Overview

Horizon 2020 (H2020) is the financial Instrument implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness. Running from 2014 to 2020 with a budget of just under €80 billion, the EU’s new programme for research and innovation is part of the drive to create new growth and jobs in Europe.

Horizon 2020 funding will target projects that deliver Excellent Science, create Competitive Industries and tackle Societal Challenges.

In Horizon 2020 20% of the total budget from two key pillars: “Societal Challenges” (SC) and “Leadership in Enabling and Industrial Technologies” (LEIT) will be targeted at SME initiatives. In practice this will mean about €8.65 billion Euros in EU support for Research and Innovation activities going to SMEs. SMEs can avail of this funding through:

- Participation in Collaborative projects (13% of total budget)
- SME Instrument (7% of total budget)

SMEs will be further supported through two additional programmes:

- Eurostars II
- Access to Risk Finance

SMEs will be supported through the Competitiveness and SME programme (COSME) which runs in parallel to Horizon 2020. COSME has a budget of €2.3 billion to support the following areas:

- Better access to finance for SMEs
- Supporting entrepreneurs
- Access to markets
- More favourable conditions for business creation and growth

Finally, SMEs will also be encouraged to participate in other parts of Horizon 2020, such as the Marie Skłodowska-Curie Actions or the activity on Future and Emerging Technologies.
SME Instrument

The new SME Instrument is potentially available to all SMEs who want to take an integrated approach from research through innovation to market. The Instrument is available across the entire spectrum of Horizon 2020 activities. While there is no particular restriction to the fields that can avail of this Instrument it will be used to foster certain areas in the Horizon 2020 programme. In ICT for instance the broad definition of Disruptive ICT innovation will be used as a selection criterion: Innovative ICT concept, product and service applying new sets of rules, values and models which ultimately disrupt existing markets.

How it will work

Horizon 2020 has allocated €251.02 million from the 2014 budget and €264.57 million from the 2015 budget (note 2015 figures are not fully approved) to the SME Instrument. The Instrument will be available in multiple phases. It is expected that ~5200 (10% of budget) Phase 1 projects and ~1700 (88% of budget - average size of €1.5m) Phase 2 projects will be supported each year.

Given the expected demand for this Instrument it is envisioned that 10% of applications will be accepted for Phase 1 and with 30% to 50% of these progressing to Phase 2.

Phase 1: Concept/feasibility assessment

Applications to Phase 1 are based on a short (~10 page) idea/concept proposal. It is expected that evaluations will be turned around in a maximum of 3 months. Projects will have an expected duration of 6 months and will work on: feasibility, risk assessment, IP landscaping, design study etc.

Funding available €50k, payable in 2 stages.

Expected outcome Business Plan (if concept/idea is feasible).

Phase 2: R&D, demonstration, market replication

Using the Business Plan developed in Phase 1 along with a description of the proposed project plan the SME can apply for a Phase 2 project. The proposal has to be an investor ready proposition. Projects are expected to last 1 to 2 years and will work on: development, prototyping, testing pilot studies, market research etc.

Funding available €1m - €2.5m (possibly up to €5m). This is an innovation project so maximum level of funding is 70% of direct project costs plus 20% overhead. Payment is linked to agreed deliverables.

Expected outcome Investor ready Business Plan.

Phase 3: Commercialisation

Phase 3 does not provide any direct financial supports. It is designed to assist in providing access to procurement, access to finance, networking, IP management, knowledge sharing, coaching support etc. 29% of the overall Instrument budget will be available to Phase 3 supports.
# Work programmes targeting SMEs

**LEIT: Information and Communication Technologies**

<table>
<thead>
<tr>
<th>Programme</th>
<th>Description</th>
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<tbody>
<tr>
<td>ICT-37-2014/2015</td>
<td>Open Disruptive Innovation Scheme</td>
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**LEIT: Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing**

<table>
<thead>
<tr>
<th>Programme</th>
<th>Description</th>
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<tbody>
<tr>
<td>NMP-25-2014/2015</td>
<td>Accelerating the uptake of nanotechnologies advanced materials or advanced manufacturing and processing technologies by SMEs</td>
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<tr>
<td>BIOTEC-5-2014/2015</td>
<td>SME boosting biotechnology-based industrial processes driving competitiveness and sustainability</td>
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**LEIT: Space**

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<thead>
<tr>
<th>Programme</th>
<th>Description</th>
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<tbody>
<tr>
<td>SME-SPACE-1-2014/2015</td>
<td>SME Instrument</td>
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**SC: Health, demographic change and wellbeing**

