

Mapping Malta's Research and Innovation Collaboration Network

A Social Network Analysis of Horizon 2020 and Horizon
Europe Participation, 2014–2025

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Introduction

This report presents a Social Network Analysis of Malta's participation in Horizon 2020 and Horizon Europe projects between 2014 and 2025. The analysis examines how Maltese entities are positioned within research and innovation networks, with a focus on collaboration patterns, key actors, thematic areas of participation and consortium structures. The report is structured around six analytical components. These assess: Malta's country-level collaboration network; the innovation performance of countries coordinating projects involving Maltese entities; Malta's most active Horizon participants; recurring international collaboration partners; thematic participation patterns among Malta's leading Horizon actors; and the consortium-size structures in which Maltese entities participate. Together, these analytical components provide a baseline understanding of Malta's Horizon collaboration profile and identify areas that may inform future policy, support measures and strategic engagement.

The analysis uses data extracted from the European Commission's Horizon Dashboard¹ and CORDIS to examine Malta's collaboration patterns, key participating entities, international partners, thematic areas of activity, and the types of project consortia in which Maltese organisations participate.

Malta's Horizon country profile shows that, despite the relatively small scale of its national and research and innovation ecosystem, Maltese entities have maintained active participation across Horizon 2020 and Horizon Europe. Between 2014 and 2025, Maltese entities participated in 387 signed grant agreements, with 362 successful project participations, involving 125 unique Maltese participants. These projects generated approximately €94.1 million in net EU contribution. As a country, Malta is listed as a Moderate Innovator according to the European Innovation Scoreboard of 2025 (the latest year included in this analysis).

The findings show that Malta has strengthened its participation in the EU research and innovation programme over time. While Horizon 2020 provided an important foundation for Malta's engagement, Horizon Europe shows a higher average level of participation and a stronger financial return. This suggests that Maltese entities have become more experienced in accessing EU funding opportunities and more integrated into European research and innovation networks.

At country level, Malta's collaboration links are concentrated around a core group of European partners, particularly Italy, Germany, Spain, Greece and France. These patterns suggest that Maltese entities are repeatedly engaging with established European research ecosystems, while also maintaining links with regionally relevant partners. The analysis of coordinating countries further shows that Malta is not only participating in projects led by Innovation Leaders but is also strongly embedded in consortia coordinated by Moderate Innovator countries, especially Italy, Greece and Spain.

At entity level, Malta's Horizon participation is heavily led by the University of Malta, which remains the dominant actor in terms of project participation, coordination roles, funding secured and thematic breadth. However, the report also shows that national participation in the Horizon ecosystem is not exclusively University-led. Public bodies, agencies and private-sector entities also play an important role, particularly in areas linked to policy implementation, capacity building, innovation support, health, climate, food systems and widening participation.

The analysis also highlights the importance of recurring international institutional partners. Malta's strongest international collaboration links are not only with research-performing organisations, but also with national research councils, funding agencies and public research institutions. These organisations can act as gateways into wider national research and innovation ecosystems, offering Maltese entities access to larger networks, stronger proposal consortia and more established research infrastructures.

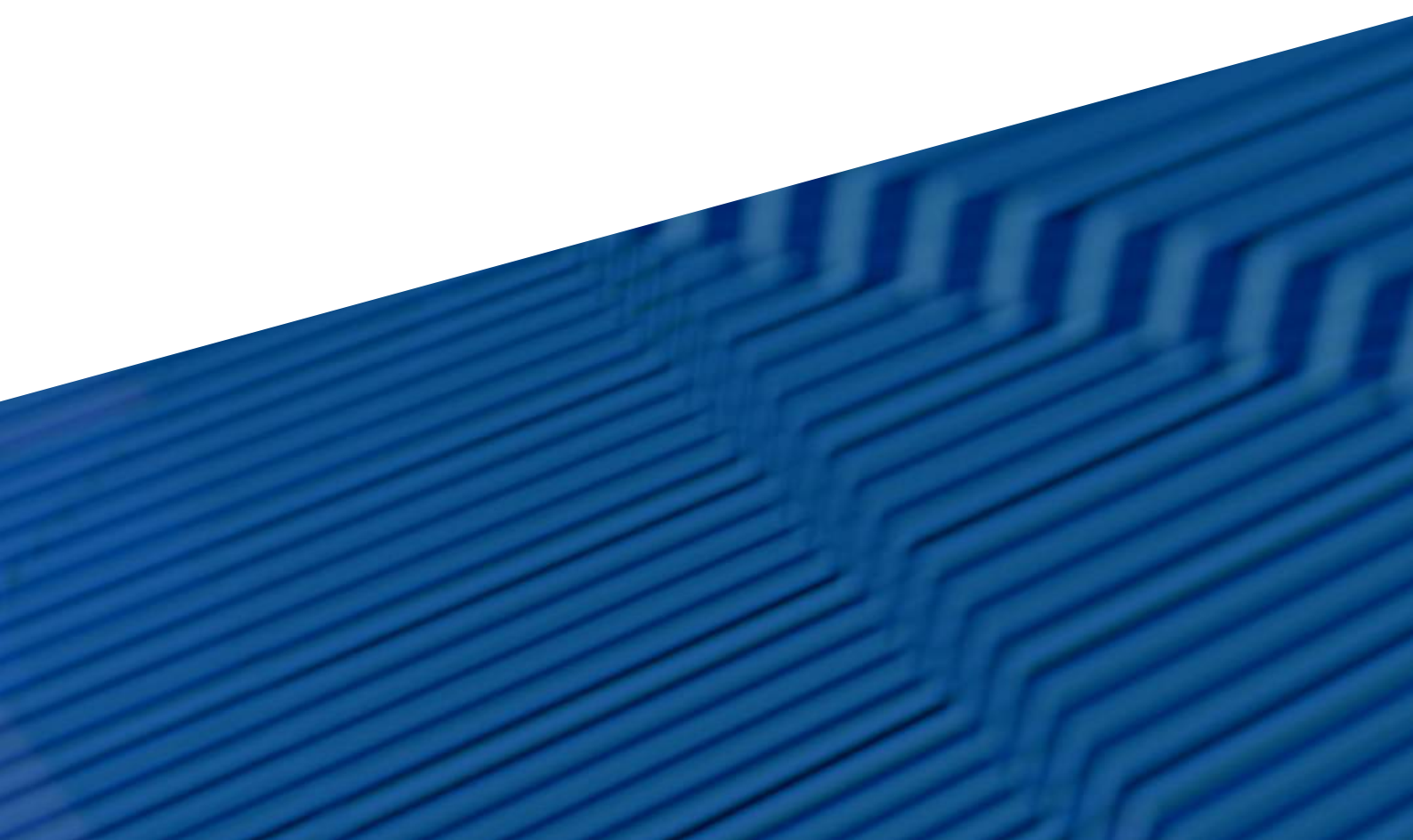
The thematic analysis shows that Malta's leading Horizon actors are particularly active in areas related to research capacity-building, excellence development and applied societal challenges. MSCA, Widening Participation, Research Infrastructures, Food and Bioeconomy, Health, Climate, Energy and

¹ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-dashboard>

Mobility feature prominently. This suggests that Horizon participation is being used both to strengthen Malta's R&I capacity and to support engagement in areas of strategic national and European relevance.

Finally, the consortium-size analysis shows that Malta's leading Horizon entities participate across a range of project environments, from small and medium-sized projects to large and very large European consortia. This indicates that Malta's most active entities are involved in both focused collaborations and broader, more complex international project networks.

The analysis in the report shows that Malta's Horizon participation is shaped by a small but diverse group of active entities, strong recurring international partnerships, and a combination of capacity-building, applied research and innovation-oriented participation.



Glossary of Terms

This section provides definitions of key terms used throughout the report to support clarity and consistency in the analysis¹.

1. **Collaboration Link:** A collaborative link is assumed to exist between each pair of participants in each contract.
2. **Enterprise Europe Network (EEN) Projects:** Projects linked to the Enterprise Europe Network, which provides business, innovation and internationalisation support to SMEs. These projects were excluded from the analysis as they are support-network activities rather than standard research and innovation projects.
3. **Innovation Performance:** Innovation performance of the country according to the European Innovation Scoreboard.
4. **National Contact Point (NCP) Projects:** Referring to Horizon-funded activities linked to the support structures that assist applicants and beneficiaries in accessing and participating in EU Framework Programme opportunities. While these projects play an important role in strengthening participation in Horizon Europe, they are primarily support, advisory, networking, or coordination-oriented in nature. NCP projects were excluded from most of the analytical components to provide a more focused assessment of Malta's research and innovation project participation.
5. **Net EU Contribution:** Funding received by the project's participants after deduction of their linked third parties' funding.
6. **Participation:** The act of involvement of a legal entity in a grant agreement. A single participant can be involved in N grant agreements and is therefore being counted as N participations.
7. **SME:** Small and medium-sized enterprise. To count as an SME, the organisation must be engaged in an economic activity, it must have fewer than 250 employees and an annual turnover of no more than €50 million and/or a balance sheet of no more than €43 million.
8. **SME Net EU Contribution:** Total funding granted to SME participants
9. **Unique Participants:** Number of distinct organisations involved in projects.

¹ Data obtained from: https://dashboard.tech.ec.europa.eu/gis_digit_dashboard_mt/public/sense/app/1213b8cd-3ebe-4730-b0f5-fa4e326df2e2/sheet/e70c794d-c32e-42ee-9615-534a253d0fd7/state/analysis

Objectives

The aim of this report is to present a Social Network Analysis (SNA) of Malta's research ecosystem using, as a basis, participation in Horizon 2020 and Horizon Europe projects between 2014 and 2025. The analysis aims to provide an understanding of Maltese entities' positioning within Europe's research and innovation (R&I) collaboration networks and to support future policy development related to interregional and international cooperation. More specifically, the exercise seeks to identify the structure, intensity, and characteristics of Malta's collaborative relationships within EU-funded research and innovation programmes. The report examines how Maltese entities interact with international partners and which organisations occupy central positions within collaboration networks.

