



The EU Framework Programme for Research and Innovation

HORIZON 2020

Opportunities for SMEs in Horizon 2020: first lessons learned



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Horizon 2020 (2014–2020)

- European Research Council
- Future and Emerging Technologies
- Marie Skłodowska-Curie actions
- Research infrastructures



- Leadership in enabling and industrial technologies
- Access to risk finance
- Innovation in SMEs

SC1- Health, demographic changes and wellbeing (€ 7.4 b)

**The new EU programme for research and innovation
€ 79 billion (2014-2020)**



PRIORITY



2014-15:
EUR 1.3 B

2016-17:
EUR 1.4 B

Personalised medicine (2014-2017)



Healthy ageing
(2014-2017)



Health ICT
(2014-2017)



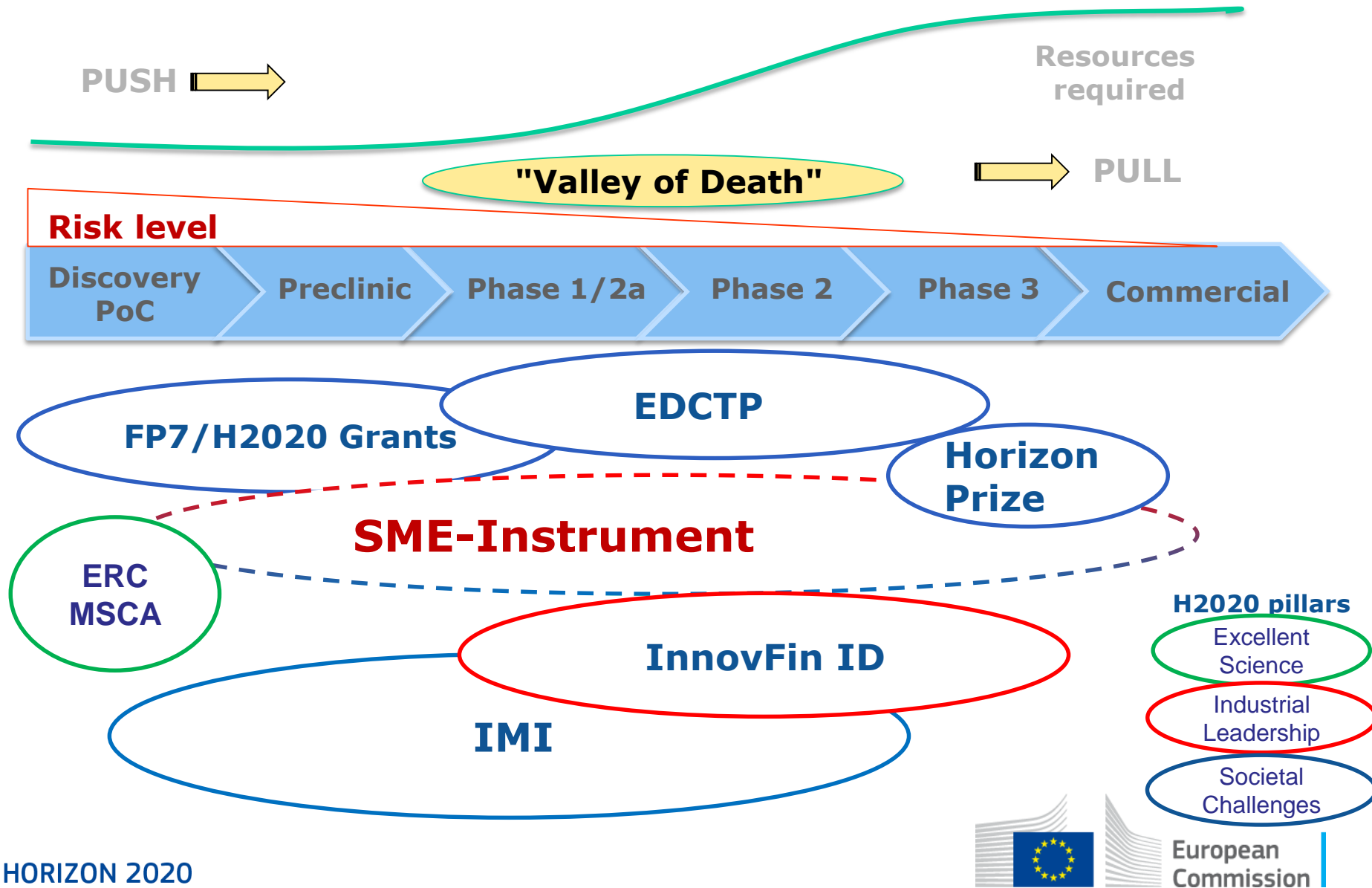
Infectious diseases
(2014-2017)

Human
biomonitoring
(2016-2017)



Maternal and
child health
(2016-2017)

The ecosystem for EU Health Research



EU Research opportunities for SMEs

Funded and implemented by the European Commission

- Collaborative research
- SME instrument
- Fast Track to Innovation (FTI)
- Horizon prize
 - Better Use of Antibiotics
 - Birth Day Prize



Funded and implemented jointly with others

- Public-Private partnership
 - Innovative Medicines Initiative (EC - EFPIA)
- Public-Public partnership
 - European and Developing Countries Clinical Trial Partnership
 - Joint Programming Initiative
 - EUREKA – EUROSTARS
- INNOVFIN Financial Instruments (EC - EIB)
 - INNOVFIN – Infectious Diseases (INNOVFIN-ID)





