European Commission

SMEs in Horizon 2020

Policy and implementation

An Overview

DG Research and Innovation
Unit B.3 SMEs, Financial Instruments and State Aid

Sandro Maccaglia

HORIZON 2020

SMEs in the European economy*

European Commission

"99.8% of all enterprises in the non-financial business sector in the EU28"

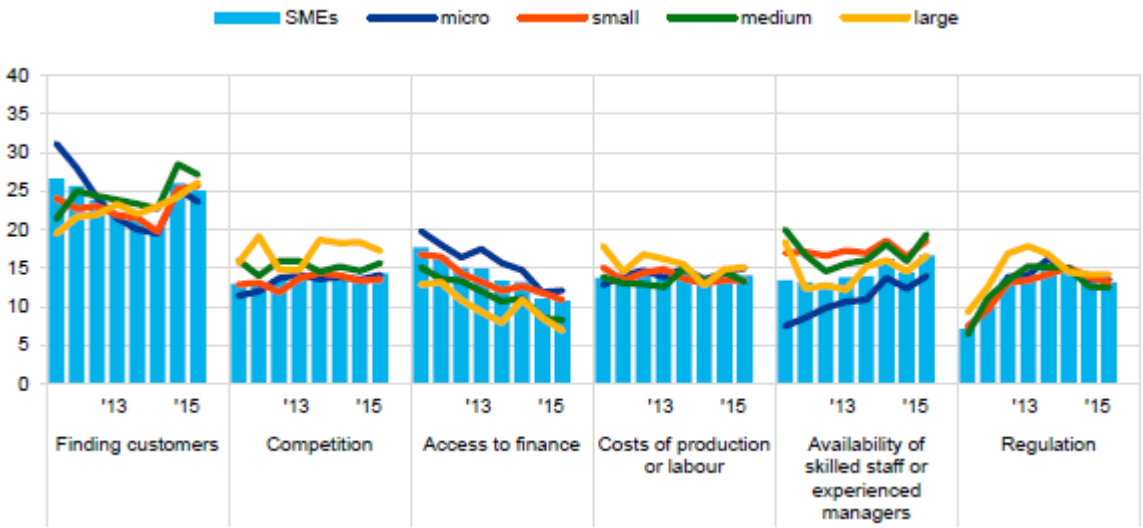
"For every km2 of land surface the EU has an average of 5 SMEs."

"SMEs accounted for 71.4% of the increase in employment in 2014 in the non-financial business sector."

"In 2014 SMEs employed almost 90 million people - 67% of total employment, and generated 58% of the sector's value added."

"22,3 million SMEs in the EU"

Key challenges**



* All data on SMEs are extracted from the European Commission's *Annual Report on European SMEs 2014-2015*

Research and Innovation

** Source of survey data: *ECB survey on the Access to Finance of Enterprises in the euro area*, December 2015

Horizon 2020 = Three Priorities

European Commission

Business-Oriented & SME-Friendly

- A strong **challenge-based approach**, allowing SME applicants to have considerable freedom to come up with innovative solutions
- Emphasis on **innovation**, with continuing support for R&D
- Less prescriptive topics, strong emphasis on expected **impact**
- A **strategic** approach, with two-year work programmes
- Focus areas bring together **different technologies**, along entire **innovation chain**

Horizon 2020 for SMEs =
Integrated & Complimentary Support

European Commission

20 % budgetary target in LEITs (IL) & SC*

Collaborative Projects + Fast Track to Innovation Pilot (13%)

SME Instrument (7%)

'Innovation in SMEs'(IL)**

eurostars™

Eurostars II

Enhancing Innovation Capacity (INNOSUP)

'Access to Risk Finance' (IL)

InnoVFin EU Finance for Innovators

& accompanying measures

MSCA (ES)

Fellowships (Access to Skills)

***= EUR 8.33 billion (post-EFSI) of direct SME support, incl. close to EUR 3 billion to be allocated through the SME Instrument over the period 2014-2020**
**** = EUR 589 million (post-EFSI) in direct SME support via Eurostars II, and in indirect support via innovation and market capacity building activities**

Horizon 2020 Pillar	Horizon 2020 Objective	Concrete Support Measures
Societal Challenges		Research and Innovation Actions (RIAs) + FTI Pilot
		SME Instrument
Industrial Leadership	LEITs	RIAs + Fast Track to Innovation (FTI) Pilot
		SME Instrument
	Innovation in SMEs	Eurostars (II)
		Coordination and Support Actions (CSAs)
	Access to Risk Finance	InnovFin SME Guarantee (Debt)
		InnovFin SME Venture Capital (Equity)
		Accompanying Measures
Excellent Science	MSCA	Marie Skłodowska-Curie Actions
	FET	Different types of action (RIAs, CSAs…)

Project Grant Support

Innovation Capacity Building and Value Chain Development Support

Financial Instruments and Accompanying Measures

HR Support

Horizon 2020's complementary measures for SME support

Research and Innovation

European Commission

SME participation in Horizon 2020 overall

(status early September 2016)

