

Horizon Europe

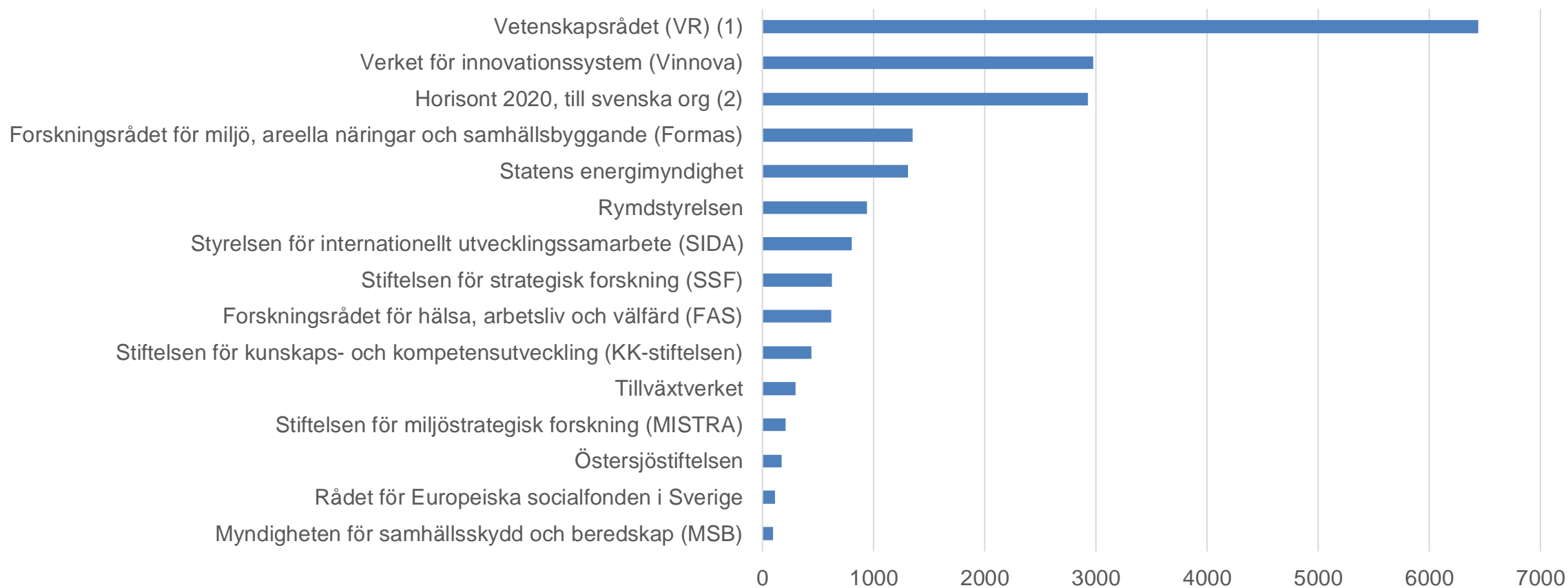
Framework programme for research and innovation 2021–2027

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Vinnova

Forskningsfinansiering i Sverige

FoU understöd inrapporterat till SCB för 2017 (senaste data tillgänglig) + eCorda (H2020 för 2017)



(1) För Vetenskapsrådet så inkluderas även poster till internationella organisationer samt utländska statliga enheter (1180 MSEK).

(2) För Horisont 2020 är medel uppskattade med avseende på data från eCORDA, från [KOMs Dashboard](#). Flera antaganden finns, bla linjär utbetalning över åren samt snittprojektlängd på 3 år, med hänsyn taget till projekt som har signerats under 2015, 2016 samt 2017.

