of funding in Mediterranean cooperation projects across types of organisations. The second and third sections look at how funding of each programme is distributed across organisation types (6.2) and how funding in each broad geographical area is distributed across actor types (6.3). The following section focuses on the intensity of participation of actors: looking at the share of actors that participate in several programmes, as well as actor participation concentration by programme (6.4). Subsection 6.5 analyses the thematic breadth of actors across topics to understand the diversity of topics covered by actors, depending on their type. Finally, section 6.6 addresses the type of collaboration formed between actors in Mediterranean cooperation projects, looking at the scale, intensity, level of cohesiveness and degree of distribution of collaborations through a network analysis.

For context, table 15 below lays out the total number of organisations participating in each programme (some organisations participate in more than one programme, so the total is lower than the sum of the rows)

Table 15: Number of organisations involved in each programme

Programme	Number of organisations
Horizon	14,341
Interreg	7251
Erasmus+	31,192
LIFE	1,749
Creative Europe	1,877
EMFAF	285
Total	50,152

6.1. Overview of types of organisations involved in Mediterranean cooperation projects

In this section we examine the distribution of EU funding across organisation types participating in Mediterranean cooperation programmes, with a particular focus on how institutional profiles shape participation and funding outcomes. Using aggregated project-level data, **organisations are classified into six main types**: non-tertiary education providers, higher education institutions, research organisations, private for-profit companies, public sector actors, and other non-profit and civil society organisations. The analysis first describes the overall composition of participating organisations and funding volumes by type, and then disaggregates funding shares by funding programme and by geographic area. This approach highlights structural differences in the functional roles played by different organisation types across policy instruments and regional contexts. Table 16 presents the distribution of organisations by type.

Table 16: Funding intensity and participation across organisation types

Type	Full name	Number of organisations	Total EU funding	Average funding per organisation
EDU	Non-tertiary education	12,499	€856,713,173	€68,543
HEI	Higher education	1,491	€6,711,126,431	€4,501,091
REC	Research organisations	1,957	€6,425,926,118	€3,283,560
PRC	Private for-profit companies	12,503	€9,102,232,602	€728,004
PUB	Public sector actors	5,037	€3,244,282,739	€644,090
OTH	Other actors	16,665	€3,619,139,258	€217,170
Total		50,152	€29,959,420,321	

As observed in table 16, there is an important **concentration of funding going to research and higher education actors**. Despite representing only 6.9% of organisations, HEI and REC together receive 44% of total EU funding, with average funding per organisation substantially higher than other categories.

On the other hand, while presenting lower average funding, **Private companies receive the largest share of funding (31% of the total)**, indicating significant industrial engagement in EU cooperation programmes, driven by private company participation in Horizon 2020 and Horizon Europe R&I well-funded projects. The nuances of this distribution is further detailed in the following sections.

6.2. Share of funding by programme across organisation types

Funding allocation patterns differ markedly across EU programmes, indicating a strong functional specialisation of organisation types. Participation patterns show that research organisations (REC), higher education institutions (HEI) and private companies (PRC) are particularly active in programmes such as Horizon and EMFAF. By contrast, education providers and civil society organisations are more strongly represented in Erasmus+ and Creative Europe, while Public Authorities and other societal actors play a comparatively larger role in Interreg.

Table 17: Distribution of funding by organisation type and programme

Type	Share of funding across all programmes	Share of funding in Horizon	Share of funding in Interreg	Share of funding in Erasmus+	Share of funding in Life	Share of funding in Creative EU	Share of funding in EMFAF
EDU	2.86%	0.05%	0.84%	19.67%	0.19%	0.65%	1.09%
HEI	22.40%	22.90%	11.93%	31.25%	16.46%	7.42%	19.77%
REC	21.45%	27.44%	10.30%	2.62%	17.05%	3.04%	27.04%
PRC	30.38%	39.10%	5.63%	10.01%	29.10%	9.68%	22.70%
PUB	10.83%	5.24%	47.74%	4.65%	16.09%	7.32%	13.60%
OTH	12.08%	5.27%	23.56%	31.80%	21.11%	71.89%	15.79%
Total	100%	100%	100%	100%	100%	100%	100%

Horizon and research-intensive programmes favour PRC, REC, and HEI. Private for-profit companies

(PRC) capture the largest share of Horizon funding (39.1%), followed by research organisations (27.4%) and higher education institutions (22.9%). Together, these three categories account for nearly 90% of Horizon funding, reflecting the programme's strong focus on research, innovation, and application-oriented activities.

Interreg funding is dominated by public sector actors. Public sector organisations (PUB) receive almost half of Interreg funding (47.7%), far exceeding any other category. Then, certainly an important part of the “Other” non-for-profit organisations in this programme, receiving an additional 24% of the budget, are also active in territorial, social and cultural activities. This confirms Interreg's role as a territorially oriented programme primarily supporting public administrations and other non-for-profit territorial actors, as well as cross-border governance and cooperation structures.

MedCoopNet illustrative project	
Project title, link and start year	Increasing capacity and improving cooperation of law enforcement authorities on the territories of Burgas, Haskovo and Yambol districts, Edirne and Kırklareli provinces in the field of migration (2023)
MedCoopNet topic	Democratic Governance. Political Participation. Social Inclusion Policies
Programme	Interreg
EU contribution to MedCoopNet participants	€ 1,47 M

Erasmus+ is strongly oriented towards education and civil society. Erasmus+ funding is concentrated among Other actors (OTH, 31.8%), Higher Education Institutions (31.3%), and Non-tertiary education providers (EDU, 19.7%). It must be noted that many of the Other actors are charities and other non-for-profit organisations linked to education, social and cultural policies, with more or less oversight and funding from public administration. This distribution reflects the programme's emphasis on education, training, youth, and social inclusion, with relatively limited involvement of research organisations and private companies.

Creative Europe shows extreme concentration in ‘Other actors’. Other actors (OTH) account for an overwhelming 71.9% of Creative Europe funding, highlighting the central role of cultural, creative, and civil society organisations in this programme.¹⁰ Participation from HEI, PRC, and PUB remains marginal by comparison.

Life and EMFAF exhibit more balanced but differentiated profiles: The LIFE programme displays a relatively balanced distribution across PRC, OTH, REC, PUB, and HEI, indicating cross-sectoral engagement in environmental and climate action. EMFAF funding is more concentrated among REC (27.0%), PRC (22.7%), and HEI (19.8%), reflecting its applied research to build commons and infrastructures, and also its

¹⁰ There is an important number of cultural actors in the database, coming mainly from Erasmus+ and Creative Europe. Museums, art centers, orchestras, etc, are very hard to distinguish between Public, Other and even private companies, since the legal form and the main source of funding (philanthropic vs. public) is very hard to find or disentangle. As presented in the Methodological annex, we have decided to classify cultural actors into “Other”, unless they are clearly private for-profit companies. That is, museums, art centers, orchestras, etc. classified as such in Erasmus+ and Interreg are bulk classified into “Other” for the purposes of MedCoopNet. Only clearly private for profit cultural actors are classified into PRC, such as editorial companies, agents or film production companies or investors.

industry-linked orientation within the blue economy and fisheries sectors.

6.3. Share of funding by geographical area across organisation types

The distribution of funding by organisation type varies substantially across broad geographical areas, indicating that EU cooperation programmes engage different institutional ecosystems depending on the regional context.

Table 18: Distribution of funding by organisation type and broad geographical areas

Type	Full name	Share of funding across all geographies	Share of funding in EU	Share of funding in Balkans	Share of funding in Middle East	Share of funding in Africa
EDU	Non-tertiary education	2.86%	2.59%	3.23%	7.89%	0.73%
HEI	Higher education	22.40%	22.05%	22.25%	26.27%	45.05%
REC	Research organisations	21.45%	22.55%	11.03%	8.65%	18.17%
PRC	Private for-profit companies	30.38%	30.94%	10.10%	37.81%	4.00%
PUB	Public sector actors	10.83%	10.18%	26.83%	11.19%	13.35%
OTH	Other actors	12.08%	11.68%	26.56%	8.19%	18.71%
Total		100%	100%	100%	100%	100%

As the largest subset in the database, **funding for EU participants** follows the general distribution presented above, it is **concentrated in private companies, higher education, and research organisations**: Within the EU, funding is primarily captured by private for-profit companies (PRC, 30.9%), higher education institutions (HEI, 22.1%), and research organisations (REC, 22.6%). Together, these three categories account for over three-quarters of EU funding. **Other actors (OTH, 11.7%) and public bodies (PUB, 10.2%) play secondary roles, while non-tertiary education providers (EDU, 2.6%) are marginal in terms of funding, albeit not in terms of number of projects**, given the large amount of Erasmus+ supported partnerships. Overall, aggregate funding for EU-internal cooperation appears strongly oriented towards innovation, research, and market-based implementation rather than education or public administration.