- Under 'Societal Challenges' and the specific objective 'Leadership in Enabling and Industrial Technologies' ('LEITs'), SMEs are 28.7% of all project participants and take **25%** of the EU budget contribution (5 percent points more than the target set by EU Parliament & Council)
- Also to other parts of the programme, SMEs are participating well (**21.5%** of all beneficiaries are SMEs)
- Budget allocation via the SME instrument in 2014-2015 ('initial') = **5.27%** (EUR 519,9 million) of combined budgets of 'Societal Challenges' and 'LEITs'
- Budget to be allocated via the SME instrument in 2016-2017 = **7.56%** (EUR 790,9 million) of combined budgets of 'Societal Challenges' and 'LEITs'

The SME instrument under 2020
Policy & Implementation

HORIZON 2020

European Commission

SME instrument – design and implementation features

2017	18 January 06 April 01 June 18 October	15 February 03 May 06 September 08 November

- Support provided in stages (Phase 1 – Phase 2 – Phase 3, not necessarily sequential)
- Only SMEs can apply - but can work with others as needed (not as partners within the consortium however)
- Technology readiness level 6 or higher – closer to the market
- The business idea and the new market to be shaped is the 'excellence' criterion
- Single companies can be supported – but have to demonstrate 'European added value'
- 70% of funding (as a general rule)

TRL

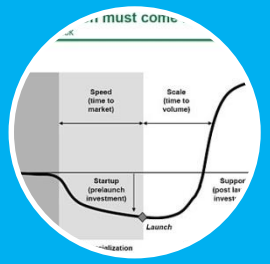
Technology Readiness Level	Description
TRL 1.	basic principles observed
TRL 2.	technology concept formulated
TRL 3.	experimental proof of concept
TRL 4.	technology validated in lab
TRL 5.	technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
TRL 6.	technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
TRL 7.	system prototype demonstration in operational environment
TRL 8.	system complete and qualified
TRL 9.	actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

SME instrument inputs & outputs

	Phase 1 Idea / Concept Feasibility assessment	Phase 2 Innovation project Development / Product testing	Phase 3 Access to markets and finance
% Budget 2016/2017	10%	Min. 87%	2%
EC funding per project	50 000 €	0,5 -2,5Mio €	-
Project duration	ca 6 months	Ca 12-24 months	-
Voluntary Coaching – (coach suggested by EEN, selected by SME)	3 days	12 days	Support and networking facilitating access to markets / finance
Other benefits	Recognition among the best European SMEs Visibility at European and global level		
What to do - application	Business Plan 1 (10 pages)	Business Plan 2 + description of activities for project (30 pages)	-

Phase 3 - offerings

Investment Readiness



Access to finance

- Access to equity
- Access to loans & loan guarantees
- Enhance SMEs “investability”

Market Readiness

Access to clients & 'markets'

- New geographic markets
- New industrial value chains
- Public procurement

Existing services & new specific actions by EU

Call Implementation statistics

- 18 cut-off dates (9 Ph1, 9 Ph2)
- Over 28,400 individual applicants in over 26,000 applications (over 20 % of the whole H2020)
- 1935 funded projects (1506 in Ph1, 429 in Ph2)
- Single companies rate for funded proposals: Ph 1 – 92%, Ph 2 – 82%
- Very fast evaluation (see next slide); resubmission possible (first resubmission usually better evaluated and increasing chances of funding)

SME Instrument Phase I cut-off dates 2014-2016

	Cut Off 1	Cut Off 2	Cut Off 3	Cut Off 4	Cut Off 5	Cut Off 6	Cut Off 7	Cut Off 8	Cut Off 9	TOTALS
N° of proposals received	2.662	1.944	2.363	1.569	2.029	1.873	2.057	1.995	2.005	**18.497**
N° of proposals evaluated	2.602	1.917	2.328	1.539	2.017	1.861	2.035	1.959	1.975	**18.233**
N° of proposals evaluated above threshold	317	237	320	251	342	336	316	330	320	**2.769**
N° of proposals funded	155	178	259	149	128	122	175	174	166	**1.506**

Close to 55% of proposals above threshold are funded

SME Instrument Phase II cut-off dates 2014-2016

	Cut Off 1	Cut Off 2	Cut Off 3	Cut Off 4	Cut Off 5	Cut Off 6	Cut Off 7	Cut Off 8	Cut Off 9	TOTALS
N° of proposals received	580	629	614	962	960	1.090	553	969	1.189	**7.546**
N° of proposals evaluated	571	611	597	946	945	1.068	533	961	1.167	**7.399**
N° of proposals evaluated above threshold	132	180	233	357	373	425	208	450	582	**2.940**
N° of proposals funded	60	74	37	44	33	30	47	48	56	**429**

Close to 15% of proposals above threshold are funded

Some fun facts on 2014-2015 SME instrument beneficiaries

Young, small & growing
almost half SMEs are micro-sized and almost a third are younger than 3 years

Manufacturing
the most common activity
ICT
the most trending topic

Spain & Italy
most succesful
Ireland
most efficient

New customers & distribution channels
are a first priority for 44% of SMEs

Recognised potential
25% are in the venture radar of top 10% growing companies & 5 are in the Deloitte fast growing enterprises

11%
backed by accelerators
12% spin-offs
from academia

Better access to private investment
3x more private investments; € 692 m private equity; faster access to markets

Promising projections
for Phase 1,400% growth in turnover and 100% in employment expected.

