

Horisont 2020 Energi

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Industry meets Science, Trondheim, 2015-10-20*



Outline

- Short on Horizon 2020
- Horizon 2020 results
- Energy calls 2016-2017
- Support from the Research Council of Norway


 Forskningrådet



- EUs Rammeprogram for Forskning og Innovasjon
 - Verdens største
- Bidra til innovasjon, bærekraftig økonomisk vekst og sysselsetting
- Periode 2014-2020
- Budsjett 74,83 mrd. euro
 - Energi: 5,69 mrd. euro – Nær en fordobling fra FP7
- **Åpent for alle**

ec.europa.eu/research/participants/portal

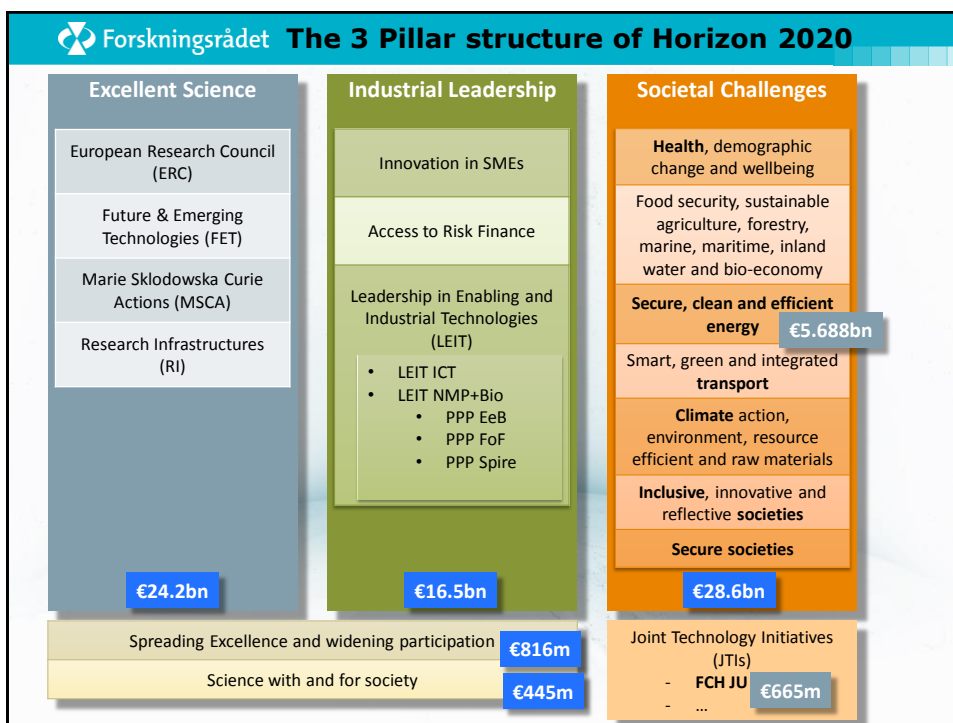
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 Forskningrådet

Main Action types («project types») & funding

Research and Innovation Actions RIA	<ul style="list-style-type: none"> • Funding rate: 100 % + 25 % flat-rate overhead
Innovation Actions IA	<ul style="list-style-type: none"> • Funding rate: 70 % (non-profit legal entities: 100 %) + 25 % flat-rate overhead
Coordination and support actions CSA	<ul style="list-style-type: none"> • Funding rate: 100 % + 25 % flat-rate overhead

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Results H2020 Energy – 2014 (2015)


H2020 Energy call	Proposals					
	All			w/Norwegian part.		
	# proposals	# retained	Success rate	# proposals	# retained	Success rate
LCE 2014, 2015	615	115	18,7 %	91	19	20,9 %
EE 2014, a few from 2015	517	54	10,4 %	40	1	2,5 %
SCC 2014, 2015	80	9	11,3 %	5	1	20 %
SUM	1212	178	14,7 %	136	21	15,4 %

- Totalt 40 norske deltakelser i innstilte prosjekter
- Totalt 21M€ i støtte til Norske aktører
- Høy norsk returandel – 3,7 %
- 1,8 norske deltakere i snitt for søkn. med norsk deltakelse
- Stort antall norske nykommere (ca. 22 % har ikke deltatt i FP7)
- Høy næringslivsandel i innstilte prosjekter (ca 44 %)

Eksempler vind:

- **PROMOTION**: Progress on Meshed HVDC Offshore Transmission Networks (Statkraft, Statoil)
- **DEMOGRAVI3**: Demonstration of the GRAVI3 technology – innovative gravity foundation for offshore wind (Global Maritime)
- **LIFES 50plus**: Qualification of innovative floating substructures for 10MW wind turbines and water depths greater than 50m (Marintek, Dr.techn Olav Olsen)