EU definition of Small and Medium-sized Enterprise (SME)

Any autonomous entity engaged in an economic activity, irrespective of its legal form, with the following characteristics:

- < 250 employees
- ≤ €50 million annual turnover OR
- ≤ €43 million annual balance sheet
- Autonomous entity

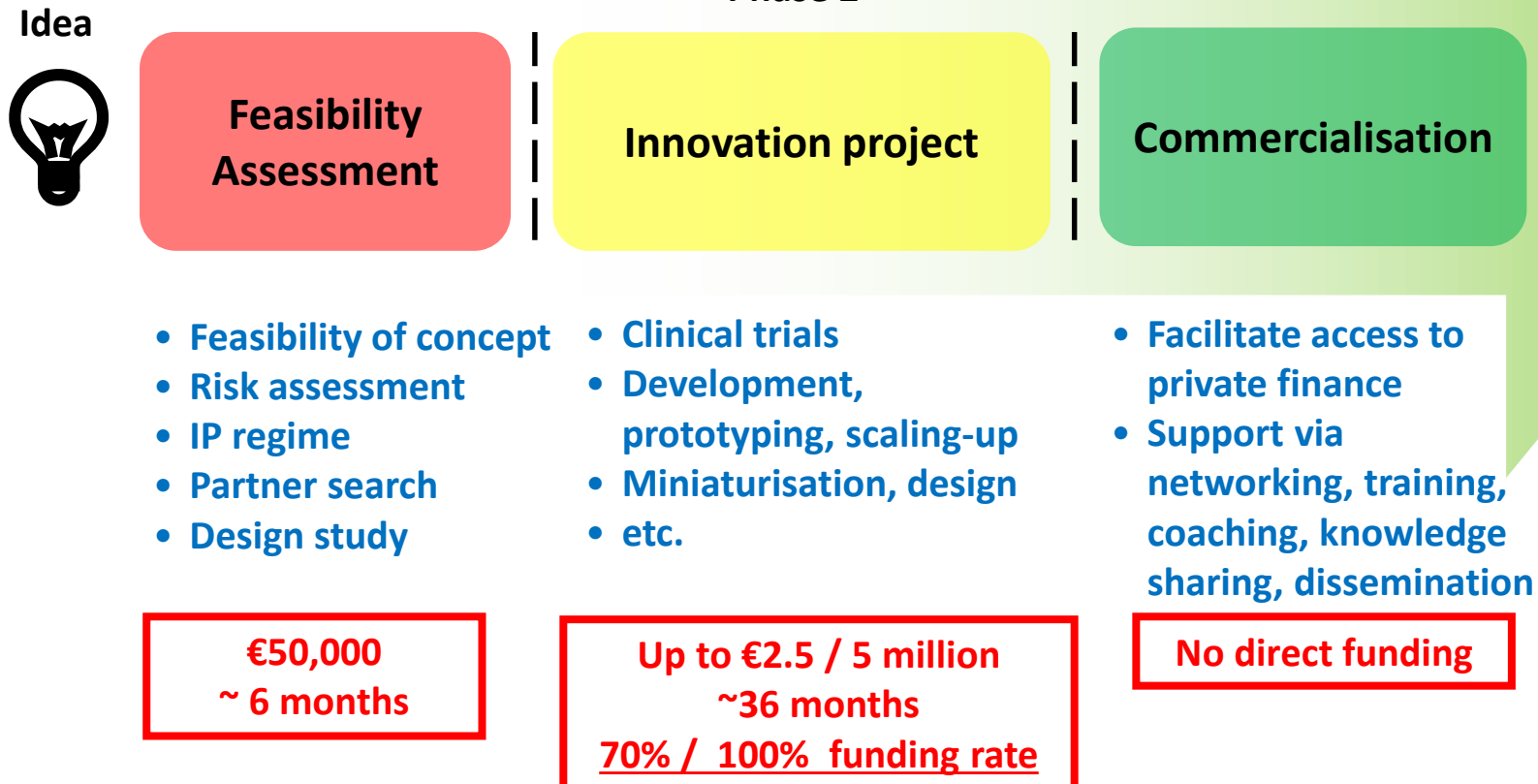
Learn more:

https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

SME instrument: main features

- Single company support possible
- Target group: Innovative SMEs
- Only EU & Associated Country SMEs are allowed to apply for funding
- Market-oriented, project with an EU dimension
- 4 cut-off dates (submission deadlines) per year
- Resubmission is possible
- Short time to contract:
 - 3 months in phase 1
 - 6 months in phase 2
- 3 criteria: Excellence, Impact, Implementation
- Score = Excellence + Impact *1,5 + Implementation

SME instrument: 3 phases





SME instrument in Societal Challenge 1

2014-2015

- **PHC-12**: Clinical research for the validation of biomarkers and/or diagnostic medical devices