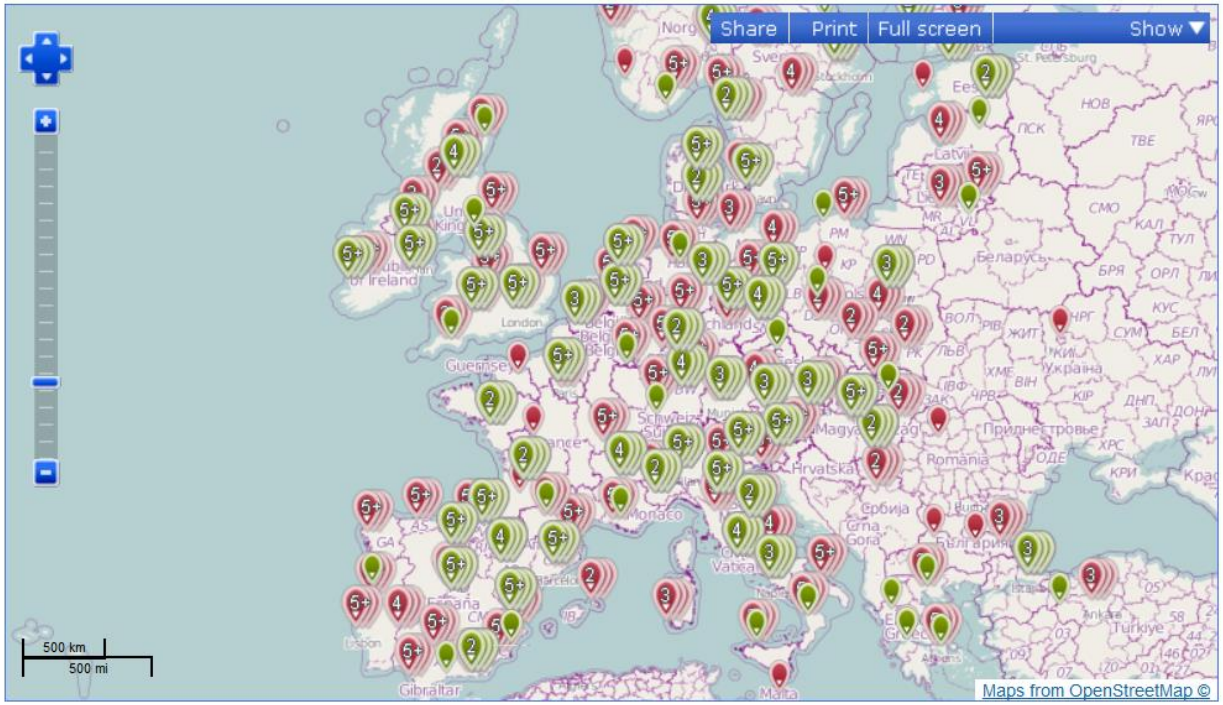
Examples of supported projects

https://ec.europa.eu/easme/sme-instrument-beneficiaries

Horizon 2020 SME Instrument beneficiaries

Last update: 17/02/2016

Phase 1 | Phase 2



Lists of beneficiaries

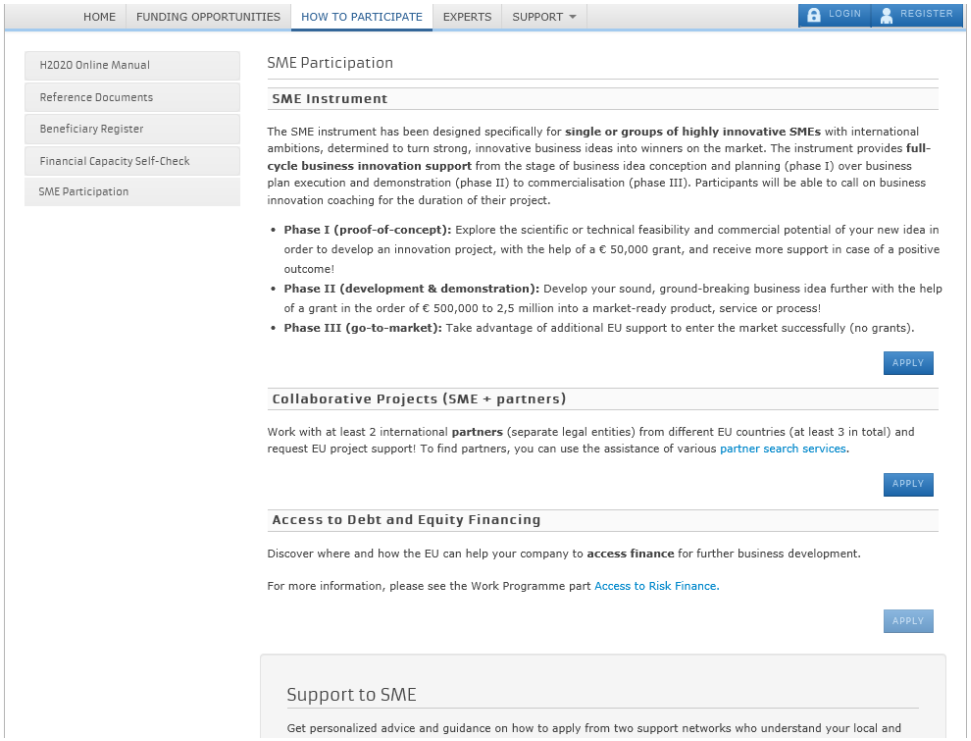
- Phase 1
- Phase 2

Many exiting projects – Some highlights picking the 'right' companies

ACTION: Participate yourself via…

The Horizon 2020 Participant Portal: http://ec.europa.eu/research/participants/portal/desktop/en/funding/sme_participation.html

- Calls for proposals
- Horizon 2020 documents
- Support services
- Evaluation experts



Work Programme 2016-2017 – to choose from 13 SME instrument call topics

Topics	Budgets (EUR million)	
	2016	2017
SMEInst-01-2016-2017: Open Disruptive Innovation Scheme	60.00	66.00
SMEInst-02-2016-2017: Accelerating the uptake of nanotechnologies advanced materials or advanced manufacturing and processing technologies by SMEs	31.83	35.32
SMEInst-03-2016-2017: Dedicated support to biotechnology SMEs closing the gap from lab to market	7.50	7.50
SMEInst-04-2016-2017: Engaging SMEs in space research and development	11.37	12.60
SMEInst-05-2016-2017: Supporting innovative SMEs in the healthcare biotechnology sector	35.00	80.00
SMEInst-06-2016-2017: Accelerating market introduction of ICT solutions for Health, Well-Being and Ageing Well	18.00	12.50
SMEInst-07-2016-2017: Stimulating the innovation potential of SMEs for sustainable and competitive agriculture, forestry, agri-food and bio-based sectors	25.46	37.87
SMEInst-08-2016-2017: Supporting SMEs efforts for the development - deployment and market replication of innovative solutions for blue growth	9.50	12.42
SMEInst-09-2016-2017: Stimulating the innovation potential of SMEs for a low carbon and efficient energy system	46.00	50.00
SMEInst-10-2016-2017: Small business innovation research for Transport and Smart Cities Mobility	57.57	61.23
SMEInst-11-2016-2017: Boosting the potential of small businesses in the areas of climate action, environment, resource efficiency and raw materials	25.00	36.00
SMEInst-12-2016-2017: New business models for inclusive, innovative and reflective societies	10.80	11.40