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<tr>
<th>Programme</th>
<th>Description</th>
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<tbody>
<tr>
<td>PHC-12-2014/2015</td>
<td>Clinical research for the validation of biomarkers and/or diagnostic medical devices: Special case 100% funding.</td>
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**SC: Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy**

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<tr>
<th>Programme</th>
<th>Description</th>
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<tbody>
<tr>
<td>SFS-8-2014/2015</td>
<td>Resource-efficient eco-innovative food production and processing</td>
</tr>
<tr>
<td>BG-12-2014/2015</td>
<td>Supporting SMEs efforts for the development-deployment and market replication of innovative solutions for blue growth</td>
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**SC: Energy Challenge**

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<tr>
<th>Programme</th>
<th>Description</th>
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<tbody>
<tr>
<td>SIE-1-2014/2015</td>
<td>Stimulating the innovation potential of SMEs for a low carbon and efficient energy system</td>
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**SC: Smart, green and integrated transport**

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<tr>
<th>Programme</th>
<th>Description</th>
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<tbody>
<tr>
<td>IT-1-2014/2015</td>
<td>Small business innovation research for Transport</td>
</tr>
</tbody>
</table>

**SC: Climate action, environment, resource efficiency and raw materials**

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<tr>
<th>Programme</th>
<th>Description</th>
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<tbody>
<tr>
<td>SC5-20-2014/2015</td>
<td>Boosting the potential of small businesses for eco-innovation and a sustainable supply of raw materials</td>
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**SC: Europe in a changing world – inclusive, innovative and reflective Societies**

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<tr>
<th>Programme</th>
<th>Description</th>
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<tbody>
<tr>
<td>INSO-9-2015</td>
<td>Innovative mobile e-government applications by SMEs</td>
</tr>
<tr>
<td>INSO-10-2015</td>
<td>SME business model innovation</td>
</tr>
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**SC: Secure societies – Protecting freedom and security of Europe and its citizens**

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<tr>
<th>Programme</th>
<th>Description</th>
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<tr>
<td>DRS-17-2014/2015</td>
<td>Protection of urban soft targets and urban critical infrastructures</td>
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Important notes

The Instrument is targeted at SMEs only. There is no need for a consortium. If research institutions or other companies are to be engaged in any of the phases then they will do so as subcontractors to the SME project.

In Phase 1 there is a relatively low bar to entry and SME is not required to undergo financial checks however in Phase 2 and 3 there is an expectation that the company is trading (or capable of trading) and evaluation will include financial checks etc.

Although it has not been decided as yet there will be limits on participation (1 application per SME for instance). SMEs will not be allowed to apply for a Phase 2 project while still undertaking a Phase 1 project.

Unlike previous Framework based projects (FP7/FP6 etc.) there won’t be a requirement on the SME to travel to the EU for evaluation. Suitability of a proposal will be evaluated remotely. Projects will be evaluated on the following criteria (and in the following order):

1. Impact (commercialisation potential) – if score is not high enough at this stage then evaluation will cease;
2. Excellence (innovation);
3. Quality and efficiency of implementation

It is intended that this programme will accept proposals continuously throughout the year, however for the purposes of evaluation the following cut-off dates will apply: 18/6/14; 24/9/14; 17/12/14 for phase 1; Oct/Dec for Phase 2 (to be confirmed).

The Call has been published (11/12/13) however calls for proposal won’t open until 1/3/14.

Eurostars II

What is Eurostars II?

This is a Research and Development (R&D) programme undertaken by several Member States aimed at supporting research and development performing small and medium-sized enterprises. The programme is funded through a national authority and is 33% funded by the EU. The expected total budget for Eurostars II is €1.2b.

Who is it aimed at?

R&D performing SMEs who contribute to growth and job creation and who are engaged in transnational collaboration in research; currently no other programme specifically targeting these SMEs.

For the purposes of this programme an R&D performing SME is defined as: an SME which reinvests at least 10% of its turnover to research and development activities or dedicates at least 10% full-time equivalents to research and development activities.

Projects must form a consortium: at least one R&D performing SME engaging in transnational research collaboration either with another SME and/or including other actors of the value chain (eg: universities, research performing organisations).
In this revision of the programme there will be an increased focus on SMEs with no previous international research experience.

Results of activities are expected to be introduced to the market within two years of the completion of an activity.