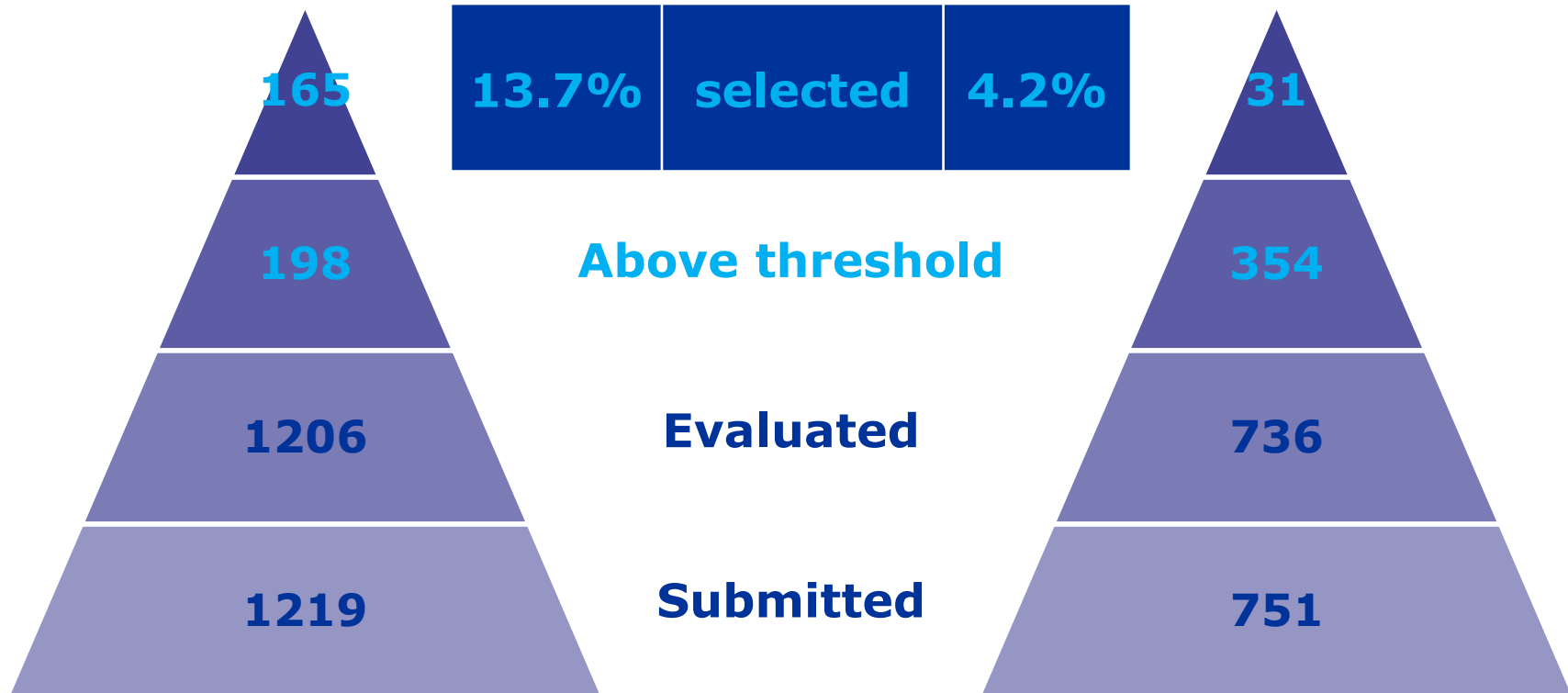
2016-2017

- **SMEInst-05**: Supporting innovative SMEs in the healthcare biotechnology sector
 - a) Cell technologies in medical applications
 - b) Clinical research for the validation of biomarkers and/or diagnostic medical devices (only at the 1st cut-off date/Ph. 2 of 2017)*
- **SMEInst-06**: Accelerating market introduction of ICT solutions for Health, Well-Being and Ageing Well

SME Instrument health topic statistics for 2014-2015

Phase 1

Phase 2

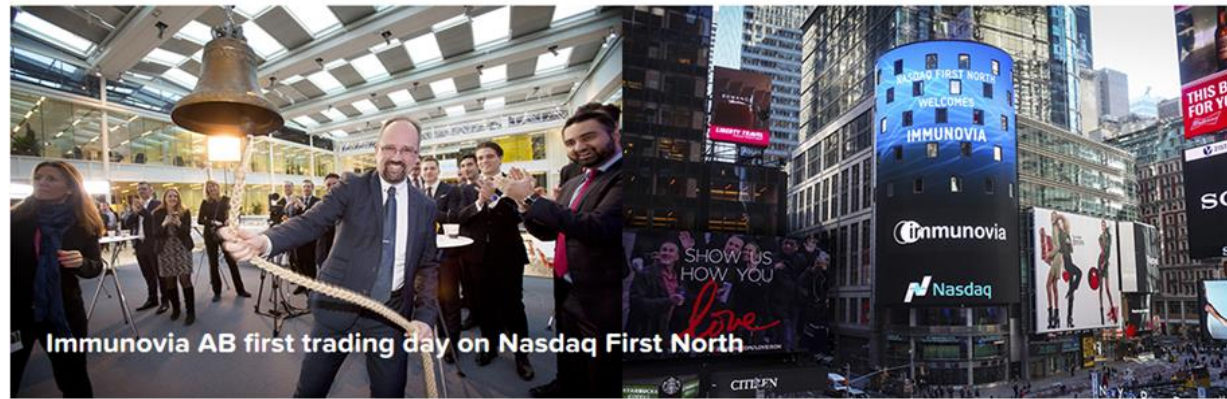


PHC-12 project examples

- Development of a digital diagnostics rapid Lung Maturity Test (LMT) for premature infants, to assist neonatologists in the diagnosis of Respiratory Distress Syndrome at birth
- Validation of a point-of-care H-FABP test for a rapid exclusion of Acute Myocardial Infarction in patients with cardiac complaints.
- Validation of PreCursor-M for enhanced Cervical (Pre) Cancer detection
- Moving to Efficient Diabetes care: Multimode Integrated CO-morbidity diagnostics platform
- Validation of clinical performance and pre-commercial development of a novel diagnostic for dental caries assessment