The analysis is guided by the following key objectives and research questions:

1. Identifying Central Actors and Organisations

The report seeks to identify the Maltese and international organisations that play a central role within Malta's Horizon collaboration network. This includes organisations with high levels of participation, coordination roles, and extensive partnership links across projects.

2. Understanding the Strength and Nature of Interregional Collaborations

The analysis aims to assess the geographical and structural characteristics of Malta's interregional collaboration patterns across Europe and beyond.

3. Supporting Evidence-Based Policy Recommendations

The findings of the analysis are intended to support future policymaking and strategic planning related to Malta's research and innovation ecosystem.

Methodology and Data Sources

The data used in this analysis was obtained from the European Commission's Horizon Dashboard¹ and was extracted between May and June 2026. The analysis draws on data at both country level and entity level, depending on the focus of each section of the exercise. Country-level data was used to provide an overview of Malta's overall participation and collaboration patterns within the Horizon framework programmes, while entity-level data was used to examine more granular participation across Maltese organisations.

Where required, the data was further analysed in-house using tools such as IBM SPSS, Power BI and Microsoft Excel. This enabled additional filtering, aggregation and interpretation of the data beyond the standard outputs available through the Horizon Dashboard.

During the design of the analysis, consideration was given to incorporating Horizon project-funding amounts as part of the assessment. However, the decision was taken not to use funding values as a core analytical variable within this exercise for two reasons:

- The focus of the analysis was relational rather than financial;
- Levels of project funding are dependent on myriad factors and thus do not necessarily reflect collaboration intensity.

As a result, the analysis focuses specifically on participation patterns, recurring institutional collaborations, thematic engagement, and consortium structures to provide a clearer understanding of Malta's research collaboration network.

Across the components of the analysis presented in this report, only collaborations with EU Member States and Associated Countries were taken into consideration to provide a clearer and more relevant picture of Malta's European research and innovation cooperation patterns. Non-associated third-country territories were excluded from the analysis, as they accounted for only 0.15% of Malta's collaborative projects across Horizon 2020 and Horizon Europe. Given their very limited representation, the analysis focuses instead on Member States and associated countries, where Malta's collaboration activity is more substantial and analytically meaningful.

¹ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-dashboard>

Analysis

Analytical Component 1: Malta's International Collaboration Network at Country Level

Rationale

To identify the countries with whom Malta collaborates most frequently.

Methodology

To visualise Malta's international research collaboration network, data on collaboration links was extracted from the Horizon Dashboard. In this analysis, each collaboration link represents the co-participation of Maltese entities with organisations from another country within the same project consortium. Since multiple organisations from the same country may participate in a single project, the total number of collaboration links exceeds the total number of projects analysed.

The figures presented in this first component of the analysis include National Contact Point (NCP) projects and Enterprise Europe Network (EEN) projects, as these could not be removed from the dataset used for this specific exercise. Countries with fewer than 100 collaboration links were excluded to improve interpretability and focus on Malta's main collaboration partners. The main project thematic areas in which Maltese entities participated were also analysed.

Collaboration frequencies were visualised geographically using a Power BI bubble map, as shown in Figure 1. Bubble size was scaled according to the number of collaboration links recorded with each country, allowing Malta's strongest international research partnerships to be identified. Countries were also grouped into collaboration intensity categories to provide a clearer visual distinction between Malta's core collaboration partners and countries with lower levels of engagement within Horizon project networks.

Collaboration Intensity:

Collaboration Links over 500 = High Collaboration;

Collaboration Links between 300 and 499 = Moderate Collaboration;

Collaboration Links between 100 and 299 = Low Collaboration.

Results

Collaborative Country/Territory	Collaboration Links	Collaboration Intensity
Italy	799	High Collaboration
Spain	701	High Collaboration
Germany	694	High Collaboration
Greece	589	High Collaboration
France	543	High Collaboration
Belgium	431	Moderate Collaboration
Netherlands	421	Moderate Collaboration
United Kingdom	393	Moderate Collaboration

Ireland	263	Low Collaboration
Portugal	259	Low Collaboration
Austria	244	Low Collaboration
Finland	206	Low Collaboration
Sweden	204	Low Collaboration
Cyprus	203	Low Collaboration
Norway	195	Low Collaboration
Poland	193	Low Collaboration
Denmark	170	Low Collaboration
Romania	164	Low Collaboration
Czechia	159	Low Collaboration
Bulgaria	158	Low Collaboration
Switzerland	156	Low Collaboration
Estonia	129	Low Collaboration
Slovenia	126	Low Collaboration
Lithuania	124	Low Collaboration
Hungary	123	Low Collaboration
Turkey	115	Low Collaboration
Croatia	114	Low Collaboration
Latvia	111	Low Collaboration
Slovakia	109	Low Collaboration

Table 1. Top collaborating countries and their respective collaboration links

Out of 362 projects, Malta's strongest collaboration links were with Italy, Spain and Germany, with 799, 701 and 694 collaboration links respectively. Other key collaboration partners were Greece, with 589 links, France with 543 links, Belgium with 431 links, and the Netherlands with 421 links. The high concentration of collaborations with a limited number of countries may suggest the existence of stable and repeated consortium participation patterns across Horizon programmes, where Maltese entities frequently engage with familiar international research networks and institutional ecosystems. However, this concentration is also likely influenced by the dominant role played by some of Europe's largest research-performing countries, particularly Italy, Spain, Germany, Greece, France and the Netherlands, which consistently participate in a large share of Horizon projects. Consequently, Malta's strong collaboration links with these countries may reflect both deliberate partnership-building and the tendency for Maltese organisations to participate in consortia led by, or involving, Europe's largest R&I ecosystems.

The geographical distribution of Malta's collaboration links is illustrated in the map below (Figure 1). The map provides a visual overview of the Member States with which Maltese entities collaborated most frequently across the analysed projects, helping to highlight the concentration of partnerships with key European countries such as Italy, Spain, Germany, Greece and France.

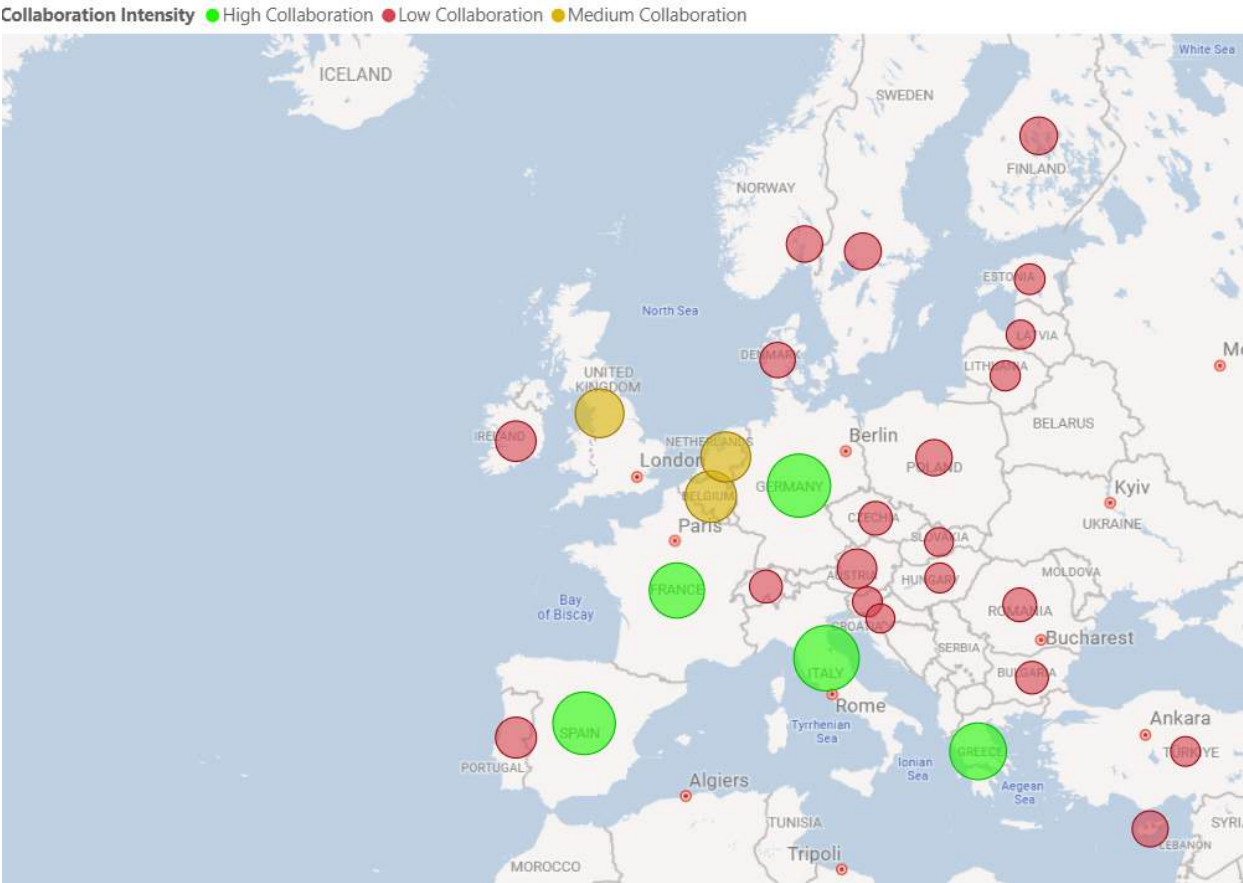


Figure 1. Malta's EU Research Collaboration Network (2014–2025)

Analytical Component 2:

Maltese Organisations Involved in Projects Coordinated by Foreign Institutions According to the Coordinator's classification in the European Innovation Scoreboard 2025

Rationale

The purpose of this component of the analysis is to examine the extent to which Maltese organisations participate in Horizon projects coordinated by institutions located in countries with different levels of innovation performance, based on the European Innovation Scoreboard (EIS) 2025 classification¹, 2025 being the latest year fully included in this analysis. This provides insight into whether Maltese entities are integrated into highly innovative European research ecosystems or are more strongly connected to moderate and emerging innovation environments. Understanding these patterns helps assess the extent of Malta's exposure to advanced research networks, knowledge transfer opportunities, and potential pathways for strengthening innovation capacity and international competitiveness. Including the coordinating country in the analysis provides insight not only into whom Malta collaborates with, but also into who leads and shapes the projects in which Maltese organisations participate.

