

Partnership Landscape related to Health Research

Description and Analysis

(March 2018)

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Background and Summary

EU Research and Innovation Partnerships have been implemented from the 6th Framework Programme. They seek to optimise the contribution of public and private players to address societal challenges and to ensure that national policies and Union policy are mutually consistent.

Member States have recognised the relevance of partnerships with the Council conclusions “From the Interim Evaluation of Horizon 2020 towards the ninth Framework Programme” adopted on 1 December 2017. In the conclusions they specifically address the question of partnerships and request the establishment of an ERAC Ad-hoc Working Group on this issue. The Working Group is expected to advise on the future use of EU R&I partnerships and shall 1) propose criteria for selecting EU-R&I, 2) identify options for rationalising the current EU R&I partnership, 3) advise on the design of a long-term strategic coordinating process of EU R&I partnership initiatives and 4) identify measures to increase the efficiency of partnerships' implementation.

ERA-LEARN supports the ERAC ad-hoc working group on partnerships with an analysis on “Partnership Landscape related to Health Research” which presents:

- Identification of all 'health' related R&I partnerships since FP6, including P2Ps, PPPs, EIT/KICs and FET Flagships;
- Analysis of joint actions undertaken by the R&I partnerships;
- Analysis of the stakeholder composition of the R&I partnerships;
- Analysis of 'rationalisation' in the 'health topic'.

The analysis allows for a number of more general findings:

- Scale and scope of the existing partnerships differ substantially. When discussing the rationalisation of partnerships/networks, these differences must be taken into account in order to define the landscape where rationalisation is feasible;
- P2P partnerships are made up by a coherent group of (national/regional) funding organisations, with the same goal of funding European (health-related) research and the same set of funders in many of the existing P2Ps;
- There is a wide range of topics addressed by the partnerships within the health area (disease specific, horizontal, different TRLs etc.);
- There are some examples of potential thematic overlaps;
- Health P2Ps have interactions to other health P2Ps, addressing themes of common interest. There is only little interaction between P2Ps, PPP and other networks;
- Rationalisation of health ERA-NETs has taken place, with the following elements:
 - National/regional funders have prioritised their involvement in ERA-NETs;
 - A general restructuring of the ERA-NET selection (and prioritisation) process by the EC, from FP6 (bottom-up) to FP7 (top-down, support for management) to H2020 (top-down, Cofund) with additional criteria for ERA-NETs in H2020.

Introduction

The following document intends to support the work of the ERAC ad hoc Working Group on Partnerships by giving an overview on the partnership landscape in the health area. Due to the nature of the ERA-LEARN consortium and activities, this overview, description and analysis is more detailed for the P2P-landscape for which the consortium has expert knowledge. For the PPPs and other networks, information available in interim evaluations, websites and by exchange with experts was the basis for the respective descriptions.

1. Definition of partnerships (P2P, PPP) and networks

According to the European Commission's definition, partnerships (public-public: P2P, public-private: PPP) are understood as joint endeavours of the Union with the public (P2P) or private (PPP) sector in order to **develop and implement a research and innovation programme**.

Article 2¹:

*(4) "Public-private partnership" means a partnership where private sector partners, the Union and, where appropriate, other partners, such as public sector bodies, commit to jointly support the **development and implementation of a research and innovation programme** or activities.*

*(5) "Public-public partnership" means a partnership where public sector bodies or bodies with a public service mission at local, regional, national or international level commit with the Union to jointly support the **development and implementation of a research and innovation programme** or activities.*

However, in current discussions on partnerships, a broader definition has been used, including also the EIT-KICs and the FET Flagships. Throughout this document, we follow the EC's definition of partnerships; moreover, we use the term "network" in order to describe groups of actors working together towards common goals (other than preparing and implementing R & I programmes), but P2P and PPP only as defined by the EU regulation.

¹ Article 2, REGULATION (EU) No 1291/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 establishing Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) and repealing Decision No 1982/2006/EC

2. Partnerships and networks: description and analysis of main characteristics

Figure 1 is the result of an attempt to summarise all initiatives contributing to the European Research Area. Specifically, the figure shows an overview of all **currently active** partnerships and networks related to health research (from <https://www.era-learn.eu/network-information/thematic-clustering/health-1>). The columns represent public-public partnerships (P2Ps), networks of public and private actors, public-private partnerships (PPP), and also EC funding instruments. Examples of P2P types: ERA-NET, JPI, Article 169/185 initiatives; example of PPP: JTI; examples of public-private networks: EIP, KIC, ETP, FET flagship; examples of EC funding instrument: CSA, ERA-NET Cofund.

As seen in figure 1, there are individual networks or partnerships for almost each column, and there is an overall large number of networks or partnerships yielding a seemingly complex overview. Figure 2 illustrates the same content but in a more schematic fashion.

In order to reduce this complexity, as a first step of an analysis, it is important to characterise and distinguish between **P2P, PPP, and other networks**.