Energy calls 2016-2017

 Forskningsrådet

H2020 Energy calls 2016-2017

Energy Efficiency (EE)

- Heating and Cooling
- Engaging consumers
- Buildings
- Industry, services and Products
- Innovative financing

25 topics
(17/16)

Competitive low-carbon energy Technologies (LCE)

- Energy system (grids, storage)
- Renewable energies
- Decarbonising fossil fuels
- Socio-economic research
- European Research Area in energy

36 topics
(21/20)

Smart Cities and Communities (SCC)


- Light-house demonstration projects

SME instrument (SIE)

- Phase I & II

Call	2016	2017
EE	93	101
LCE	352,66	367,62
SCC	60	71,50
SME	46	50
Sum	551,66	590,12
Other actions	110,38	79,28

ec.europa.eu/research/participants/portal

 Forskningsrådet

Wind and Ocean Energy

Basic research (TRL < 4)

- [LCE-06-2017: New knowledge and technologies](#)

Advanced research (TRL 3-4)

- [LCE-07-2016-2017: Developing the next generation technologies of renewable electricity and heating/cooling](#)

Demonstration (TRL 5-7)

- [LCE-13-2016: Solutions for reduced maintenance, increased reliability and extended life-time of off-shore wind turbines/farms](#)
- [LCE-14-2017: Demonstration of large >10MW wind turbine](#)
- [LCE-15-2016: Scaling up in the ocean energy sector to arrays](#)
- [LCE-16-2017: 2nd Generation of design tools for ocean energy devices and arrays development and deployment](#)

Market uptake

- [LCE-21-2017: Market uptake of renewable energy technologies](#)
- [BG-03-2016: Multi-use of the oceans' marine space, offshore and near-shore: compatibility, regulations, environmental and legal issues](#)

Wind and Ocean Energy

Basic research (TRL < 4)

- [LCE-06-2017:New knowledge and technologies](#)
 - **Wind energy:** Improved understanding of the physics of wind as a primary resource and wind energy technology
 - **New renewable energy technologies:** Developing the new energy technologies that will form the backbone of the energy system by 2030 and 2050
 - RIA; EC contrib.: 2-4M€; budget: 20M€; deadline: 5/1-17

TRL 1 – basic principles observed
 TRL 2 – technology concept formulated
 TRL 3 – experimental proof of concept
 TRL 4 – technology validated in lab

Wind and Ocean Energy

Advanced research (TRL 3-4)

- [LCE-07-2016-2017:Developing the next generation technologies of renewable electricity and heating/cooling](#)
 - 2016:
 - **Wind energy:** Advanced control of large scale wind turbines and farms
 - **Ocean Energy:** Increased performance and reliability of ocean energy subsystems
 - 2017:
 - **Wind Energy:** Reduction of environmental impact of wind energy
 - **Ocean Energy:** Development of advanced ocean energy subsystems: innovative power take-off systems and control strategies
 - RIA; EC contrib: 2-5M€
 - Deadline: 16/2-16 Budget: 61,3M€
 - Deadline: 5/1-17 Budget: 65,5M€

TRL 3 – experimental proof of concept
 TRL 4 – technology validated in lab

Wind and Ocean Energy

Demonstration (TRL 5-7)

Wind

- [LCE-13-2016: Solutions for reduced maintenance, increased reliability and extended life-time of off-shore wind turbines/farms](#)
 - IA; EC contrib: 7-10M€; Deadline: 8/9-16; Budget: 10M€
- [LCE-14-2017: Demonstration of large >10MW wind turbine](#)
 - IA; EC contrib: 20-25M€; Deadline: 7/9-17; Budget: 25M€

Ocean

- [LCE-15-2016: Scaling up in the ocean energy sector to arrays](#)
 - IA; EC contrib: 10-15M€; Deadline: 8/9-16; Budget: 15M€
- [LCE-16-2017: 2nd Generation of design tools for ocean energy devices and arrays development and deployment](#)
 - IA; EC contrib: 5-7M€; Deadline: 7/9-17; Budget: 7M€

TRL 5 – technology validated in relevant environment

TRL 6 – technology demonstrated in relevant environment

TRL 7 – system prototype demonstration in operational environment

Wind and Ocean Energy

Market uptake

Wind

- [LCE-21-2017: Market uptake of renewable energy technologies](#)
 - **Wind energy:** Increasing the market share of wind energy systems
 - CSA; EC contrib: 1-4M€,
 - Deadline: 5/1-17, Budget: 15M€