SMEInst-13-2016-2017: Engaging SMEs in security research and development	15.37	14.67
Overall indicative budget	**353.40**	**437.51**

Eurostars-2 / Joint Programme Initiative (Art. 185)

State of Play

eurostars™

HORIZON 2020

European Commission

EUREKA / Eurostars II (TFEU Art. 185)

- European joint programme initiative (public-public partnership), supported by 34 EUREKA countries (incl. Turkey) & EU budget top-up (through Horizon 2020)
- Support for R&D-performing SMEs wishing to exploit promising R&D results and bring new products or services to the market
- Transnational approach: collaboration of an R&D-performing SME with at least one other partner from another EUREKA country that is also participating in Eurostars II
- Bottom-up approach: SME defines the nature of the project; open to all technology areas
- Total max. budget: ca. EUR 1.2 billion; Eurostars 2-participating countries will contribute EUR 861 million, EU contribution of EUR 287 million (max.)

EUROSTARS-2 - Current state of play
Calls

	Cut-off 1 (Mar-2014)	Cut-off 2 (Sep-2014)	Cut-off 3 (Mar-2015)	Cut-off 4 (Sep-2015)	Sum:	Average:
Projects						
Number of Projects	**299**	**356**	**266**	**333**	1254	
Number of Organisations	938	1,082	870	1078	3968	
Number of SMEs	659	789	605	758	2811	
% of organisations which are SMEs	70%	73%	70%	70%		71%
Evaluation						
Number of Eligible Projects	**215**	**325**	**230**	**293**	1063	
Project Eligibility Rate	72%	91%	86%	88%		84%
Projects Above Quality Threshold	82	113	106	113	414	
Approved Projects	**70**	**90**	**96**	**113**	369	
Success Rate (approved projects/above quality threshold projects)	**85%**	**80%**	**91%**	**100%**		**89%**
Overall success Rate (approved projects/total projects)	**23%**	**25%**	**36%**	**34%**		**30%**
Finance						
Total cost of Projects	386 M€	456 M€	344 M€	423 M€	1,609M€	
Total costs undertaken by SMEs	302 M€	372 M€	273 M€	337 M€	1,284M€	
% of costs undertaken by SMEs	78%	82%	79%	80%		80%
Total Budget for approved projects	**99.5 M€**	**135.7 M€**	**140.8 M€**	**149.8 M€**	**525.8 M€**	
Estimated funding for approved projects	**44 M€**	**62 M€**	**69 M€**	**72 M€**	**247 M€**	