Methodology

A project-level dataset was extracted from the Horizon Dashboard. For each project, the coordinating country was manually identified by reviewing the individual project records. For this analysis, projects coordinated by Maltese entities were excluded, as were National Contact Point (NCP) projects and Enterprise Europe Network (EEN) projects. This component of the analysis was further limited to projects from 2014 to 2025 and with a net EU contribution exceeding €100,000. The resulting dataset was analysed in Microsoft Excel to determine the frequency of coordinating countries across the selected projects. Coordinating countries were then ranked according to the number of project collaborations involving Maltese entities. The final table combines this collaboration-frequency data with the corresponding European Innovation Scoreboard (EIS) innovation category for each coordinating country. Coordinating countries with less than 2 collaborations were excluded from the Table.

Results

Rank	Coordinating Country	Frequency	EIS Classification
1	Italy	35	Moderate Innovator
2	Greece	32	Moderate Innovator
3	Germany	18	Strong Innovator
4	Spain	15	Moderate Innovator
5	Netherlands	11	Innovation Leader
6	France	8	Strong Innovator

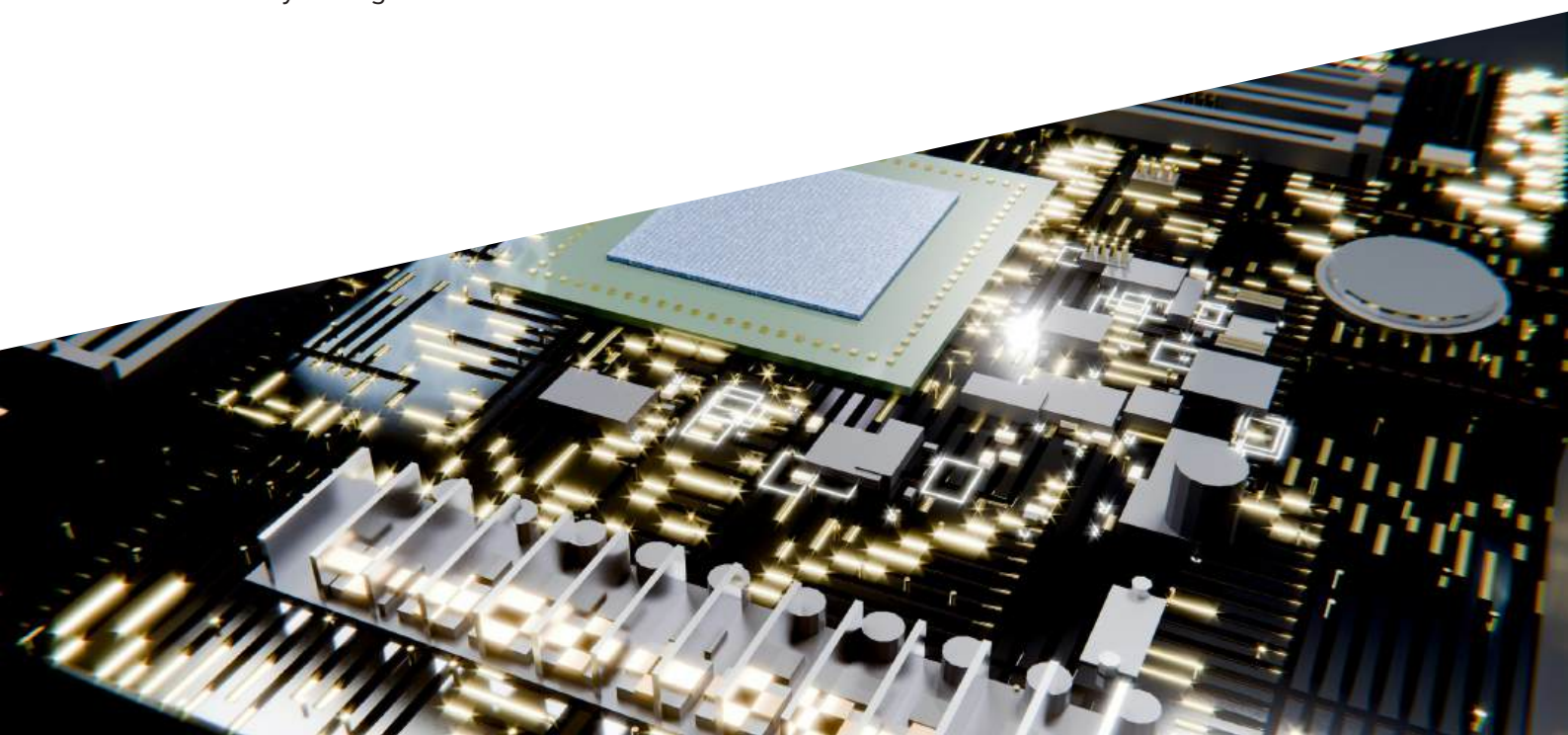
¹ EIS Scoreboard Information obtained from: https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en

7	Belgium	7	Strong Innovator
8	Ireland	7	Strong Innovator
9	Austria	5	Strong Innovator
10	Finland	5	Innovation Leader
11	Cyprus	4	Moderate Innovator
12	Poland	4	Emerging Innovator
13	UK	4	Innovation Leader
14	Norway	3	Strong Innovator
15	Portugal	3	Moderate Innovator
16	Romania	3	Emerging Innovator
17	Switzerland	3	Innovation Leader
18	Czechia	2	Moderate Innovator
19	Denmark	2	Innovation Leader
20	Luxembourg	2	Strong Innovator
21	Slovenia	2	Moderate Innovator
22	Sweden	2	Innovation Leader
23	Turkey	2	Emerging Innovator

Table 2. Collaboration Frequency

The results show that Malta's project collaborations are relatively concentrated among a small number of coordinating countries. Italy and Greece stand out as the most frequent coordinating countries, together accounting for 67 collaborations. When viewed through the European Innovation Scoreboard classification, most of Malta's collaborations are with countries classified as Moderate Innovators, mainly due to the strong presence of Italy, Greece and Spain among the top-ranked coordinating countries.

At the same time, Malta also collaborates substantially with Strong Innovators and Innovation Leaders, including Germany, the Netherlands, France, Belgium, Ireland, Finland and Austria. These collaborations are important because they connect Maltese entities to more advanced and established research and innovation ecosystems. However, Innovation Leaders appear less dominant in the ranking than might be expected, suggesting that Malta's most frequent project opportunities may arise through practical thematic alignment, existing networks, and regional proximity rather than innovation performance of the country of origin of the coordinator.



Analytical Component 3:

Malta's most active entities in Horizon Projects (2014–2025)

Rationale

The analysis of Maltese entities was conducted to identify the organisations most actively engaged in European research and innovation networks and how they participated throughout Horizon 2020 and Horizon Europe (up until 2025). Understanding which Maltese institutions participate most frequently in Horizon projects provides insight into the key Maltese nodes for international R&I collaboration. This component of the analysis also helps identify the balance between academic institutions, public-sector entities, research organisations and private-sector actors within Malta's research and innovation ecosystem.

Methodology

Country-level data for Horizon 2020 and Horizon Europe was extracted from the Horizon Dashboard. The dataset covers projects involving Maltese entities between 2014 and 2025, and includes information on project participation, net EU contribution and the main thematic priority areas in which Maltese entities were involved.

Results

Figure 2 presents the evolution of Malta's net EU contribution based on signed grant agreements. Signed grant agreements were used as the basis for this component as they provide a consistent measure of confirmed participation at the point of grant signature, even where some grants may have subsequently been suspended, terminated or closed. The data also includes NCP and EEN projects. The data shows a clear increase in Malta's participation in Horizon projects over time, particularly when comparing Horizon 2020 with Horizon Europe. Between 2014 and 2021, Malta participated in 194 signed grants under Horizon 2020, while between 2022 and 2025 it had already participated in 193 signed grants under Horizon Europe. This is significant because, in Horizon Europe, Malta reached almost the same number of signed grants in around half the number of years, suggesting a stronger participation.

The numbers in Figure 2 indicate that Malta has strengthened its participation in EU research and innovation programmes over time. While Horizon 2020 laid the basis for Malta's engagement, Horizon Europe appears to show a higher average level of participation per year. This may reflect increased experience among Maltese applicants, stronger institutional capacity, improved awareness of EU funding opportunities, and greater integration into European research and innovation networks.