Horizon Europe 2021–2027

Evolution not a revolution

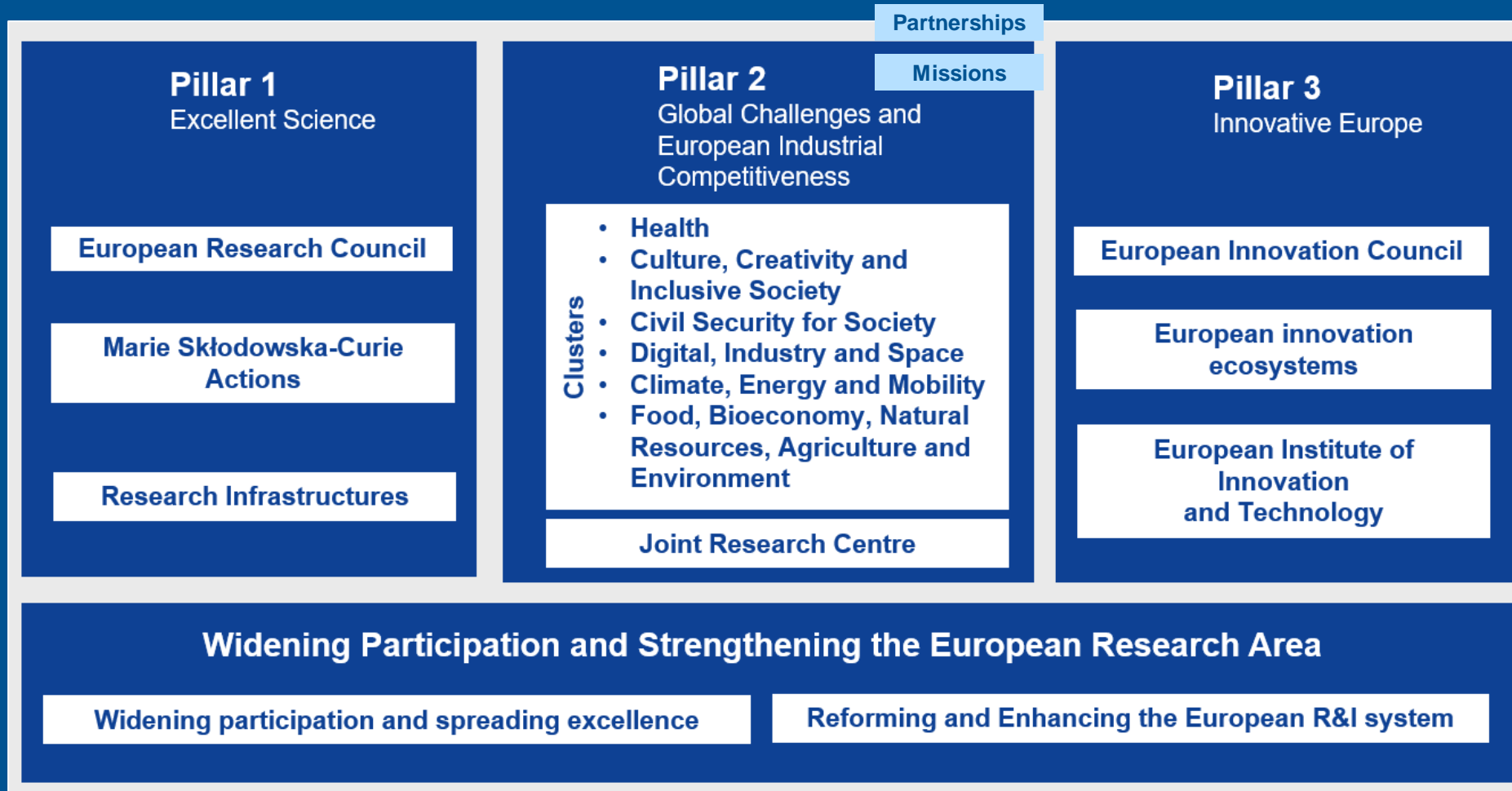


to strengthen the
EU's scientific and
technological bases

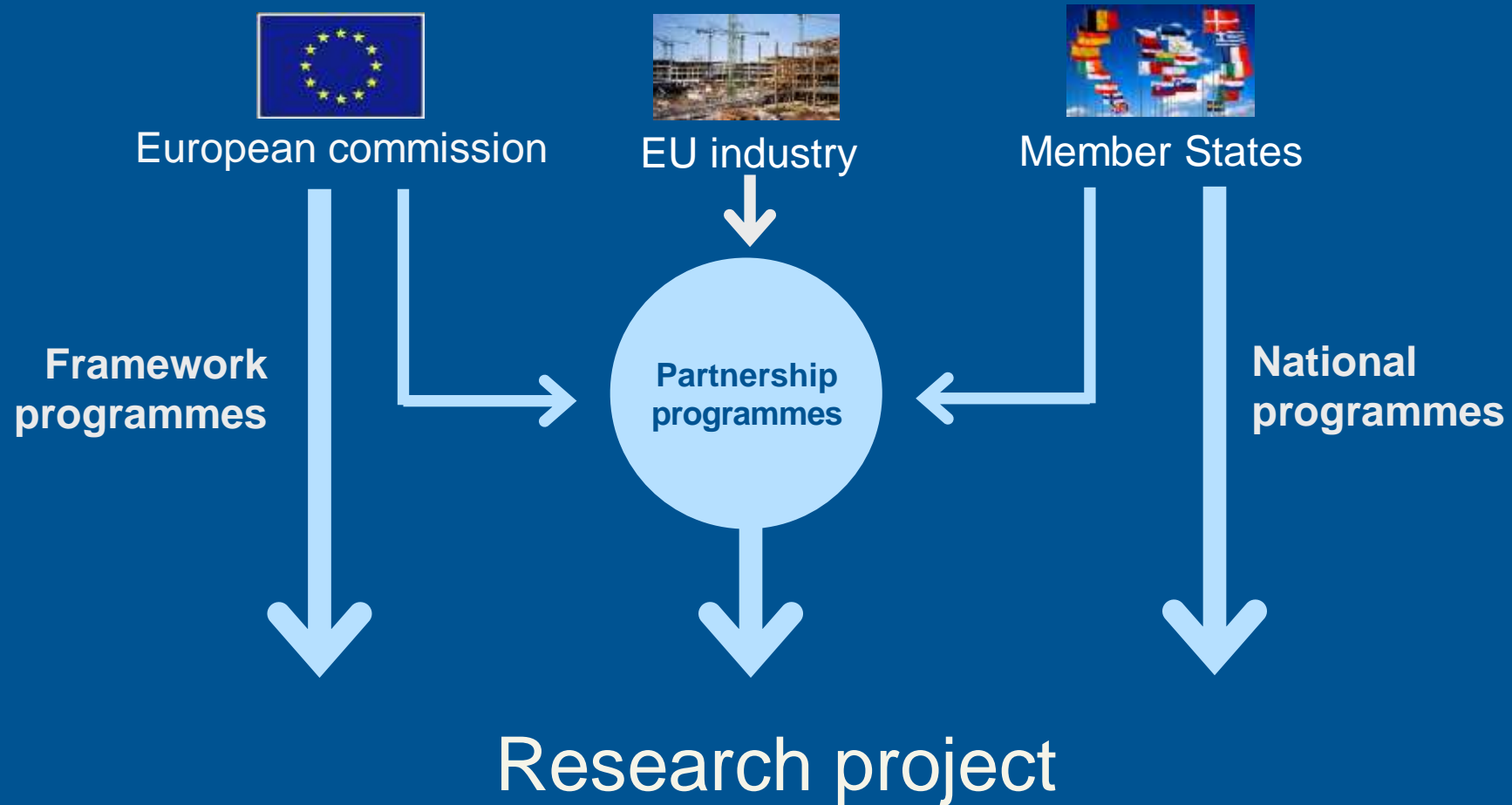
to boost Europe's
innovation capacity,
competitiveness
and jobs