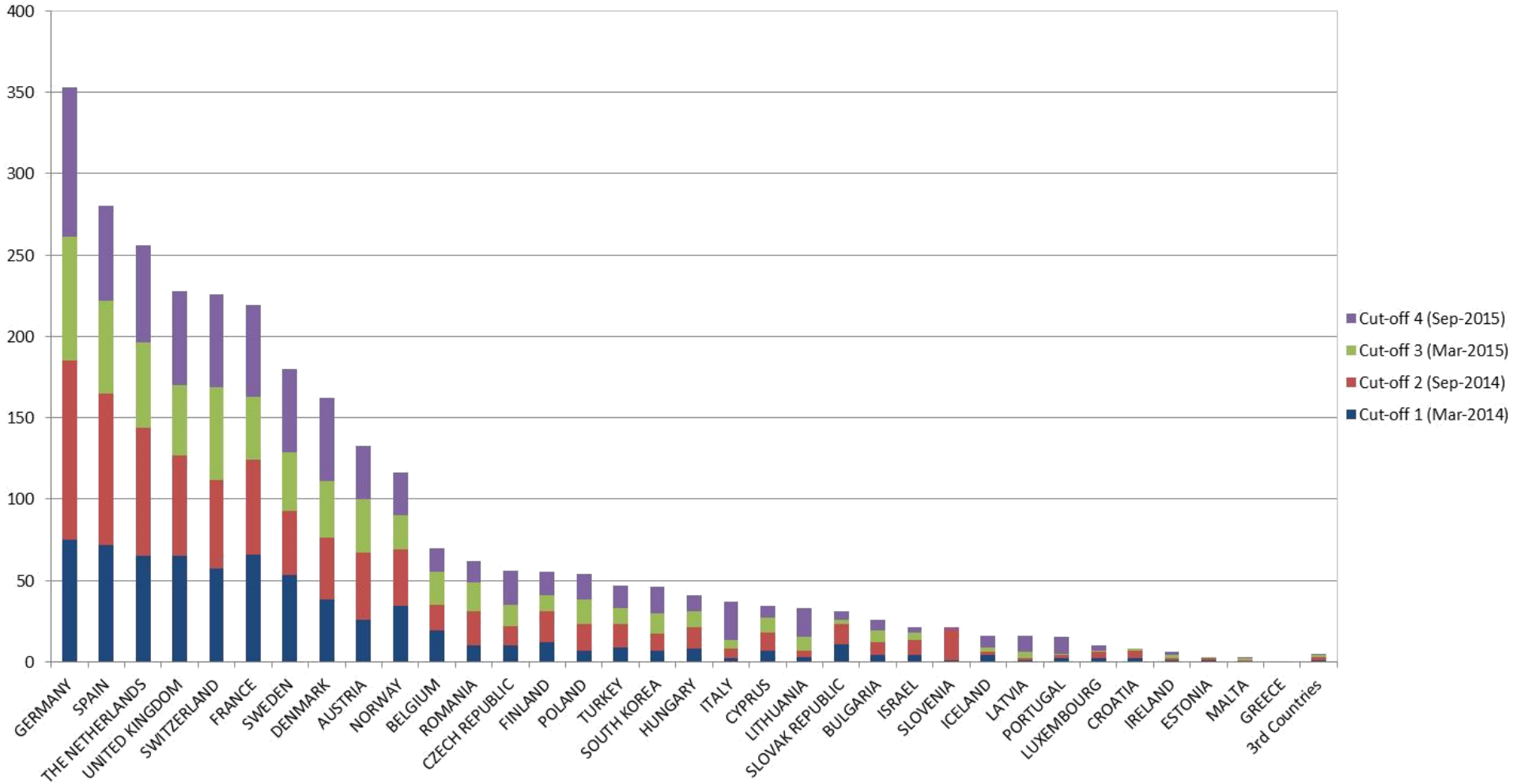
EUROSTARS-2 - Current state of play
Project profiles

	Cut-off 1 (Mar-2014)	Cut-off 2 (Sep-2014)	Cut-off 3 (Mar-2015)	Cut-off 4 (Sep-2015)
Average participants/project	**3.15**	**3.04**	**3.27**	**3.24**
Average countries/project	2.3	2.3	2.3	2.3
Average duration/project	28.3	28.2	28.4	28.0
Average costs/project (M€)	1.30	1.28	1.29	1.27

Overall project profile (Cut-off 1 – Cut-off 4)

- Small Consortium: 3.17 participants
- Average budget: 1.29 M€
- Average number of countries: 2.3 countries
- Duration: 28.2 months
- 1609 M€ total budget → 1284 M€ R&D SMEs or SMEs
- 3698 organisations → 2811 R&D SMEs or SMEs