Ocean

- [BG-03-2016: Multi-use of the oceans' marine space, offshore and near-shore: compatibility, regulations, environmental and legal issues](#)
 - CSA; EC contrib: up to 2M€
 - Deadline: 17/2-16, Budget: EUR 2 million

- **SME instrument**
 - 4 submission deadlines per year for phase 1 and 2
 - Budget for the Energy SME topic (SMEInst-09-2016-2017):
 - 46 M€ in 2016
 - 50 M€ in 2017
- **Fast-track to Innovation Pilot**
 - Innovation from the demonstration stage through to market uptake (starting as of TRL 6)
 - 3 submission deadlines in 2016 (15/3, 1/6, 25/10/2016)
 - Budget 100 M€ (no earmarking for areas)
- **InnovFin Energy Demo Projects Pilot Facility (EDP) (Other Action#28)**
 - First-of-a kind commercial-scale industrial demonstration projects (TRL 7-8) for unproven pre-commercial technologies in the field of innovative renewable energy, fuel cells and hydrogen in support of the SET-Plan
 - Loan amount: min EUR 7.5 M€, max EUR 75 M€
 - Loan maturity: max 15 years



Horizon 2020 and the policy context

Forskingsrådet

Horizon 2020

Is an instrument for the implementation of EU policies and strategies.

therefore

- it is vital for the success of your proposal to **know** the EU policies and strategies,
- and emphasise how your proposed project **contributes** to those relevant to the call.



2030 Climate-Energy Package
40% reduction of GHG
27% of renewable energy
27% improvement in EE



Energy Union Package



SET-Plan Integrated Roadmap



Integrated SET-Plan

Forskingsrådet

Support from the Research Council of Norway



My two cents'

1. Read and understand the Call text
2. Start early

Bistand fra Forskningsrådet National Contact Point (NCP)

- **Bl.a:**
 - Råd og veiledning
 - Søknadsteknisk
 - Strategisk
 - Faglig veiledning / vurdering (med bistand fra bl.a. fagansvarlige)
 - Nettverk, kontakter, partnersøk
 - Project Outline
 - "Forevaluering" / Skisseevaluering
 - Forstå evalueringsresultatene "ESR-debrief"
 - Kontakt med kommisjonen
 - Løpende prosjekter
 - Kurs og workshops
 - ...
 - Infobrev
- Prosjektetableringsstøtte (**PES**) - løpende
- Medvirkningsordningen (**MVO**) - søkn.frist 25/11
- Ulike incentivordninger



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 Medvirkningsordningen

Forskingsrådet

Work as expert for the Commission?



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RESEARCH & INNOVATION
Participant Portal

European Commission > Research & Innovation > Participant Portal > Experts

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News

H2020 call for expression for interest for experts (11/2013) New calls for expression of interest for individual experts and for organisations to suggest experts were just published in OJ C342 of 22 November 2013. European Commission will soon need experts to evaluate first

Experts

Join the data innovation.

The European research and proposals, m design of po

H2020 ONLINE MANUAL

Year	FP7 / H2020		
	NO	Tot	% NO
2007	3	104	2,9
2008	4	327	1,2
2009	3	294	1,0
2010	0	66	0,0
2011	4	157	2,5
2012	2	128	1,6
2013	1	162	0,6
Sum FP7	17	1 238	1,4
2014	3 (5)	574	0,9

New experts

Who can be an expert?


Register at Participant Portal

Name of experts at participant portal

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Forskingsrådet

Forstå Horisont 2020 på under 5 min



HORISONT 2020

Forstå Horisont 2020 på fem minutter

Denne introduksjonsfilmen gir deg en innføring i hva Horisont 2020 er, hva som skal til for å få tilslag med et prosjektforslag og hva du får ut av å forske og skape innovasjon med midler fra EUs rammeprogram Horisont 2020.

Dato : 19.05.2015

<http://tinyurl.com/H2020-film>



Forskingsrådet

HORISONT 2020

TVERRFAGLIGHET / VERDIKJEDER / SAMARBEID / KVALITET / INNOVASJON
HVA VIL DU BRUKE DET TIL?

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- **Horisont 2020 (EC)**
ec.europa.eu/programmes/horizon2020/
- **Horisont 2020 (Norge)**
forskingsradet.no/horisont2020
- **Deltakerportalen**
ec.europa.eu/research/participants/portal/
- **Nyhetsbrev Horisont 2020 Energi**
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