

# Horizon 2020 and the maritime area



Esa Stenberg, VINNOVA

National Contact Point (NCP)

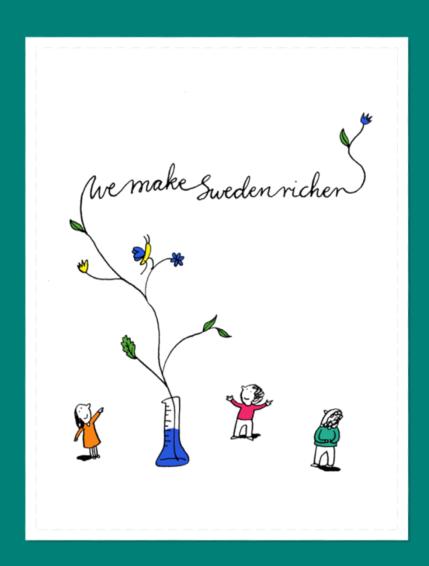
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#### **VINNOVA** in brief

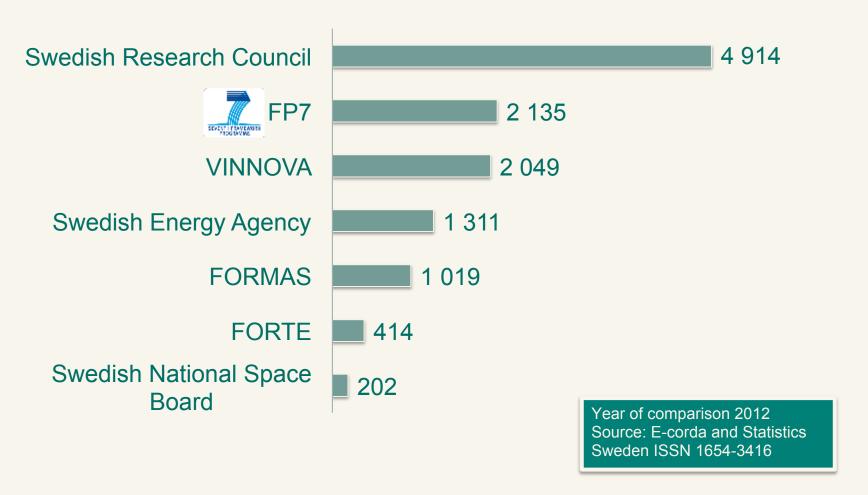
- Swedish government agency working under the Ministry of Enterprise
- During 2013 the funds for Research and Development is 2 376 Million SEK
- National responsibility for providing information and advice regarding Horizon 2020
- Over 200 people work at VINNOVA's offices in Stockholm and Brussels
- Director General Charlotte Brogren





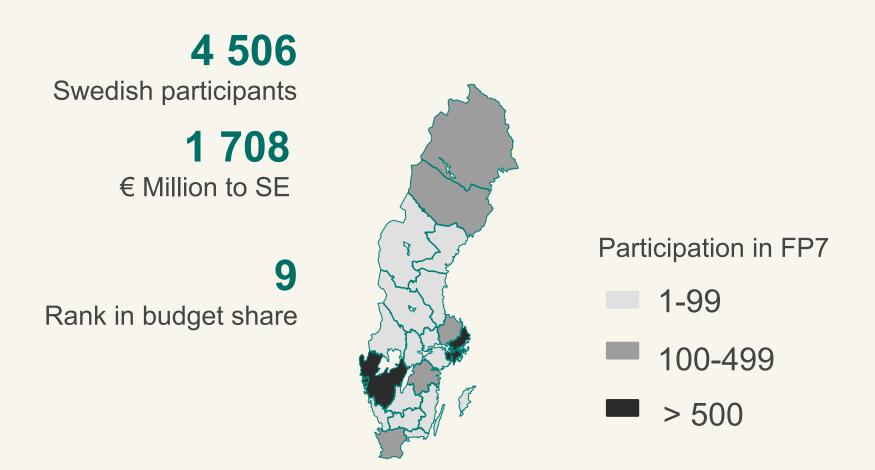
# EU Research programme - a significant source of funding