EUROSTARS-2 - Current state of play
Submitted projects per country

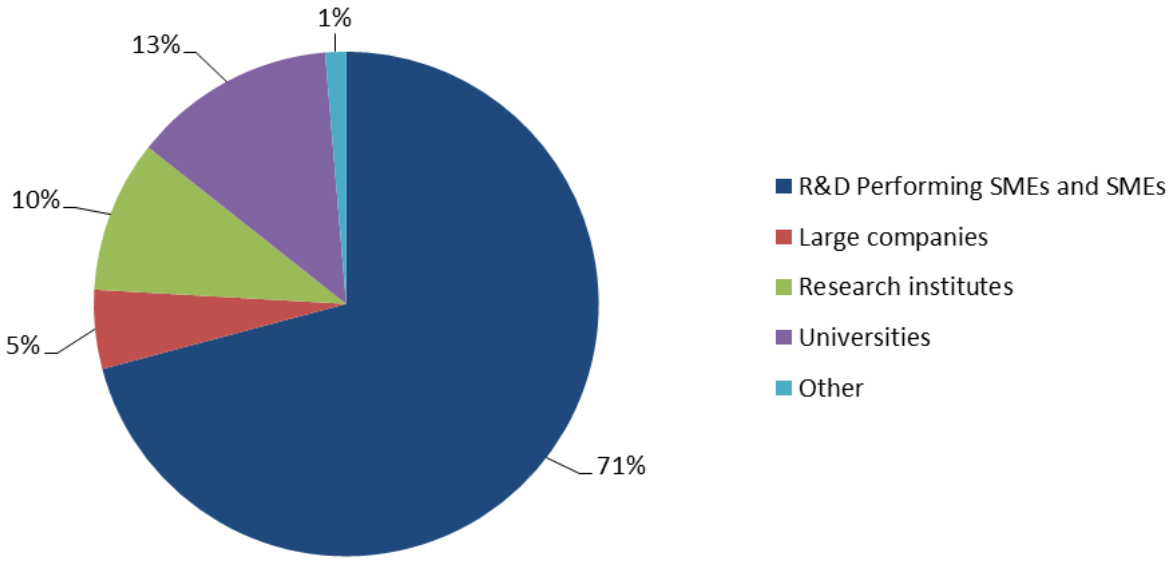


EUROSTARS-2 - Current state of play

Organisations type

	Cut-off 1 (Mar-2014)	Cut-off 2 (Sep-2014)	Cut-off 3 (Mar-2015)	Cut-off 4 (Sep-2015)	Average:
Total number of applicants	**938**	**1082**	**870**	**1078**	**3698**
R&D Performing SMEs and SMEs	659	789	605	758	2811
Large companies	55	53	47	46	201
Research institutes	87	95	87	118	387
Universities	123	129	121	143	516
Other	14	16	10	13	53

Type of applicant organisations (cut-off 1 - cut-off 4)



Horizon 2020 Financial Instruments for SMEs

Rationale & State of Play

HORIZON 2020

European Commission

Horizon 2020 Policy Response

- Part of the Horizon 2020 budget (3.69%) is provided not through grant funding but in the form of **risk-sharing** (loans and guarantees) and by providing **risk finance** (equity)
- Goal: Stimulate **more investment in research and innovation**, notably by the private sector
- Leverage effect: Attract **additional finance** and multiply HORIZON 2020 budget resources
- Addressing **financing gaps**: Intervention only if there are financing gaps in the R&I delivery chain (e.g., due to high risk)
- Building a **bridge from R&D to Innovation**: Effective and cost-efficient way to complement grant funding under Horizon 2020 and translate R&D results to the market

Financial Instruments in Practice

Loans	Loan guarantees		Equity
Mainly Larger Midcaps and large corporates*	Midcaps: Loan guarantee up to €25 m	SMEs and small midcaps	SMEs and small midcaps
EIB	Financial intermediary* → EIB	Financial intermediary* → EIF	Financial intermediary** → EIF

*Bank or a financial institution selected on the basis of the call for expression of interest that signed an agreement with the EIF

**Fund selected on the basis of a call of expression of interest that signed an agreement with the EIF

*All entities are eligible also PPPs, universities, research infrastructures etc., provided they can borrow

InnoVFin
EU Finance for Innovators

= family / brand name of the financial instruments developed under Horizon 2020

EUROPEAN INVESTMENT FUND

European Investment Bank The EU bank

SMEs	Midcaps	Large Caps	Thematic Finance	Advisory
InnoVFin SME Guarantee	InnoVFin MidCap Guarantee	InnoVFin Large Projects	InnoVFin Energy Demo Projects	InnoVFin Advisory
InnoVFin SME Venture Capital	InnoVFin MidCap Growth Finance		InnoVFin Infectious Diseases	
SMEs and small Mid-Caps < 500 Employees	Mid-Caps < 3,000 Employees	Large Caps Typically > 3,000 Employees	SPV, Mid-Caps and Large Caps	Public and Private Sector Promoters
Intermediated SME/Mid-Cap Financing	Intermediated and/or direct Corporate lending	Direct Corporate Lending	Project Finance and/or Direct Corporate Lending	Financial Advisory

direct products

indirect products

HORIZON 2020

European Commission

The Fast Track to Innovation Pilot

State of Play

HORIZON 2020

European Commission

Fast Track to Innovation Pilot

THE ULTIMATE BOOST FOR OUTSTANDING BUSINESS INNOVATORS WITH A NEED FOR SPEED...