**Access to Risk Finance**

Providing SMEs with greater access to risk based financing forms a significant part of the Horizon 2020 budget. Around €2.725 billion in total (3.69% of budget, net of administrative costs) will be allocated for market-driven financial instruments.

Funding **will not be provided through grant funding** but support will be in the form of **risk-sharing** (for loans and guarantees) and by providing **risk finance** (equity). Risk finance is expected to have the following impacts:

- Leverage effect: to attract additional finance and multiply Horizon 2020 budget resources
- Addressing financing gaps: Intervention only if there are financing gaps in the delivery chain (e.g. due to high risk)
- Building a bridge from R&D to Innovation: Effective cost efficient way to complement grant funding under Horizon 2020 and translate R&D results to the market
- Objectives: facilitates access to finance for:
  - RDI driven/innovative SMEs & small midcaps and
  - Ambitious RDI projects carried out by a variety of recipients (companies, universities, research centres etc.)

The aim is that at least 30% of budget to serve RDI driven SMEs and small midcaps

**Who or What is eligible for a loan?**

Loan financing can be provided according to a catalogue of criteria however applicants must at least meet one of the following:

- Loan is for investments in R&D or innovation with significant technology or application risk
  - Or
- Loan is to a “fast-growing” enterprise (meaning >20% pa in growth or employees over the last 3 years)
  - Or
- Loan is to an "enterprise with significant R&D or innovation potential" – which means what, practically?
What is an “Enterprise with significant R&D or Innovation potential”?

One or more of the following criteria will be used in making the assessment:

- Expenditure in innovation in last balance-sheet is at least 20% of loan volume
- At least 90% of loan is earmarked in business plan over next 2 years for R&D/innovation expenses investments.
- Firm awarded grants, loans or guarantees from EU or national Research and Innovation support schemes within last 2 years.
- Firm awarded an innovation prize within last 2 years
- Firm registered a patent within last 2 years
- Firm has been invested in by high tech VC fund
- Firm is based in science, technology or innovation park
- Firm received tax benefits linked to RDI investment within last 2 years

Collaborative Projects

Small and Medium-sized Enterprises (SMEs) are encouraged to participate across the whole Horizon 2020 programme and can engage in collaborative projects as part of a consortium. It is expected that 13% of the total budget involving research and innovation actions through collaborative projects will target SMEs.

Fast Track to Innovation (FTI) is a new element of Horizon 2020 added during the legislative process. It will be launched as a pilot action in 2015. It will support innovation actions under the specific objective "Leadership enabling and industrial technologies" and under the "societal challenges", relating to any technology field, on the basis of a continuously open call, and time to grant not exceeding six months. Proposals may be submitted at any time. The Commission shall issue three cut-off dates per year to evaluate proposals. Any legal entity may apply, with a minimum of three up to a maximum of five participants in any action. Up to 100 proposals are foreseen to be funded under the pilot action.

The island of Ireland presents a unique opportunity to create collaborative projects involving 2 EU member states. Exploiting this potential collaborative route can be facilitated by InterTrade Ireland.
COSME

COSME is aimed at improving the business environment and the competitiveness of European enterprises.

Main targets:

- small and medium-sized enterprises (SMEs),
- entrepreneurs,
- citizens who want to become self-employed,
- business support organisations.

Key actions:

1. Access to finance for SMEs through dedicated financial instruments: An equity facility for start-up and growth phase investment will provide commercially oriented equity financing primarily in the form of venture capital (VC) and a loan facility will provide risk sharing arrangements with financial intermediaries to cover loans for SMEs.

2. Enterprise Europe Network: a “one-stop shop” for the business needs of SMEs in the EU and beyond. It provides enterprises with information and a range of quality and free-of-charge business support services to make them more competitive: for example information, guidance and customized assistance. It facilitates business expansion and partnering in the EU Single Market and beyond.

3. Support for initiatives to foster entrepreneurship: ease difficulties in setting up and transferring enterprises; encourage trans-national networks, exchange good practices and identify scope for expanding business activities.

Access to markets: SME business support in markets outside the EU via specific centres and helpdesks. International business cooperation will be supported, inter alia, by reducing differences in regulatory and business environments between the EU and its main trading partners.

Marie Skłodowska-Curie Actions

Marie Skłodowska-Curie Actions (MSCA) have a very broad remit that can be summarised in the following statement:

“Ensure the optimum development and dynamic use of Europe’s intellectual capital in order to generate new skills and innovation”

With a total budget of €6.162 b for the duration of Horizon 2020 MSCA aims to promote the movement of researchers between universities and between universities and SMEs. MSCA allows companies to create much higher level research and development projects by allowing the company to leverage, through collaboration, the equipment and research resources within a university.