to deliver on
citizens' priorities and
sustain our
socio-economic
model and values

Horizon Europe



European partnerships



Mission areas

Missions are not about R&I – they are about delivering a public good.
They are used to agree on a European level what we want to change and deliver it in society.

1



**Adaptation to
Climate Change,
including Societal
Transformation**

2



Cancer

3



**Healthy Oceans,
Seas, Coastal and
Inland Waters**

4



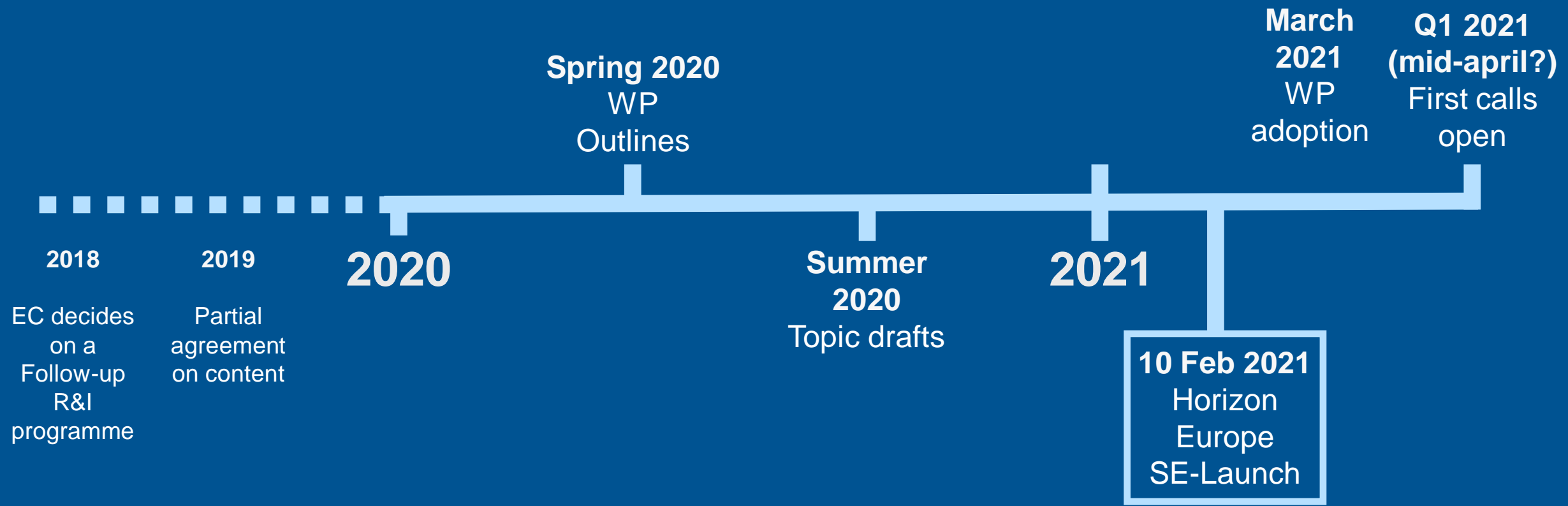
**Climate-Neutral and
Smart Cities**

5



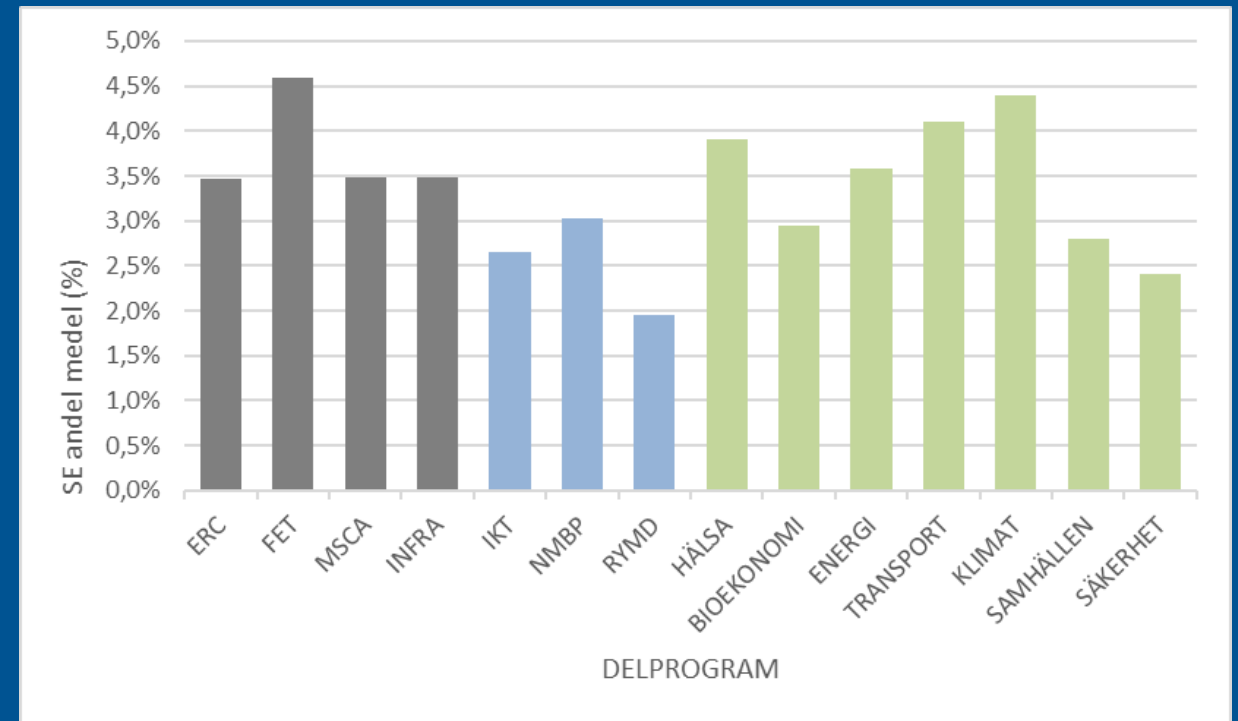
**Soil Health and
Food**

Horizon Europe timeline

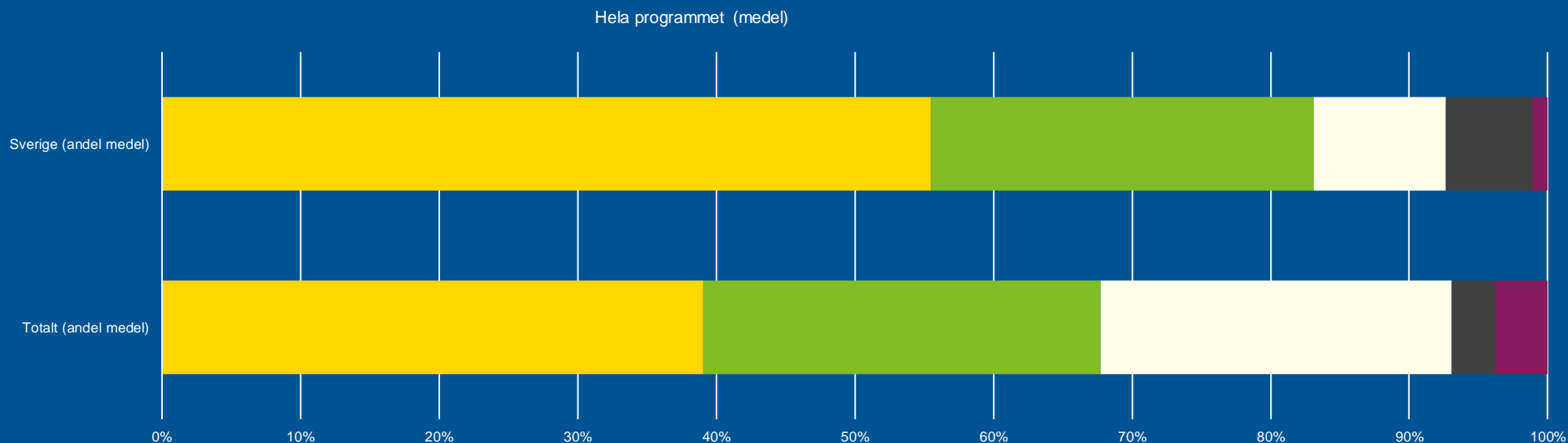


Hur går det för Sverige i Horisont 2020?