PREPARE YOUR PROPOSAL

Build your industry-intensive consortium*
minimum 3 partners - maximum 5 partners
(all based in the EU and / or in Horizon 2020 associated countries)

Proposal

Outstanding Business Innovation Concept
(high-readiness level / TRL 6, meaning demonstrated in a relevant environment)

Continuous open call until end 2016

6 months time-to-grant

DEVELOP YOUR INNOVATION

Receive an **EU grant of EUR 1 million to 3 million**
(70% of funding, 100% of funding for non-profit entities)

From Mature R&D
Demonstration
Market-Oriented
R&D
to Market-Mature Innovation

12-24 months for implementation

HIT THE MARKET!

Start your commercial activities

The Market
Market-Maturity to Market Launch

Market-ready result
(finished product, service, process/ TRL 9)

At most 36 months from grant to market

*In a consortium with 3 or 4 partners, at least 2 should be industry, and in a consortium with 5 partners, at least 3; alternatively at least 60% of the project budget should be allocated to industry (i.e. private for profit entities)

... AND EAGER TO COMPETE ON GLOBAL MARKETS...!

ACTIVITIES SUPPORTED

Systems validation in real working conditions – Testing – Piloting – Business model validation – Standard setting – Pre-normative research – EU quality label

HORIZON 2020

European Commission

Participation in 2015: meeting the expectations!

- **3 cut-off dates**, call launched as announced in the WP on 6/1/2015
- Mainly **industry**: 75% of all project participants (45% SMEs + 30% midcaps or large companies)
- Close to **300 proposals** per cut-off date vs. the 250 anticipated by RTD R.4: allocation of call administration resources appropriate
- Lower participation from certain regions

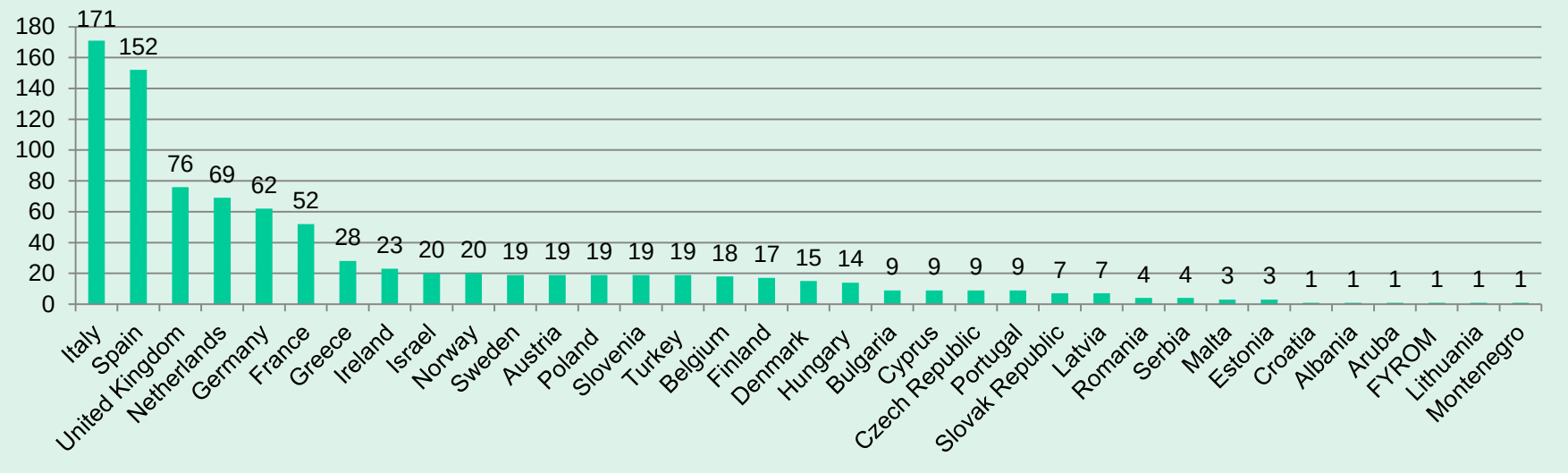
Selection of projects (2015): trendy, often interdisciplinary topics, low success rates…

- Success rates are **low** (ca. **5%** in respect to the H2020 average of ca. 12%)
- Projects selected are often **interdisciplinary**, cutting across different themes and/or technologies
- **Thematic domains** involved most commonly: ICT, Health and Wellbeing, Advanced Manufacturing, Energy and Climate Action (Green Economy)