2.1 Public-public partnerships – P2P

The main actors in P2Ps (left side of figure 2) are national and/or regional funding organisations (ministerial, agencies) from Member States and Associated or Third Countries.

The main P2P actors for EU and associated countries are listed in table 1. As can be seen, there are only one or two main funding organisations for each country engaged in most health P2Ps (e.g. ANR/France, BMBF/Germany, FWF/Austria, ISCIII/Spain, MoH/Italy) per country. Thus, the P2P landscape is rather coherent in terms of actors.

The main goal is the joint preparation and implementation of a research programme of common European interest. Many of the P2Ps' activities are related to reach this goal: definition of strategic research (and innovation) agendas; preparing the necessary call documents; setting up of a proposal submission system; checking the eligibility of received proposals; organising the evaluation meetings; agreeing to a final funding decision within the group of involved funding organisations. P2Ps in health research (as in other research areas) are funding small- to mid-sized research consortia with national/regional funds, thereby **complementing the EC's funding** of larger research consortia through its framework programmes. In general, health ERA-NETs and JPIs have implemented annual joint calls with between 10 and 20 million € spent national/regional budget per call. The article 185 initiative EDCTP has already launched 20 calls in only three years, with partially larger budgets (up to about 40 million € per call) shared by the EC and the Member States and Associated Countries.

The large interest of researchers in response to the health P2P calls (oversubscription usually about 10) demonstrates the **gap of** (disease-specific, horizontal theme) funding opportunities for **small- to midsized European research consortia**. This has been true during FP7, but much more so during H2020; the reason is that the EC has switched from disease-specific topics for research proposals in FP7 to open (horizontal) topics in H2020 (e.g. "clinical trials in paediatric cancer" in FP7 vs. "clinical trials" in H2020), resulting in extremely small success rates (down to 2 or 3%) and plenty of frustrated applicants.

The activities of all P2Ps are rather similar and focussed on preparing and implementing joint calls. It is important to note that the (earmarked and) spent budget of these calls is very similar between health ERA-NETs and health JPIs. While JPIs have been expected to have a stronger impact on national programmes, this has not always been the case. Conversely, the planning and implementing of calls by ERA-NETs, including between 20 and 30 funding organisations from 15 to 20 countries has shown a large degree of coherent programme planning. Over the years, each health P2P has established **efficient and effective procedures** for the preparation and implementation of joint calls for proposals. Of course, due to the fact that most funders are engaged in many of the health P2Ps, these procedures have evolved to be quite similar from P2P to P2P, and from call to call. Because they are directly involved (in the various Call Steering Committees), representatives of less research intensive countries can learn from these advanced processes underlying joint calls ("widening", "alignment"). Some mature ERA-NETs, existing since more than 10 years, have ambitious activities comparable to some JPIs. For instance, the E-Rare consortium is currently preparing a European Joint Programme Cofund for Rare Diseases, involving not only research funders but also research and care performers (institutes, researchers, European Reference Networks, Orphanet etc.) with a total of about 60 to 70 participants. It is planned that this EJP will receive 55 million € EC funding while the funders will launch five annual joint calls (in the EJP runtime of five years) with an expected spent budget of about 60 million €.

In addition, there are other activities of high importance: e.g., mapping national and transnational funding activities; improving the participation of funders from central and eastern European countries (widening); internationalisation; support the mobility and training of young investigators.

Within the general area of health research, some of the P2Ps address specific disease areas: rare diseases (E-Rare-3), cardiovascular diseases (ERA-CVD), neurological diseases (NEURON), cancer (TRANSCAN), antimicrobial resistance (JPI AMR, JPI-EC-AMR), neurodegenerative diseases (JPND), malaria/aids/tuberculosis (in sub-Saharan Africa: EDCTP). Other P2Ps address horizontal research themes with relevance for the disease-specific P2Ps: personalised medicine (ERA PerMed), systems medicine (ERAcSysMed), nanomedicine (EuroNanoMed), technology-assisted support for the ageing population (AAL 2). Obviously, there is a certain degree of thematic overlap between the disease-specific P2Ps and the horizontal P2Ps.

Table 2 is the result of assigning the currently active (H2020) P2Ps relevant for health research in relation to FP9 intervention areas currently emerging from ongoing discussion. As can be seen, most

intervention areas would be addressed by at least one P2P (with the exception of "Health and Care Systems"; note, however, that an ERA-NET is planned for this intervention area by the [TO-REACH project](#) currently active as a CSA). Moreover, each P2P can be assigned to at least one intervention area. Finally, all health P2Ps are partially relevant for the intervention area "Health throughout the life course", but for clarity, we have abstained from listing them (in addition to the better fit AAL2).