Success story: Immunovia AB

- Immunovia AB: Spin-off from Lund University & CREATE the Center for Translational Cancer Research in Lund - founded in 2007
- IMMray™, a technology platform used to diagnose, predict disease progression and monitor the therapeutic responsiveness of cancers
- Dec. 2014: SME instrument project - EU contribution: 4 million EUR
- Dec. 2015: Initial Public Offering (IPO) at Nasdaq First North Stockholm
- Mats Grahn, CEO of Immunovia: *"The fact that we received this very large grant in competition with so many companies and after thorough evaluations has given the confidence to our investors in the process of making the IPO"*



Some 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 successful
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



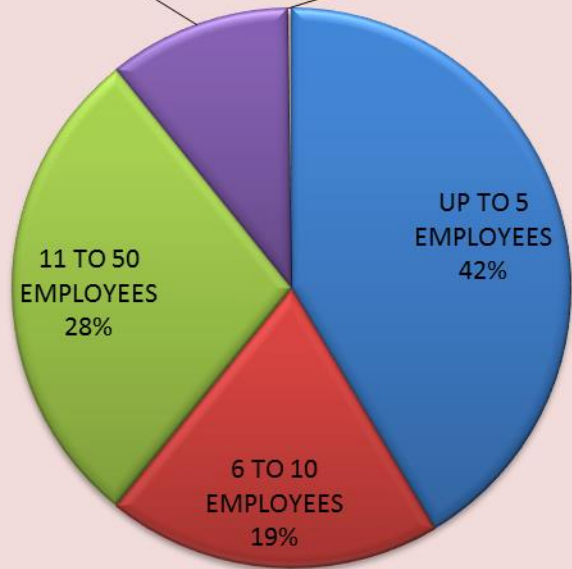
Better access to private investment
3x more private investments; € 692 m private equity; faster access to markets



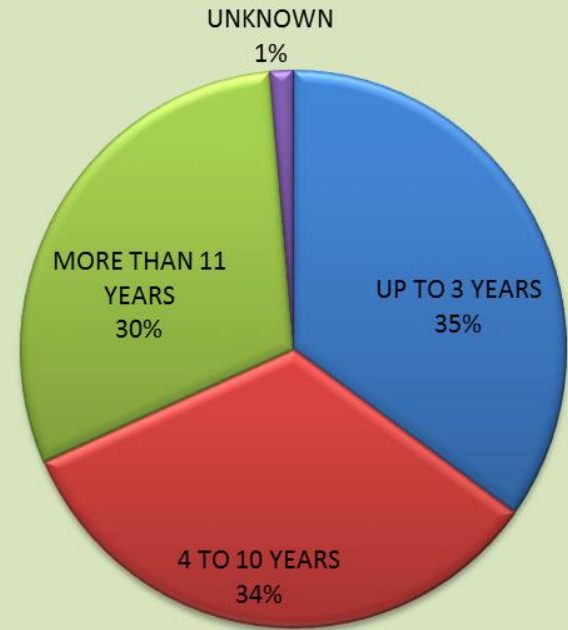
Promising projections
for Phase 1, 400% growth in turnover and 100% in employment expected.

Phase 1 SMEs: staff and years of trading

Staff in Funded SMEs

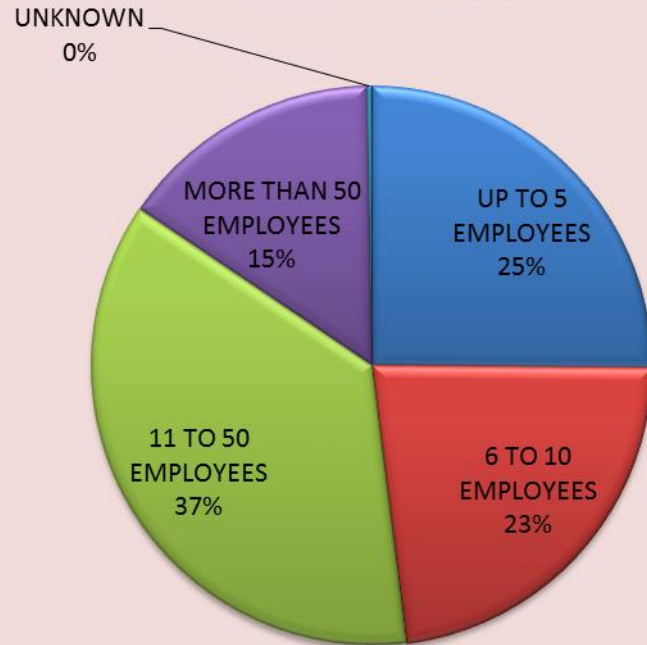


Years Trading of Funded SMEs

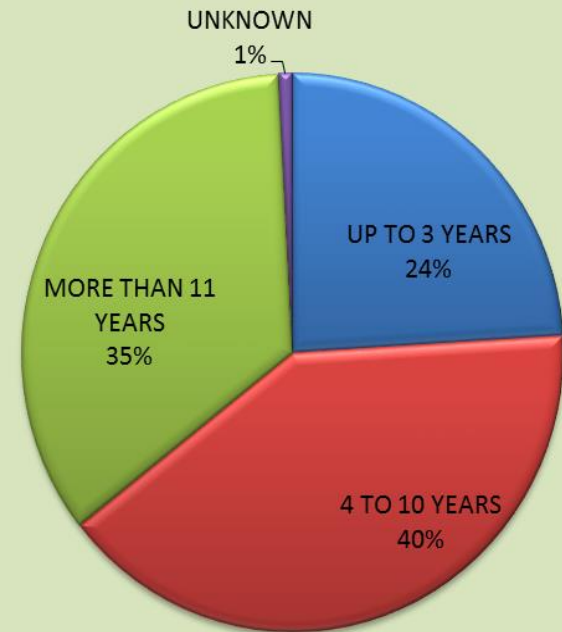


Phase 2 SMEs: staff and years of trading

Staff in Funded SMEs



Years Trading of Funded SMEs



- Young companies and start-ups are well represented
- Medium sized enterprises ~15% of Phase 2 grants