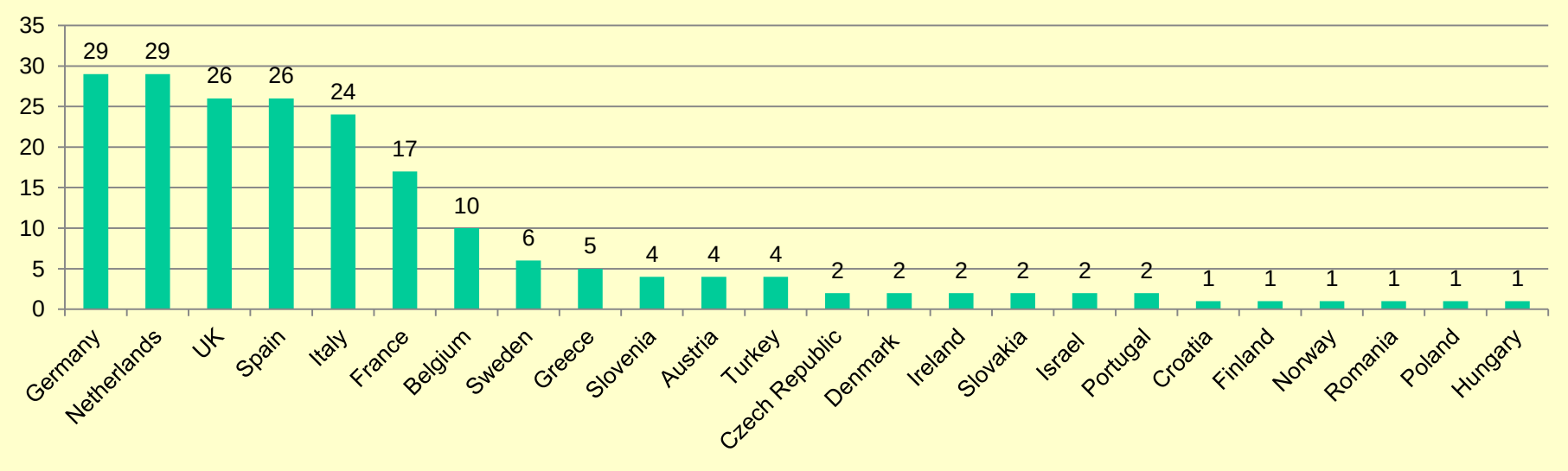
The FTI Pilot Call in numbers

FTIPilot-1-2015 (3 cut-off dates) FTIPilot-1-2016 (3 cut-off dates, last on 25 Oct.)	Cut-off date 1 - 29/4/2015	Cut-off date 2 - 1/9/2015	Cut-off date 3 - 1/12/2015	2015 TOTAL	Cut-off date 4 - 15/3/2016	Cut-off date 5 - 1/6/2016
Number of proposals submitted:	269	231	403 (incl. 110 resubmissions)	903	268 (incl. 97 resubmissions)	281 (incl. 115 resubmissions)
Number of above-threshold proposals:	48	51	83 (incl. 32 resubmissions)	182 (20.2%)	63 (incl. 34 resubmissions)	70
Number of retained proposals:	16	15	15 (incl. 4 resubmissions)	46 (25.3%)	16 (incl. 10 resubmissions!)	15 (incl. 8 resubmissions!)
Number of projected beneficiaries	69	67	68	204	72	70
Number of SME beneficiaries	32 (46%)	35 (52%)	28 (41%)	95 (46.5%)	30 (41.7%)	27 (38.6%)
Number of SME project coordinators	9 (56%)	11 (73%)	7(46%)	27 (58.7%)	11 (68.8%)	5 (33.3%)
Total EC contribution requested for submitted proposals:	€507.485.223	€427.022.233	€729.520.163	€ 1.664.027.619	€508.699.937	€815.226.947
EU budget contribution	€ 35.6	€32. 7	€30. 4	€98.7 million	€ 26 million	€ 31.8

Country of establishment of proposal coordinators – (2015 cut-off dates – 27 EU MS + 8 ACs)



Country distribution of (anticipated) beneficiaries (2015 cut-off dates – 21 MS + 3 ACs)



Going forward – 2016/2017

- **October 2016**

  Outcome of assessment (study) on first response to the call

- **October 25, 2016**

  (For the moment?) Last call deadline / cut-off #6

- **First semester 2017**

  Full evaluation of FTI >> decision on future of FTI

Questions?

More Information

- **Horizon 2020**
  - http://ec.europa.eu/programmes/horizon2020/en/area/smes
  - http://ec.europa.eu/programmes/horizon2020/en/h2020-section/access-risk-finance
  - http://ec.europa.eu/programmes/horizon2020/en/h2020-section/innovation-smes
- **EASME –** http://ec.europa.eu/easme/sme/
- **Eurostars -** https://www.eurostars-eureka.eu/contact/show/TR
- **Financial Instruments**
  - https://ec.europa.eu/programmes/horizon2020/en/h2020-section/access-risk-finance
  - **InnovFin – EU Finance for Innovators:** http://www.eib.org/products/blending/innovfin/products/index.htm
- **EU Access to Finance –** http://www.access2finance.eu