The Importance of University-Business Collaboration

MSCA – bridging business and Research

Dr David Docherty – 18th February 2015
A Vision for the UK

To achieve world leadership in business-university collaboration.

Wilson Review 2012
The sheer range of connectivity is impressive

Figure 2: Percentage of UK businesses citing different interaction pathways with the university sector
But there are constraints

Figure 3: Constraints on interactions: businesses and academics engaged with private sector only (per cent of respondents).

Source: Hughes and Kitson (2012)
What is the National Centre for Universities and Business?

The NCUB is a *networked* centre of excellence driving more successful graduate talent and business innovation through analysis, action, and collaboration.
Areas of Focus

• Brokering and facilitating world class collaboration

• Working together to build the high-level talent base for the UK’s future prosperity and well-being.

• Translating inventiveness into innovation

All underpinned by high quality research and analysis.
Distributed networks
Support the Vision and Mission

Insert a short version of the film we used last time.
Role of the NCUB

Led by Leaders: A unique UK-wide network of business, university and innovation leaders.

Digital Innovators and Inspirers: Curators of digital platforms that create opportunity for all universities, research institutes, businesses, employers and students.

Trusted Analysts: Repository of good practice and guidance; independent myth-busting analysis and robust intelligence gathering for better business-university collaboration.

Change and Programme Managers: Create, coordinate and develop programmes to strengthen strategic partnerships between business, universities and the publicly-funded innovation system.
Current NCUB website resources

• Success Stories
  Case studies of university-business collaboration across the UK, to inspire and share best practice across the world.

• Blogs
  Personal experiences of collaboration.

• Quality Placements online report
  Showing the benefits through participants quotes and myths busted.

• KTP Summary reports
  Re-producing NCUB research for business and academic audiences.

• NCUB Students section
  Placement listings, ‘my placement experience’, and ‘what we’re looking for’ from employers
Overcoming barriers

- Reducing the information and guidance gaps for small and mid-sized companies through a Digital Portal with widely-distributed high-quality free information, advice and guidance.
- Overcoming size inequality and privileged access through digital brokerage.
- Increasing trusted sector-specific intelligence and change management for sectors not sufficiently skilled at university-business collaboration. Analysis and change management.
- Creating regionally-specific collaboration support through digital platforms and smart specialisation.
- Creating cross-sector skills and talent development programmes within a coordinated approach to collaboration on tough, long term challenges (e.g. women into engineering, placements), and emerging industries (e.g. interdisciplinarity in digital and biological sciences).
- Supporting student work experience programmes with information, advice guidance and brokerage.
London Creative and Digital Fusion

London Fusion provides a fully-funded package of support in three phases. These aim to help businesses to collaborate, develop, and innovate.

- **Phase 1:** *Inspire* Collaboration and Innovation
- **Phase 2:** *Fuse* business knowledge, creativity and technology
- **Phase 3:** *Create* new products and services
London Fusion Results

Since July 2012, the project has supported 426 SMEs with over 11000 worth of business support, [and] created over 100 new jobs.
Thank you!

Contact us at
david.docherty@ncub.co.uk

www.ncub.co.uk
The SME instrument and other opportunities for UK business
Horizon 2020 - significant opportunity

...... but funding is only part of the story

Most relevant when aligned with vision and strategic direction, to maximise benefit from:

- generation of new knowledge
- building networks
- developing relationships with collaborators and potential customers
- creating opportunities for market growth
Innovate UK support for participants in Horizon 2020

https://www.h2020uk.org/home
Priorities
SME Instrument

• ~ 50% of projects above threshold will be funded

• > 60% of SMEs appear to be newcomers to Framework Programmes

• >75% projects single company

• Best "country success rates":
  • Ireland: 20%
  • Austria: 15%
  • United Kingdom: 11%
Fast Track to Innovation – 2015 launch

Objectives:

- Increase the participation of industry, SMEs and first time applicants in Horizon 2020
- Stimulate private sector investment in research and innovation