Health intervention areas in FP9 (under internal discussion)	Active health P2Ps
Environmental and Social Determinants of Health and Well-being	JPI HDHL, HBM4EU
Health throughout the life course	AAL2
Non-communicable diseases, including rare diseases	JPND, NEURON, ERA-CVD, TRANSCAN, E-Rare 3, ERA PerMed, ERAcoSysMed
Infectious Diseases	JPI AMR, JPI-EC-AMR, EDCTP2, ERA PerMed, ERAcoSysMed, One Health EJP
Data-driven digital transformation of health and care	ERA PerMed, ERAcoSysMed
Development, regulation and uptake of breakthrough, medical products, technologies and research tools	EuroNanoMed, ERAcoSysMed, (ERA PerMed)
Health and Care Systems	

2.2 Public-private partnerships – PPP

The Joint Undertaking IMI (Innovative Medicines Initiative) has its seeds in the European Technology Platform INNOMED which was founded 2005 in FP6. IMI 1 was founded in 2007 (FP7) and was succeeded by IMI 2 in 2014 (H2020). It will end in 2024.

IMI is organised as a Public-Private Partnership between the European Union (represented by the European Commission) and the European Federation of Pharmaceutical Industries and Associations (EFPIA), i.e. they do not include national/regional funding organisations from the Member States and Associated Countries. In the governing board, where decisions on the strategic research agenda are taken, both actors are equally represented.

For both initiatives, IMI and IMI 2, there is a planned budget of 5 billion €. In order to realise the projects initiated by IMI 2, 3.2 billion € are needed. Half of the budget is financed by the EC. Member States do only have an advisory role in the States Representatives Group (SRG). IMI 2 so far has implemented one call. 98 projects were funded.

The specific objectives of IMI 2 are to support the development of pre-competitive research and innovation activities with the aim to strengthen Europe's competitiveness and industrial leadership

and to address specific societal challenges, in particular those to improve European citizens' health and well-being.

The Council Regulation additionally specified thematic focus areas. IMI 2 should:

- focus on priority medicines identified by the World Health Organisation (WHO) and increase the success rates of clinical trials.
- lead to reduction of time to reach clinical proof of concept in medicine development, such as for cancer, respiratory, neurological and neurodegenerative diseases.
- develop new therapies for diseases with high unmet need, such as Alzheimer's disease or with limited market incentives, such as antimicrobial resistance.
- develop diagnostic and treatment biomarkers linked to clinical relevance in various diseases and seek their approval by regulators.
- Provide tools, standards and approaches to assess efficacy, safety and quality of regulated health products.

IMI 2 can be assigned to all the FP9 intervention areas except "Environmental and Social Determinants of Health and Well-being" and "Health and Care Systems".

2.3 Other networks

In the other networks listed on the right side of figure 2, the main actors are not funders, and the main goals are not the funding of research.

The **European Institute for Innovation and Technology (EIT)** integrates business, research and education with the goal to effectively strengthen innovation in a pan-European way. In the Evaluation Report from 2017, experts generally valued the achievements of the EIT: "The EIT adds value beyond national innovation support initiatives, and is coherent with and complements EU, national and regional innovation policy. The KICs have the potential to act as repositories of knowledge and good practice, and have built relationships with regional and national policy-makers."²

The **EIT KIC Health** promotes entrepreneurship and develops innovations in healthy living and active ageing. This will be achieved through delivering products, concepts and services, including educational programmes that will nurture talents and train the workforce of tomorrow. EIT Health is set together of knowledge and innovation communities of educational institutions, research organisations, companies and other actors of the knowledge triangle, who come together in the long term (up to 15 years). The overall objective is to find common solutions to new societal challenges and to translate them into innovative products and services. The overall budget is defined within the Strategic Innovation Agenda (SIA) and provided a prospective budget for EIT Health of about 271 million € within Horizon 2020. However, the budget will be based on annual business plans provided

² Evaluation on the European Institute of Innovation and Technology, Final Report, European Commission, 2017

by EIT Health and linked to actions which are executed by the KIC partners. EIT Health is a consortium of more than 50 core partners and 90 associate partners from leading businesses, research centres and universities from across 14 EU countries. It has to guarantee that additionally 813 million € will be acquired by these partners in order to carry out the potential activities.

The **European Innovation Partnership (EIP)** for Active and Healthy Ageing (AHA) supports SMEs and Start-Ups so that they can distribute their technological solutions across Europe. AHA is a communication and information hub for all actors involved in Active and Healthy Ageing through Europe. It is the place to encourage partner engagement, promote news and events, meet and exchange ideas with peers, and look for potential partners on innovative projects. With its activities and priority areas, the AHA EIP focuses on the prevention, screening and early diagnosis; care and cure; and active ageing and independent living. The AHA fact sheet in the EIT Evaluation Report lists actors and commitments: “Since spring 2012, almost 600 commitments have been submitted by groups of stakeholders bringing together public authorities, technology companies, health providers, industry and non-governmental organisations. The six Action Groups have made further detailed action plans, and implementation of projects and initiatives has started, gathering 1,000 regions, 3,000 engaged partners and 300 leading organisations with over 1 billion € of commitments. They are expected to have an impact on over 2 million patients and 30 million citizens by 2015.”³

European Technology Platforms (ETPs) are industry-led stakeholder fora which develop research and innovation agendas and roadmaps for action at EU and national level to be supported by both private and public funding. ETPs are independent and self-financing entities with a strategic, mobilising and disseminating function. The ETP on Innovative Medicines Initiative prepared the ground for the subsequent JTI IMI. Another ETP relevant for health is the ETP NanoMedicine.