Balkans is characterised by a public-academic and Other-actor model: In the Balkans, funding is dominated by public sector actors (PUB, 26.8%) and other actors (OTH, 26.6%), alongside a substantial share for higher education institutions (HEI, 22.3%). Together, these categories account for more than three-quarters of total funding, **in line with the strong presence of INTERREG projects and their emphasis on topics related to governance, institutional capacity and public policy**; Private companies (PRC, 10.1%) and research organisations (REC, 11.0%) play a more limited role, while non-tertiary education providers (EDU, 3.2%) remain marginal in the funding aggregate.

Middle East funding is led by private sector and higher education institutions: In the Middle East, funding is heavily concentrated in private companies (PRC, 37.8%) and higher education institutions (HEI, 26.3%), which together account for nearly two-thirds of all funding. Public sector actors (PUB, 11.2%) and research organisations (REC, 8.7%) and non-tertiary education providers (EDU, 7.9%) play supporting but secondary roles, while other actors (OTH, 8.2%) account for smaller shares. **This pattern points to a strong innovation and market-driven approach, complemented by academic involvement.**

Africa is dominated by higher education and non-for-profit Other actors: In Africa, funding is overwhelmingly concentrated in higher education institutions (HEI, 45.1%), far exceeding all other organisation types. Other actors (OTH, 18.7%) and research organisations (REC, 18.2%) also receive notable shares, suggesting a strong role for civil society, intermediaries, and research-linked entities. Public sector bodies (PUB, 13.4%) play a moderate role, while private companies (PRC, 4.0%) and non-tertiary education providers (EDU, 0.7%) are only marginally involved. **This indicates a strong emphasis on tertiary education, knowledge institutions, and non-market actors.**

MedCoopNet illustrative project	
Project title, link and start year	TourVET: Sustainable Tourism and Hospitality VET in South Mediterranean countries (2025)
MedCoopNet topic	Sustainable and Cultural Tourism Development
Programme	Erasmus+
Total cost and EU contribution to MedCoopNet participants	€ 0,38 M € 0,27 M

6.4. Actor participation across programmes

Going deeper into the behaviour of organisations and how they distribute across programmes, we can see from the data that an overwhelming majority of actors (90.36%) participate in a single programme, while 7.18% participate in two, and only 2.47% in three or more. Zooming into the multi-programme actors, Table 19 shows a matrix of overlap coefficients between pairs of programmes. Each cell holds the share of actors of the row's programme that also participate in the column's programme.

Table 19: Actor overlap between programmes

	Creative Europe	EMFAF	Erasmus+	Horizon	Interreg	LIFE
Creative Europe	100.00%	1.65%	32.92%	15.88%	11.08%	4.05%
EMFAF	10.88%	100.00%	47.37%	57.89%	41.40%	22.46%
Erasmus+	1.98%	0.43%	100.00%	7.86%	4.60%	1.68%
Horizon	2.08%	1.15%	17.09%	100.00%	9.32%	6.08%
Interreg	2.87%	1.63%	19.78%	18.44%	100.00%	7.07%
LIFE	4.35%	3.66%	29.96%	49.86%	29.33%	100.00%

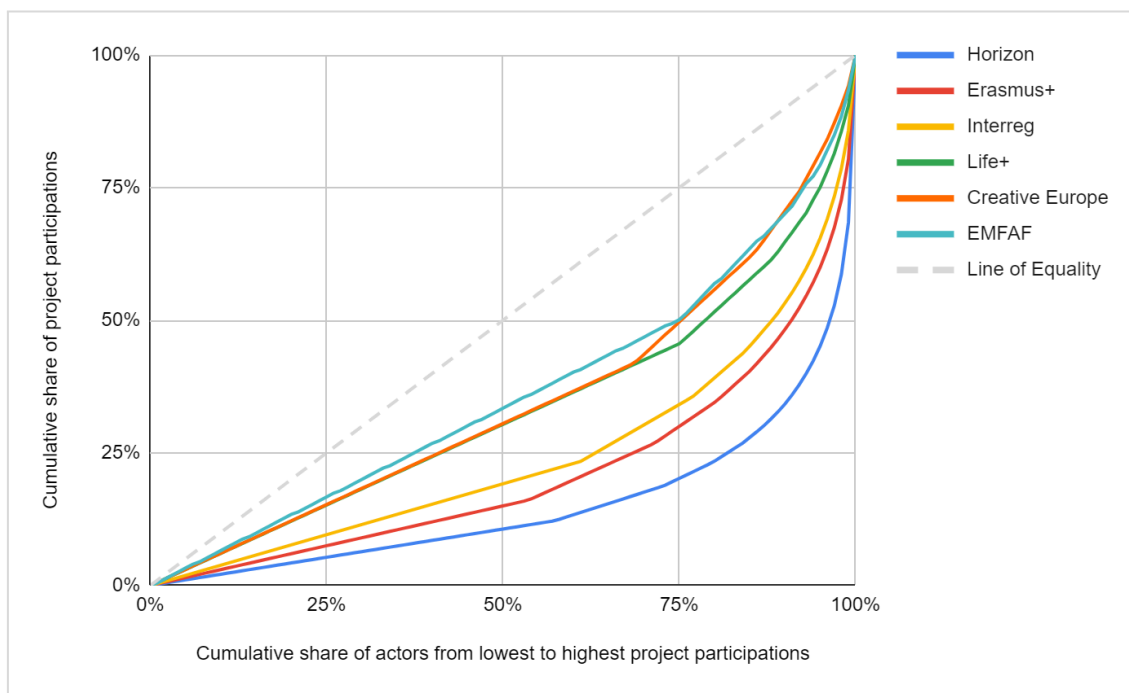
Actors participating in Mediterranean cooperation projects in the three biggest programmes (Horizon, Erasmus+ and Interreg) have low levels of participation in other programmes, while participants in EMFAF, LIFE and Creative Europe projects have higher levels of participation in at least another programme.

In detail:

- **EMFAF draws heavily from Horizon, Erasmus+, and Interreg actor pools.** Despite being the smallest programme with 285 actors (see table 15 in introduction of this chapter), EMFAF has a remarkably large overlap of its actors with the three main programmes: 58% with Horizon, 47% with Erasmus+, and 41% with Interreg. This suggests that maritime and fisheries actors are heavily involved in broader EU funding ecosystems rather than being a self-contained community.
- **LIFE has a strong link with Horizon.** About 50% of LIFE's actors also participate in Horizon, much higher than any of its other bilateral overlaps. This is driven mainly by higher education institutions (the overlap is 97% when focusing only on this type of actors) and Research organisations (75% overlap).
- **Creative Europe is relatively more isolated.** Its overlaps are consistently low: 2% with EMFAF, 4% with LIFE, 11% with Interreg, and 16% with Horizon. The one notable exception is Erasmus+ (33%), mostly due to educational institutions (the overlap is 85% when focusing only on higher education establishments, and 70% when focusing on Non-tertiary education actors). This isolation suggests that the cultural/creative sector operates in a fairly distinct funding niche.

To better understand how the programmes concentrate or distribute participation among the different actors, Figure 3 shows the corresponding Lorenz curves. If programmes were evenly distributed between all its participants, their curve would be a flat 45 degree line. The actual curves deviate from this baseline: the more the curve bows away from the diagonal, the more concentrated the funding among fewer participants.

Figure 3: Actor participation concentration by programme (Lorenz curves)



Horizon shows pronounced concentration, with a curve sharply deviating from the diagonal, indicating a smaller share of beneficiaries receives the majority of funding. The bottom 50% of actors account for only about 11% of project participation, while the top 5% capture over 55% of all participations. This points to a programme dominated by a small elite of highly active organisations (major research universities, large research institutes, major companies, etc.).