#### **Million SEK**





### Swedish participation in EU projects







# HORIZON 2020



HORIZON 2020

#### What is Horizon 2020?



The EU's 2014-2020 programme for research & innovation

- · Respond to the economic crisis and invest in future jobs and growth
- Focus on societal challenges facing European society
- Strengthen the EU's global position in research and innovation
- Couple research to innovation



Years 2014 - 2020 Budget ca €80B Challenge-driven approach – focus on innovation

Two-years work programmes

Less descriptive topics – more focus on impact

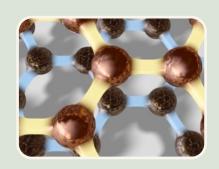
Max 8 months from closure of call to contract signed

3 legal entities from 3 member or associated countries

Horizon 2020 – facts in short



# Horizon 2020 The basics: three priorities







Excellent science

Industrial leadership

Societal challenges



### Societal challenges



Health, demographic change and wellbeing



Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy



Secure, clean and efficient energy



Smart, green and integrated transport



Climate action, environment, resource efficiency and raw materials



Europe in a changing world - inclusive, innovative and reflective societies



Secure societies - protecting freedom and security of Europe and its citizens





The EU Framework Programme for Research and Innovation

HORIZON 2020

**Smart, green and integrated Transport** 

Work Programme 2016-2017



Information provided is indicative, please refer to adopted WP2016/7



### Horizon 2020 - Transport

# Objectives of Societal Challenge 4 'Smart, green and integrated Transport':

Achieving a European transport system that is

- resilient
- resource-efficient
- climate and environmentally friendly
- safe
- seamless
- competitive



...and that benefits citizens, economy and society



#### Work Programme 2016-2017

# Transport Work Programme

#### **Calls for proposals:**

- 1) Mobility for Growth
- 2) Automated Road Transport
- 3) European Green Vehicles Initiative

### Other activities

- Blue Growth (SC2/Food)
- SME Instrument
- Fast Track to Innovation
- SC3/Energy









#### Call "Mobility for Growth"

(H2020-MG-2016-2017) — Total EU contribution: EUR 434 Mio

#### **Contents and structure**

# A) Mode-specific challenges

- 1) Aviation
- 2) Waterborne

#### C) Cross-cutting issues

8) Socio-economic and behavioural research and forward-looking activities for policy making

#### B) Cross-modal / transport integration challenges

- 3) Safety
- 4) Urban
- 5) Logistics
- 6) Intelligent Transport Systems
- 7) Infrastructure



#### Call "Mobility for Growth"

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#### **Contents and structure – Maritime relevance**

- A) Mode-specific challenges
- 1) Aviation
- 2) Waterborne

- C) Cross-cutting issues
- 8) Socio-economic and behavioural research and forward-looking activities for policy making

- B) Cross-modal / transport integration challenges
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- 4) Urban
- 5) Logistics
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- 7) Infrastructure



#### Waterborne



2016-2017: 4 topics open EUR 78 Mio EU budget

#### **Context**

- Economic, environmental and social sustainability are challenges for waterborne transport
- Need for a modern, resource-efficient, interconnected, safe, secure and resilient system
- Efficiency gains, improved use of energy sources, minimisation of environmental impacts desirable
- Competitors challenging Europe's leadership in design, production and operation of waterborne assets



#### Waterborne: topics and budget

Total EU contribution: EUR 78 Mio

Topic	Title	Action type	ges	Budget (EUR Mio)	
Торіс			Sta	2016	2017
MG-2.1	Innovations for energy efficiency and emission control in waterborne transport	IA	2		40
MG-2.4	Complex and value-added specialised vessels	IA	2		
MG-2.2	Development, production and use of high performance and lightweight materials for vessels and equipment	IA	2	38	
MG-2.3	New and improved transport concepts in waterborne transport	RIA	2		

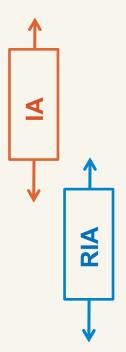


### **Types of Actions**

Actions	<b>Participants</b>	
Research and Innovation Actions (RIAs)  Main focus on research	Consortia of min. 3 partners from 3 different countries	
Innovation Actions (IAs)  Main focus on close-to-market activities		
Coordination and Support Actions (CSAs)  Focus on coordination and networking of R&I projects, programmes and policies	Single entities or consortia	