Future and Emerging Technologies (FET) Flagships are part of the FET programme under the Excellent Science Pillar of Horizon 2020. Flagships are intended to be visionary, large-scale, science-driven research initiatives which tackle grand scientific and technological challenges across scientific disciplines. At the point of inception of the Flagships, the overall FET programme was primarily focused on supporting visionary science and technology projects related to Information and Communication Technologies (ICT). This was done within the context of existing traditional funding instruments. It is intended that each Flagship will mobilise funding to the level of 1 billion €, for up to ten years. The plan is for 500 million € of funding per Flagship to be provided through the European Commission’s Framework Programmes for Research. Additional funding is expected to come from other partners including universities, national initiatives, and the private sector.

In the Interim Evaluation on FET flagships of 2017 the following issues concerning the work of the Flagships were stressed: “While the Flagships demonstrate their effectiveness in delivering excellent science, their future effectiveness in supporting innovation still needs to be demonstrated... there is a need for improved interaction across the programme in order to guarantee the Flagships are

³ Outriders for European Competitiveness; European Innovation Partnerships (EIPs) as a Tool for Systemic Change, Report of the Independent Expert Group, 2014

informed about decisions taken in other parts of the Horizon 2020 programme and Commission policy elsewhere.”⁴

The FET flagship HBP could be relevant for the FP9 intervention area "Data-driven digital transformation of health and care" and "Development, regulation and uptake of breakthrough, medical products, technologies and research tools".

Thematically, there is some degree of overlap between the Human Brain FET Flagship and the P2Ps JPND and NEURON.

2.4 Observations

In conclusion, P2P partnerships are made up by a coherent group of (national/regional) funding organisations, with the same goal of funding European research and the same set of funders in many of the existing P2Ps. The research funded by P2Ps is characterised by lower technology readiness levels (up to TRL 4).

There is an **inherent difference** between P2P and PPP partnerships or other networks (with regard to: actors, goals, activities). When discussing the rationalisation of partnerships/networks, these differences must be taken into account in order to define the landscape where rationalisation is feasible.

The PPP IMI is also funding European collaborative research, but is made up of the EC (public) and EFPIA (private), i.e. without additional contribution by the Member States funding organisations. In general, IMI funded research can be characterised by TRL 5 and higher.

Finally, the other networks differ from P2Ps and PPPs in terms of goals and their main activities. Due to limitations in available time for analysis, and also due to limitations of the desk research, the information provided about the other networks may well be incomplete.

2.5 Overlaps between P2Ps and PPPs or other networks

There are some examples of potential overlaps between P2P and other networks: for instance, JPND, NEURON and HBP all address diseases or mechanisms of the brain but the specific foci differ (JPND: neurodegeneration, NEURON: all other neurological and psychiatric diseases, HBP: ICT-based modelling of brain mechanisms). Another example is the PPP IMI, which supports the development of next-generation vaccines, medicines and treatments in all fields of health research; IMI thus

⁴ FET Flagship, Interim Evaluation; European Commission 2017

overlaps thematically with most health P2Ps (NEURON, E-RARE, ERA-CVD, TRANSCAN, JPND, JPIAMR). Finally, JPI AAL, JPI MYBL and EIP AHA all address different aspects of ageing research: AAL supports projects using Information and Communication Technologies in order to enhance the quality of life of older people; MYBL supports multi-disciplinary projects related to demographic change (e.g. welfare models, lifestyle); and AHA supports the (further) development of businesses in the field of active and healthy ageing.

2.6 Overlaps between P2Ps

Within P2Ps, there is some thematic overlap; e.g. there are P2Ps on cancer (TRANSCAN) and on rare diseases (E-Rare), and some cancers are rare. Despite this overlap, there is good communication between the P2Ps regarding the preparation and implementation of calls in order to avoid duplication of efforts. For instance, E-Rare's call exclude (rare) cancer projects from funding, whereas TRANSCAN's current call focuses on these rare cancers. There is no appreciable thematic overlap between the health article 185 initiatives (e.g. EDCTP2, AAL2) and the health ERA-NETs or JPIs.

3. Communication and interaction between partnerships

Health P2Ps usually limit their interactions to other health P2Ps, addressing themes of common interest (e.g. patient involvement, clinical trials, open access, biomedical research infrastructures, quality of pre-clinical studies). These interactions are goal-directed: e.g. best-practices identified by one P2P are incorporated in the preparation and implementation procedures for joint calls in other P2Ps.