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

The screenshot shows the 'SME Participation' page on the Horizon 2020 Participant Portal. The page has a navigation bar with links for HOME, FUNDING OPPORTUNITIES, HOW TO PARTICIPATE, EXPERTS, and SUPPORT. On the left, there is a sidebar menu with options: H2020 Online Manual, Reference Documents, Beneficiary Register, Financial Capacity Self-Check, and SME Participation. The main content area is titled 'SME Participation' and features a section for 'SME Instrument'. This section describes the instrument's purpose for highly innovative SMEs and lists three phases: Phase I (proof-of-concept), Phase II (development & demonstration), and Phase III (go-to-market). Each phase has a corresponding 'APPLY' button. Below this, there are sections for 'Collaborative Projects (SME + partners)' and 'Access to Debt and Equity Financing', each with an 'APPLY' button. At the bottom, there is a 'Support to SME' section with a link for personalized advice.



Joint programme
between
EUREKA
and EU



Dedicated
to **R&D-**
performing
SMEs



Market-
oriented



Bottom-up



International
cooperation

36 countries





1.148 billion

Eurostars total public budget 2014-2020



75%

+

25%



EUROSTARS
COUNTRIES
CONTRIBUTION



EU
CONTRIBUTION



Project leader is an **R&D-performing SME** from a Eurostars country



At least 2 Participants

- Autonomous entities
- Legal entities from **at least 2 Eurostars countries**



SMEs are in the driving seat

International balance



Project duration is max. **3 years**

Market introduction within **2 years**

PROJECTS SUBMITTED
CUT-OFF 1-5

30%
SUCCESS RATE

PROJECTS FUNDED
CUT-OFF 1-5



1,553

NUMBER OF APPLICATIONS



472

NUMBER OF APPROVED PROJECTS



4,951

NUMBER OF APPLICANTS



1,511