Erasmus+ and Interreg are slightly less concentrated. The bottom half of Erasmus+ actors hold just 15% of participation. Interreg follows with a slightly lower concentration with the bottom half of its participants accounting for 18.9% of all its project participations.

EMFAF, Creative Europe, and LIFE are the most evenly distributed programmes across actors, with respectively 33.2% , 30.4% and 30.3% of participation from the bottom half of their participants.

There is a pattern linking programme size to concentration. Larger, more competitive funding pools tend to be captured disproportionately by well-resourced returning actors, while smaller or more niche programmes distribute participation more evenly.

6.5 Organisation participation across MedCoopNet topics

This section examines the generalist-specialist profile of actors involved in Mediterranean cooperation projects by analysing the average number of distinct topics each organisation type engages with, drawing on the 80 MedCoopNet topics identified through topic modelling (Section 5.2).

Table 20: Average number of topics using topic modeling topics, across organisation types in Mediterranean cooperation projects

Type	Full name	Average number of topics (TM)
EDU	Non-tertiary education	2.19
HEI	Higher education	9.46
REC	Research organisations	3.58
PRC	Private for-profit companies	1.94
PUB	Public sector actors	2.42
OTH	Other actors	2.28
Total		2.45

The data reveals stark differentiation in topic breadth across organisation types. Higher education establishments average 9.46 topics per institution, notably higher than the rest of actors. This reflects their size, thematic breadth and active participation in multiple areas and programmes, with the potential of acting as thematic and capability bridges.

At the opposite end, Private Companies show pronounced sectoral specialisation at 1.94 topics per firm. Research organisations (3.58 topics) occupy an intermediate position, reflecting a narrower scope than universities, but still more breadth than the other types of actors. Other non-profits (2.28 topics) and Public Bodies (2.42 topics) cluster near the overall average (2.45 topics).

It must be noted, though, that there are some highly active and extremely multi-thematic actors spanning a wide range of topics. For instance,

- there are 28 Universities active in more than 60 topics (out of 80),
- there are 44 Research organisations active in more than 20 topics,
- there are 33 Public bodies (not covered by the other types) active in more than 20 topics,
- there are 59 Private for-profit companies active in more than 20 topics, albeit at visual inspection many of these are EU-project specialist consulting firms

6.6 Analysis of actor collaboration patterns through network analysis

Network analysis is a core analytical component of the MedCoopNet project¹¹. By representing organisations (or regions) as nodes and their co-participation in funded projects as edges, collaboration networks can be constructed for each funding programme, thematic cluster, time period, or any combination thereof. These networks reveal not only the scale and intensity of cooperation but also their structural properties: how cohesive or fragmented the collaboration landscape is, or whether partnership activity flows through a few central hubs or is distributed more evenly.

As indicated in section 3.7 MedCoopNet has calculated both local (i.e. related to the individual node) and global (i.e. related to the whole network) parameters, for both the network of regions and the network of organisations.

This section presents the global network parameters of the networks computed for project collaborations within each funding programme. Comparing these parameters across programmes makes it possible to characterise how programme design, eligibility rules, and strategic objectives shape their different cooperation structures. The following global indicators are computed for each network and are standard reference measures in the field of network science:

- **Nodes:** The number of distinct entities (organisations or NUTS-3 regions) present in the network. Each node represents a unique actor that participates in at least one funded project within the scope of the network definition.
- **Edges:** The number of collaboration ties between pairs of nodes. An edge is created when two organisations co-participate in the same project. In weighted networks, edge weight reflects the number of shared projects.
- **Density:** The ratio of actual edges to the maximum possible number of edges in the network. It measures how many of all possible collaboration ties are actually realised. Values close to zero indicate sparse networks, which is typical for large-scale collaboration systems.
- **Average degree:** The mean number of edges connected to each node, calculated as twice the number of edges divided by the number of nodes. It captures the typical number of distinct collaboration partners per actor.
- **Component count:** The number of connected components in the network, i.e. the number of disconnected subgroups in which all nodes are reachable from one another but no path exists to nodes in other components.
- **LCC fraction:** The share of all nodes that belong to the largest connected component (LCC). A high LCC fraction indicates that the vast majority of actors can reach one another through collaboration chains, even if smaller isolated groups exist.
- **Diameter (LCC):** The longest shortest path between any two nodes within the largest connected component. It represents the maximum number of “steps” needed to connect the two most distant actors in the main network.
- **Modularity (greedy):** A measure of the strength of division of the network into communities or clusters, computed via a greedy optimisation algorithm. Values range from 0 to 1; higher values indicate dense connections within communities and sparse connections between them. Modularity above 0.3 is generally considered indicative of meaningful community structure.
- **Degree assortativity:** The Pearson correlation coefficient between the degrees of connected node pairs. Positive values indicate that highly connected nodes tend to connect to other highly connected nodes (assortative mixing). Negative values indicate that high-degree nodes preferentially connect to low-degree nodes (disassortative, hub-and-spoke pattern).

Table 21 presents the global network parameters for the collaboration networks constructed for each of the funding programmes covered by MedCoopNet. Each network includes all organisations that participated in

¹¹ **The network analysis carried out in MedCoopNet feeds directly into the policy analysis of the project**, where we have looked at the evolving rankings in *betweenness centrality* in the network of regions, to capture which regions are learning across Horizon 2020 and Horizon Europe (see chapter 6 of this report). This is why in the table below, Horizon Europe and Horizon Europe are in two separate rows, unlike the other programmes.

at least one project under the given programme, with edges representing co-participation in the same project.

Table 21: Global network parameters by funding programme¹²

Programme	Nodes	Edges	Density	Avg. Degree	Comp.	LCC Fr.	Diam	Modul.	Assort.
Horizon 2020	10,071	132,361	0.0026	26.29	43	99.0%	8	0.384	-0.098
Horizon Europe	8,074	103,030	0.0032	25.52	25	99.1%	7	0.387	-0.090
Interreg 2014–2020	6,274	34,229	0.0017	10.91	253	88.4%	15	0.505	0.065
Erasmus+	30,929	152,349	0.0003	9.85	792	93.5%	13	0.538	0.046
LIFE	1,748	9,997	0.0065	11.44	30	93.0%	8	0.660	0.022
Creative Europe	1,874	4,404	0.0025	4.70	196	66.0%	18	0.874	0.326
EMFAF	285	1,203	0.0297	8.44	8	87.7%	9	0.771	0.166

The programme-level networks reveal markedly different collaboration topologies, shaped by programme design, eligibility rules, and partnership requirements.

Horizon Europe and Horizon 2020 display the most tightly integrated collaboration structures. Both exhibit the highest average degrees among all programmes (25.5 and 26.3 respectively), reflecting the large consortium sizes characteristic of collaborative R&I projects. Their LCC fractions exceed 99%, meaning that virtually all participating organisations can be reached from any other through a chain of co-project ties, and their diameters are the shortest (7 and 8), indicating **compact networks where even the most distant actors are separated by very few intermediaries**. The negative assortativity values (-0.09 and -0.10) reveal a disassortative, **hub-and-spoke topology**: highly connected organisations such as large research universities and research and technology centres, serve as bridges linking many smaller, less Horizon-capable or more specialised partners. Modularity is relatively low (around 0.38), suggesting that collaboration in Horizon programmes cuts across thematic and geographical sub-communities rather than being confined within them.

Erasmus+ produces the largest network by far (30,929 nodes), consistent with its broad institutional reach across higher education, vocational training, and youth organisations. However, its average degree is comparatively modest (9.9), reflecting the smaller partnership sizes typical of mobility and capacity-building actions. Despite this, the LCC fraction remains high (93.5%), indicating that the vast majority of Erasmus+ participants are interconnected, albeit through longer chains of collaboration (diameter of 13). The positive assortativity (0.046) and higher modularity (0.538) suggest a network where institutions of similar profile tend to cluster together, for instance, universities forming dense sub-communities among themselves.

The **Interreg** programmes included in the study are considered as a whole network for this exercise, although they are formally managed separately. Interreg 2014–2020 and 2021–2027 yields a network with average degree around 11, reflecting the medium-sized partnerships typical of territorial cooperation projects. Interreg 2014–2020 is fragmented (253 components, 88.4% LCC fraction) and has a larger diameter (15). The network shows moderately high modularity (0.52), that points to the existence of communities, consistent with the fact that each of the Interreg programmes has a defined structure built around specific cooperation spaces (cross-border, transnational, and interregional strands). The slight positive assortativity

¹²At the time of data collection, Interreg Europe 2021–2027 data was incomplete in the source database ([Keep.eu](https://keep.eu)). As this data for Interreg is excluded from all analyses, we do not report these parameters here.

in Interreg 2014-2020 (0.065) points to a tendency for similarly connected organisations to collaborate with one another, possibly reflecting established regional partnerships within the specific policy-objectives of the underlying programmes.