Based on our extensive experience in participating in health P2Ps for the last 15 years, we are aware of only little interactions between P2Ps and the PPP IMI and the other networks.

Since almost 10 years, the EC and the ERA-LEARN partners have organised an Annual (ERA-NET, Joint Programming) Conference. About 300 to 400 representatives of ongoing P2P projects meet at this occasion in order to discuss strategic issues and generally exchange opinions on networking between the different projects. In addition, some Member States have established regular national meetings, where all P2Ps are represented and discuss best practices and other issues of common interest. Up to now there has been little systematic communication between the P2P and PPP and other networks. However, in a national context, some funding organisations (e.g. Federal Ministry of Education and Research of Germany) hold regular meetings for both (German) P2P and PPP representatives, exchanging information about current issues of interest.

4. Distinction of P2P and EC funding instruments

A part of the complexity of figure 1 can be explained by distinguishing between entries that correspond to a partnership and other entries that correspond to FP6/FP7/H2020 funding instruments supporting these partnerships.

For instance, ERA-NETs are consortia of national/regional funding organisations (ministerial, agency), cooperating on important research issues in order to avoid duplication and fragmentation throughout Europe. The last three EC Framework Programmes for Research and Innovation have supported ERA-NETs with "Specific Support Actions" (SSA, in FP6), "Coordination and Support Actions" (CSA, in FP7), ERA-NET Cofund (in H2020). Nevertheless, the group of funding organisations, their cooperative activities, their inherent goals, the overall ERA-NET project has remained essentially the same (albeit in further developed ways).

Another example are Joint Programming Initiatives: JPND, for instance, has been created within FP7, supported by a CSA. In H2020, the initial idea of the EC was to only support JPIs (and also ERA-NETs) with the ERA-NET Cofund instrument. Later, the EC modified this approach, and also allowed the support of JPIs by CSAs. Because of this, JPND applied for an ERA-NET Cofund first, then for a CSA, and is currently applying for another ERA-NET Cofund. Formally, all three are "projects" funded by the EC; but all three have been created by (almost) the same group of funding organisations (following the variable geometry principle), i.e. in a strict sense **all three are parts of the same JPI**. One problem of this is that all three have their specific governance and management structures, communication overall has increased drastically, likewise the complexity and the potential for misunderstandings or the lack of coherence (internally, externally).

A similar situation exists for the JPI AMR and the JPI HDHL, both being supported by CSA and two ERA-NET Cofunds.

5. Simplified illustration of partnerships and networks relevant for health research

Figure 3 summarises ERA initiatives clearly relevant for health research in a more reduced schematic way. This figure is the result of (i) eliminating empty columns; (ii) eliminating P2Ps with less relevance for health research: initiatives illustrated by normal font in Figure 2, such as PhotonicSensing, ERA-NET Rus Plus, etc.); (iii) eliminating the CSA column (because the JPIs supported by CSAs are already shown in the column "JPI"). It is obvious that the impression of a complex landscape of initiatives is replaced by a more stringent landscape. In other words: when filtering out irrelevant information the landscape is simplified to a more coherent picture.

In a further step figure 4 shows only the partnerships (P2P, PPP) as defined by the EC (see chapter 1) relevant for health research. Applying the EC definition of partnerships to the tables shown in figure

1 and 2, largely reduces the seeming complexity. When talking about possible rationalisation of the partnership landscape it is of utmost importance to agree on a clearly defined basis of discussion.

6. Rationalisation of health P2Ps

Figure 5 gives a temporal overview of all (past, present) versus present health P2Ps. There are some main observations:

- the number of all P2Ps since 2003 (n = 52) is much larger than the number of active (n = 27) P2Ps; this difference is entirely explained by the comparison between the number of all ERA-NETs (n = 40) and the number of currently active ERA-NETs (n = 15). That is, many ERA-NETs have existed for one or two project phases but have not been continued thereafter - due to changes of priorities taken by the national/regional funders and/or the EC. In other words, rationalisation (in the sense of reducing) of P2Ps has taken place
- some ERA-NETs exist since the beginning of the ERA-NET scheme (NEURON/neurological diseases, E-Rare/rare diseases)
- some ERA-NETs currently develop into another P2P type: (not shown)e.g., the E-Rare ERA-NET (Cofund) consortium is currently building a new consortium based on the European Joint Programming Cofund mechanism, where the main actors are no longer funders only, but research institutions and researchers are included in addition).

Rationalisation of health ERA-NETs has taken place, with the following elements:

- national/regional funders have prioritised their involvement in ERA-NETs. Some ERA-NETs, and their addressed research areas have been given up (cancer guidelines, HIV/aids, paediatric medicines) but important research areas have evolved from this process (e.g. neurological diseases: JPND, NEURON; cancer: TRANSCAN; cardiovascular diseases: ERA-CVD; rare diseases: E-Rare), with continuous support of national/regional funders and the EC
- a general restructuring of the ERA-NET selection (and prioritisation) process by the EC, from FP6 (bottom-up) to FP7 (top-down, support for management) to H2020 (top-down, Cofund)
- in H2020, the EC has introduced defined criteria such as impact, leverage, EU added value, size of national/regional budgetary commitments which have to be met by a planned (new, to be continued) ERA-NET Cofund in order to be included in the EC's work programmes

No comparable rationalisation has taken place for other P2P types such as JPI or Article 185 initiatives.