NUMBER OF PARTICIPANTS



2.0 BILLION €
TOTAL COSTS OF
APPLICATIONS



675 MILLION €
TOTAL COSTS OF
APPLICATIONS FUNDED

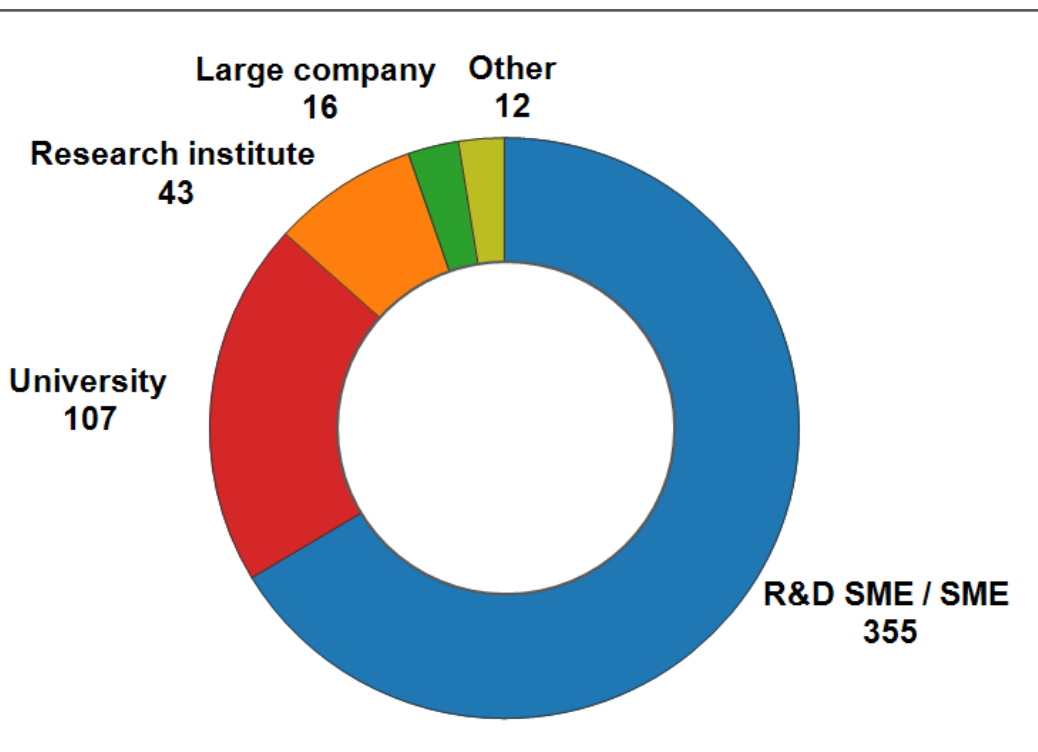


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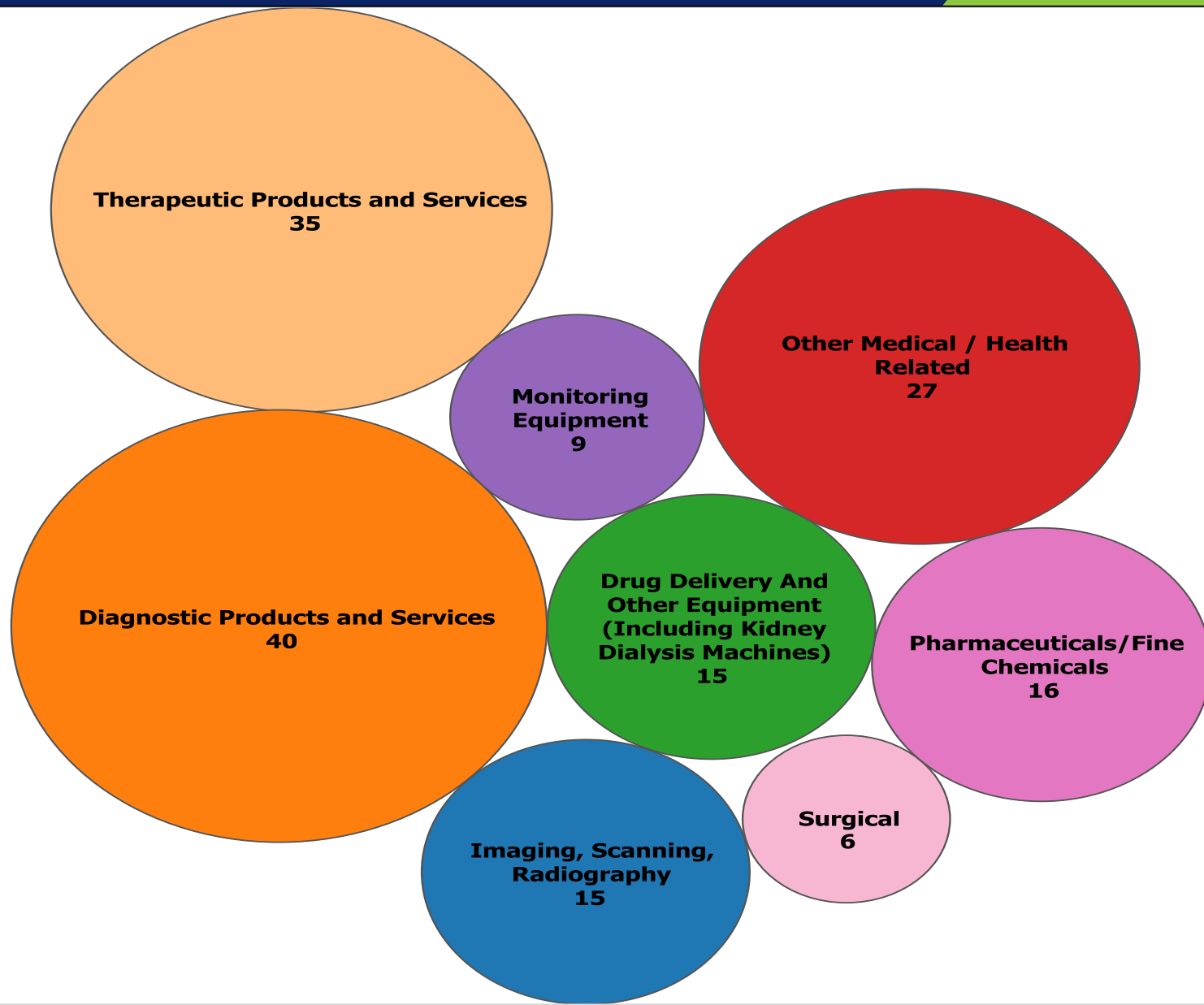
COUNTRIES INVOLVED

290 MILLION €
ESTIMATED PUBLIC
FUNDING





- 464 applications
 - 30% of the total
- 163 funded projects
 - 35% success rate
 - 89% of projects above threshold
- 533 participants from 26 countries
- € 270m public-private investment





3–4 participants



2–3 countries



average duration

29 months



average project cost

€1.4 million

Fast Track to Innovation pilot

- Bottom-up – no topic
- Minimum 3 and maximum 5 partners per project
 - from at least 3 different EU-28 and Associated Countries
- Eligibility rule:
 - minimum 60% of the overall budget allocated to private organisations, **or**
 - private organisations represent the majority in the consortium
- A proposal shall include a business plan
- Max. €3 million per project, funding rate: 70%
- Last cut-off: 25 October 2016 (Budget: €30 m)

What is the Innovative Medicines Initiative?

EU funding goes to:

- universities
- SMEs
- patient groups etc.



> €5 bn

EFPIA companies

- receive no funding
- contribute to projects 'in kind'



€2.5 bn

Partnership
2008 - 2024



€2.5 bn

Europe's partnership for health

IMI – SME participation

SMEs play a leading role in many IMI projects

- Participation is most successful when IMI project objectives are aligned with the SME's approach

As of March 2016:

- 192 participations out of 1194 beneficiaries receiving funding are SMEs: 16%
- SMEs receive 150 Million Euros out of a total IMI commitment to beneficiaries receiving funding of 1106 Million Euros: 14%

Why should an SME participate in an IMI project?

