

# EU Funding Schemes and Proposal Writing for Young and Aspiring Researchers!

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Horizon 2020 ASCIMAT Project  
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# Today's Agenda

- Who is Giles Brandon and who are Intelligentsia Consultants?
- Speed-dating
- A brief history of EU Framework Programmes for Research and Technological Development
- Scintillating materials and EU funding
- Searches on the Cordis project database
- Marie Skłodowska-Curie Actions Individual Fellowships (MSCA-IF)
- Thoughts on how to structure a proposal
- Group exercise
- European Research Council Starting Grant (ERC Starting Grant)
- Short recap
- Final thoughts

# Who is Giles Brandon?

- ⦿ BSc in Physics (1<sup>st</sup> class!), Loughborough University, 1987 - 1991
- ⦿ MSc in Information Technology, Nottingham University, 1991 - 1992
- ⦿ Designed superconducting magnets for MRI body scanners, Siemens, 1992 - 1995
- ⦿ Developed electronic controlled compressors for automotive air-conditioning systems, Delphi, 1995 - 1999
- ⦿ MBA, Oxford University, 1999 - 2000
- ⦿ Worked in innovation related consultancy, Inbis / Assystem, 2001 - 2008
- ⦿ Started Intelligentsia Consultants in 2008

# Who are Intelligentsia Consultants?

- Small consultancy firm specialised in
  - Grant Proposal Writing
  - European Programmes
  - Project Management
  - Other Services (e.g. website design)
- > 30 successful FP7/H2020 proposals since 2009
- Work with organisations throughout EU and Eastern Partnership Countries
  - MNEs: Airbus, Ivchenko, Merck, Samsung, Siemens, ...
  - HEIs: Oxford, KTU, TU Dresden, BSUIR, ...
  - PROs: CEA, CERN, CNRS, Fraunhofer, NASU, VTT, ...



# Speed-dating!

- ⦿ 3 minutes to learn about your next door neighbour
  - ❑ What is their name?
  - ❑ What is their research institute?
  - ❑ What is their PhD/Postdoc subject?
  - ❑ What do they want to do after their PhD/Postdoc?
  - ❑ A less well-known fact about them?

# A brief history of EU Framework Programmes for Research and Technological Development

ID	Framework Programme	period	Budget (billions of €)
FP1	First <sup>[3]</sup>	1984–1987	3.8
FP2	Second <sup>[4]</sup>	1987–1991	5.4
FP3	Third <sup>[5]</sup>	1990–1994	6.6
FP4	Fourth <sup>[6]</sup>	1994–1998	13.2
FP5	Fifth <sup>[7]</sup>	1998–2002	15.0
FP6	Sixth <sup>[8]</sup>	2002–2006	17.9
FP7	Seventh	2007–2013	50.5 over seven years + 2.7 for <a href="#">Euratom</a> over five years <sup>[9]</sup>
FP8	<a href="#">Horizon 2020</a> (Eighth) <sup>[10]</sup>	2014–2020	80 (estimated) <sup>[11]</sup>

# Seventh Framework Programme (2007-2013)



## COOPERATION - 65%

### THEMES (Topics)

Security  
Space  
Socio eco  
Transport  
Environm.  
Energy  
Nanotech  
ICT  
Food  
Health

## IDEAS - 15%

European Research Council  
ERC

## PEOPLE - 9%

### Marie Curie Measures

Specific  
Actions  
INCO  
Industry-  
Academia  
Life-long  
Learning  
Initial  
Training

## CAPACITIES - 8%

INCO  
Science in  
Society  
Research  
Potential  
Regions of  
Knowledge  
SMEs  
Infra-  
structures

Development of Research Policies

# Horizon 2020 (2014-2020)

## 24 B€ Excellent Science

European Research Council (ERC)

Future and Emerging Technologies (FET)

Marie Skłodowska-Curie Actions (MSCA)

Research Infrastructures

## 17 B€ Industrial Leadership

Leadership in Enabling and Industrial Technologies (LEIT) - ICT, NMP, KETs, Space

Access to Risk Finance

Innovation in SMEs

## 30 B€ Societal Challenges

Health and Wellbeing

Food security

Transport

Energy

Climate action

Societies

Security

1,3 B€ Widening Participation; Science with and for Society

2,7 B€ European Institute of Innovation and Technology (EIT)

1,6 B€ EURATOM

Joint Research Centre (JRC)

1,9 B€



# Framework Programme 9 / Horizon 2027 (2021 – 2027)

- ⦿ What will be the budget?
- ⦿ What will be the research and innovation priorities?
- ⦿ I don't know! But there are sure to be opportunities!