- Ca 1,66 miljarder euro motsvarande 3,4 procent av fördelade medel
- Plats 8: Tyskland, Storbritannien, Frankrike, Spanien, Italien, Nederländerna, Belgien, **Sverige**
- 3,3 procent av projekten koordineras av svenska organisationer
- Partnerskapsprogrammen har under 2019 finansierat svenska aktiviteter med totalt 450 MSEK



Deltagande organisationer i H2020



	Totalt (andel medel)	Sverige (andel medel)
■ Univ och högskola	39,0%	55,5%
■ Näringsliv	28,7%	27,6%
■ Forskningsorg	25,3%	9,5%
■ Offentlig org	3,1%	6,3%
■ Övriga	3,8%	1,1%



KRAFTSAMLING FÖR HORISONT EUROPA

FÖRSLAG TILL NATIONELL STRATEGI FÖR ETT STARKARE SVENSKT DELTAGANDE

AMBITIONER

- KVALITET I VÄRLDSKLASS
- HÅLLBAR UTVECKLING GENOM KUNSKAP OCH KAPACITET
- EFFEKTIV DELNING AV RESURSER OCH DATA
- INTERNATIONELLT ATTRAKTIVA AKTÖRER OCH MILJÖER
- ÖKAT INFLYTANDE OCH LEDARSKAP