LIFE, likely because of its modest size (1,748 nodes), forms a relatively cohesive network with 93% of organisations in the LCC and the second highest density (0.0065). Its high modularity (0.660) reflects the programme's structure around distinct thematic strands (nature, circular economy, climate mitigation, climate adaptation), each generating its own sub-community of specialised actors.

Creative Europe and EMFAF represent the smallest and most distinctive networks. Creative Europe is the most fragmented programme network, with only 66% of organisations in the LCC and the highest modularity among all programmes (0.874), indicating that the network is composed of many small, relatively isolated clusters of cultural organisations. Its strongly positive assortativity (0.326) shows that well-connected cultural organisations preferentially collaborate with one another, forming exclusive partnership circuits. The diameter of 18, the longest across all programmes, reflects the long chains of intermediaries separating the most distant actors. **EMFAF, as the smallest programme (285 nodes), has the highest density (0.030) due to its scale, but also displays high modularity (0.771) and positive assortativity (0.166), consistent with a network structured around a limited number of specialised maritime and fisheries clusters.**

Taken together, these programme-level structures reveal a clear gradient in Mediterranean collaboration patterns. The Framework Programmes (Horizon 2020 and Horizon Europe) generate dense, compact, and highly integrated networks anchored by large institutional hubs, reflecting the logic of large-scale R&I consortia. At the other end, programmes such as Creative Europe and EMFAF produce fragmented, modular networks composed of small, specialised clusters with limited inter-cluster connectivity. Between these poles, Erasmus+, Interreg, and LIFE occupy intermediate positions, each shaped by their specific programme architectures: Erasmus+ achieves broad reach through numerous small partnerships; Interreg mirrors the geography of its cooperation spaces; and LIFE clusters around its thematic pillars.

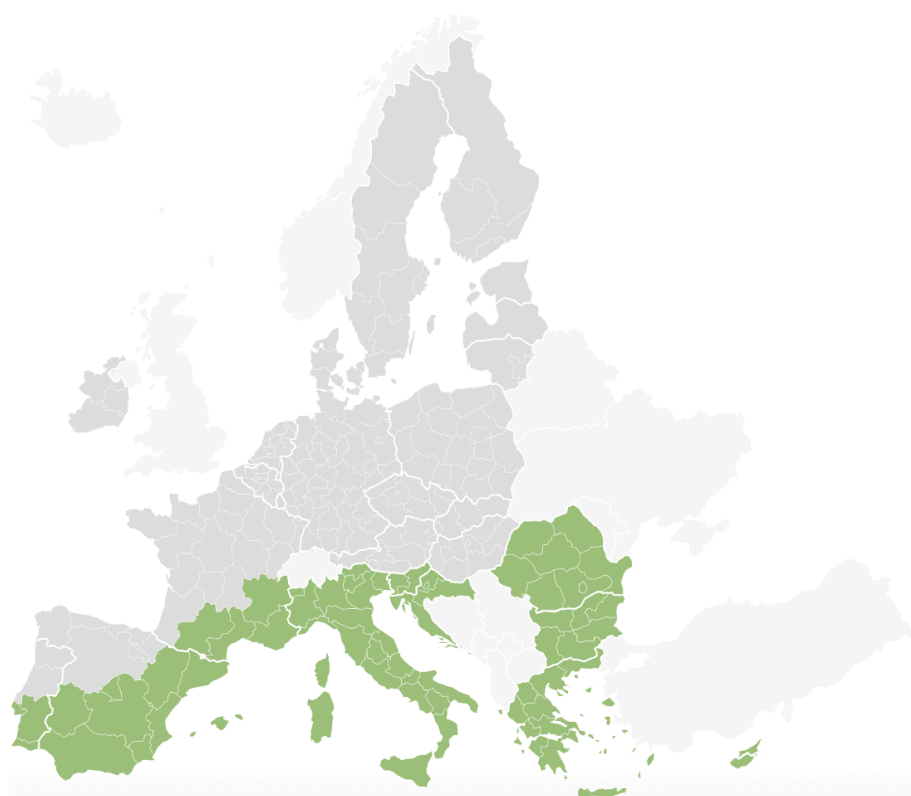
7. Policy Analysis: from Cohesion to Competitiveness, evidence of learning spillovers from Interreg to Horizon

A central question for EU Cohesion Policy is whether participation in territorial cooperation programmes (such as Interreg) builds the institutional capacities needed to engage in more competitive funding streams (such as Horizon). As Interreg aims to reduce disparities and strengthen regional ecosystems, it seems appropriate to question whether this also translates in network creation and institutional learning that can foster future participation in Horizon programmes, which are specifically oriented towards scientific, technological, and innovation-driven activities.

Hence, this analysis examines whether regions and organisations that participate in Interreg subsequently improve their access to Horizon funding. The question carries significant policy weight: if Interreg generates measurable capacity-building effects, this provides evidence for its indirect contribution to EU competitiveness - a priority in ongoing discussions about the future of Cohesion Policy and the next Multiannual Financial Framework.

The analysis focuses exclusively on EU Mediterranean countries (Map 5), as Interreg coverage is most complete for these territories. The MedCoopNet database also includes Western Balkans, North African countries and the Middle East, but these are not covered in this policy analysis.

Map 5: Countries covered by the Policy Analysis exercise



Analytically, our approach focuses on three steps:

(a) identification of **learning preconditions**: we look for evidence that regional learning is possible, where there is overlap in both topics and beneficiaries across programmes. Such overlap implies that there is a cognitive space in which learning can occur.

(b) identification of **learning traces**: we look for evidence of regional dynamisms in Horizon programmes, meaning that overall regional performance changes over time, with some regions learning (progressing) and others stagnating.

(c) **hypothesis testing**: we look at whether regional participation in INTERREG programmes builds capacities that, over time, translate in enhanced presence in Horizon.

These three steps together provide both narrative and empirical evidence to support that Cohesion Policy, through Interreg programmes, does indeed have spillover effects - building the institutional capacities, collaborative networks, and expertise that enable regions and organisations to subsequently compete for more demanding (and territorially neutral) funding streams such as Horizon.

7.1 Learning preconditions

Learning preconditions are necessary conditions for capacity building to occur. Before interpreting any Interreg-Horizon relationship as evidence of learning, we must establish that conditions for learning exist. If there were no thematic overlap between programmes, organisations could not transfer knowledge from one to the other. If there were no shared beneficiaries, there would be no pathway for institutional learning to occur. We therefore examine:

- Overlap in topics across the two programmes - a shared cognitive space where skills and knowledge transfer can happen
- Overlap in beneficiaries across programmes - organisations that participate in both, potentially acting as regional hubs and inter-regional brokers

As for the first point, topic modelling reveals substantial thematic overlap between Horizon and Interreg projects across the automatically extracted MedCoopNet topics (Table 22). While each programme shows some specialisation - Horizon concentrated in research-intensive domains, Interreg in territorial development - there is a significant shared cognitive space, particularly in areas such as sustainable development, environmental management, biodiversity protection, energy and transportation, agrifood, some social policies, innovation ecosystems, and smart specialisation.

This overlap creates the conditions for knowledge transfer: organisations working on similar themes in Interreg can apply acquired expertise, networks, and project management experience when competing for Horizon funding.