Characteristics

- Permanently open call with three cut-off-dates per year - proposals relating to any technology field under LEITs and Societal Challenges
- Open to any legal entity - consortia of 3 to 5 participants
- Proposals shall include a business plan and initial market take-up no later than 3 years after submission.
- At least 60% of the overall budget of the proposal must be allocated to consortium partner(s) from industry, or
- The minimum number of industry participants must be 2 in a consortium of 3 or 4 partners, and 3 in a consortium of 5 partners
- Funding of innovation actions (close-to-market)
Reflections following first set of calls

Work Programme 2014-2015

- More support for innovation, activities close to market and demand side approaches
- €2 billion allocated to 100 topics for Innovation Actions (IA) in Societal Challenges and LEITs; €120+ million for innovation procurement (PCP/PPI); five inducement prices (2015)

Engagement of industry

- €800 million for contractual Public-Private Partnerships; €516 million for SME instrument topics; more than €1.7 billion investment in JTIs; €630 million goes to debt and equity facilities; substantial investment in P2Ps

First calls

- Increased industry participation
- Good uptake of IA, other new innovation instruments to be monitored
Marie Skłodowska-Curie actions

Bridging Business and Research

Paul Harris
Directorate-General for Education and Culture
Edinburgh, 16 February 2015
Birmingham, 18 February 2015
Outline

1. WHY do businesses apply to the MSCA?
2. WHAT opportunities do the MSCA offer?
3. WHICH MSCA should you choose?
4. PRACTICAL information
WHY do businesses apply to the MSCA?
2007-13 Marie Curie actions

Top 3 funded businesses in the UK
1. RANPLAN WIRELESS NETWORK DESIGN LTD
2. SHELL RESEARCH LIMITED
3. ASTRAZENECA UK LIMITED

Participations

<table>
<thead>
<tr>
<th>SME</th>
<th>Participations UK</th>
<th>Participations Total MCA</th>
<th>SME Total MCA</th>
<th>Other Enterprises</th>
<th>Participations UK</th>
<th>Participations Total MCA</th>
<th>€ UK</th>
<th>€ Total MCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANPLAN</td>
<td>140</td>
<td>285 m €</td>
<td>1147</td>
<td>SHELL</td>
<td>128</td>
<td>912</td>
<td>912</td>
<td>232 m €</td>
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<tr>
<td>SHELL</td>
<td>40 m €</td>
<td>34 m €</td>
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<td>AstraZeneca</td>
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<tr>
<td>ASTRAZENECA</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
2014 completed calls of Marie S. Curie actions

<table>
<thead>
<tr>
<th>Participations</th>
<th>SME</th>
<th>Other Non-academic Organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total MSCA</td>
<td>229</td>
<td>234</td>
</tr>
<tr>
<td>Participations UK</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>€ UK</td>
<td>6.7m €</td>
<td>8.2m €</td>
</tr>
<tr>
<td>€ Total MSCA</td>
<td>48.2 m €</td>
<td>47.7m €</td>
</tr>
</tbody>
</table>

[Bar chart showing participations and funding by category]
MSCA can fund YOUR R&I & meet YOUR needs

- Funding for PhDs, fellowships, and short stays by researchers
- For early-stage AND experienced researchers
- Researchers come from and go to the world
- Work with research talents and leading centres
- Dedicated Actions to link business & research

*Except nuclear energy covered by EURATOM
WHAT opportunities do the MSCA offer?
Key Advantages

- **Bottom-up approach**: Includes all domains of research and innovation
- **Openness**: Strong accent on participation of industry, SMEs and non-academia overall
- **Mobility**: A global scope with trans-national mobility required and often cross-sector mobility as a key component
- **Flexibility**: Level of involvement is proportional to the participant's needs
Choose your level of involvement

Start getting involved
- Host secondments
- Provide specific training modules

Focus on core business & short- to medium-term research agenda
- Recruit one or more researchers during their entire fellowship
- Build around a common research project

Develop medium- to long-term collaborations around a common strategy
- Gain and transfer knowledge/expertise through staff exchange
- Take part in shaping the training of researchers you would like to hire

European Commission | Education and Culture
Participant organisations

**Academia**
- Public or private **HEI** awarding academic degrees
- Public or private **non-profit research organisations**
- International **European interest** organisations

**Business and non-academia**
- **Broad definition:** Any socio-economic actor not included in the academic sector definition

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Universities
Non-profit research institutes
IEIOs