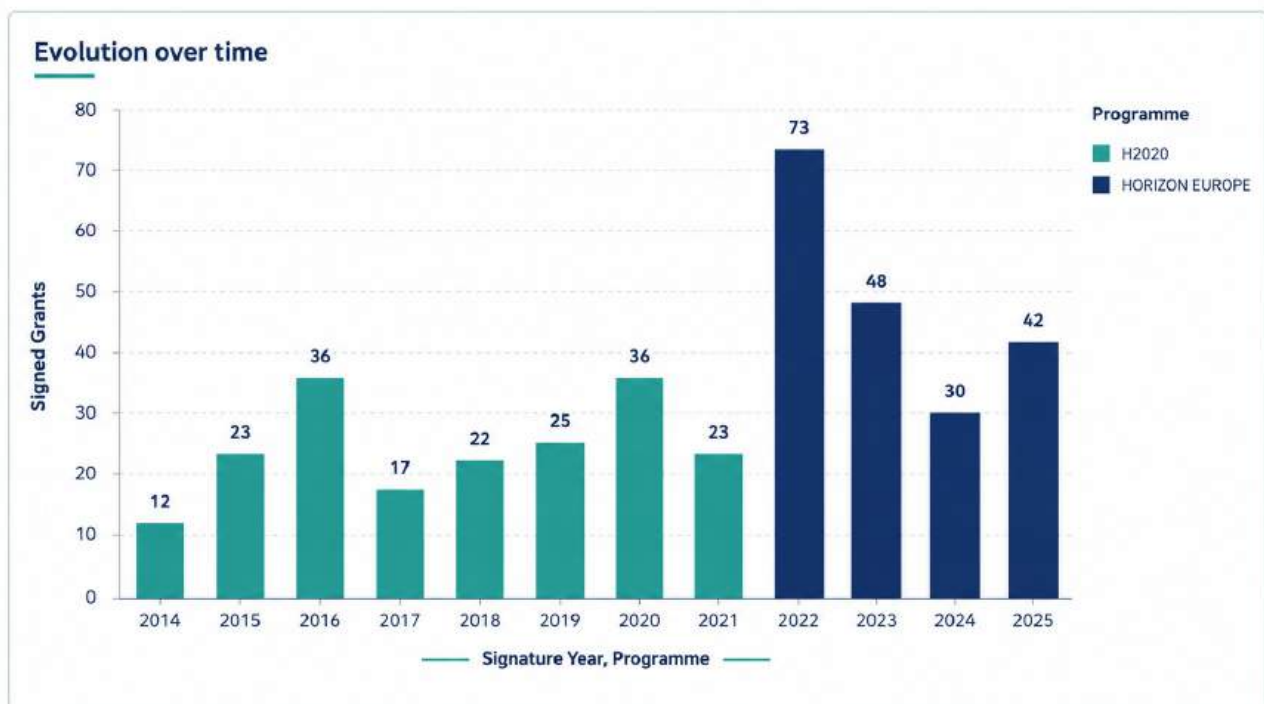


Figure 2. The Evolution of Malta's Net EU Contribution (Including NCP & EEN Projects)

The data in the graph (Figure 2) is also showing that participation in Horizon Europe has generated a stronger financial return than that in Horizon 2020. While the number of signed grants is important, the net EU contribution provides a clearer indication of the scale and value of Malta's participation. The higher contributions recorded under Horizon Europe suggest that Maltese entities are not only participating in projects, but are also accessing larger funding volumes, which may reflect stronger positioning within consortia, participation in higher-value projects, or improved capacity to engage with competitive EU funding opportunities.

The data also shows that Malta's EU funding performance is not linear but fluctuates significantly from year to year. This is to be expected in a small R&I ecosystem, where a limited number of large projects can strongly influence annual totals, and where absorptive capacity constraints can easily hinder further project take up over several years once a research group is occupied with 1–2 projects. As a result, peaks in funding should not necessarily be interpreted only as an increase in the number of projects but may also indicate participation in larger or more financially significant consortia.

The sharp increase at the start of Horizon Europe suggests a strong early performance in the current framework programme. This may point to improved readiness among Maltese entities following their experience under Horizon 2020, as well as greater integration into European research and innovation networks. However, the variation across subsequent years highlights the continued need to sustain participation capacity, strengthen proposal pipelines, and support Maltese organisations in securing roles in high-value projects.

Top Maltese Entities	No. of Projects	Role in Projects	Net EU Contribution
University of Malta	149	Coordinator: 51 Participant: 99	€35.6M
Ministry for Education, Sport, Youth, Research and Innovation* ²	24	Coordinator: 2 Participant: 22	€1.95M
AquaBioTech Limited	19	Coordinator: 1 Participant: 18	€4.52M
Energy and Water Agency	18	Participant: 18	€1.9M
Malta College of Arts, Science and Technology	16	Coordinator: 6 Participant: 10	€2.45M
AcrossLimits Ltd	11	Participant: 11	€2.24M
Xjenza Malta* ³	9	Participant: 9	€4.38M
Malta Enterprise	8	Coordinator: 6 Participant: 2	€1.31M
Acceler8 Limited	7	Coordinator: 1 Participant: 6	€3.43M
Omniscope	5	Participant: 5	€2.62M
EcoStack Innovations Limited	5	Coordinator: 1 Participant: 4	€1.42M

Table 3. Top Maltese Entities in Horizon

*The figures for the Ministry for Education, Sport, Youth, Research and Innovation and Xjenza Malta exclude NCP & EEN projects.

The distribution of Horizon participation across Maltese entities (Table 3) shows a strong concentration around a small number of key organisations. The University of Malta is by far the dominant participant, both in terms of number of projects and net EU contribution. This reflects its central role as Malta's main research-performing institution and indicates that national Horizon participation remains heavily anchored in the Higher Education sector. The strong performance of the University of Malta may be linked not only to its role as Malta's main research-performing institution, but also to the presence of long-standing internal structures that support participation in competitive research funding. These may include dedicated research support capacity, established research teams and institutional support for proposal development, networking, infrastructure and project implementation. In this sense, the University of Malta provides a useful example of how sustained institutional capacity can strengthen participation in European research and innovation programmes. Its high number of coordinating roles also suggests that the University has developed the institutional capacity and experience required not only to join consortia, but also to lead projects.

At the same time, the Table shows that Malta's Horizon ecosystem is not limited to academia. Public bodies, agencies and enterprise-support organisations, including the Ministry for Education, the Energy and Water Agency, Malta Enterprise and Xjenza Malta, also feature among the main participants.

While this exercise focussed primarily on collaboration networks, an important pattern emerges when comparing project numbers with net EU contribution. Some entities participate in a relatively small number of projects but secure comparatively high funding volumes. This is particularly visible for Xjenza Malta, Omniscope, Acceler8 Limited and EcoStack Innovations Limited. This suggests

² The Ministry for Education, Sport, Youth, Research and Innovation is used as an umbrella term for the different versions of the Ministry responsible for research and innovation during the period analysed.

³ Projects involving the Malta Council for Science and Technology (pre-2024) are all reflected in Xjenza Malta figures.

that participation volume alone does not fully capture the strategic or financial value of Horizon engagement. Smaller or more specialised entities may participate in fewer projects, but these projects can be higher-value or more closely aligned with specific innovation priorities.

The role distribution also points to different levels of project maturity across the ecosystem. The University of Malta, MCAST and Malta Enterprise show notable coordinating activity, indicating stronger capacity to manage consortia and lead project implementation. By contrast, several private-sector entities appear mainly as participants. This may indicate that while Maltese firms are successfully entering European consortia, there may still be scope to strengthen their ability and resources to coordinate projects and take on more strategic leadership roles.

Organisation Type ⁴	Participation Frequency (By Organisation Type)
Higher or Secondary Education establishments	179
Public bodies (excluding research organisations and Secondary or Higher Education establishments)	157
Private for-profit entities (excluding Higher or Secondary Education establishments)	129
Other	32
Research organisations	21
Total	518

Table 4. Malta's Horizon Participation by Organisation Type⁵

The division of participation by Organisation Type (Table 4) shows that Malta's Horizon engagement is led primarily by Higher and Secondary Education establishments, followed closely by public bodies and private for-profit entities. Higher and Secondary Education establishments account for the largest share of participation, indicating that Malta's Horizon activity remains strongly linked to the academic sector.

The strong presence of public bodies is also significant. It suggests that Malta's participation in Horizon projects is not limited to academic research, but is also closely linked to policy implementation, public-sector innovation and capacity-building.

Private for-profit entities also represent an important part of Malta's Horizon participation. This is reflected in the SME data, which shows 105 SME participations, involving 45 unique Maltese SMEs, and generating approximately €24.34 million in net EU contribution (from 2014 up until 2025). However, the data also suggests that SME participation is relatively concentrated. Figure 3 shows that Horizon funding among Maltese SMEs is concentrated within a small group of highly-funded firms. The top three SMEs— AquaBioTech Limited, Acceler8 Limited and Omniscope Limited— secured approximately €10.57 million in net EU contribution, representing around 40% of the total SME funding received by Maltese SMEs. When extended to the top five SMEs, the combined contribution increases to approximately €14.38 million, equivalent to around 54% of total SME funding. Overall, the ten highest-funded SMEs account for approximately €18.71 million, or around 70% of the total.

This indicates that, although 45 unique Maltese SMEs participated in Horizon projects, a substantial proportion of SME funding was secured by a relatively small group of firms. These SMEs may possess greater experience in EU-funded programmes, stronger proposal-development capacity, more established international networks, or expertise in sectors closely aligned with Horizon priorities.