### **Technology readiness levels (TRL)**



- TRL9 Actual system proven in an operational environment
- TRL8 System completed and qualified
- TRL7 System prototype demonstrated in an operational environment
- TRL6 Technology demonstrated in a relevant environment
- TRL5 Technology validated in a relevant environment
- TRL4 Technology validated in the laboratory
- TRL3 Experimental Proof of Concept
- TRL2 Technology concept formulated
- TRL1 Basic Principles Observed

IA - Innovation Action RIA – Research & Innovation Action







Excellence	Impact	Implementation
Scientific and/or technological excellence (relevant to the topics addressed by the call)	Potential impact through the development, dissemination and use of the project results	Quality and efficiency of the implementation and management

The evaluation criteria are call specific





### How to read a topic

Topic title	Topic MG-2.2-2016  Development, production and use of high performance and lightweight materials for vessels and equipment
Specific Challenge context and why	<ul> <li>Exploring new lightweight materials for waterborne usages (vessels and components)</li> <li>Developing design, construction &amp; production principles Involve SME suppliers</li> </ul>
Scope specifies the focus but without describing specific approaches	<ul> <li>All of the following</li> <li>Conception, production, use and performance analysis and simulation of advanced composites</li> <li>Assessing safety and fire resistance, noise and thermal properties</li> </ul>
Expected Impact key elements of what is expected to be achieved	<ul> <li>Introduce new lightweight materials</li> <li>Decrease maintenance and life cycle costs (-30 %)</li> <li>Inputs to relevant regulatory regimes as appropriate</li> <li>Full scale demonstrators where feasible</li> </ul>
Types of action what action to be applied	Innovation action EUR 7-9 Mio per proposal 20



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# Innovations for energy efficiency and emission control in waterborne transport

Topic MG-2.1-2017 (IA)

#### Challenge

- Keep Europe's lead in world markets, introduce a stepchange in energy efficiency and emission reduction
- Explore alternative fuels, prepare for electrification

#### Scope

- Alternative fuels, in particular LNG and methanol
- Energy storage, hybridisation, electrification
- Pollution reduction and control technologies
- Reduction of frictional resistance

#### **Expected impact**

Energy efficient, less polluting waterborne transport

Estimated EC contrib. per proposal: EUR 5-9 Mio



# New and improved transport concepts in waterborne transport

Topic MG-2.3-2016 (RIA)

#### Challenge

- Overcoming barriers between transport modes
- Greening and optimising the transport chain
- Contributing to EU "Energy Union" goals

#### Scope

- Improving systems for waterborne operations
- New cost-efficient vessel concepts for gas transport
- Automation in waterborne operations

#### **Expected impact**

- Technical and operational validation of a concept leading to substantial improvement of safety, sustainability performance
- Concepts for the automation of waterborne transport

#### Estimated EC contrib. per proposal: EUR 6-12 Mio





# Complex and value-added specialised vessels

Topic MG-2.4-2017 (IA)

#### Challenge

 Exploring best design, construction and production principles for both small series and standard vessels

#### Scope

 Developing and validating advanced ferry concepts, low-impact ship design and operations, standardised workboat concepts, design for new support operations

#### **Expected impact**

- Technical and operational validation of a concept leading to substantial improvement of safety, sustainability performance
- Proof of concept up to the demonstration level
- Development of standardised approaches

#### Estimated EC contrib. per proposal: EUR 8-12 Mio





2016-2017: 6 topics open EUR 66 Mio EU budget

#### **Context**

- Safety improved across all modes over last 10 years
- EU targets for transport safety: halving road casualties by 2020, towards zero fatalities by 2050
- Aim: reducing accident rates, fatalities and injuries in each mode
- Increasing knowledge and awareness, developing technologies, products, services, solutions



#### Safety: topics and budget

Total EU contribution: EUR 66 Mio

Topic	Title	type	Budget (EUR Mio)		
Горіс	Title		2016	2017	
MG-3.3	Safer waterborne transport and maritime operations	RIA	2	22	
MG-3.5	Behavioural aspects for safer transport	RIA	2	22	
MG-3.4	Transport infrastructure innovation to increase the transport system safety at modal and intermodal level	RIA	2	12	