- Unique collaborative partnerships in pharmaceutical research and development
- IMI projects are focused on translating excellent research into real world outcomes – an opportunity for SMEs
- Collaboration with large pharmaceutical companies on key challenges for the industry
- Build research and business networks
- Funding opportunities

- IMI projects vary in their scope and approach therefore not all IMI projects are suitable for all SMEs
 - Check the call topic text carefully
 - Contact the IMI Programme office

IMI Call 8

Single Stage RIA Call

Ebola and other filoviral haemorrhagic fevers (Ebola+) programme:
future outbreaks

This call for proposals is continuously open for a period of two years with the following cut-off dates for submission of proposals:

- **16 March 2016**
- **15 September 2016**
- **16 March 2017**
- **14 September 2017**
- **15 March 2018**

<http://www.imi.europa.eu/content/imi-2-call-8>

Future calls

The following topics are under consideration for inclusion in IMI 2 – Call 10

- Understanding hypoglycaemia: the underlying mechanisms and addressing clinical determinants as well as consequences for people with diabetes by combining databases from clinical trials
- Introduction to the IMI2 Big Data for Better Outcomes Programme (BD4BO)
- Improving the care of patients suffering from acute or chronic pain
- Biomanufacturing 2020: Development of Innovative high throughput analytical tools and methods to characterize cell culture fluid during development and commercial cell culture processes
- Precision Medicine Approaches in Autism Spectrum Disorders

Stay in touch

▪ Dedicated SME contact
colm.carroll@imi.europa.eu

▪ Visit our website
www.imi.europa.eu

▪ Sign up to our newsletter
bit.ly/IMInewsletter

▪ Follow us on Twitter
[@IMI_JU](https://twitter.com/IMI_JU)

▪ Join our LinkedIn group
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▪ E-mail us
infodesk@imi.europa.eu

▪ Fiction vs. facts

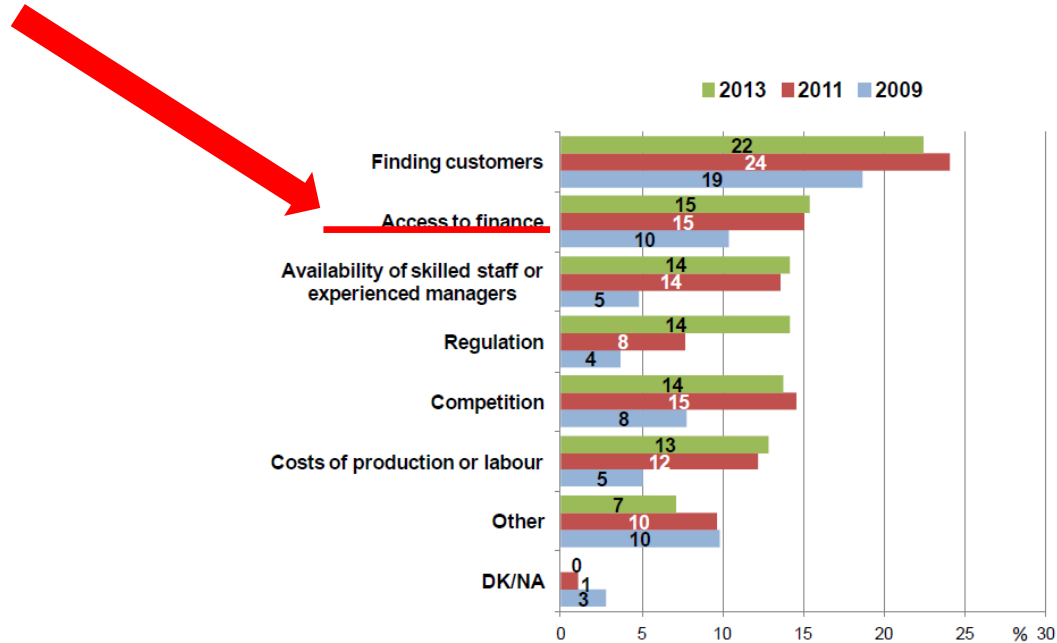
http://www.imi.europa.eu/sites/default/files/uploads/IMI_fiction_vs_facts.pdf

HORIZON 2020

The image shows a screenshot of the IMI website and a Twitter feed. The website header includes the IMI logo and navigation links for Contact, Newsletter, and Links. The main content area features a search bar, a navigation menu with links to Home, About IMI, Ongoing projects, Calls for proposals, News, Events & Media, and Reference documents, and a grid of service categories: Partner Search, Education & Training, Small & Medium-Sized Enterprises, and Intellectual Property. A 'Members area' section lists the Governing Board, States Representatives Group, and Scientific Committee. The main content area is divided into several sections: 'The Innovative Medicines Initiative' (describing the initiative's goal to speed up development of better and safer medicines), 'IMI Newsflash' (with a tweet from 10/11/2014), 'IMI Launches Ebola+ Programme' (announcing a €280m budget for accelerating vaccine development), 'Ongoing Projects' (highlighting a life-saving technology project), and 'Future Calls' (listing topics for inclusion in future calls). A 'Newsletter' section offers a 'Read & subscribe' link, and an 'Agenda' section lists upcoming events. The Twitter feed shows two tweets from @IMI_JU regarding Ebola diagnostic tests and vaccine distribution.

Why EU Access to Risk Finance?

Barriers to Innovation & Growth



Source: European Commission and European Central Bank, SMEs' Access to Finance Survey 2013, Analytical Report.

"68% of companies consider the lack of financial resources as the main obstacle to the commercialisation of innovative products or services."