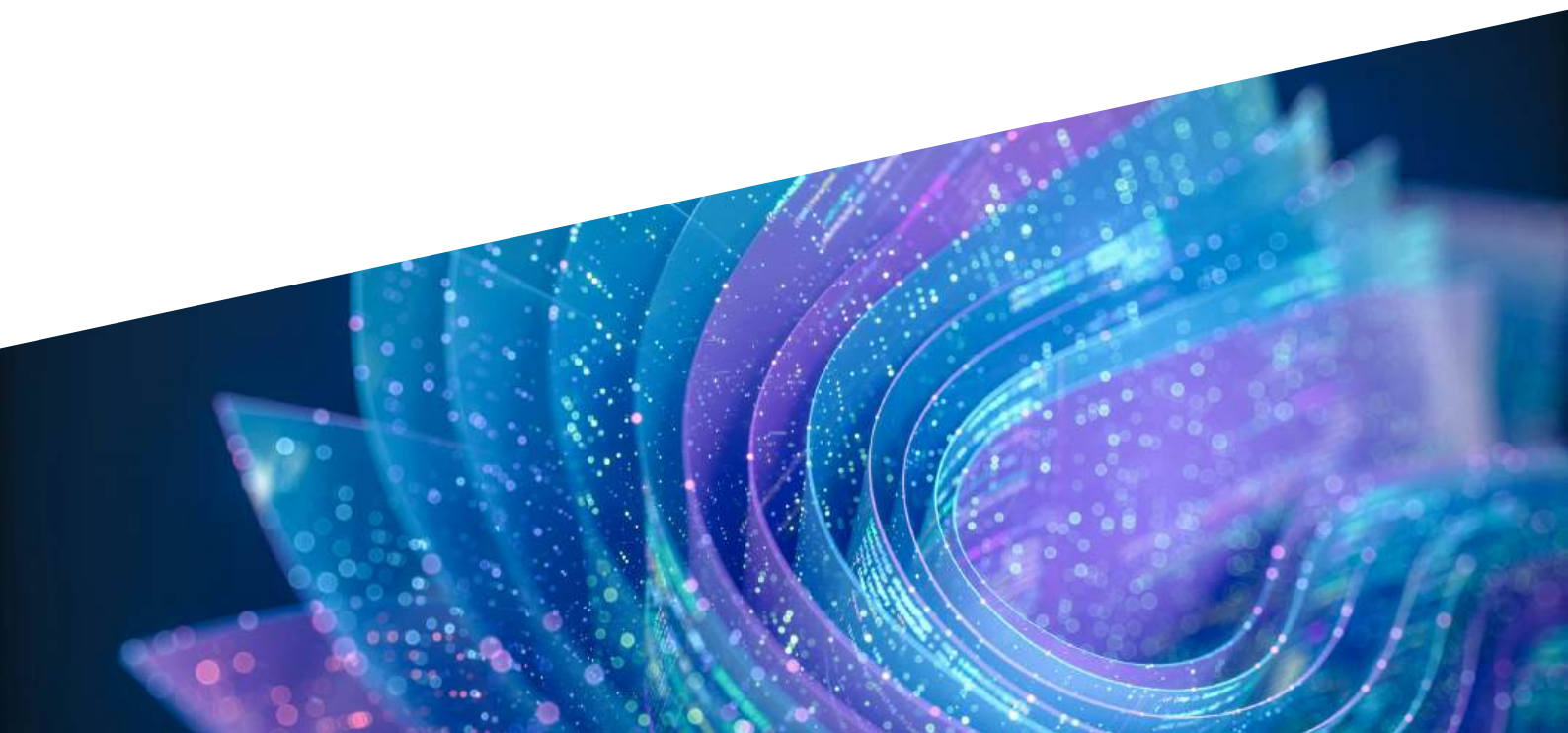
⁴ As presented/described in the Horizon Dashboard

⁵ This table counts each participation, not each unique organisation. Therefore, an organisation is counted more than once if it participated in more than one project.

The distribution also shows a noticeable decline beyond the leading group, particularly between the seventh and eighth-ranked SMEs, where the net EU contribution falls from approximately €1.4 million to around €562,000. This points to a wider “long tail” of SMEs receiving lower levels of funding. Therefore, while SME participation is clearly present within Malta’s Horizon portfolio, there remains scope to broaden it.



Figure 3. Top 10 SMEs Based on Net EU Contribution



Analytical Component 4:

Top International Collaboration Partners of Malta's Leading Horizon Participants

Rationale

The purpose of this component of the analysis was to identify the international organisations with which Maltese entities collaborate repeatedly across Horizon projects. While earlier components examined overall participation levels and country-level collaboration patterns, this component focuses specifically on recurring organisation-to-organisation relationships. This helps distinguish between one-off consortium participation and more sustained collaboration links where the same Maltese entity and the same international partner appear together in more than one project.

Methodology

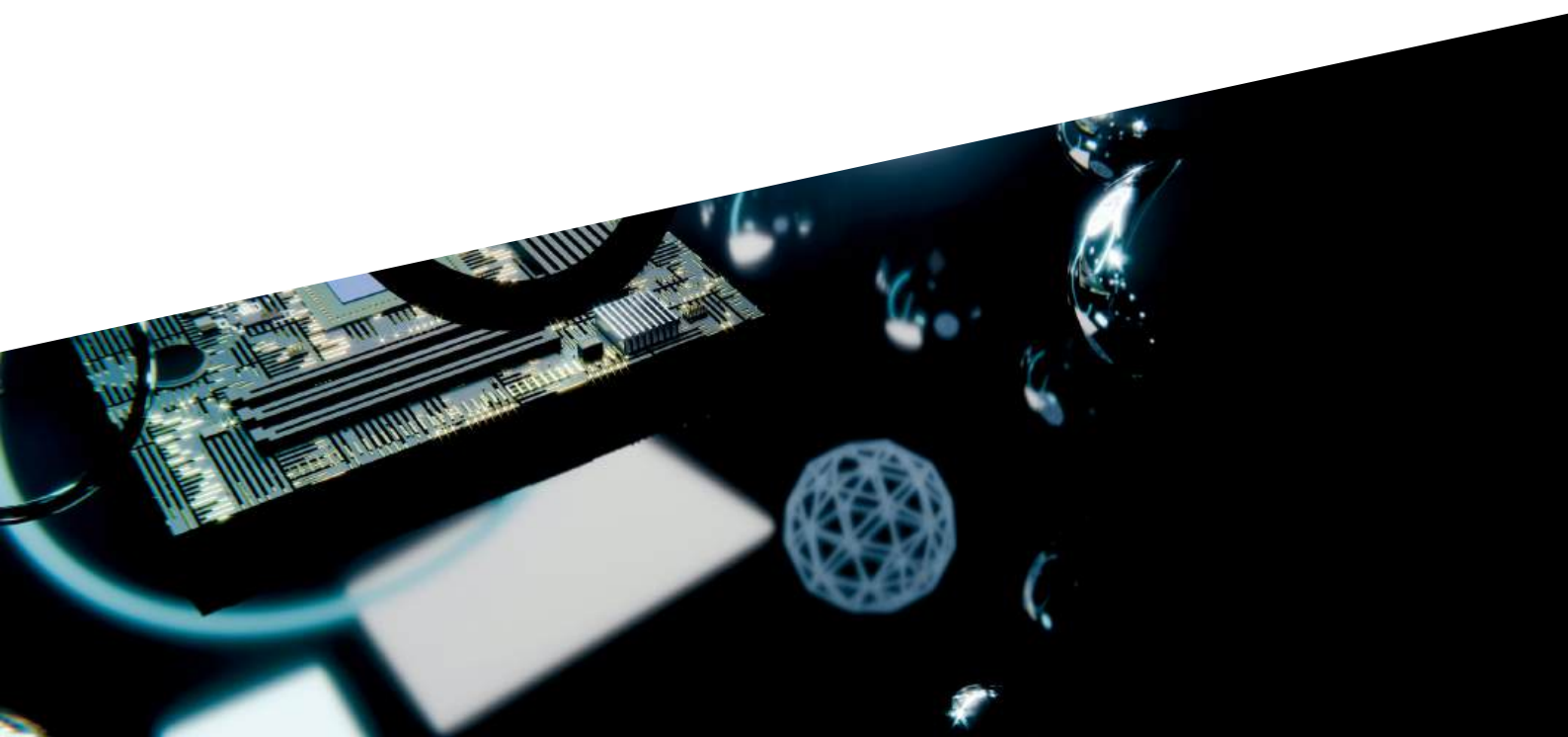
For this component, organisation-level data was extracted from the Horizon Dashboard for the selected top Maltese entities (from Analytical Component 3). The data captures the international entities with which these Maltese organisations collaborated in Horizon projects, together with the corresponding number of collaboration links. NCP and EEN projects were removed from the dataset where identifiable, to focus the analysis on research and innovation project collaborations. The extracted data for each Maltese entity was initially organised in separate sheets. These sheets were then consolidated into one aggregated dataset. International collaborating entities appearing across multiple Maltese entity sheets were combined, and their collaboration links were summed to produce an overall collaboration frequency.

Results

Table 5 below presents the top 20 international entities that collaborated most frequently with Malta's leading Horizon participants (as listed in Analytical Component 3). These entities are ranked according to the total number of collaboration links recorded across the selected Maltese organisations. The results provide an indication of the international organisations with which Maltese entities have developed the strongest project-level connections within Horizon networks. However, the figures should be interpreted as collaboration-link frequencies rather than as the number of unique projects or unique international partners.