# Safer waterborne transport and maritime operations

Topic MG-3.3-2016 (RIA)

#### Challenge

 Improving technologies and procedures for safe and environmentally sound waterborne operations

#### Scope

- Waterborne transport operations in complex traffic situations and extreme environments; modelling
- New vessel and equipment design concepts
- Safety assessment for flash point and volatile fuels

#### **Expected impact**

Proof of concepts for improving waterborne safety

Estimated EC contrib. per proposal: EUR 5-7 Mio International Cooperation encouraged





#### Logistics



2016-2017: 4 topics open

EUR 27 Mio EU budget

Complements relevant topics under Urban

Mobility and Intelligent Transport Systems

#### **Context**

- In 2012, 45% of freight transport (tkm) on the road,
   40% by sea, 9% by rail, 3% by inland waterways
- One in four trucks in the EU runs empty, overall efficiency (weight-based) as low as 43%
- Need for an increase in efficiency and sustainability
- Opportunities provided by digitalisation
- Need to remove bottlenecks



#### Logistics: topics and budget

Total EU contribution: EUR 27 Mio

Topic	Title	Stages States	Budget (EUR Mio)		
Торіс			2016	2017	
MG-5.1	Networked and efficient logistics clusters	RIA	2	12	
MG-5.2	Innovative ICT solutions for future logistics operations	RIA	2		→ 12
MG-5.4	Potential of the physical internet	RIA + CSA	2		→ 1
MG-5.3	Promoting the deployment of green transport, towards Ecolabels for logistics	CSA	1	2	

CSA = Coordination and Support Action

RIA = Research and Innovation Action



# Innovative ICT solutions for future logistics operations

Topic MG-5.2-2017 (RIA)

#### Challenge

 Need to exploit advanced ICT solutions (Internet-of-Things, big data, new satellite navigation infrastructure, ITS)

**Scope** (at least 2 out of the following 3 issues)

- a) Optimize delivery planning and increase availability of data
- b) Dynamic routing and business models
- c) Harmonize interoperability between supply chain partners

#### **Expected impact**

 Better integration of ICT solutions to link digital and physical flows; seamless freight transport across modes and MSs; reliability & reduced transit times; viable dynamic transport services

Estimated budget per proposal: EUR 3-5 Mio



#### **Infrastructure**



2016-2017: 3 topics open

EUR 38 Mio EU budget

Proposals addressing Rail (in a multimodal approach) and Aviation infrastructure: ensure complementarity with activities in 'Shift to Rail' and 'SESAR' respectively

#### **Context**

- Growing need to make infrastructure more resilient, to keep pace with growing mobility needs and extreme events
- Coping with declining resources to maintain and upgrade transport infrastructure
- Challenge: identify innovative solutions to increase efficiency and robustness of transport infrastructure



### Infrastructure: topics and budget

Total EU contribution: EUR 38 Mio

Topic	Title	Stages Stages	Budget (EUR Mio)		
Горіс	Title		Sta	2016	2017
MG-7.1	Resilience to extreme (natural and man-made) events	RIA	2		
MG-7.2	Optimisation of transport infrastructure including terminals	RIA	2		<b>→</b> 37
MG-7.3	The Port of the future	RIA CSA	2		<b>→</b> 1

CSA = Coordination and Support Action

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#### The Port of the future

#### *Topic MG-7.3-2017 (RIA+CSA)*

#### Challenge

 Ports face specific challenges (emissions reduction, smart grids, use of renewables, etc.) as well as challenges common to all multi-modal terminals

#### Scope (RIA + CSA)

- Re-engineering of operational processes inside and around terminals
- Better capacity management and integration in the socio-economic surrounding environment
- Efficient connections with hinterland transport network
- Developing appropriate Key Performance Indicators
- Inland waterways and short sea shipping ports deserve particular attention.

#### **Expected impact**

 Reduce impacts and costs related to port activities; integration of the port in the sorrounding socio-economic area.