Source: European Commission, 2014 Innobarometer survey "The role of public support in the commercialisation of innovations"

InnovFin - EU Finance for Innovators

SMEs	Midcaps	Large Caps	Thematic Finance
InnovFin SME Guarantee	InnovFin MidCap Guarantee	InnovFin Large Projects	InnovFin Energy Demo Projects
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
Intermediated SME/Mid-Cap Financing	Intermediated and/or direct Corporate lending	Direct Corporate Lending	Project Finance and/or Direct Corporate Lending

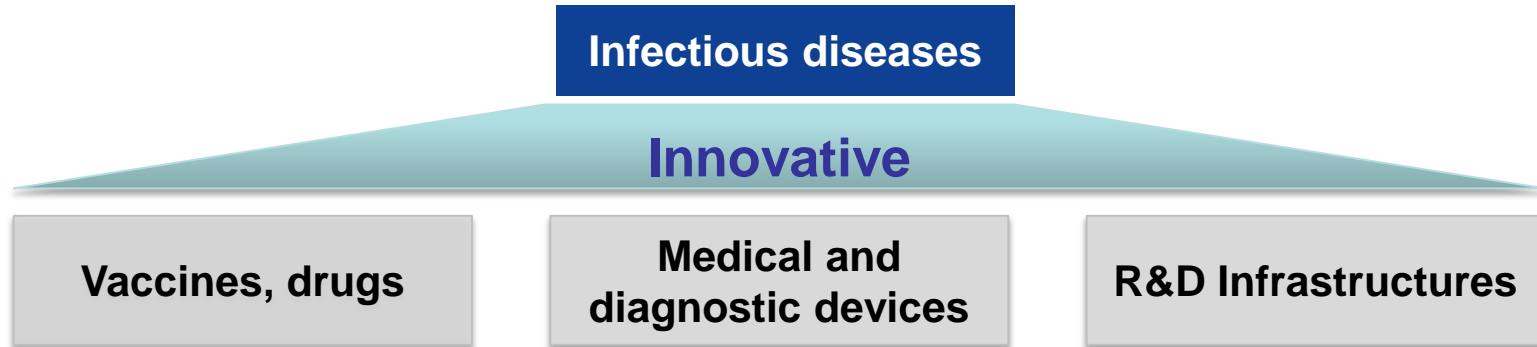
 direct products

 indirect products

A New Financial Instrument for Infectious Diseases R&D

- Jointly developed by EC and EIB
- Provides loans between EUR 7.5m and EUR 75m to innovative players active in developing **vaccines, drugs, medical and diagnostic devices**, and research **infrastructures** for combatting infectious diseases.
- No calls – demand-driven
- Launched 15 June 2015, 3 deals signed since

Eligible Projects...



- ...must be in pre-commercial phase with **proof-of-concept and pre-clinical research phases completed** and clinical validation required for further development.
- ...must have **proven public health impact and potentially have market prospects.**
- ...should provide for the intellectual property created in the course of the project to remain in the EU

<http://www.eib.org/products/blending/innovfin/products/infectious-diseases.htm>

Pipeline YTD

56 proposals submitted since launch:

- 18 Vaccine
- 20 Drugs
- 14 Devices
- 4 Other

3 projects signed

Browse financial support available in your country

The screenshot shows the 'Your Europe' website interface. At the top, there is a navigation bar with links for 'Contact', 'Sitemap', 'About this site', and 'Legal notice', along with a language selector set to 'English (en)'. The main header features the 'Your Europe' logo and a search bar. Below the header, a breadcrumb trail reads 'EUROPA > Your Europe > Business > Funding > Access to finance'. A secondary navigation menu includes 'Start & grow', 'VAT & customs', 'Selling abroad', 'Staff', 'Product requirements', 'Funding' (highlighted in red), 'Public contracts', and 'Environment'. The main content area is titled 'Access to finance' and includes a 'Select a country' button over a map of Europe. A yellow banner at the bottom of the screenshot contains the URL: <http://europa.eu/youreurope/business/funding-grants/access-to-finance/>. Other elements include a 'Feedback' section, 'Living and moving in Europe', and 'Questions about the EU?' with contact information.

Birth Day Prize

#HorizonPrize



- The 'Birth day' Prize is an initiative of the European Commission which has committed €1 million, with the Bill & Melinda Gates Foundation pledging another €1 million and a further €500 000 donated by the MSD for Mothers programme of Merck Sharp & Dohme Corporation.
- Scope: a novel solution to improve the outcome of facility-based deliveries (of a clinical, technological or managerial nature, or a combination of these)
- Impact: demonstrated reduction in maternal and/or new-born morbidity and mortality and/or stillbirth during facility-based deliveries,
- End date: 6 September 2017
- <http://ec.europa.eu/research/horizonprize/index.cfm?prize=birthday>

Get prepared - free of charge services to assist you

Call text, guide for applicants, FAQ: Participant portal

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

Practical information & assistance: National Contact Points

http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html

Find partners, training, brokerage: Fit for Health 2.0

<http://www.fitforhealth.eu/>

Find out what projects are or have been funded: EU Health projects database

http://cordis.europa.eu/projects/home_en.html

IP questions and advices: IPR helpdesk

<https://www.iprhelpdesk.eu/>

SME regulatory one stop shop: EMA SME office

http://www.ema.europa.eu/ema/index.jsp?curl=pages/regulation/general/general_content_000059.jsp

Become evaluator! Select the best projects: Register as Expert

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

Loan guarantee, equity: Find out financial support available in your country

<http://europa.eu/youreurope/business/funding-grants/access-to-finance/>