Figure 1: ERA initiatives relevant for health research as shown by the ERA-LEARN database (<https://www.era-learn.eu/network-information/thematic-clustering/health-1>)

ERA-NET Cofund	ERA-NET (FP6/FP7)	ERA-NET+ (FP7)	EJP Cofund	Article 169/185	JPI	CSA	ETP	JTI	EUREKA	cPPP	EIT - KICS	EIP	FET - FLAGSHIPS
E-Rare-3		CORE Organic Plus	HBM4EU	AAL 2	JPI AMR	JPI MYBL support action	IMI (ETP)	IMI (2)			EIT Health	Active and Healthy Ageing	human brain project
ERA-CVD		ERA.Net RUS plus	One Health EJP	EDCTP2	JPI HDHL		NanoMedicine						
ERA-HDHL				EMPIR	JPI MYBL								
ERAcSysMed				Eurostars 2	JPI Urban Europe								
EuroNanoMed III				PRIMA	JPND								
FLAG-ERA II													
HDHL-INTIMIC													
JPI-EC-AMR													
JPco-fuND													
NEURON Cofund													
PhotonicSensing													
TRANSCAN-2													

Figure 2: Schematic illustration of ERA initiatives (based on the ERA-LEARN database) relevant for health research. Thick vertical line separates P2P (left side) from PPP (JTI) and other networks.

ERA-NET Cofund	ERA-NET (FP6/FP7)	ERA-NET+ (FP7)	EJP Cofund	Article 169/185	JPI	CSA	ETP	JTI	EUREKA	cPPP	EIT - KICS	EIP	FET - FLAGSHIPS
E-Rare-3		CORE Organic Plus	HBM4EU	AAL 2	JPI AMR	JPI MYBL	IMI	IMI 2			EIT Health	Active and Healthy Ageing	Human Brain Project
ERA PerMed		ERA.NET RUS plus	One Health EJP	EDCTP2	JPI HDHL		NanoMedicine						
ERA-CVD				EMPIR	JPI MYBL								
ERA-HDHL				Eurostars 2	JPI Urban Europe								
ERAcSysMed				PRIMA	JPND								
EuroNanoMed III													
FLAG-ERA II													
HDHL-INTIMIC													
JPI-EC-AMR													
JPco-fuND													
NEURON Cofund													
PhotonicSensing													
TRANSCAN-2													

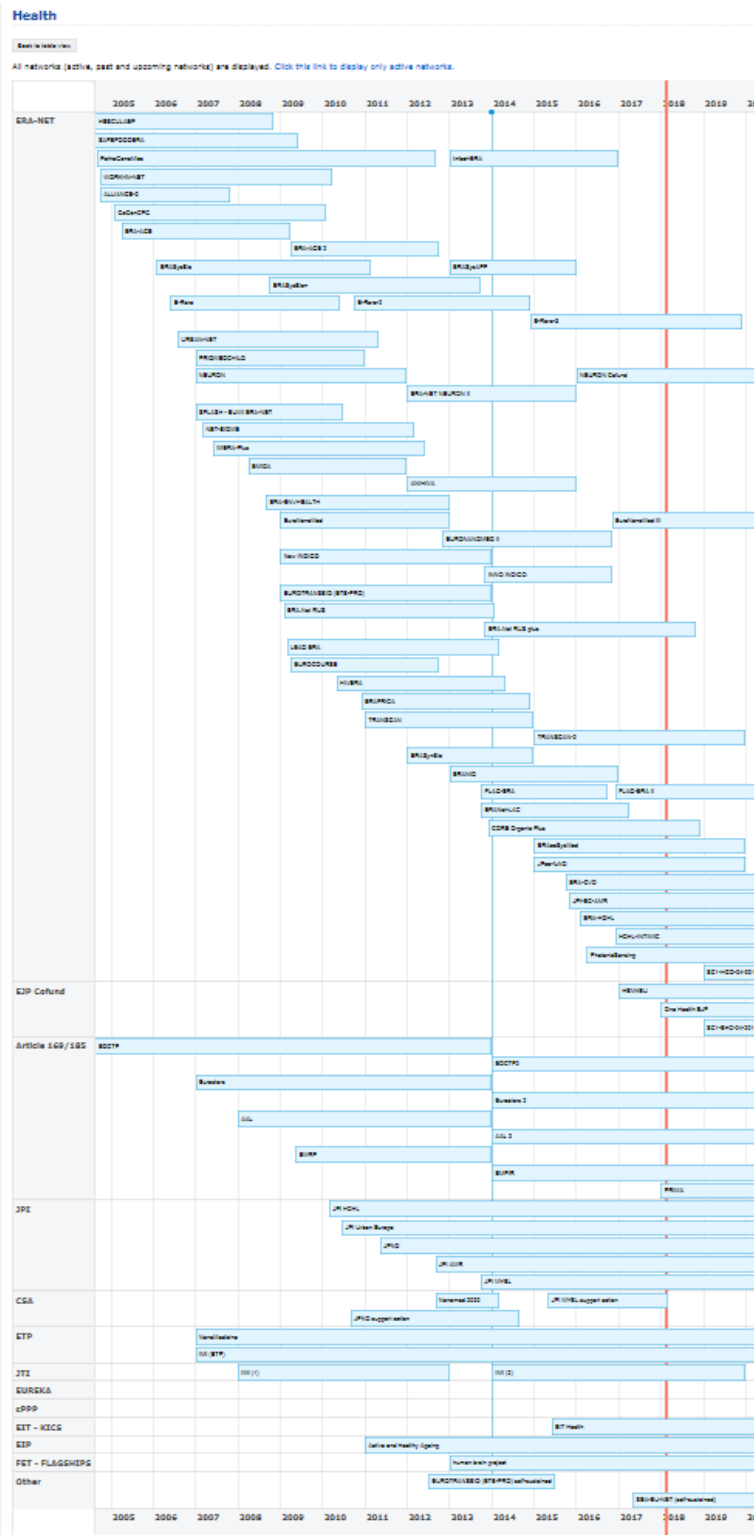
Figure 3: Schematic illustration of ERA health initiatives. For simplification, columns without entries (EUREKA, cPPP), column "CSA", P2Ps with less relevance for "health research" have been deleted