Estimated budget per proposal: EUR 3-5 Mio (RIA); EUR 1 Mio (CSA)

Participation of Mediterranean and Neighbouring Partner Countries 33

encouraged



### 2016-17 calls: key dates

C	Date	Calls / topics
2015	15 October	Opening of 2016 calls
2016	20 January 26 January 29 September	Closing Two-stage topics: 1st stage proposals Single-stage topics Two-stage topics: 2nd stage proposals
2016	20 September 4 October	Opening of 2017 calls  Calls Mobility for Growth & Autom. Road Transport  Call Green Vehicles
2017	26 January 1 February 27 September 19 October	Closing Two-stage topics: 1st stage proposals Single-stage topics Two-stage topics: 2nd stage proposals - call ART Two-stage topics: 2nd stage proposals - call MG



The EU Framework Programme for Research and Innovation

#### HORIZON 2020

Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy







## Blue Growth R&I

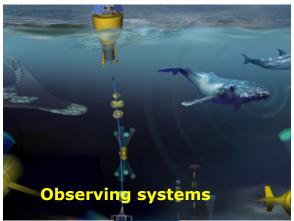






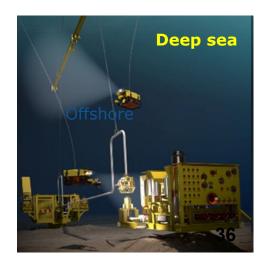






## **Scope and opportunities** across H2020







# A. Demonstration the innovation potential of seas and oceans

#### **Actions include:**

- ✓ Scaling up and de-risking marine innovations
- ✓ Improving environmental legislation affecting marine technologies and businesses



# Blue Growth - Total EU contribution: EUR 25 Mio

Topic	Title	Action type	Stages	Budget (EUR Mio)	
				2016	2017
BG-02	High value-added specialised vessel concepts enabling more efficient servicing of emerging coastal and offshore activities	IA	1	7	8
BG-03	Multi-use of the oceans' marine space, offshore and near-shore: compatibility, regulations, environmental and legal issues	CSA	1	2	
BG-04	Multi-use of the oceans marine space, offshore and near-shore: Enabling technologies	RIA	1		8

CSA = Coordination and Support Action

RIA = Research and Innovation Action

Deadlines: 17 Feb 14 Feb



### **More information**

#### Horizon 2020 is open for all...



...but in general the industrialised countries fund their own participation



# **Time to grant**

A maximum time to grant of 8 months

#### 5 months

for informing all applicants of outcome of scientific evaluation

# negotiations.

#### Some exceptions for ex:

- Actions of ERC
- Complex actions
- Large number of proposals
- On request of applicants

3 months

for signature of GA







Excellence	Impact	Implementation
Scientific and/or technological excellence (relevant to the topics addressed by the call)	Potential impact through the development, dissemination and use of the project results	Quality and efficiency of the implementation and management

The evaluation criteria are call specific



# **Horizon 2020 - Type of actions**

# Research and Innovation Actions (RIA):

100% of eligible costs 25% for indirect costs

#### **Innovation Actions (IA):**

Profit-organisations
70% of costs
Non profit: same as RIA

Building a Team
Min 3 partners from
3 different EU countries
or AC

#### **Coordination and support actions:**

100% of eligible costs, 25% for indirect costs

Pre-Commercial Procurement, Prizes, SME instrument, ERC Grants, Marie Curie Fellowships, ERAnet Cofund etc.



# Participant Portal - The Gate to EU-projects

Contains all documentation - be selective!

#### Top three documents:

- Work-Programme
  - Defines the project content
- Proposal Template
  - Includes guidance notes in all parts
  - Is 'hidden' inside the application procedure
- General Annexes
  - List of countries, eligibility criteria, funding rates, evaluation etc.



Paperless Grant Management in Horizon 2020



# Register as expert:

http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html



and for organisations to suggest experts were just published in New experts OJ C342 of 22 November 2013. European Commission will soon need experts to evaluate first

Horizon 2020 proposals, Don't forget to tick the H2020 box in the registration platform and update your expertise.

#### **Quick Links**

- . FAQ for Experts
- · Expert recommendations

Logistics for Brussels

· Map of evaluation area



You have a chance of being selected as an expert if you:

- · have high-level of expertise in the relevant fields of research and innovation (see call for details on types of expertise).
- · can be available for occasional, short-term assignments

REGISTER AS EXPERT



#### What do expert assignments involve?

Experts, as peer reviewers, assist in the:

- · evaluation of proposals
- · monitoring of actions

In addition, experts assist in the:

 preparation, implementation or evaluation of programmes and design of policies. This includes the Horizon 2020 Advisory Groups.