Industry
SMEs
Other socio-economic actors
Marie Skłodowska-Curie actions

2014-2020: EUR 6 162 million (GBP 4 824 million)

Innovative Training Networks - ITN

Individual Fellowships - IF

Research and Innovation Staff Exchange - RISE

COFUND regional, national, and international programmes

European Researchers' Night - NIGHT
## MSC actions
### Financial Overview

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Cost</th>
<th>Subcategory</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RISE</strong></td>
<td>Research, networking, training</td>
<td>1800 €</td>
<td>Top-up allowance</td>
<td>2000 €</td>
</tr>
<tr>
<td></td>
<td>costs</td>
<td></td>
<td>Management and indirect costs</td>
<td>700 €</td>
</tr>
<tr>
<td><strong>ITN</strong></td>
<td>Research, networking, training</td>
<td>1800 €</td>
<td>Living allowance*</td>
<td>3110 €</td>
</tr>
<tr>
<td></td>
<td>costs</td>
<td></td>
<td>Mobility allowance</td>
<td>600 €</td>
</tr>
<tr>
<td></td>
<td>Management and indirect costs</td>
<td>1200 €</td>
<td>Family allowance</td>
<td>500 €</td>
</tr>
<tr>
<td><strong>IF</strong></td>
<td>Research, networking, training</td>
<td>800 €</td>
<td>Living allowance*</td>
<td>4650 €</td>
</tr>
<tr>
<td></td>
<td>costs</td>
<td></td>
<td>Mobility allowance</td>
<td>600 €</td>
</tr>
<tr>
<td></td>
<td>Management and indirect costs</td>
<td>500 €</td>
<td>Family allowance</td>
<td>500 €</td>
</tr>
<tr>
<td><strong>COFUND</strong></td>
<td>Management costs</td>
<td>325 €</td>
<td>Living allowance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Early-stage researchers</td>
<td>1855 €</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Experienced researchers</td>
<td>2625 €</td>
</tr>
</tbody>
</table>

* The living allowance base rate is multiplied by Country Correction Coefficient

[European Commission](https://ec.europa.eu)
WHICH MSCA should you choose?
Who do you want to host/recruit?

**Early-stage Researchers (ESR)**
- Less than four years of research experience and **No doctoral degree**

**Experienced Researchers (ER)**
- At least four years of research experience and/or **A doctoral degree**

**ITN**
- **RISE**
- **COFUND**

**IF**
- **RISE**
- **COFUND**
Research and Innovation Staff Exchange (RISE)

- Strengthen the interaction between academic and non-academic organisations, and between Europe and third countries, through research and innovation staff exchanges.
- International and inter-sector transfer of knowledge and sharing of ideas and of R&I culture.
- Common research and innovation project.
- Highly skilled research and innovation staff move for 1-12 months.
- Budget: €80 million in 2015.
RISE – Eligibility Conditions

- At least 3 independent participants in 3 different countries
- At least 2 participants from 2 different MS/AC
- If all in MS/AC: at least 1 academic and 1 non-academic

In practice, 2 possible minimum settings:
Innovative Training Networks (ITN)

- Raise excellence and structure research and doctoral training
- Train a new generation of creative, entrepreneurial and innovative early-stage researchers
- Trigger cooperation and exchange of best practice among participants
- Enhance researchers' employability and provide them with new career perspectives
- Triple 'i' dimension of mobility and particular focus on innovation skills
Innovative Training Networks (ITN)

Inter-sectoral partnerships for doctoral training
Minimum 2 partners from 2 MS or AC and from differing sectors

Minimum 50% of research time in non-academic sector

Joint supervision

Separate selection panel

Presentation on EID experience by GSK Spain at 2014 MSCA Italian EU Presidency Conference:
Innovative Training Networks (ITN)

Minimum 3 partners from 3 MS or AC

Duration of projects: up to 4 years

Flexibility in choice of partners BUT
non-academic exposure still required
Individual Fellowships (IF)

- Enhance the creative and innovative potential of experienced researchers
- Provide opportunities to acquire new knowledge, work on research projects in a European context or outside Europe
- Catalyse significant development in their careers in both sectors
- Optional 3-6 month secondments anywhere in Europe to increase fellowship impact, especially on non-academic sector
- **Budget: €215 million** in 2015 (Global Fellowships: €27 million)
COFUND

✓ Promote international, intersectoral and interdisciplinary research training, as well as transnational and cross-sector mobility of researchers at all stages of their career by co-funding new or existing regional, national, and international programmes.