ERA-NET Cofund	EJP Cofund	Article 169/185	JPI	ETP	JTI	EIT - KICS	EIP	FET - FLAGSHIPS
E-Rare-3	HBM4EU	AAL 2	JPI AMR	IMI	IMI 2	EIT Health	Active and Healthy Ageing	Human Brain Project
ERA PerMed	One Health EJP	EDCTP2	JPI HDHL	NanoMedicine				
ERA-CVD			JPND					
ERA-HDHL								
ERAcSysMed								
EuroNanoMed III								
HDHL-INTIMIC								
JPI-EC-AMR								
JPco-fuND								
NEURON Cofund								
TRANSCAN-2								

Figure 4: Schematic illustration of health P2Ps and PPP

ERA-NET Cofund	EJP Cofund	Article 169/185	JPI	JTI
E-Rare-3	HBM4EU	AAL 2	JPI AMR	IMI 2
ERA PerMed	One Health EJP	EDCTP2	JPI HDHL	
ERA-CVD			JPND	
ERA-HDHL				
ERAcSysMed				
EuroNanoMed III				
HDHL-INTIMIC				
JPI-EC-AMR				
JPco-fuND				
NEURON Cofund				
TRANSCAN-2				

Figure 5: Temporal illustration of ERA initiatives since 2003. Page 18: [active + inactive](#); page 19: [active only](#). Red line depicts current timeline (March 2018). For better readability you may follow the hyperlinks.



Only active networks are displayed. [Click this link to display all networks \(including past and upcoming networks\)](#)