Assignments mainly concern research and innovation, falling within the Horizon 2020 programme designed to address the challenges Europe is facing through funding 

## Support from **National Contact Points**

- Information about Horizon 2020
  - Information days
  - Thematic workshops
  - One-on-one meetings
  - Legal and financial advice
- Training courses
- Analysis and statistics of Swedish participation
- Following the development and content of Horizon 2020

#### **Nationella** kontaktpersoner för **Horisont 2020**







Johan Lindberg, VINNOVA johan lindberg@vinnova.se

Linda Bell, VINNOVA linda bell avinnous a

Jessica Umegård VINNOVA jessica Il megar d@vinnova.sa

**EXCELLENT SCIENCE** 



Ana Beramendi Heine Camilla Crunditz Vetenskapsrådet, Vetenskapsrådet,



Karrin Brandt. Vetenskapsrådet,

VINNOVA



Iohan Lindberg. Erik Lithorn, VINNOVA erik lither n@vinnows se VINNOVA.



Katrin Danerlöv

SOCIETAL CHALLENGES



Karin Aase, VINNOVA.



skogsbruk, marin, maritim- samt insjöforsk välhefinnande Elisabet Nielsen, ning och bioekonomi VINNOVA Britta Fängström,



Smarta, gröna och Esa Stenberg.



och råvaror eflekterande samhäller Jessica Umegård, XXXXX XXXXXXX, XXXX VINNOVA



Johan Lindberg,



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# Horizon 2020 – support in Sweden

#### Local level

Universities (Grants offices)

#### Regional level

- Enterprise Europe Network (EEN)
- Regional Energy Agencies

#### National level

**National Contact Point** 

- VINNOVA
- VR (Swedish research council), Swedish Energy Agency

National SME support office

- EUSMESupport2020











# INSIDE – our newsletter for European funding!





Nyheter om europeiska och internationella FoU-program från VINNOVA 14 februari 2014

Gå till VINNOVA.se

#### Svensk lansering av Horisont 2020

Den 1 januari startade EU-kommissionens omfattande satsning på forskning och innovation – Horisont 2020. Det nya ramprogrammet har en budget på 80 miljarder euro vilket gör programmet till världens största program för forskning och innovation. Den 29 januari arrangerade VINNOVA ett lanseringsevent på Clarion Hotel Sign i Stockholm. Medverkade gjorde bland andra Utbildningsminister Jan Björklund och Robert-Jan Smits från EU-kommissionen. Om eventet»





#### Nationella påverkansplattformar för ökat deltagande i Horisont 2020

Den nationella EU-samordningsfunktionen EU-Sam, har lanserat en ny utlysning för att öka det svenska deltagande i Horisont 2020. Utlysningen vänder sig till konsortier av svenska forskningsoch innovationsaktörer som vill utveckla nationella påverkansplattformar för Horisont 2020. Målet är att påverka förutsättningarna för svenska aktörer att delta i Horisont 2020. Om utlysningen »

#### Uppsala universitet leder antibiotikaprojekt inom IMI

Ett stort antibiotikaprojektet på 750 miljoner kronor inom Innovative Medicines Initiative ska koordineras av Uppsala universitet. Projektet ska

#### Nationella informationsdagar om Horisont 2020

Missade du något av våra informationsmöten om de tematiska delarna av Horisont 2020? Du kan nu ta del av presentationerna och filmerna från



# Kontakta oss om du vill veta mer om Horisont 2020



Nationella kontaktpersoner: www.vinnova.se/NCP

Horisont 2020: www.vinnova.se/h2020

Nyhetsbrevet Inside: www.vinnova.se/inside



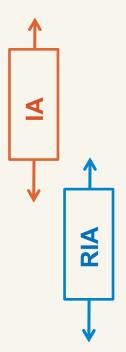
#### **Sveriges innovationsmyndighet**



# Vi stärker Sveriges innovationskraft för hållbar tillväxt och samhällsnytta

www.VINNOVA.se

# **Technology readiness levels (TRL)**



- TRL9 Actual system proven in an operational environment
- TRL8 System completed and qualified
- TRL7 System prototype demonstrated in an operational environment
- TRL6 Technology demonstrated in a relevant environment
- TRL5 Technology validated in a relevant environment
- TRL4 Technology validated in the laboratory
- TRL3 Experimental Proof of Concept
- TRL2 Technology concept formulated
- TRL1 Basic Principles Observed

IA - Innovation Action RIA – Research & Innovation Action





#### **Topic BG-03:**

Multi-use of the oceans' marine space, offshore and near-shore: compatibility, regulations, environmental and legal issues.