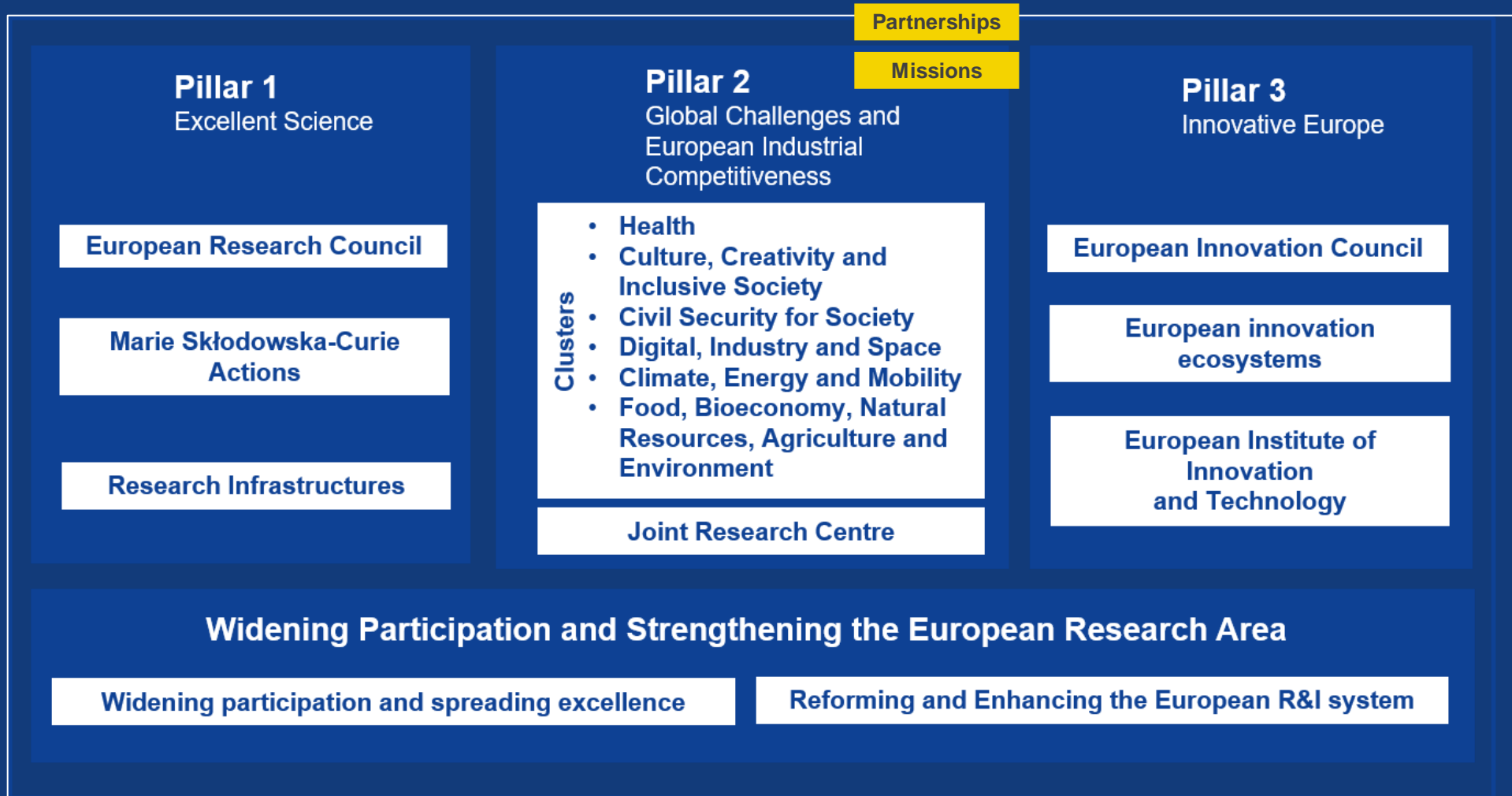
OMRÅDEN FÖR STRATEGISKA MÅL

- STRATEGISKT OCH AMBITIÖST SVENSKT DELTAGANDE
- STÄRKTA FÖRUTSÄTTNINGAR GENOM SAMORDNING MED NATIONELLA SATSNINGAR OCH PROGRAM
- UTVECKLAT DELTAGANDE I EUROPEISKA PARTNERSKAP
- ÖKAT NYTTIGGÖRANDE AV KUNSKAP OCH RESULTAT
- ÖKAT NYTTJANDE AV FORSKNINGSinFRASTRUKTUR OCH STARKA FOI-MILJÖER
- FRAMGÅNGSRIKT PÅVERKANSARBETE OCH EXPERTSTÖD

Global Challenges and European Industrial Competitiveness

Pillar 2

HORIZON EUROPE



Global Challenges and European Industrial Competitiveness

Boosting key technologies and solutions, underpinning
EU policies and Sustainable Development Goals



1. Health



2. Culture,
Creativity and
Inclusive Society



3. Civil Security
for Society



4. Digital, Industry
and Space



5. Climate, Energy
and Mobilty



6. Food, Bioeconomy,
Natural Recources,
Agriculture and
Environment



Joint Research Centre

Kluster 4

Digitalt Industri Rymd

CLUSTER 4 – VISION

Europe shaping competitive and trusted technologies for a European industry with **global leadership in key areas**, enabling **production and consumption to respect the boundaries of our planet**, and **maximising the benefits for all parts of society in the variety of social, economic and territorial contexts in Europe.**

CLUSTER 4 – DESTINATIONS

1. Climate neutral, circular, and digitised production
2. Increased autonomy in key strategic value chains for resilient industry
3. World leading data and computing technologies
4. Digital and emerging technologies for competitiveness and fit for the green deal
5. Open strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data
6. A human-centred and ethical development of digital and industrial technologies

DESTINATION 1 – CLIMATE NEUTRAL, CIRCULAR AND DIGITISED PRODUCTION

1. Green, flexible and advanced manufacturing
2. Advanced digital technologies for manufacturing
3. A new way to build, accelerating disruptive change in construction
4. Hubs for circularity, a stepping stone towards climate neutrality and circularity in industry
5. Enabling circularity of resources in the process industries, including waste, water and CO₂/CO
6. Integration of Renewables and Electrification in process industry

DESTINATION 2 – INCREASED AUTONOMY IN KEY STRATEGIC VALUE CHAINS FOR RESILIENT INDUSTRY

1. Novel paradigms to establish resilient and circular value chains
2. Raw materials for EU strategic autonomy and successful transition to a climate-neutral and circular economy
3. Green and Sustainable Materials
4. Materials for the benefit of society and the environment and materials for decarbonising Industry
5. Materials and data cross-cutting actions
6. Improving the resilience and preparedness of EU businesses, especially SMEs and Startups

DESTINATION 3 – WORLD LEADING DATA AND COMPUTING TECHNOLOGIES

1. Data sharing in the common European data space
2. Strengthening Europe's data analytics capacity
3. *High-end computing for exascale performance and beyond*
4. From Cloud to Edge to IoT for European Data

DESTINATION 4 – DIGITAL AND EMERGING TECHNOLOGIES FOR COMPETITIVENESS AND FIT FOR THE GREEN DEAL

1. Ultra-low power processors
2. European Innovation Leadership in Electronics
3. European Innovation Leadership in Photonics
4. 6G and foundational connectivity technologies
5. Innovation in AI, data and robotics
6. Tomorrow's deployable Robots: efficient, robust, safe, adaptive and trusted
7. European leadership in Emerging Enabling Technologies
8. Flagship on Quantum Technologies: a Paradigm Shift
9. Graphene: Europe in the lead

DESTINATION 5 – OPEN STRATEGIC AUTONOMY IN DEVELOPING, DEPLOYING AND USING GLOBAL SPACE-BASED INFRASTRUCTURES, SERVICES, APPLICATIONS AND DATA

1. Foster competitiveness of space systems
2. Reinforce EU capacity to access and use space
3. Evolution of space and ground infrastructure for Galileo/EGNOS
4. Evolution of Copernicus services
5. Innovative space capabilities: SSA, GOVSATCOM, Quantum
6. Space entrepreneurship ecosystems (incl. “New Space” and start-ups) and skills
7. Targeted and strategic actions supporting the EU space sector