# Where are scintillating materials used?

- ◎ Which technologies?
- ◎ Which companies/industries?

# Horizon 2020: Which schemes are potentially interesting for funding research in scintillating materials?

## Excellent Science

European Research Council (ERC)

Future and Emerging Technologies (FET)

Marie Skłodowska-Curie Actions (MSCA)

Research Infrastructures

## Industrial Leadership

Leadership in Enabling and Industrial Technologies (LEIT) - ICT, NMP, KETs, Space

Access to Risk Finance

Innovation in SMEs

## Societal Challenges

Health and Wellbeing

Food security

Transport

Energy

Climate action

Societies

Security

Widening Participation; Science with and for Society

European Institute of Innovation and Technology (EIT)

EURATOM

Joint Research Centre (JRC)

# Some example FP7/H2020 projects



**TICAL**

Project ID: 338953

Funded under: [FP7-IDEAS-ERC](#)

## TICAL: 4D total absorptionTime Imaging CALorimeter

From 2014-02-01 to 2018-01-31, ongoing project

### Project details

**Total cost:**

EUR 2 258 000

**EU contribution:**

EUR 2 258 000

**Coordinated in:**

Switzerland

**Topic(s):**

[ERC-AG-PE2 - ERC Advanced Grant - Fundamental constituents of matter](#)

**Call for proposal:**

ERC-2013-ADG [See other projects for this call](#)

**Funding scheme:**

ERC-AG - ERC Advanced Grant

### Objective

"This 4-year project proposes a breakthrough in particle detectors by developing a highly granular calorimeter with high-resolution timing information, thus providing precise information of the space-time development of electromagnetic and hadronic showers.

The objective of this project is to develop a completely new imaging calorimeter that uses light encoding methods, and thus simultaneously records:

- the total energy deposited in the calorimeter cells with a time tag in the 10 picosecond (ps) range;
- the high-precision spatial distribution of the energy deposition in the calorimetric volume both for low energy (photo-electric and Compton) and high energy (shower components);
- the time structure of the signals corresponding to the different components of the shower.

The key point in this novel approach is to introduce light production, collection and detection techniques that are now accessible due to spectacular technological advancements in this field, in which the PI is directly involved. Examples are:

- new crystal production technologies (micro-pulling-down ( $\mu$ -PD,) ceramics, nano-crystals);
- photonic crystals, plasmonic resonances and nano-optics;
- single-photon-counting silicon photomultipliers, both digital(d-SiPM) and analogue (a-SiPM).

The use of precise time information in the tens of picosecond range in calorimetric techniques will have a large impact on different applications in many domains:

- High Energy Physic (HEP), in particular at new high energy and high collision rate colliders;
- Medical imaging in Time of Flight Positron Emission Tomography (TOF-PET);
- Spectrometry of low energy  $\gamma$ - quanta;
- Homeland security: crystals of higher sensitivity always be in demand;
- Space applications."



### Related information

**Report Summaries**

[Mid-Term Report Summary - TICAL \(TICAL: 4D total absorptionTime Imaging CALorimeter\)](#)

### Principal Investigator

Paul Lecoq

Tel.: +41 22 767 6558

Fax: +41 22 767 8930

[E-mail](#)

# Some example FP7/H2020 projects



## ENDOTOPET-US

Project ID: 256984

Funded under: [FP7-HEALTH](#)

### Novel multimodal endoscopic probes for simultaneous PET/ultrasound imaging for image-guided interventions

From 2011-01-01 to 2015-06-30, closed project

#### Project details

**Total cost:**

EUR 10 453 976,76

**EU contribution:**

EUR 5 516 001

**Coordinated in:**

France

**Topic(s):**

[HEALTH.2010.1.2-1 - Tools for the identification and the detection of biomarkers in clinical samples and patients. FP7-HEALTH-2010-two-stage.](#)

**Call for proposal:**

FP7-HEALTH-2010-two-stage [See other projects for this call](#)

**Funding scheme:**

CP-FP - Small or medium-scale focused research project

#### Objective

In the frame of this project it is proposed to define and build a bi-modal PET-US (Positron Emission Tomography and Ultrasound) endoscopic probe combining in a miniaturized system a fully digital, 200ps time resolution Time of Flight PET detector head (TOF-PET) coupled to a commercial ultrasound (US) assisted biopsy endoscope and to launch the first steps of clinical validation. The project addresses and combines several objectives of the topics Health 2010.1.2-1, such as novel multimodality imaging tools, including a single photon (quantum) counting PET detector head for the purpose of identifying and quantifying morphologic and functional markers and of developing new biomarkers of tumoral processes at the preclinical and clinical levels. Moreover the endoscopic approach, combined with an unprecedented PET timing resolution will allow more sensitive, more precise, lower radiation dose and less invasive imaging and intervention on small internal structures and lesions.