Coordination and Support Action



# **BG3 Specific challenge**

Combining several activities in the same marine space has the possibility to dividing the infrastructure overhead and reducing the costs of offshore operations and the demand on the space needed for different activities.

- -One barrier to multi use of the oceans is that different environmental, safety and regulatory regimes and practices apply to different sectors and to different national jurisdictions.
- -Furthermore, there is a lack of common understanding of the nature of operations within different sectors and the feasibility of combining these in a way that provides mutual benefits.
- -The challenge is to identify the real and perceived barriers to integration.
- -There is a need for a clear overview of compatibility, regulatory, environmental, safety, societal and legal issues within the context of the maritime spatial planning directive and how they impact on the combining of different marine and maritime activities.



## **BG3 Scope**

The environmental, spatial, economic and societal benefits of co-location of offshore and near-shore activities can be hindered by potentially inappropriate regulatory, operational, environmental, health and safety, societal and legal barriers.

- -An overview of all barriers both real and perceived is required as well as an action plan to overcome these challenges.
- -It is expected that stakeholders (industry, NGOs, governmental organisations, research organisations and representatives of concerned local communities) are actively engaged in work within this action.
- -Projects funded under this topic will by default participate in the Pilot on Open Research Data in Horizon 2020, with the option to opt-out, as described in the introduction.
- -The Commission considers that proposals requesting a contribution from the EU up to EUR 2 million would allow this challenge to be addressed appropriately.



# **BG3 Impact**

<u>Expected Impact</u>: In order to reduce costs of offshore and near-shore operations and the marine space needed for different activities, the project will:

- -Enable a full understanding of barriers and possibilities associated with combining marine activities.
- -Reduce risks associated with the commercial development of combined activities offshore as well as near-shore.
- -Concentrate marine activities to enable the more efficient use of the marine space with reduced environmental impact.
- -Enhance social acceptance of these new developments by local communities and society-at-large.
- -Increase development of European offshore activities that support the Blue Growth agenda.
- -Better harmonise regulations



#### Topic BG-04:

Multi-use of the oceans' marine space, offshore and near-shore: Enabling technologies

**Innovation Action** 



# **BG4 Specific challenge**

Combining several activities such as renewable energy, aquaculture, maritime transport and related services in the same marine space, including in multi-use platforms, has the possibility to divide the infrastructure overhead and reduce the costs of offshore operations and the demand on the space needed for different activities.

Research on multi-use platforms funded under the FP7 call 'The Oceans of Tomorrow' has already provided promising designs, technological solutions and models for combining activities in terms of economic potential and environmental impact. However, before reaching a demonstration pilot stage, further technological research and innovations are needed to reduce risks for operators and investors.



## **BG4 Scope**

- -Proposals should develop combinations of innovative, cost-effective technologies and methods including automation and remote monitoring technologies, flexible structures and facilities in order to test concepts of multi-use platforms leading to pilot demonstration phases.
- -They should test the sustainable operability of co-located maritime activities around coastal or deep sea environments.
- -They should also address health and safety issues of multi-use marine platforms.
- -Environmental and economic viability as well as societal acceptance should also be investigated, especially by involving local communities.
- -Proposals should capitalise on the results of EU and national projects including those testing business models of multi-use platforms for their economic feasibility and environmental sustainability
- -The Commission considers that proposals requesting a contribution from the EU of up to EUR 8 million would allow this challenge to be addressed appropriately.