DESTINATION 6 – A HUMAN-CENTRED AND ETHICAL DEVELOPMENT OF DIGITAL AND INDUSTRIAL TECHNOLOGIES

1. Leadership in AI based on trust
2. An Internet of Trust
3. eXtended Reality (XR)
4. Systemic approaches to make the most of the technologies within society and industry

CLUSTER 4 – PARTNERSHIPS

- High Performance Computing - Institutionalised, euroHPC
- Key Digital Technologies - Institutionalised, derived from ECSEL
- European Metrology - Institutionalised, derived from EMPIR
- Smart Networks and Services - Co-programmed, derived from 5G-PPP
- AI, data and robotics - Co-programmed, derived from euRobotics & BDVA
- Photonics Europe - Co-programmed, derived from Photonics21
- Clean Steel - Low Carbon Steelmaking - Co-programmed, derived from ESTEP
- Made in Europe - Co-programmed, derived from EFFRA
- Processes4Planet - Co-programmed, derived from Spire
- Global competitive space systems - Co-programmed

Kluster 5

Klimat Energi Mobilitet

Horisont Europa

Partnerships



Pelare 1

Vetenskaplig
spetskompetens

Europeiska forskningsrådet

Marie Skłodowska-Curie-
åtgärder

Forskningsinfrastrukturer



Pelare 2

Globala utmaningar och
europeisk industriell
konkurrenskraft

Missions

Kluster

- Hälsa
- Kultur, kreativitet och inkluderande samhällen
- Civil säkerhet för samhället
- Digitala frågor, industri och rymden
- **Klimat, energi och mobilitet**
- Livsmedel, bioekonomi, naturresurser, jordbruk och miljö

Gemensamma forskningscentrumet



Pelare 3

Innovativa Europa

Europeiska innovationsrådet

Europeiskt
ekosystem för innovation

Europeiska institutet för
innovation
och teknik

Bredda deltagande och stärka det europeiska forskningsområdet

Bredda deltagande och sprida spetskompetens

Reformera och förstärka det europeiska FoU-systemet

5. Climate, Energy and Mobility

Aims

- climate neutrality in Europe by 2050
- deep reduction of greenhouse gas emissions
- zero pollution
- becoming a globally leading actor for sustainable technologies and services



Cluster 5 – Destinations

Accelerating green and digital transformation of economy, industry and society achieving climate neutrality in Europe by 2050



Destination 1
Climate sciences and responses



Destination 2
Cross-sectoral solutions for the climate transition



Destination 3
Sustainable, secure and competitive energy supply



Destination 4
Efficient, sustainable and inclusive energy use



Destination 5
Clean and competitive solutions for all transport modes



Destination 6
Safe Resilient Transport and Smart Mobility services for passengers and goods

Possible partnership programmes

Transforming
Europe's rail
system

Institutional/Co-programmed

Integrated Air
Traffic
Management

Institutional/Co-
programmed

Clean Aviation

Institutional/Co-
programmed

Clean Hydrogen

Institutional/Co-
programmed

People-centric
sustainable built
environment

Co-programmed

Towards zero-
emission road
transport

Co-programmed

Connected and
Automated
Driving

Co-programmed

Industrial Battery
Value Chain

Co-programmed

Clean Energy
Transition

Co-funded

Driving Urban
Transitions to a
sustainable future

Co-funded

Zero-emission
waterborne
transport

Co-programmed

Kluster 6

Livsmedel Bioekonomi Naturresurser Jordbruk Miljö

6. Food, Bioeconomy, Natural Resources, Agriculture and Environment

Aims

- reduce environmental degradations
- halt the decline of biodiversity
- better manage natural resources
- serve the EU climate objectives
- ensure food and water security