✓ Mono-beneficiary: organisation funding or managing doctoral or post-doctoral programmes.

✓ Leverage funding and combat fragmentation (possible synergies with ESIF).

✓ Spread MSCA best practices.

✓ Budget: €80 million in 2015 (Doctoral Programmes: €30 million).
PRACTICAL information
### MSCA Calls

<table>
<thead>
<tr>
<th>Fund</th>
<th>Start Date – End Date</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF</td>
<td>12/03/2015 – 10/09/2015</td>
<td>EUR 215 million</td>
</tr>
<tr>
<td>RISE</td>
<td>6/01/2015 – 28/04/2015</td>
<td>EUR 80 million</td>
</tr>
<tr>
<td>COFUND</td>
<td>14/04/2015 – 1/10/2015</td>
<td>EUR 80 million</td>
</tr>
</tbody>
</table>
Submit your proposal:

Part A: 10 pages
Part B: 30 pages (if 10 pages)

MSCA Workflow

Find a Call

Find Partners or Apply as Individual

Create your account on the Participant Portal

Register your organisation Identify or get a PIC

Submit your proposal:

Part A: 10 pages
Part B: 30 pages (if 10 pages)

Application

Evaluation

Grant Agreement (GA)

Reporting

Find a Call

Find Partners or Apply as Individual

Create your account on the Participant Portal

Submit your proposal:

Part A: 10 pages
Part B: 30 pages (if 10 pages)

For successful applicants: TIME-TO-GRANT = 8 MONTHS

Electronic signature of GA via the Participant Portal

New structure of GA: legal provisions all in 1 document

3 independent experts

In general, fewer periodic reports needed than in 2007-13 MCA

Periodic Report: technical and financial

Final Report: technical and financial

European Commission Education and Culture

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periodic reports

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European Commission Education and Culture
The **IPR Helpdesk** can help you for IPR-related issues in H2020

https://www.iprhelpdesk.eu/

- Aims to provide **feedback** within a few days
- Regular events around Europe (**subscribe** for news alerts)
- **MSCA approach very similar** to rest of H2020 + access rights for researchers
- IPR aspects of Grant Agreements are explained in non-legal terms in **Annotated Grant Agreements**: http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf
The EEN can help you including to find partners

http://een.ec.europa.eu/
Marie Skłodowska-Curie UK National Contact Point Helpdesk

- Free advice to the UK on all MSC actions, including:
  - Calls
  - Eligibility
  - Application help
  - Results
  - Contractual issues
  - Social security and tax
  - Contractual issues

- Helpdesk contact details:
  - mariecurie-uk@bbsrc.ac.uk
  - Tel: +32 2 230 0318
  - UK information event announcements: [http://www.ukro.ac.uk/mariecurie/index.htm](http://www.ukro.ac.uk/mariecurie/index.htm)
Useful Links to help you

Where to get more information?

⇒ MSCA website: ec.europa.eu/msca
⇒ Horizon 2020 website: ec.europa.eu/programmes/horizon2020

How to apply for MSCA?

⇒ Participant Portal: ec.europa.eu/research/participants/portal

THANK YOU FOR YOUR ATTENTION!

paul.harris@ec.europa.eu

This presentation represents solely the views of its author and cannot in any circumstances be regarded as the official position of the Commission.
Marie Sklodowska-Curie Actions: Bridging Business and Research

Experiences of engaging in European collaboration with businesses and academia.

An SME perspective on how EU funding changed their business.