# **BG4 Impact**

To reinforce European competitiveness in the Blue Economy, proposals will:

- -Bring technologies and selected designs of multi-use facilities to at least technology readiness of TRL 5 ensuring validation of technology in the relevant environment.
- -Reduce costs of implementation and increase economic viability of multiuse platforms for the European maritime industry.
- -Improve health and safety in multi-use marine platforms.
- -Secure acceptance of these new developments by local communities and society-at-large.
- -Contribute to the implementation of the Integrated Maritime Strategy and its environmental pillar, the Marine Strategy Framework Directive, and take due account of the Marine Spatial Planning Directive.
- -Improve the professional skills and competences for those working and being trained to work within the blue economy.



#### **Extra material**

# Marie Skłodowska-Curie Actions and Mobility for Growth

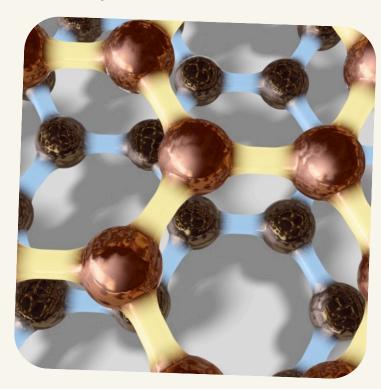


Bottom-up research

# Horizon 2020 1. Excellent Science

To **raise** the level of excellence in Europe's **science base**, make Europe an attractive location for researchers and secure Europe's long-term competitiveness

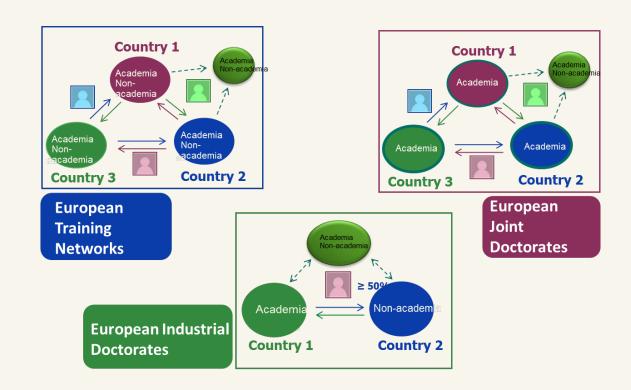
- European Research Council supporting the most talented and creative individuals and their teams to carry out frontier research;
- ➤ Future and Emerging Technologies collaborative research to open up new and promising fields of research and innovation;
- Marie Skłodowska-Curie Actions, providing researchers with excellent training and career development opportunities;
- Research Infrastructures accessible to all researchers in Europe and beyond.





# **Innovative Training Network (ITN)**

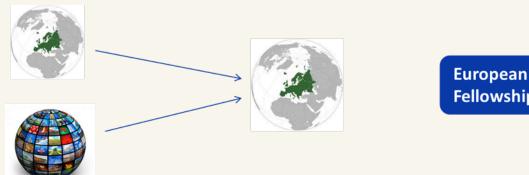
- Consortium of organisations from different countries and sectors
- Train a new generation of creative, entrepreneurial and innovative Early Stage Researchers (ESR) - first 4 years (full time equivalent research experience) not yet awarded a PhD
- Recruited for minimum 3 months, maximum 36 months





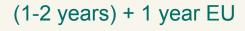
## **Individual Fellowships**

- Experienced Researchers (ER) at least 4 years (full time equivalent research experience) or a PhD
- Personal fellowship to promote mobility
- Can include a **secondment** to industry



**Fellowships** 

1-2 years









# RISE: Research & Innovation Staff Exchange

- Promoting transfer of knowledge between countries and sectors
- Exchange of "staff" around the consortium
- Networking activities
- Collaborate with any sector and any country worldwide

"Staff" – research students, postdocs, Pis, technical and managerial staff



# "Mobility for Growth"

## **Proposals submitted to VINNOVA**







# Design

- Individual fellowship (ER)
- International collaboration projects
- Qualification by "flexible" mobility to other organisations
- Individual in focus
- Requirements
  - ✓ support letters showing engagement and commitment
  - √ co-financing
  - √ career/development plan
  - ✓ additional hard and <u>soft</u> support





Academic or private sector



Academic or private sector







Academic or private sector





Academic sector

Public sector



Private sector

Academic sector









Programme started Dec 2012

Planning grants (open)

Close call for complete project proposals mid March, 2016 (mid Sept, 2016)

Timeplan ( --- 2018-06-30)



# **Project idea? Contact me!**



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