Table 22: Thematic overlap between Horizon and Interreg as emerging from the topic modelling

MedCoopNet topic label <-----> Specialisation index in EU funding by Programme	Horizon Europe	Interreg
Sustainable Territorial Development and Resilience. Energy transition. Climate Adaptation	1.03	1.73
Sustainable Agriculture. Agroecology and forestry. Rural Development. Soil Management	1.14	1.27
Marine Ecosystems. Coastal and Wetland Management. Biodiversity Conservation	0.70	2.66
Biodiversity Conservation. Ecosystem Management (incl. Forest). Sustainable Territorial Development	0.52	2.97
Smart Grids. Renewable Energy Systems. Energy Storage. Energy Efficiency	1.24	0.61

MedCoopNet topic label <-----> Specialisation index in EU funding by Programme	Horizon Europe	Interreg
Building Energy Efficiency. Sustainable Construction and Renovation	1.23	0.67
Water and Waste Management. Irrigation. Environmental Monitoring, Protection and Remediation	0.83	2.51
Sustainable Transportation, Mobility and Logistics Solutions and Infrastructure	0.70	3.87
Food and Agricultural Technology and Innovation	1.24	0.72
Care Services. Healthcare Professional Training. Assistive Technologies. Healthy Ageing	1.10	0.80
Democratic Governance. Political Participation. Social Inclusion Policies	0.95	1.93
Innovation Ecosystems. Technology Transfer. Business Development. Entrepreneurship	0.74	3.24
Sustainable Food Systems. Culinary Innovation and Education	0.73	0.75

Note: Specialisation Index (SI) of EU Funding Programmes in the MedCoopNet topics where Horizon SI and Interreg SI are both ≥ 0.5 . In green, topics with $SI \geq 1$, in yellow, $SI \geq 0.5$.

The second precondition examines whether organisations participate in both programmes. Table 23 shows the proportion of Interreg beneficiaries, across types of sub-programme, also present in Horizon.

Table 23: Overlap of organisations active in Horizon and Interreg, by Interreg subprogrammes

Programme	Subprogramme	Organisation overlap with Horizon 2020	Organisation overlap with Horizon Europe
Interreg 2014-2020	Interreg Cross Border (A)	12.2%	
	Interreg Transnational (B)	27.1%	
	Interreg Interregional (C)	37.4%	
Interreg 2021-2027	Interreg Cross Border (A)		17.3%
	Interreg Transnational (B)		30.0%
	Interreg Interregional (C)	Data gaps at the source	

Two patterns emerge. First, the more spatially open the Interreg programmes, the greater the overlap with Horizon. Cross-border programmes (strand A) show 12.2% overlap; transnational programmes (strand B) show 27.1%; interregional programmes (strand C) show 37.4%. This suggests that organisations operating in broader territorial contexts are more likely to also engage in European research and innovation networks as established in Horizon partnerships.

Second, overlap increases over time. The proportion of Interreg A beneficiaries also in Horizon rises from 12.2% in 2014-2020 to 17.3% in 2021-2027; for Interreg B, from 27.1% to 30.0%. This temporal pattern is consistent with learning: organisations that gained experience in Interreg subsequently expanded into Horizon.

7.2 Learning traces

Learning traces are observable patterns suggesting learning has occurred, capturing outcomes that cannot easily be explained by pre-existing capacity alone.

Simply observing that regions with strong Horizon participation in one period continue to perform well in the next tells us little about learning, as this may reflect stable institutional advantages. To identify a learning process, we therefore focus on changes in regions' positions within inter-regional collaboration networks. In particular, we examine - in the map below - whether some regions come to occupy more central brokerage roles over time (captured by increases in betweenness centrality) which would indicate a growing capacity to connect otherwise unconnected partners¹³.

Betweenness centrality measures how often a region lies on the shortest path between others in the network. High betweenness indicates a brokering role, connecting parts of the network that would otherwise be unlinked. This measure is particularly appropriate for capturing learning effects for two reasons. First, brokering positions cannot be inherited - they must be built through active engagement and relationship formation. A region that improves its betweenness centrality has developed new collaborative pathways, suggesting acquired capabilities rather than pre-existing advantages. Second, brokering is precisely what we would expect Interreg participation to foster: cooperation across the borders exposes organisations to diverse partners and thematic communities, potentially positioning them to connect otherwise separate research and innovation networks, when they subsequently enter Horizon.

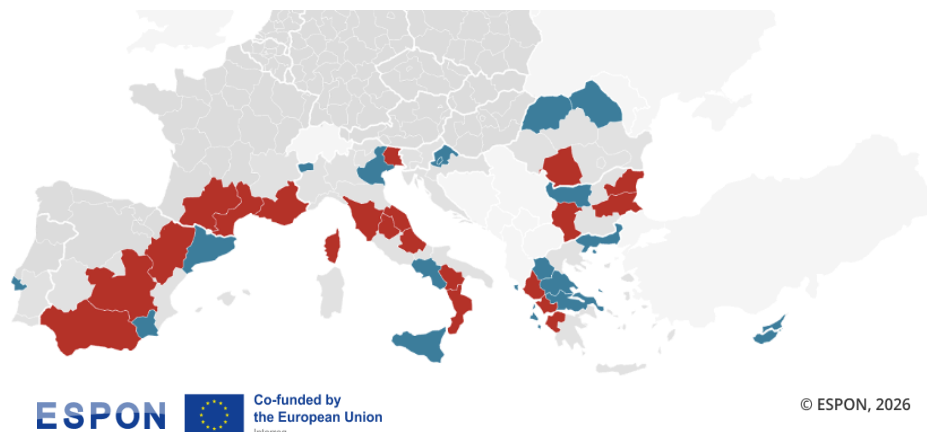
Map 6 maps changes in betweenness centrality ranking between Horizon 2020 and Horizon Europe at NUTS-2 level. Regions shown in blue gained 10 or more ranks; regions shown in red lost 10 or more ranks. The remaining regions have either maintained the same rank or experienced rank-changes lower than 10. The map reveals substantial dynamic reconfiguration of the collaborative network. Rather than a static hierarchy where established regions maintain their positions, we observe considerable movement: some regions are emerging as new brokers in European research networks, while others are losing ground as distinctive intermediary roles.

Crucially for our analytical framework, this dynamism is a necessary condition for detecting learning effects. If all regions maintained stable network positions across programming periods, we could not distinguish capacity building from inherited advantage. The fact that positions change - that some regions improve while others stagnate - means there is variation to explain. The subsequent hypothesis testing examines whether Interreg participation helps account for which regions gain brokering positions and which do not.

¹³ The analysis is conducted at the regional (NUTS) level rather than at the level of individual institutions for several reasons. First, this study is fundamentally concerned with territorial dynamics and the capacity of places — not just organisations — to engage in and benefit from European cooperation. A single institution's improved performance may reflect idiosyncratic factors (e.g. a new hire, a one-off partnership), whereas shifts observed at the regional level point to broader ecosystem effects - such as improved support infrastructure, denser local networks, or knowledge spillovers - that are more indicative of genuine learning. Second, aggregating at the regional level smooths out the noise of individual organisational trajectories and allows us to detect structural patterns in how cooperation capacity is built across territories. This is consistent with the policy perspective of ESPON and Cohesion Policy, which targets regions as the unit of intervention.

Map 6: Regional dynamism: changes in betweenness centrality ranking between Horizon 2020 and Horizon Europe at NUTS-2 level

- Gained 10 ranks or more
- Lost 10 ranks or more



7.3 Hypothesis testing

To examine whether Interreg participation contributes to subsequent Horizon success, we proceed in two steps. First, we visually explore the data, plotting the relationship between the **share of Interreg funding in a region during the 2014–2020 period (x-axis)** and the proportion of **Horizon Europe funding going to new beneficiaries** - organisations with no Horizon 2020 participation - in 2021–2027 (**y-axis**). These scatterplots, disaggregated by regional development category and Interreg strand, allow us to identify patterns and formulate testable hypotheses about the direction and heterogeneity of effects.

Second, we test these hypotheses through Ordinary Least Squares (OLS) regression analysis. The econometric approach enables us to assess whether the relationships observed in the scatter plots are statistically significant - that is, unlikely to have arisen by chance - and to estimate the magnitude of effects while controlling for potential confounders.

The choice of variables is deliberate. We use Interreg's share of total EU funding as the **independent variable**, rather than absolute amounts. This controls for regional size and captures cooperation intensity within each region's portfolio. Using the 2014–2020 period establishes temporal precedence: we examine whether prior Interreg participation predicts subsequent outcomes in the newer period.