Peter Laybourn
Chief Executive
International Synergies Limited
Wednesday, 18th February 2015, University of Birmingham
Introducing International Synergies Limited

• Birmingham-based SME with under 20 employees

• Offices in Birmingham, Brussels and Belfast

• Specialists in Industrial Ecology Solutions (World leader in industrial symbiosis)

• Clients from public and private sector

• Experience working in over 20 countries across five continents
International Synergies – what we provide

• Innovation (in the field of industrial ecology/circular economy)

• Business networks (e.g. National Industrial Symbiosis Programme in the UK)

• ICT tools such as Synergie®

• Capacity building across 5 continents

• Training materials
Access / Influence / Convening Power
Access / Influence / Convening Power
Impact on European Policy & Recommendations

- Roadmap to a Resource Efficient Europe (2011) – exemplar case study
- DG Regions: Connecting Smart and Sustainable Growth through Smart Specialisation – exemplar case study (2012)
- DG Environment: Priority for industrial policy in (2013) recommendation
- DG Enterprise: Communique on Green Entrepreneurship (2013)
- Commissioner Potocnik launches EUR-ISA (2013)
- Horizon 2020 (2014) included to deliver circular economy
- European Resource Efficiency Platform key recommendation (2014)
- DG Innovation and Research – Short guide to assessing environmental impacts of research and innovation policy (2014)
European Commission programmes

- FP7
- Climate Knowledge and Innovation Community (C KIC)
- European Regional Development Fund
- Life+
- Marie Curie
- Intelligent Energy
- Switch Asia

Countries – UK, Poland, Romania, Germany, Hungary, China

Value - €6 million ... cutting teeth on above programmes has led to ...

€650,000 – Turkey, France, Netherlands, Finland, Italy, Denmark
€1.1 million – Brazil, Mexico, China, Canada, Chile, S. Africa, USA
Horizon 2020

- Factories of the future 3: Global Energy and other resources efficiency in manufacturing enterprises (Greece led, Ireland, Italy, Spain, UK)
- WASTE – 1 Moving towards a circular economy through industrial symbiosis (UK led, Denmark, France, Netherlands, Sweden, South Africa)
- SPIRE – 6 Energy and resource management systems for improved efficiency in the process industries (Spain led, France, Germany, Greece, Netherlands, UK)
- Waste 4d, Waste 6a, Waste 6b, Waste 7
- Total potential for International Synergies €2-7 million

Key points: invited into 11 consortia so far and universities present in all consortia
Universities (non-exhaustive)

- University of Birmingham
- University of Warwick
- Institute for Manufacturing (Cambridge)
- Herriot Watt
- University of Surrey*
- University College London (UCL)
- Imperial College London
- University of Hull*
- Paris Tech*, TU Delft, Wuppertal, Troyes, Monterrey, Copenhagen

Engaged to be innovation partners, bid writers, provide technical solutions, delivery, experience, networks, credibility etc.

*interns (more later!)
Tips for SME newcomers ...

- Long term strategy (persevere and expect some failures)
- Don’t lead bids (initially)
- Languages (we’re lucky) consider interns in short term
- Invest time in systems (everything straightforward after that)
- Build up networks and use them
- Many sources of help - Universities, EC sites, Innovate UK, UKTI
- Universities need YOU! (H2020, SME Instrument) now reciprocal
Thank you for listening...

Peter Laybourn
Chief Executive
International Synergies Limited

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www.international-synergies.com

@IntlSynergies
@NISPnetwork
@peter_laybourn
Corporate Presentation
Company Overview

• Incorporated in September 2002;
• Based on expertise in wireless communications and digital TV;
• Privately owned and profitable;
• Winner of Queens Awards for Excellence in Business 2013;
• Excellent working relations with leading edge technology Companies and major customers;
• Strong management and development teams;
• Research cooperation with the leading UK Universities
Partners and Customers
Rinicom Products and R&D Projects

Communications

Surveillance and C2

R&D Projects

• Data Mining
• Biometric Identification
• Video Analytics
• Thermal imaging analytics
• Large Data
• Secure Data Bases
• Ethical Data Storage and Search
Our Project

- We identified a problem by talking to customers
- The problem was too big to be resolved by us
- We went to EU networking event and presented the idea and the challenges
- Had to make hard choices and select only the most relevant partners
- We deliberately withdrew from being a coordinator, in order to make consortium stronger
- The project was a success and commended by the Commission
- We have a new product and new customers (some of them are consortium members) as a result
How to start?

• Understand your USP
• Attend as many networking events as possible
• Don’t play numbers game – joining many proposals doesn’t increase your chances of success.
• Join good and solid consortium with innovative idea which matches objectives of the call
• If unsure, talk to experts (UK NCP, Universities)
Thank You!

Questions?