Rank	International Collaborating Entity	Country	Leading Maltese Entities Contributing to Total	Total Collaboration Links
1	CONSIGLIO NAZIONALE DELLE RICERCHE	Italy	UoM (17); MEYR (7); Aquabiotech (3); EWA (2); XM (3); Across Limits (1)	33
2	TÜRKİYE BİLİMSEL VE TEKNOLOJİK ARAŞTIRMA KURUMU (TÜBİTAK)	Turkey	MEYR (10); UoM (8); XM (7); Malta Enterprise (1); EWA (1)	27

3	FUNDAÇÃO PARA A CIÊNCIA E A TECNOLOGIA	Portugal	MEYR (12); UoM (8); XM (5); EWA (1)	26
4	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Spain	UoM (16); MEYR (3); XM (3); EWA (1); Aquabiotech (1)	24
5	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	France	UoM (18); Aquabiotech (2); EWA (1); MEYR (1); XM (1)	23
6	LIETUVOS MOKSLO TARYBA	Lithuania	MEYR (9); XM (8); Malta Enterprise (1); EWA (1)	19
7	UNITATEA EXECUTIVA PENTRU FINANTAREA INVATAMANTULUI SUPERIOR A CERCETARII DEZVOLTARII SI INOVARII	Romania	MEYR (10); XM (5); EWA (2); Malta Enterprise (1); UoM (1)	19
8	NORGES FORSKNINGSRAD	Norway	MEYR (10); XM (6); Malta Enterprise (1); EWA (1); UoM (1)	18
9	LATVIJAS ZINATNES PADOME	Latvia	MEYR (7); XM (7); Malta Enterprise (1); EWA (1); UoM (1)	17
10	MINISTERO DELL'UNIVERSITA' E DELLA RICERCA	Italy	MEYR (8); XM (5); EWA (2); Malta Enterprise (1)	16
11	NARODOWE CENTRUM BADAŃ I ROZWOJU	Poland	MEYR (8); XM (6); Malta Enterprise (1); EWA (1)	16
12	AGENCE NATIONALE DE LA RECHERCHE	France	MEYR (8); XM (6); EWA (2)	16
13	SIHTASUTUS EESTI TEADUSAGENTUUR	Estonia	MEYR (9); XM (6); EWA (1)	16
14	AGENCIA ESTATAL DE INVESTIGACION	Spain	MEYR (8); XM (5); EWA (1)	14



15	GENIKI GRAMMATIA EREVNAS KAI KAINOTOMIAS	Greece	MEYR (7); XM (5); Malta Enterprise (1); EWA (1)	14
16	VLAAMSE GEWEST	Belgium	MEYR (4); XM (5); EWA (3); Malta Enterprise (1); Ecostack (1)	14
17	FUNDACION ESPANOLA PARA LA CIENCIA Y LA TECNOLOGIA, F.S.P., FECYT	Spain	MEYR (7); XM (4); EWA (1); UoM (2)	14
18	RANNSOKNAMIDSTOD ISLANDS	Iceland	MEYR (7); XM (5); Malta Enterprise (1)	13
19	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	Netherlands	MEYR (6); XM (4); EWA (1); UoM (1)	12
20	INNOVATIONSFONDEN	Denmark	MEYR (5); XM (4); Malta Enterprise (3); EWA (1)	11

Table 5. Top 20 International Entities that Collaborated Most Frequently with Malta's Leading Horizon Participants

A key insight from the consolidated entity-level analytical component is that Malta's strongest international collaboration links include not only universities, companies and individual research-performing organisations, but also large national research institutions, research councils and funding agencies. Entities such as CNR in Italy, TÜBİTAK in Turkey, FCT in Portugal, CSIC in Spain, CNRS in France, the Research Council of Lithuania, the Executive Agency for Higher Education, Research, Development and Innovation Funding in Romania, the Research Council of Norway, the Latvian Council of Science, and the Italian Ministry of University and Research feature prominently among Malta's top collaborators. This suggests that Malta's Horizon collaboration network is strongly connected to institutional and system-level actors that can act as gateways into wider national research and innovation ecosystems. This pattern is strategically important for Malta. Collaboration with such organisations may provide access to larger networks, stronger proposal consortia and more established research-and-innovation infrastructures. For a small R&I ecosystem, repeated engagement with these types of entities can therefore support not only project participation, but also longer-term network-building and institutional visibility, not limited to just Horizon.

An interesting contrast emerges when comparing this entity-level component with the country-level collaboration results in Analytical Component 1. At country level, Turkey accounts for 129 collaboration links and does not rank among Malta's strongest overall collaboration partners. However, within the consolidated list of top international entities, a Turkish organisation, TÜBİTAK, ranks among the most frequent collaborators. This suggests that Malta's collaboration with Turkey is less broad-based, but more concentrated around a specific institutional relationship, likely linked to the Malta-TÜBİTAK⁶ bilateral cooperation framework, which is intended to foster cooperation in science, technology and innovation between Malta and Turkey.

⁶ More info at: <https://xjenzamalta.mt/2026/03/25/xjenza-malta-tubitak-2026-joint-call-for-ri-proposals/>

Analytical Component 5:

Horizon Thematic Priorities Patterns of Malta's Leading Horizon Participants

Rationale

The purpose of this component was to identify the main thematic priorities in which Malta's leading Horizon collaborations are concentrated. While the previous component focused on recurring organisation-to-organisation relationships, this component examines the priority areas associated with Maltese participation.

Methodology

The thematic areas presented in this component are based on the selected Maltese entities identified in a previous one (Analytical Component 3) as the most active participants in Horizon projects. The findings therefore reflect the thematic participation profile of Malta's leading Horizon actors, rather than the full national portfolio of all Maltese participants.

The data used for this component was extracted from the Horizon Dashboard, both at country level and at entity level. The entity-level extracts were consolidated into a single table to identify the main thematic areas of participation across the selected Maltese entities.

It should be noted that this dataset includes NCP and EEN projects, as these could not be removed from the Horizon Dashboard extract for this specific component. Thematic area names changed from H2020 to HE. It was decided to retain the exact names even if this means that some thematic areas are mentioned more than once in the table. The reason for not grouping them together was since differences in thematic groupings between H2020 and HE made it impossible to group thematic areas together.

Results

The two tables below provide complementary perspectives on the thematic profile of Malta's most active Horizon participants. Table 6 presents the thematic areas in which these entities participated most frequently, while Table 7 shows how thematic participation is distributed across the leading Maltese organisations. Together, they help identify both the main thematic priorities and the entities driving Malta's participation in those areas.

The entity-level table shows that the University of Malta is the main driver of participation, both in terms of volume and thematic breadth. Its involvement across 22 thematic areas indicates that it plays a central role in anchoring Malta's Horizon activity and connecting the national ecosystem to a wide range of European research networks. However, this table also shows that Malta's Horizon participation is not exclusively University-led. Public bodies, agencies, SMEs and innovation-oriented organisations are also active, suggesting a more diverse participation base.

A clear pattern emerging from the thematic table (Table 7) is the prominence of bottom-up areas, particularly MSCA, Widening Participation and Spreading Excellence, and Research Infrastructures, suggesting a prioritisation of participation in projects that support research careers, institutional strengthening, networking, and integration into wider European research ecosystems. For a small R&I system, this is significant because it shows that Horizon participation is being used not only for project funding, but also to build longer-term research-and-innovation capacity.

From a thematic perspective, the most popular thematics are by and large reflective of Malta's RIS3⁷ priorities 2021–2027, indicating that Malta's top Horizon entities are participating in areas linked to national challenges and priorities.

A further insight is that participation volume and funding value do not always move together. Some entities participate in fewer projects but secure relatively high levels of net EU contribution. Similarly, some thematic areas with fewer participations, such as the European Innovation Council and Health, attract comparatively significant funding. This shows that project count alone does not fully capture the strategic value of participation.

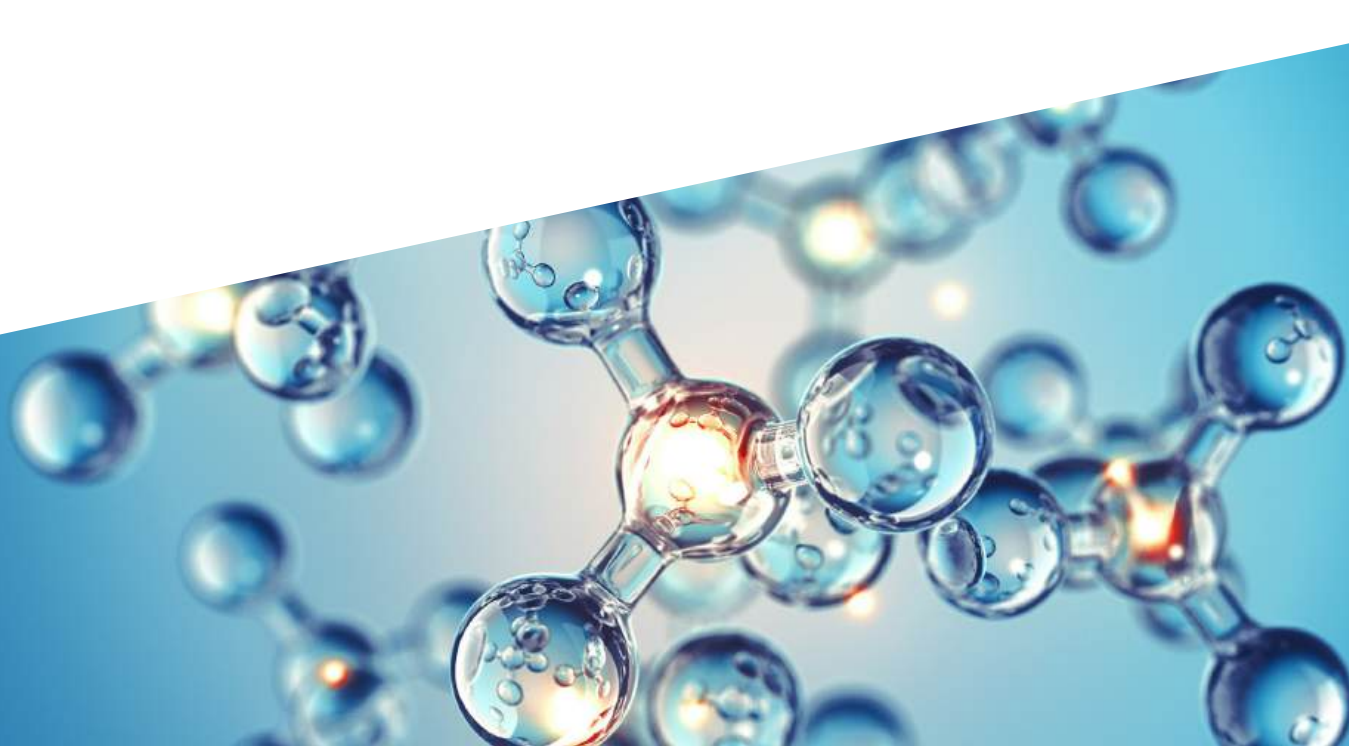
Overall, the tables suggest that Malta's leading Horizon entities are active across two broad pillars, namely research capacity-building and applied societal challenges. Innovation-oriented participation is generally lower.