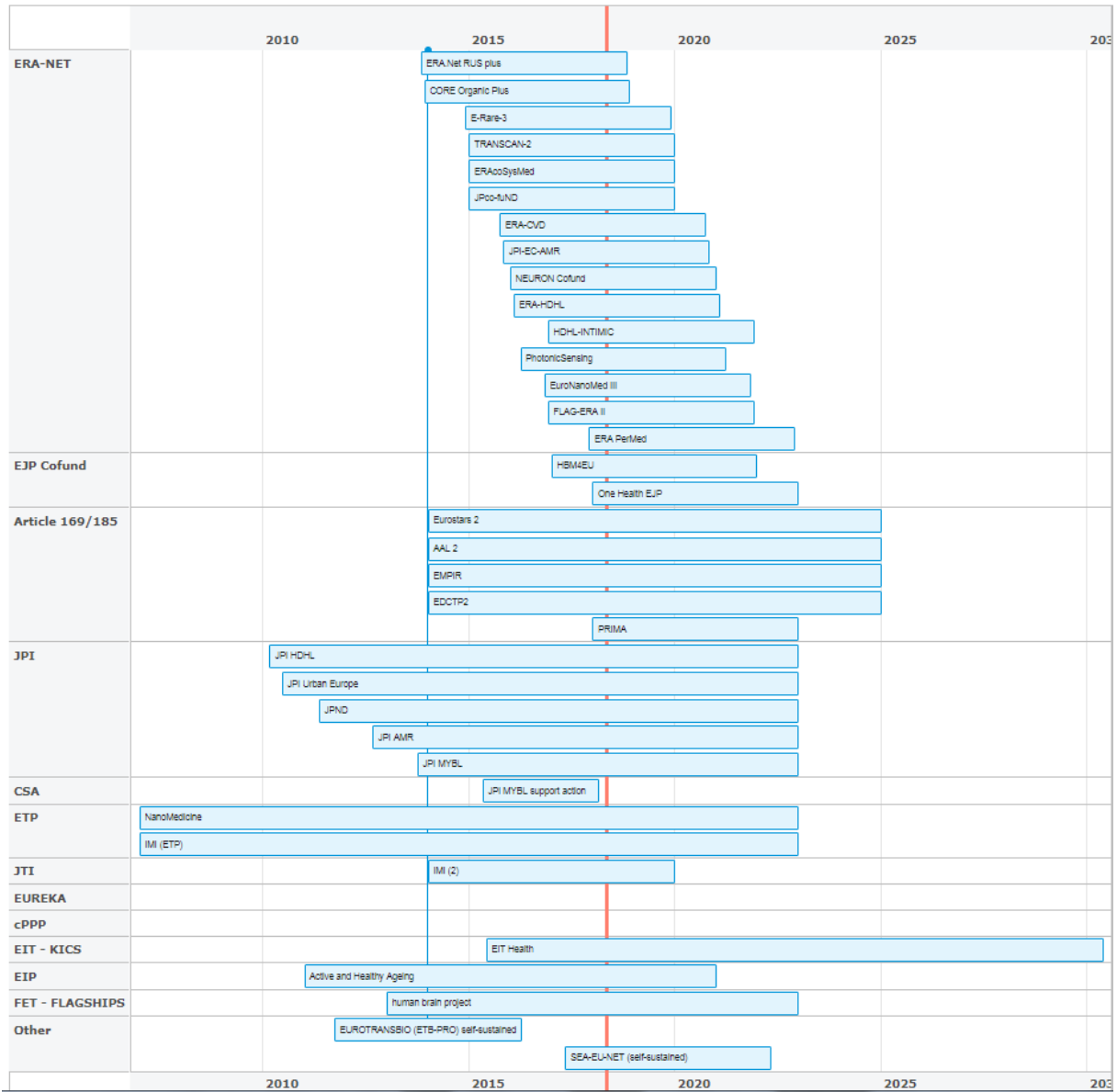


Table 1: Most active funding organisations in health P2Ps per funding organisation (equal or above 4 participations). Data extracted from eCORDA (12.03.2018).

Funding organisation	Country	Number of P2Ps
INSTITUTO DE SALUD CARLOS III	ES	14
AGENCE NATIONALE DE LA RECHERCHE	FR	13
FONDS NATIONAL DE LA RECHERCHE SCIENTIFIQUE	BE	12
DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE	11
ZORGONDERZOEK NEDERLAND ZON	NL	11
FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT	11
TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	TR	11
BUNDESMINISTERIUM FUER BILDUNG UND FORSCHUNG	DE	10
MINISTRY OF HEALTH	IL	10
MINISTERO DELLA SALUTE	IT	10
VALSTS IZGLITIBAS ATTISTIBAS AGENTURA	LV	9
NARODOWE CENTRUM BADAN I ROZWOJU	PL	9
FONDS VOOR WETENSCHAPPELIJK ONDERZOEK-VLAANDEREN	BE	8
NORGES FORSKNINGSRAD	NO	8
MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA	IT	7
FONDS ZUR FÖRDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG	AT	6
SLOVENSKA AKADEMIA VIED	SK	6
INNOVATIONSFONDEN	DK	5
MINISTERIO DE ECONOMIA, INDUSTRIA Y COMPETITIVIDAD	ES	5
OESTERREICHISCHE FORSCHUNGSFOERDERUNGSGESELLSCHAFT MBH	AT	4
BUNDESMINISTERIUM FÜR WISSENSCHAFT, FORSCHUNG UND WIRTSCHAFT	AT	4
Bundesanstalt für Landwirtschaft und Ernährung	DE	4
GENIKI GRAMMATIA EREVNAS KAI TECHNOLOGIAS	EL	4
MINISTERO DELLE POLITICHE AGRICOLE ALIMENTARI E FORESTALI	IT	4
Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO	4
VETENSKAPSRADET - SWEDISH RESEARCH COUNCIL	SE	4
FORSKNINGSRÅDET FÖR MILJÖ, ARELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE	4
Ministrstvo za izobraževanje, znanost in sport	SI	4
MEDICAL RESEARCH COUNCIL	UK	4

ERA-LEARN 2020 is a support action (CSA) funded by Horizon 2020. It started in January 2015 as a support platform for the Public-Public-Partnerships (P2P) community. ERA-LEARN 2020 involves the main stakeholders engaged in designing and deploying the broad structures and functions for the coordination and cooperation of national and/or regional research programmes. It provides support to the P2P community in investigating what has been learned and achieved by existing networks, if expectations have been met, and which positive effects have been observed by participating organisations or countries.