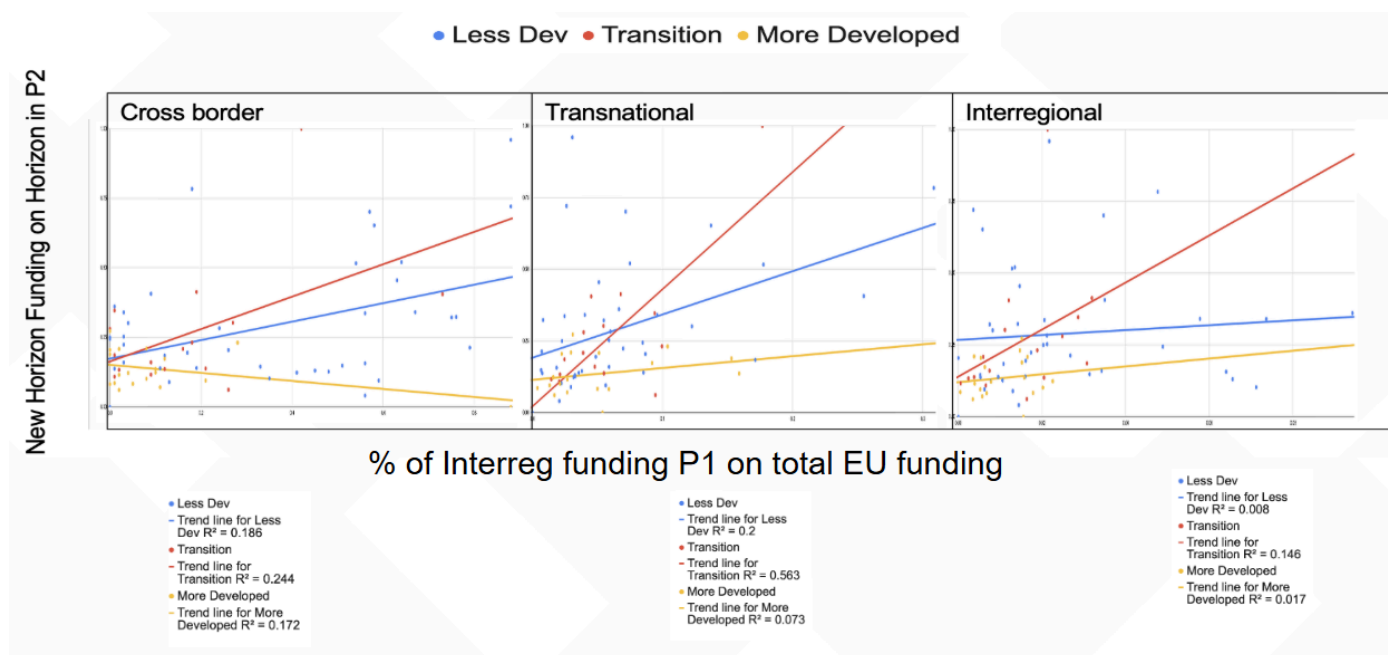
For the dependent variable, we focus on the proportion of Horizon Europe funding captured by new beneficiaries rather than total Horizon funding. This distinction is critical. Total Horizon funding would be dominated by established research institutions - regions with strong universities would rank highly regardless of any learning effects, and we could not distinguish capacity building from inherited advantage. By isolating new entrants - organisations that secured Horizon funding for the first time in 2021–2027 - we capture precisely what capacity building should produce: previously excluded actors gaining the skills, networks, and experience needed to compete successfully in demanding EU research programmes.

Correlations between Interreg and new Horizon beneficiaries

The graph below examines whether the weight of regional participation in Interreg during the 2014–2020 period correlates with the emergence of new Horizon beneficiaries in 2021–2027. The dependent variable is the proportion of Horizon Europe funding in each region received by organisations that had no Horizon 2020 funding - a direct measure of new entrants to the competitive research funding system. Figure 4

presents scatter plots of this relationship, disaggregated by Interreg strand and regional development category (less developed, transition, more developed).

Figure 4: Correlation between the emergence of new Horizon beneficiaries in 2021–2027 and regional participation in Interreg during the 2014–2020 period



The scatter plots reveal clear patterns. For less developed and transition regions, the relationship between Interreg participation and new Horizon beneficiaries is positive: regions with higher Interreg shares in the 2014–2020 period show higher proportions of new Horizon beneficiaries in 2021–2027. The effect is strongest for transition regions, where the slope is steepest, suggesting these territories benefit most from Interreg-induced capacity building. This may reflect their intermediate position: they possess sufficient institutional capacity to absorb and apply learning from territorial cooperation, yet have not reached the saturation point of more developed regions.

Among Interreg strands, transnational cooperation (strand B) shows the clearest positive relationship. This aligns with expectations: transnational programmes expose organisations to broader and more diverse networks than cross-border cooperation, potentially building the types of relationships that translate most directly into Horizon consortia. Interregional programmes (strand C) show a weaker relationship, this may be because strand C has a wider geographical scope and it is hence more competitive: organisations that successfully participate in Interreg C are already relatively experienced, meaning participation provides less of a capacity-building "step up" towards Horizon than transnational programmes offer to less experienced actors.

For more developed regions, the relationship is weaker or even negative. This too is expected. These regions already have established Horizon participants (large research universities and institutes, as well as private companies and public administration actors), with strong capacities and deep experience in EU funding. The marginal effect of additional Interreg participation is therefore smaller: there are fewer potential new entrants to bring into Horizon, and those that exist may face stronger competition from incumbent organisations within their own region.

Econometric analysis

The encouraging descriptive result above prompts us to run the following OLS models, with a view to empirically test our hypothesis.

Formally, let Y denote the share of Horizon Europe funding in a region coming from new beneficiaries. We estimate two model specifications:

Model 1 tests the aggregate effect of Interreg participation with interactions for regional development status:

$$\text{share_funding_of_horizon_newcomers_p2} = \beta_0 + \beta_1 \text{share_interreg_total_p1} + \beta_2 \text{EC_more_developed} + \beta_3 \text{EC_transitioning} + \beta_4 (\text{share_interreg_total_p1} \times \text{EC_more_developed}) + \beta_5 (\text{share_interreg_total_p1} \times \text{EC_transitioning}) + \varepsilon$$

where:

- **share_interreg_total_p1** is the share of total Interreg funding during 2014–2020,
- **EC_more_developed** and **EC_transitioning** are dummy variables for regional development category (with less developed regions as the reference),
- and ε is the error term.

The coefficient β_1 captures the baseline effect of Interreg participation for less developed regions, while β_4 and β_5 capture differential effects for more developed and transition regions respectively.

Model 2 disaggregates effects by Interreg sub-programme type:

$$\text{share_funding_of_horizon_newcomers_p2} = \gamma_0 + \gamma_1 \text{share_crossborder_p1} + \gamma_2 \text{share_transnational_p1} + \gamma_3 \text{share_interregional_p1} + \varepsilon$$

where:

- **share_crossborder_p1**,
- **share_transnational_p1**,
- **share_interregional_p1**

represent the shares of funding from Interreg strands A, B, and C respectively during the 2014–2020 period.

This specification allows us to test whether different types of territorial cooperation have differential effects on capacity building.

This combination of visual exploration and formal hypothesis testing provides both intuitive illustration and rigorous statistical evidence for our conclusions.

Table 24: OLS results on the relationship between Interreg participation and the share of Horizon Europe funding for new beneficiaries

	Dependent variable:	
	share_funding_of_ horizon_newcomers_p2	
	(1)	(2)
share_interreg_total_p1	0.433*** (0.093)	
EC_more_developed	0.053 (0.069)	
EC_transitioning	0.004 (0.081)	
share_interreg_total_p1: EC_more_developed	-0.541** (0.206)	
share_interreg_total_p1: EC_transitioning	0.215 (0.224)	
share_crossborder_p1		0.340*** (0.067)
share_transnational_p1		1.784*** (0.327)
share_interregional_p1		0.604 (0.997)
Constant	0.101** (0.048)	0.042 (0.035)
Observations	76	76
R ²	0.385	0.436
Adjusted R ²	0.341	0.413
Residual Std. Error	0.165 (df = 70)	0.156 (df = 72)
F Statistic	8.750*** (df = 5; 70)	18.574*** (df = 3; 72)

Note:

*p**p***p<0.01

The OLS results confirm the patterns observed in the scatter plots.

Model 1 provides strong evidence for the capacity-building effect of Interreg. The coefficient on share_interreg_total_p1 is positive and highly significant (0.433, $p < 0.01$), indicating that a higher share of Interreg funding in 2014–2020 is associated with a greater proportion of Horizon Europe funding captured by new beneficiaries. The interaction term with EC_more_developed is negative and significant (-0.541, $p < 0.05$), suggesting that Interreg participation provides little additional capacity-building benefit where strong research institutions already exist. The interaction with EC_transitioning is positive but not

statistically significant, indicating that transition regions do not differ significantly from less developed regions in how they benefit from Interreg.