Thematic Priority	Participation	Net EU Contribution
Marie Skłodowska-Curie Actions (MSCA)	57	€7,682,424.96
Widening participation and spreading excellence	36	€9,487,259.21
Research Infrastructures	21	€992,904.24
Food, Bioeconomy Natural Resources, Agriculture and Environment	19	€3,768,319.35
Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy	12	€2,896,142.27
Health	12	€6,960,185.51
Climate, Energy and Mobility	11	€2,191,940.69
Culture, creativity and inclusive society	10	€1,645,013.40
Digital, Industry and Space	10	€1,951,622.08
Innovation in SMEs	9	€166,718.75
Climate action, environment, resource efficiency and raw materials	8	€2,103,647.22
Reforming and enhancing the European R&I System	8	€815,950.00
European innovation ecosystems	7	€1,744,623.41
Secure, clean and efficient energy	7	€356,395.75
Twinning of research institutions	7	€2,615,609.71
Secure societies - protecting freedom and security of Europe and its citizens	6	€2,083,521.25
The European Innovation Council (EIC)	6	€6,324,815.00
Europe in a changing world - inclusive, innovative and reflective societies	5	€1,061,947.50
Information and Communication Technologies	5	€1,425,141.25
Make scientific and technological careers attractive to young students, and foster sustainable interaction between schools, research institutions, industry and civil society organisations	5	€315,082.91
European Research Council (ERC)	4	€2,846,446.49
Civil Security for Society	3	€201,886.97
Nanotechnologies	3	€349,375.00

⁷ Research and Innovation Strategy for Smart Specialisation: <https://xjenzamalta.mt/wp-content/uploads/2024/09/RIS3-Strategy-2021-2027.pdf>

Encourage citizens to engage in science through formal and informal science education, and promote the diffusion of science-based activities, namely in science centres and through other appropriate channels	2	€327,775.50
Future and Emerging Technologies (FET)	2	€598,273.75
Health, demographic change and wellbeing	2	€215,750.75
Integrate society in science and innovation issues, policies and activities in order to integrate citizens' interests and values and to increase the quality, relevance, social acceptability and sustainability of research and innovation outcomes in various fields of activity from social innovation to areas such as biotechnology and nanotechnology	2	€198,498.44
Promote gender equality in particular by supporting structural change in the organisation of research institutions and in the content and design of research activities	2	€78,994.16
Smart, green and integrated transport	2	€440,356.25
Space	2	€216,815.45
Advanced materials	1	€364,995.75
Science with and for Society	1	€325,027.50
Teaming of excellent research institutions and low performing RDI regions	1	€74,250.00
The European Institute of Innovation and Technology (EIT)	1	€56,250.00

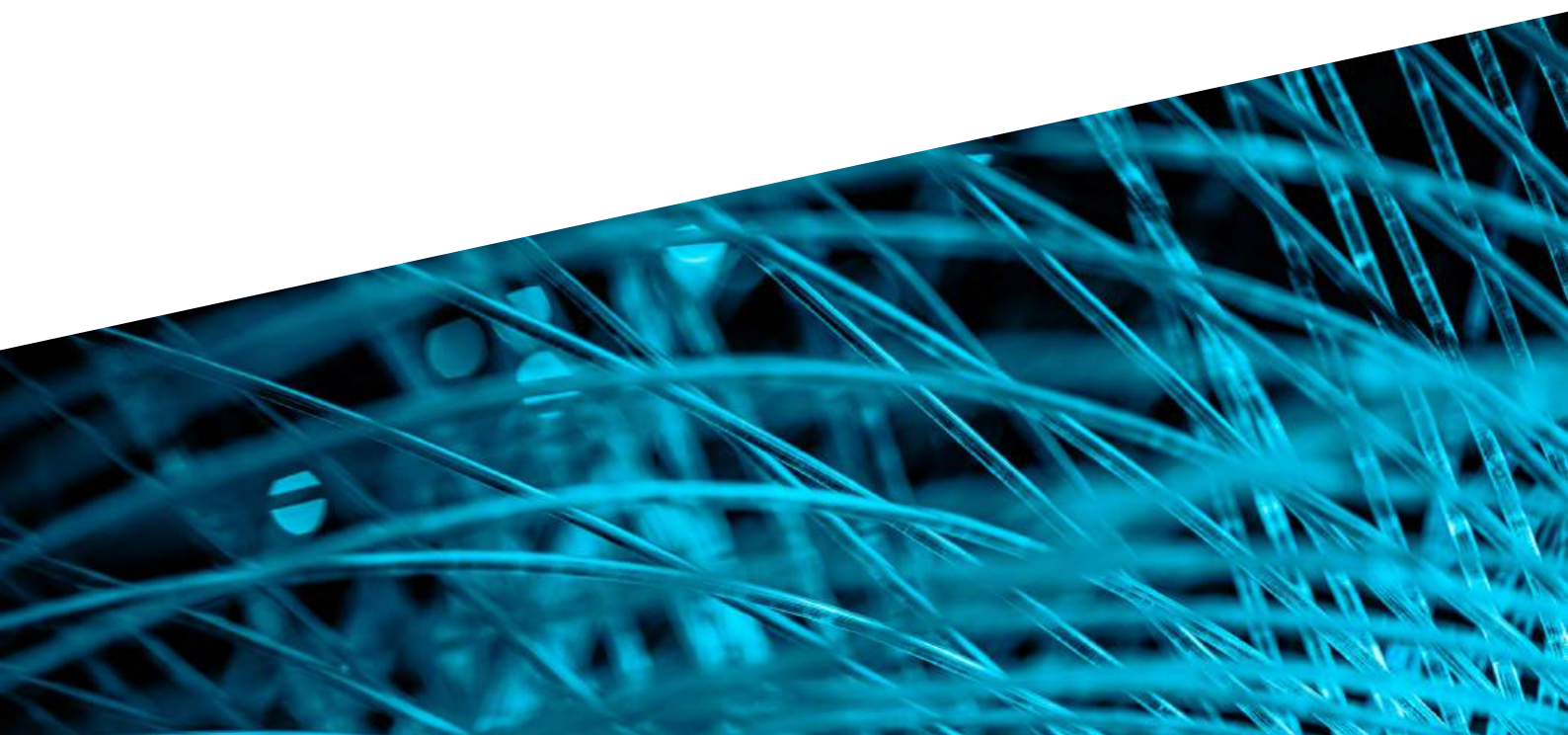
Table 6. Thematic Areas in which top Maltese Entities Participated Most Frequently



Rank	Maltese Entity	Total Overall Participations	Net EU Contribution	No. of Thematic Areas	Top Thematic Areas by Participation
1	University of Malta	150	€35,600,842.73	29	Marie Skłodowska-Curie Actions (MSCA) (41); Widening Participation and Spreading Excellence (25); Research Infrastructures (18)
2	Ministry for Education, Sport, Youth, Research and Innovation	32	€2,432,186.34	19	Food, Bioeconomy Natural Resources, Agriculture and Environment (3); Marie Skłodowska-Curie Actions (MSCA) (3); Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy (3)
3	AquaBioTech Limited	19	€4,520,118.88	7	Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy (6); Food, Bioeconomy Natural Resources, Agriculture and Environment (5); Climate action, environment, resource efficiency and raw materials (2)
4	Xjenza Malta	18	€4,974,885.07	12	Health (4); Food, Bioeconomy Natural Resources, Agriculture and Environment (3); Culture, Creativity and Inclusive Society (2)
5	Energy and Water Agency	18	€1,899,651.43	8	Secure, Clean and Efficient Energy (7); Food, Bioeconomy Natural Resources, Agriculture and Environment (3); Marie Skłodowska-Curie Actions (MSCA) (2)
6	AcrossLimits Ltd	16	€2,445,070.23	6	Marie Skłodowska-Curie Actions (MSCA) (6); Twinning of research institutions (4); Widening Participation and Spreading Excellence (2)
7	Malta College of Arts, Science and Technology (MCAST)	16	€2,445,070.23	6	Marie Skłodowska-Curie Actions (MSCA) (6); Twinning of research institutions (4); Widening Participation and Spreading Excellence (2)
8	Malta Enterprise	8	€1,309,780.75	3	Innovation in SMEs (6); European Innovation Ecosystems (1); Nanotechnologies (1)

9	Acceler8 Ltd	7	€3,428,187.50	3	European Innovation Council (EIC) (5); Reforming and enhancing the European R&I System (1); European Innovation Ecosystems (1)
10	Omniscope Ltd	5	€2,617,380.75	2	Health (3); Marie Skłodowska-Curie Actions (MSCA) (2)
11	Ecostack Innovations Ltd	5	€1,420,481.63	4	Food, Bioeconomy Natural Resources, Agriculture and Environment (2); Widening Participation and Spreading Excellence (1); Health (1)

Table 7. Distribution of Participation Across the Leading Maltese Organisations



Analytical Component 6:

Consortium-Size Participation Patterns among Malta's Leading Horizon Participants

Rationale

The purpose of this component was to examine the scale and structure of European research consortia in which Malta's leading Horizon 2020 and Horizon Europe participants are involved. By analysing consortium-size patterns, the analysis provides insight into whether Maltese entities tend to participate in smaller or larger networks. This helps identify the degree of international integration and networking complexity.