Previous iterations of the MSCA (know as the MCA) have had numerous instruments funding different aspects of the overall programme. MSCA aims to simplify this by concentrating on 4 Actions:

1. Innovation Training Networks (ITN)
2. Individual Fellowships (IF)
3. Research and Innovation Staff Exchange (RISE)
4. Co-funding of regional, national and international programmes (COFUND)

ITN and RISE promote business/academic collaborations that focus on giving researchers the skills required and the opportunities to contribute to SME growth.

ITN offers:

- Recruitment of researchers (in the first five years of their careers) for initial training;
- Recruitment of experienced researchers of outstanding stature in international training and collaborative research to strengthen transfer of knowledge;
- Networking activities, organisation of workshops and conferences, involving the participants’ own research staff and external researchers.

RISE offers:

- Exchange of know-how and experience between private sector and academia through secondments of the research staff of the participants;
- Recruitment of experienced staff from outside the partnership, for facilitating the transfer of knowledge and/or the training of staff;
- Networking activities, organisation of workshops and conferences, involving the participants’ own research staff and external researchers;
- Research equipment funding for SMEs (up to 10% of an EU contribution for each SME participant).
Useful links & Resources

European Commission Research & Innovation Horizon 2020 Homepage: http://goo.gl/hmnTYg
Horizon 2020 Participant Portal: http://goo.gl/vYI0vW
Horizon 2020 SME Instrument (pdf): http://goo.gl/1zsFMq
Horizon 2020 SME event held in Brussels on the 18/10/13: http://goo.gl/IN7Jl8
Marie Sklodovska-Curie Actions for Industry: http://goo.gl/cwcerX
Enterprise Ireland Horizon 2020 Homepage: http://goo.gl/rfW53k
InterTrade Ireland Horizon 2020 Homepage: http://goo.gl/MLrTP2
National Points of Contact for EU awards and programmes: http://goo.gl/vWkoGT
Select Ireland to see list of contacts. A useful starting point would be Dr Imelda Lambkin who is the National NCP coordinator.
European Enterprise Network: http://goo.gl/LpqQz

Glossary

LEIT Leadership in enabling and industrial technologies
ICT Information and communication technologies
NMP Nanotechnologies, Advanced materials, Advanced manufacturing and processing
BIOTEC Biotechnology
PCH Personalising health and care
SFS Sustainable Food Security
BG Blue Growth: Unlocking the potential of Seas and Oceans
SIE SMEs and fast track to Innovation for Energy
IT SME and fast track to Innovation for Transport
SC5 Societal Challenge 5: Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials
INSO Europe in a changing world: New Forms of Innovation
DRS Disaster-resilience: safeguarding and securing society, including adapting to climate change
Can NUI Maynooth help?

The Commercialisation Office is responsible for the commercialisation of research at National University of Ireland Maynooth. This includes developing links with industry; protecting and exploiting NUI Maynooth generated intellectual property (IP) via licensing and business start-ups.

The Office is supported by Enterprise Ireland under the Technology Transfer Strengthening Initiative (2013-2016) and NUI Maynooth is now part of a technology transfer consortium, an alliance led by NUI Maynooth in partnership with Institute of Technology Carlow (ITC), Waterford Institute of Technology (WIT) and Athlone Institute of Technology (AIT). The Consortium is focused on ensuring a professional and efficient approach to the identification, protection and commercialisation of research at each institution and are committed to enhancing the innovative capacity of Irish based industry, working with researchers to ensure collaboration of technology transfer is in line with best practice nationally and internationally.

Our services include:

- Delivery of a first-class commercialisation service to meet the needs of industry
- Rapid turn-around on negotiated research collaboration contracts
- Delivery of packaged, clean IP and well structured license agreements
- A flexible approach to industry IP needs
- A locus for knowledge-based enterprise development.

On our site you will find details of our current research expertise and strengths and available technologies. We currently constructing a Business Incubation Centre, which will be the focus for new knowledge-based enterprise development. The Centre, due for completion in 2014, will include campus company incubation and joint industry-academic research/enterprise development partnerships.

Please contact us if you are:

- seeking to exploit NUI Maynooth Intellectual Property;
- seeking research collaboration opportunities;
- an emerging knowledge based start-up looking for incubation facilities;
- an investor interested in early stage companies/ideas with commercialisation potential.

COMMENTS + QUESTIONS

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