Model 2 reveals important differences across Interreg strands. Transnational programmes show the strongest effect by a considerable margin: the coefficient on `share_transnational_pi` is 1.784 ($p < 0.01$), more than five times larger than the coefficient on cross-border programmes (0.340, $p < 0.01$). This confirms that exposure to broader European networks through transnational cooperation translates most effectively into subsequent Horizon participation. Cross-border programmes also show a significant positive effect, though more modest in magnitude. Interregional programmes show a positive but statistically insignificant coefficient (0.604), consistent with the interpretation that these programmes attract already-capable organisations for whom participation provides less additional learning.

Both models show good explanatory power. Model 1 explains 38.5% of the variance in new Horizon beneficiary shares (Adjusted $R^2 = 0.341$), while Model 2 explains 43.6% (Adjusted $R^2 = 0.413$). The F-statistics are highly significant in both cases, confirming that the models as a whole provide meaningful explanatory power.

7.4 Conclusions from the policy analysis

This analysis provides rare quantitative evidence for the indirect impact of Interreg on regional competitiveness in the EU regions covered by the study. It must be noted, though, that the policy analysis establishes correlation, not causation. We find that Interreg participation is associated with subsequent Horizon success, consistent with capacity-building effects. However, unobserved regional characteristics or external factors may also explain this pattern. We present these findings as suggestive evidence, not definitive proof, that:

1. **Capacity building occurs:** regions with higher Interreg participation subsequently show greater entry of new beneficiaries into Horizon funding, suggesting that territorial cooperation builds capabilities transferable to competitive research programmes.
2. **Effects are strongest where needed most:** transition and less developed regions show the clearest learning effects, suggesting Interreg contributes to convergence objectives by helping lagging regions close gaps in research and innovation capacity.
3. **Transnational cooperation matters most:** among Interreg strands, transnational cooperation shows the strongest association with new Horizon participation, possibly because it exposes organisations to broader networks and more diverse collaboration opportunities.

These findings carry direct implications for programming discussions. The European Commission's proposals for the 2028–2034 MFF place competitiveness at the centre of the EU budget architecture, while Interreg itself is reoriented towards better cooperation governance and performance-based delivery (European Commission, 2025, COM(2025) 552). This analysis provides evidence that these two objectives are mutually reinforcing: Interreg contributes to competitiveness - not through direct economic impact, but through building the social capital and institutional capacity that enables regions to participate in scientific, technological and piloting networks they would otherwise not access

The methodological contribution is equally important. By constructing indicators from micro-data on project participations - rather than relying on aggregate statistics - the analysis captures dynamics (new entrants, network position changes) that standard approaches miss. This demonstrates the analytical value of integrated, disambiguated databases covering multiple EU funding programmes.

8. MedCoopNet conclusions

Overview of the results of the MedCoopNet project

The project delivers three complementary products supporting different analytical needs.

- **The MedCoopNet database:** a comprehensive integrated dataset of 44,685 Mediterranean cooperation projects representing €30 billion in EU funding, with structured information on beneficiary organisations, project themes (classified by SDGs, Horizon thematic clusters, and topic modelling) and geographic locations (at NUTS2 and NUTS3 level). The database is available via the ESPON Open Data portal and is designed for ongoing reuse by researchers, policymakers, and practitioners.
- **The interactive web dashboard:** a web-based interface enabling users to filter, explore, and download customised data extracts from the MedCoopNet database. Users can query by programme, geography, theme, time period, and organisation type to answer specific questions about Mediterranean cooperation patterns relevant to their regions, programmes, and priorities.
- **This report:** a comprehensive analysis synthesising key findings on programme-specific roles, geographic distribution, thematic distribution and concentration, actor collaboration analysis, and policy implications.

Key results and insights from MedCoopNet

Programme structures shape cooperation patterns more than emergent priorities. The distribution of projects, funding, and actors across programmes reflects eligibility rules and programme design more than bottom-up stakeholder preferences. Horizon concentrates large budgets in fewer consortia and participants; Erasmus+ distributes modest funding across thousands of small partnerships. These are not competing failures but complementary logics. The risk lies when there's limited cross-programme coordination where thematic overlap exists, particularly between Horizon research projects and Interreg territorial development activities in areas such as energy transition, sustainable construction, and innovation ecosystems.

Geographic concentration is pronounced at both country and regional level. Italy, Spain, and Greece together attract a dominant share of Mediterranean cooperation funding and serve as bilateral hubs for all other EU Mediterranean countries. On a per-capita basis, smaller countries with strong institutional capacity, Cyprus and Slovenia in particular, outperform much larger neighbours. Non-EU Mediterranean partners participate actively but receive disproportionately less funding: the Middle East accounts for 17.3% of project participations but only 4.9% of total EU funding, reflecting structural asymmetries built into programme eligibility rather than differences in partner engagement or quality.

A small number of actors capture a disproportionate share of funding and participation. Higher education institutions and research organisations represent just 6.9% of all participating organisations but absorb 44% of total EU funding. In Horizon specifically, the top 5% of actors account for over 55% of all project participations, a level of concentration consistent with a hub-and-spoke network topology anchored in major research universities and technology organisations. This concentration reflects the selective nature of competitive research funding and is not unique to the Mediterranean, but it does imply that the capacity-building benefits of participation accrue unevenly across the region.

The portfolio shows clear thematic strengths and some gaps. Digital, industry and space research (HC4) dominates Mediterranean cooperation resulting from Horizon's technological orientation. Climate, energy, and environmental themes receive significant combined investment across Horizon, Interreg, and LIFE. Interreg's dominant contribution to SDG 10 (Reduced Inequality) underlines its distinctive redistributive function within the cooperation portfolio. Topic modelling also reveals thematic areas that escape conventional taxonomies entirely, offering novel intelligence for future programme design.

A key finding is quantitative evidence that regions with higher Interreg participation subsequently show greater entry of new beneficiaries into Horizon funding. The effect is strongest in transition and less-developed regions, indicating that Interreg contributes to convergence objectives. Among Interreg cooperation strands, transnational cooperation shows the strongest association with subsequent Horizon

participation. This evidence indicates that territorial cooperation and research competitiveness objectives are mutually reinforcing, supporting efforts to link territorial development policies with innovation capacity. It must be noted, though, that the policy analysis establishes correlation, not causation.

How stakeholders can use MedCoopNet

MedCoopNet establishes an integrated, multi-programme baseline for Mediterranean cooperation supported by EU programmes. The open data infrastructure enables ongoing exploration and analysis by policymakers, practitioners, regional officers, and researchers. As Mediterranean institutions evolve and funding instruments are reformed, this foundation provides a reference point for tracking whether changes are reflected in the actual thematics of the project and the cooperation patterns.

Stakeholders are invited to explore MedCoopNet products to answer questions specific to their regions, programmes, priorities, and analytical interests. Regional policymakers can benchmark their regions' participation and funding. Programme managers can identify thematic gaps and overlaps across instruments. Practitioners and organisations can discover potential collaboration partners. Researchers can download data to test hypotheses on Mediterranean cooperation patterns. The MedCoopNet database, dashboard, and supporting documentation are openly accessible, supporting evidence-based decision-making of Mediterranean cooperation.

Annex 1 Network parameters

The following table presents the network parameters that have been computed in order to drive the analysis in Chapter 7 of this report.