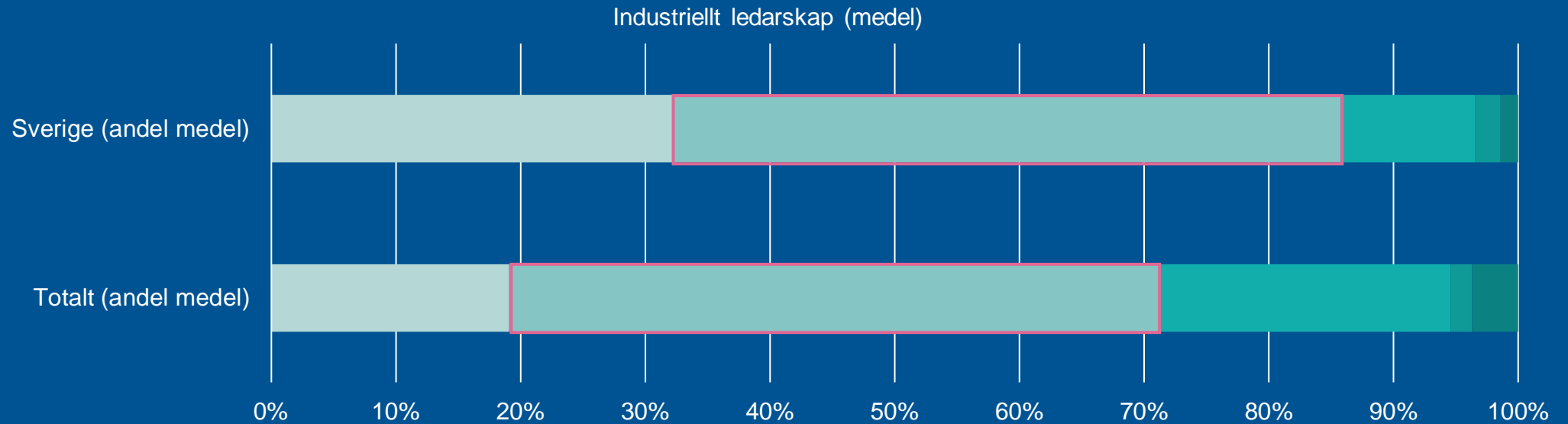






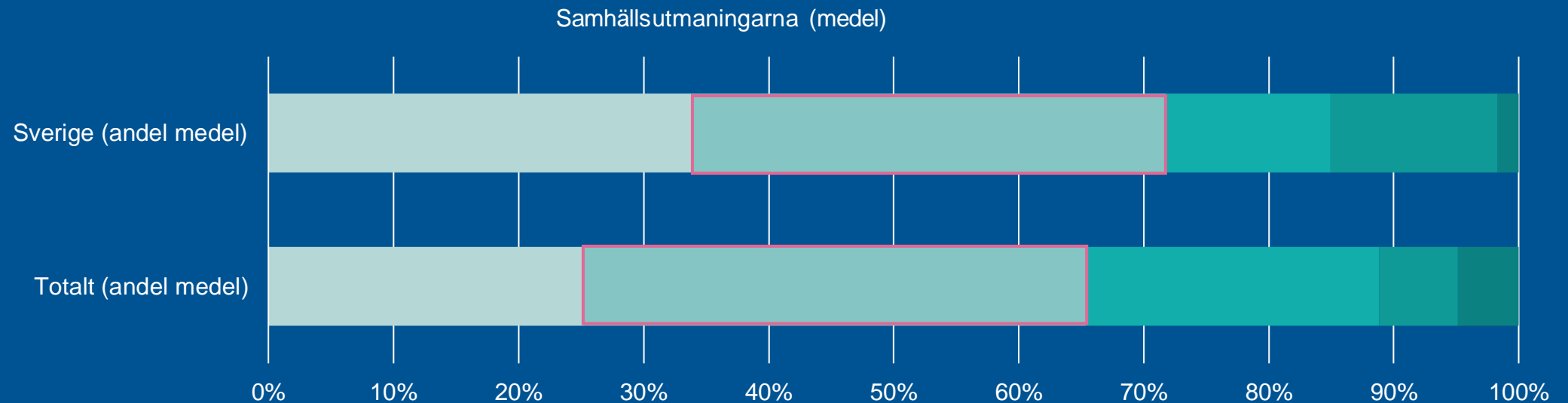
Varför och hur?

Deltagande organisationer i industriellt ledarskap



	Totalt (andel medel)	Sverige (andel medel)
■ Univ och högskola	19,1%	32,2%
■ Näringsliv	52,1%	53,5%
■ Forskningsorg	23,4%	10,8%
■ Offentlig org	1,7%	2,1%
■ Övriga	3,7%	1,4%

Deltagande organisationer i samhällsutmaningar



	Totalt (andel medel)	Sverige (andel medel)
■ Univ och högskola	25,2%	33,8%
■ Näringsliv	40,1%	38,0%
■ Forskningsorg	23,5%	13,2%
■ Offentlig org	6,3%	13,4%
■ Övriga	4,9%	1,7%



Why industry participation?

- Contribution to different parts of the value chain for product development
 - Reduced development time
- Investment in SE research and development
 - Access to SE competence and networking
- Finance
 - Reduced risk when having funding from several sources

How to?

- Use existing networks, "peers of peers"
- Conferences, meetings, ...
- Start "small" – mobility actions; lift a national collaboration to EU level, partnership programmes
- Brokerage events
- Partner search tool to complement



NCP?



Nationell EU-nod

NCP

Nationell kontaktperson



- ✓ Svarar på frågor om Horisont
- ✓ Hjälper att hitta rätt utlysningar och topics
- ✓ Stöd kring legala och finansiella frågor
- ✓ Sprider information
- ✓ Strategiska råd

Information från SE-systemet till EC via NCP-nätverk, programkommitté och PK-experten

Kontakt

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Länkar till Vinnovas webbplats:

Presentation och inspelning från mötet, 2021-01-19

[Informationsmöte om Horisont Europa | Vinnova](#)

Mer information [Om Horisont Europa](#)



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