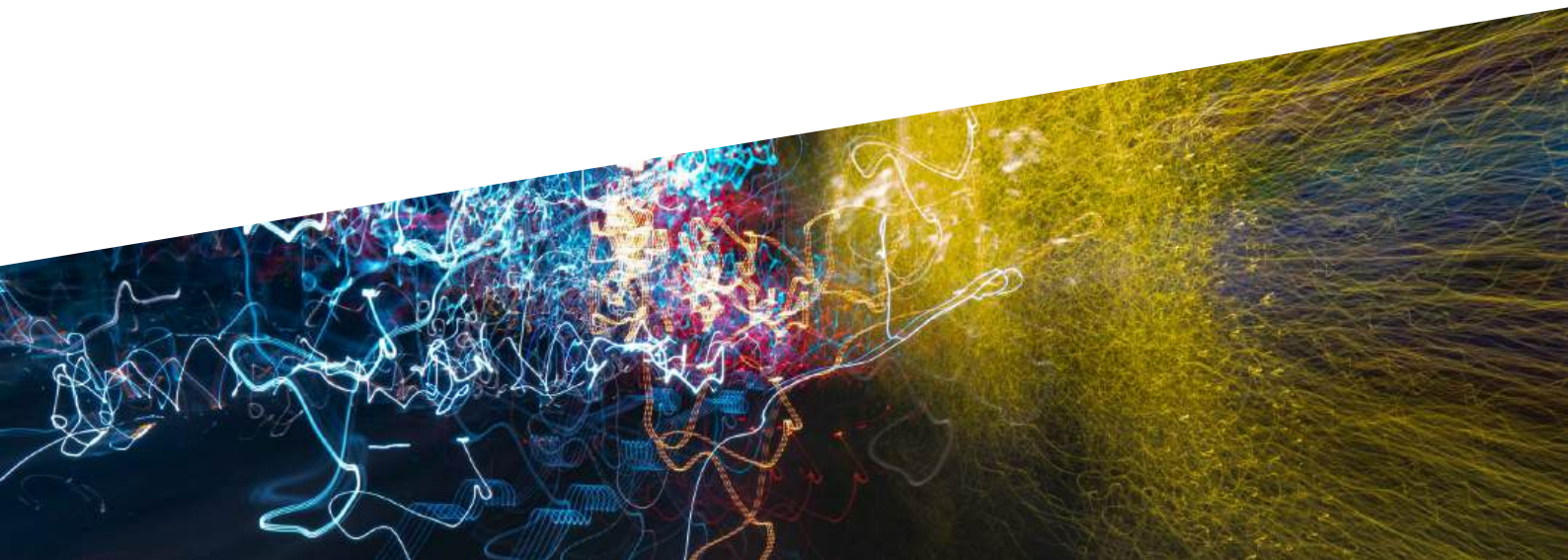
Methodology

For this analytical component, organisation-level data was extracted from the Horizon Dashboard for the top Maltese entities identified in the previous components. Project details were downloaded for each entity to examine the size of the consortia in which these organisations participated. The dataset was cleaned manually prior to analysis. NCP and EEN projects were removed, as these are support-network activities rather than standard research-and-innovation projects. Projects from 2026 were also excluded to maintain consistency with the 2014–2025 analysis period.

For each project, the corresponding CORDIS project page was reviewed to identify the number of project participants. The count included the project coordinator and all funded project participants. Partners or third-party participants that did not receive any net EU contribution were not included in the participant count. The number of participants per project was then recorded in Microsoft Excel and used to classify each project consortium by size:

- **Small** up to 5 partners;
- **Medium** 6–10 partners;
- **Large** 11–20 partners;
- **Very Large** 21 or more partners.

Where more than one selected Maltese entity participated in the same project, the project was assigned to each relevant entity for the purpose of entity-level analysis. As a result, entity-level participation counts may exceed the number of unique projects analysed. This enabled an assessment of whether Malta's most active Horizon entities tend to participate in smaller, more focused consortia or in larger, more complex international project networks.



Project Participation Split by Consortium Size					
Maltese Entity	Small	Medium	Large	Very Large	Total
UNIVERSITY OF MALTA	58	18	36	37	149
MINISTRY FOR EDUCATION, YOUTH, SPORT, RESEARCH AND INNOVATION	6	1	5	12	24
AQUABIOTECH LIMITED	1	2	11	5	19
ENERGY AND WATER AGENCY	2	4	2	10	18
MALTA COLLEGE OF ARTS SCIENCE AND TECHNOLOGY	10	5	0	2	17
ACROSSLIMITS LTD	0	4	7	0	11
XJENZA MALTA	0	0	2	7	9
ACCELER8 LIMITED	5	2	0	0	7
MALTA ENTERPRISE	4	0	0	2	6
OMNISCOPE LIMITED	0	3	2	0	5
ECOSTACK INNOVATIONS LIMITED	0	1	2	2	5
Total	86	40	67	77	270

Table 8. Distribution of Horizon Project Participations by Top Maltese Entities and Consortium size, 2014–2025⁸

Table 8 shows that Malta’s leading Horizon entities participate across a range of consortium sizes, with large and very large consortia representing just over half (53%) of overall participation.

The University of Malta is the dominant actor in this range, accounting for more than half of all project participations. Its participation is distributed across all consortium-size categories, indicating a broad participation profile. This suggests that the University is able to engage both in smaller projects, where roles may be more focused, and in larger consortia, where participation often requires stronger networking capacity and integration into complex international partnerships.

Public-sector entities appear particularly visible in very large consortia. The Education Ministry, the Energy and Water Agency and Xjenza Malta all show a strong presence in very-large-consortium projects. This may reflect the nature of their participation in policy-oriented, system-level or coordination-intensive projects, where large consortia are often needed to address cross-border challenges, align policy approaches, or involve multiple types of stakeholders.

Private-sector entities show a more varied pattern. AquaBioTech Limited and AcrossLimits Ltd are more present in large consortia, suggesting that these entities are integrated into wider European project networks, while still occupying specialised roles. Acceler8 Limited, by contrast, appears mainly in small and medium-sized consortia, which may indicate more targeted innovation-oriented participation or involvement in projects with a narrower partner base.

⁸ Note: Figures refer to project participations by Maltese entity. Projects involving more than one selected Maltese entity are counted once for each Maltese entity involved.

Limitations of this study

Several limitations should be considered when interpreting the findings of this report. The analysis relies primarily on publicly-available Horizon Dashboard and CORDIS project-participation data. As such, it captures formal EU-funded project collaborations, but does not account for informal partnerships, non-funded collaborations, or wider knowledge-exchange activities taking place outside Horizon projects. In addition, the Horizon Dashboard is a dynamic source that may be updated over time, meaning that figures may vary depending on the date of extraction. The results should therefore be interpreted as a snapshot of the data at the time of analysis.

The exclusion of NCP and EEN projects also varies across the report. These projects were excluded, where possible, to focus on standard research-and-innovation project participation. However, in some analytical components, they could not be removed from the extracted datasets. Their inclusion may slightly affect participation counts (especially for entities such as Xjenza Malta and the Ministry for Education, Youth, Sport, Research and Innovation), collaboration links and thematic distributions.

The analysis focuses mainly on collaboration frequency and participation patterns. It does not assess the qualitative depth, strategic value, knowledge-transfer outcomes or long-term sustainability of individual partnerships. Therefore, a high number of collaboration links should not automatically be interpreted as evidence of stronger impact or more effective cooperation.

The European Innovation Scoreboard classifications used in this report reflect current innovation performance categories and were applied retrospectively across the 2014–2025 analysis period. Since national innovation performance may have changed over time, these classifications should be interpreted as indicative rather than as fixed categories across the full period. Similarly, thematic areas and organisation classifications depend on how data is reported in the Horizon Dashboard. Some thematic labels vary between Horizon 2020 and Horizon Europe, which may affect comparability. Manual standardisation was carried out where necessary, but minor inconsistencies may remain.

Some inconsistencies may also arise from changes in organisation names during the 2014–2025 period. This is particularly relevant for public bodies, such as ministries and government agencies, which may have changed names, portfolios or administrative structures over time. As a result, the same organisation or institutional function may appear under different names in the Horizon Dashboard or CORDIS data. Manual checks and standardisation were carried out where possible, but some inconsistencies may remain.

Finally, some of the Analytical Components focus only on the most active Maltese Horizon entities identified in earlier sections. These findings therefore reflect the participation patterns of Malta's leading Horizon actors, and should not be interpreted as a complete representation of all Maltese participation in Horizon projects.

Summary of Key Findings

Analytical Component	Focus	Key finding
Component 1	Country-level collaboration network	Malta's strongest collaboration links are concentrated around key European partners, particularly Italy, Germany, Spain, Greece and France.
Component 2	Coordinating countries and EIS 2025 classification	Malta participates most frequently in projects coordinated by Moderate Innovator countries.
Component 3	Most active Maltese entities	The University of Malta is the dominant participant by a wide margin, followed by ministries and public entities.
Component 4	International collaboration partners	At entity level, a different pattern of engagement emerges compared to the national level, with most collaboration partners hailing from Italy, Turkey, Portugal, Norway and Lithuania.
Component 5	Thematic participation patterns	Malta's leading Horizon actors are primarily active in the capacity-building and collaborative strands of the programme.
Component 6	Consortium-size patterns	Maltese entities participate primarily in smaller focused consortia and very large European networks, depending on the pillar and project type.

Table 9. Summary of Key Findings Across the Analytical Components

Conclusion

Horizon participation is often driven at researcher or entity level, through personal contacts, existing networks, specific opportunities or areas of research interest. This bottom-up approach remains important, particularly for academic and research-performing organisations, as it allows entities and researchers to develop their strengths organically and to build on areas of existing expertise.

At the same time, the analysis also opens a wider discussion on whether certain areas of participation could benefit from a more strategic approach. This does not necessarily mean directing individual researchers or entities towards specific partners, but rather creating the conditions for stronger, and perhaps broader, international positioning. For example, scholarships or capacity-building measures linked to Innovation Leader countries could help strengthen Malta's exposure to more advanced research and innovation systems over time.

Lastly, while Maltese SME participation in Horizon projects is evident and represents a meaningful part of Malta's overall Horizon network, the findings of the analysis suggest that private-sector engagement remains relatively concentrated among a limited number of firms. Although SME participation is significant within the national context, it may benefit from further broadening. Efforts to support private-sector networking are therefore a clear step in the right direction, in order to help more firms develop stronger international networks and progress towards more sustained participation in Horizon.



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