Global parameters	Local parameters
Nodes: number of institutions in the network	Degree centrality: number of direct connections
Edges: number of collaboration links between institutions	Betweenness centrality: how often a node lies on the shortest path between others
Density: proportion of possible connections that actually exist	Closeness centrality: average distance to all other nodes
Average degree: average number of connections per institution	Eigenvector centrality: influence based on connections to other influential nodes
Component count: number of disconnected sub-networks	
Largest connected component fraction: proportion of nodes in the largest sub-network	
Modularity: how well the network divides into communities	
Degree assortativity: whether high-degree nodes tend to connect to other high-degree nodes	

Annex 2 EU funding distribution by country

Country	EU funding in the MedCoopNet DB
Italy	€8,878,037,745
Spain	€6,598,878,189
Greece	€4,014,392,592
France	€2,080,946,399
Romania	€1,183,632,856
Portugal	€1,060,383,919
Slovenia	€1,043,917,426
Bulgaria	€776,525,313
Croatia	€764,617,930
Turkey	€742,651,357
Cyprus	€726,493,287
Israel	€588,808,581
Serbia	€449,540,560
Malta	€145,523,175
Bosnia and Herzegovina	€131,818,079
North Macedonia	€128,172,417
Albania	€126,941,427
Montenegro	€112,156,589
Tunisia	€90,064,275
Moldova	€68,472,012
Jordan	€51,387,539
Egypt	€39,157,059
Lebanon	€39,123,759
Kosovo	€35,535,579
Morocco	€32,802,829
Palestine	€28,990,089
Algeria	€11,983,481
Libya	€6,009,597
Syria	€1,679,292
Mauritania	€535,489
Monaco	€241,480

Annex 3 Full list of automatically extracted MedCoopNet topics, via topic modelling

MedCoopNet Topic label	Number of projects	Aggregate EU funding
Smart Grids. Renewable Energy Systems. Energy Storage. Energy Efficiency	672	€1,413,163,366
Aerospace Engineering. Maritime Technology. Off-shore Wind and Marine Energy	373	€1,363,646,958
Sustainable Territorial Development and Resilience. Energy transition. Climate Adaptation	736	€1,061,930,558
Biofuels and Waste-to-Energy Technologies. Waste management. Circular Materials (incl. Bioplastics)	492	€1,012,246,501
Energy Storage. Electrochemical Systems. Biofuels	517	€970,008,948
Sustainable Transportation, Mobility and Logistics Solutions and Infrastructure	543	€928,567,291
Healthcare Innovation. Personalized Medicine. Health Technology Assessment. Healthy Ageing	416	€869,227,337
Aviation. Maritime Systems and Transportation. Autonomous and Unmanned Vehicles	378	€841,437,100
Biodiversity Conservation. Ecosystem Management (incl. Forest). Sustainable Territorial Development	583	€799,983,307
Network Infrastructure. 5G 6G. Wireless Communications.	312	€768,876,939
Cybersecurity. Digital Trust. Critical Infrastructure Protection	369	€761,367,267
Marine Ecosystems. Coastal and Wetland Management. Biodiversity Conservation	506	€747,980,335
Smart Manufacturing. Industry 4.0. Digital Transformation and Innovation	338	€746,994,488
Biomedical Research and Technologies. Drug Discovery. Translational Medicine	444	€692,765,086
Sustainable Agriculture. Agroecology and forestry. Rural Development. Soil Management	525	€690,595,001
Innovation Ecosystems. Technology Transfer. Business Development. Entrepreneurship	757	€680,763,464
High-Performance Computing. Computational Sciences. Research Data Infrastructure	311	€679,245,481
Building Energy Efficiency. Sustainable Construction and Renovation	392	€664,719,842
Photonics, Quantum and Nano. Semiconductors. Other Physics Research	369	€659,806,665
Infectious Diseases. Therapeutic Development (incl. Cancer).	345	€652,922,354
Open Science. Academic Collaboration. Research and Higher Education Innovation	507	€652,313,646
Robotics. Automation. Cyber-Physical systems and Human-Machine Interaction.	347	€606,490,318
Water and Waste Management. Irrigation. Environmental Monitoring, Protection and Remediation	429	€605,466,675
Cyber-Security Technologies. Law Enforcement. Digital Crime Prevention	388	€595,792,828
Transportation Systems. Electric Vehicles. Automotive Technologies	307	€583,309,430
Biomaterials. Tissue Engineering. Biosensing. Diagnostic Tech. Cancer Treatment. Immunotherapy	369	€571,830,787
Earth Observation. Environmental Monitoring. Climate Science. Geospatial Technologies	380	€531,148,170
Advanced materials and biotech applications (bio, nano, sustainable, circular, etc.). Packaging	333	€526,779,752
Cultural and Sustainable Tourism. Heritage Valorization	757	€512,729,881
Advanced, Sustainable and Circular Materials and Manufacturing Processes	309	€510,183,819
Disaster / Risk Management. Emergency Preparedness. Civil Protection	352	€501,962,835
Agronomy. Crop and Soil Protection. Sustainable Agriculture.	320	€490,480,877
Food and Agricultural Technology and Innovation	310	€445,165,092
Sustainable and Cultural Tourism Development	664	€399,658,526

Democratic Governance. Political Participation. Social Inclusion Policies	528	€292,687,050
Care Services. Healthcare Professional Training. Assistive Technologies. Healthy Ageing	399	€292,457,771
Creative Industries. Cultural Production. Arts Education	753	€230,198,182
Sustainable Construction, Energy Efficiency and related Skills, Training, Technologies and Dissemination	517	€224,635,546
Creative Industries. Cultural Entrepreneurship. Heritage Management.	566	€207,901,126
Digital and Innovative Education. Education Technologies. Teacher Training	1,099	€185,656,785
Industry Skills. Vocational and Workplace Training. Qualifications.	605	€173,166,147
Sustainable Development and Climate Change Education. Urban Sustainability	959	€172,724,976
Entrepreneurship Education. Business and Innovation Skills	838	€165,067,007
Higher Education and VET Quality. Academic Accreditation. Academic Excellence.	579	€158,453,473
Local and Youth Empowerment. Sustainable Community Development.	799	€156,678,074
Sustainable Agriculture and Rural Development Education and Entrepreneurship	503	€141,713,154
Social Integration and Mental Health Support. Vulnerable Populations.	603	€141,669,562
Innovative Teaching Methods. Student Engagement. Collaborative Learning. Educational Technology	1,027	€140,884,894
Inclusive Education. School Support Systems. Educational Innovation for Social Inclusion	887	€136,272,824
Workforce Integration and Employment Support for Vulnerable Groups	629	€136,061,668
Vocational Education. Employment Skills Development and Readiness	635	€114,685,603
Cultural Heritage. Cultural Education	927	€109,185,027
Migration. Integration and Intercultural Education. European Citizenship and Identity	970	€109,131,825
Virtual and Augmented Reality. Immersive Learning Technologies	371	€104,936,477
Apprenticeship Systems. Workplace Learning Integration	547	€103,636,099
Social Entrepreneurship and Innovation. Employment Creation. Youth Entrepreneurship	733	€102,336,603
Multilingual Education. Language Competence Development	712	€98,524,477
Digital Inclusion. Adult Learning	777	€95,526,497
Migration Services. Social Integration Support. Citizenship and Intercultural Education	662	€93,459,249
Arts and Musical Education. Cultural and Creative Expression and Storytelling	865	€93,268,015
Sustainable Food Systems. Culinary Innovation and Education	360	€92,136,080
Educational Gaming. Digital Learning Tools	636	€91,194,082
Workplace Skills. Professional Development. Employee Well-being	452	€87,943,204
Outdoor Environmental Education. Community Sustainable Practices	679	€84,722,568
Arts and Creativity Education. Social Inclusion and Connection	686	€82,431,255
Environmental Education. Sustainability Awareness and Community Practices	805	€81,766,477
Sports Education. Social Inclusion and Youth Engagement through Sport	773	€78,752,766
STEM Education. Technology and Innovative Methods Integration.	609	€78,680,298
Media Literacy. Digital Citizenship. Disinformation Prevention. Democratic Participation	518	€78,544,762
Sports Governance and Collaboration. Athletic Development. Gender Equality in Sports	528	€75,521,845
Sports. Physical Activity for Health and Inclusion	585	€75,016,076
Social-Emotional Learning and Student Well-being. Mental Health Support and Trauma-Informed Care	626	€73,585,415
Youth Work and Empowerment. Civic Engagement	764	€73,171,357

Inclusive Education. Special Needs Learning. Disability Care and Support	484	€72,843,359
Youth Civic Engagement. Democratic Participation	800	€72,243,857
Health Promotion. Active Lifestyle Education	366	€55,465,567
Gender Equality. Women Empowerment. Social Inclusion	321	€51,194,879
STEM Education. Innovative Teaching Methods	409	€50,279,175
Bullying Prevention. School Violence Intervention. Digital and Media Literacy	418	€44,850,289
Outdoor Recreation. Active Lifestyle Promotion. Youth Engagement through Sports	226	€38,597,973

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