#### Related information

**Result In Brief**

[Novel endoscopic tool advances cancer imaging](#)

**Report Summaries**

[Periodic Report Summary - ENDOTOPET-US \(Novel multimodal endoscopic probes for simultaneous PET/ultrasound imaging for image-guided interventions\)](#)

[Periodic Report Summary 2 - ENDOTOPET-US \(Novel multimodal endoscopic probes for simultaneous PET/ultrasound imaging for image-guided interventions\)](#)

[Periodic Report Summary 3 - ENDOTOPET-US \(Novel multimodal endoscopic probes for simultaneous PET/ultrasound imaging for image-guided interventions\)](#)

#### Coordinator

UNIVERSITE D'AIX MARSEILLE  
Boulevard Charles Livon 58  
13284 Marseille  
France

France

**EU contribution:** EUR 661 000

# Some example FP7/H2020 projects



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## TD COST Action TD1401

### Fast advanced Scintillator Timing (FAST)

FAST aims to establish an interdisciplinary network that brings together experts from different fields of interest in order to develop photon instrumentation with an unparalleled timing precision of < 100ps. In particular:

- Development of a common understanding/definition of the subject matter;
- Comparison and/or performance assessment of theory-model-scenario-projection-simulation-narrative- methodology-technology-technique;
- Input for future market applications (including cooperation with private enterprises);
- Bridging separate fields of science/disciplines to achieve breakthroughs that require an interdisciplinary approach.

(Descriptions are provided by the Actions directly via e-COST.)

### Trans-Domain COST Action TD1401

[▶ Description](#)[▶ Parties](#)[▶ Management Committee](#)

### General Information\*

Chair of the Action:  
[Dr Etienne AUFFRAY](#) (CH)

Vice Chair of the Action:  
[Prof Marco PAGANONI](#) (IT)

Science officer of the Action:  
[Dr Mónica PÉREZ-CABERO](#)

Administrative officer of the Action:  
[Ms Carmencita MALIMBAN](#)

# Some example FP7/H2020 projects



## INTELUM

Project ID: 644260

Funded under: [H2020-EU.1.3.3. - Stimulating innovation by means of cross-fertilisation of knowledge](#)

### International and intersectoral mobility to develop advanced scintillating fibres and Cerenkov fibres for new hadron and jet calorimeters for future colliders

From 2015-03-01 to 2019-02-28, ongoing project

#### Project details

**Total cost:**

EUR 1 093 500

**EU contribution:**

EUR 922 500

**Coordinated in:**

Switzerland

**Topic(s):**

[MSCA-RISE-2014 - Marie Skłodowska-Curie Research and Innovation Staff Exchange \(RISE\)](#)

**Call for proposal:**

H2020-MSCA-RISE-2014 [See other projects for this call](#)

**Funding scheme:**

MSCA-RISE - Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE)

#### Objective

Currently, new concepts are being considered for hadron and jet calorimetry in high energy physics experiments, in order to improve the energy resolution of these detectors by a factor of at least two. This is a prerequisite for future studies at the high luminosity, large hadron collider as well as at future electron and proton colliders. Amongst the few concepts being proposed, scintillating and Čerenkov fibres are considered very promising candidates.

The INTELUM project will be a 4 year project funding international, industry-academia exchanges to develop micro-pulling-down crystal growth and other new types of fibre technology. This new fibre production technology has the potential to enable fast, low-cost, manufacture of heavy crystal scintillating fibres.

In order to prove the new fibre technology concept, two key technical issues will be addressed during the project:

- demonstrate feasibility of producing between 20-200km of fibres with consistent quality and well defined production costs
- demonstrate sufficient radiation hardness of the fibres that the degradation of their optical properties is below 10% at 1 MGy level

This ambitious project will be undertaken by a truly international consortium of sixteen institutes and companies, many closely linked to the Crystal Clear Collaboration. The project will also lead to important impacts in other domains such as functional medical imaging and homeland security.



#### Coordinator

EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH  
ROUTE DE MEYRIN CERN  
1211 GENEVA 23  
Switzerland

**Activity type:** Research Organisations

Switzerland



**EU contribution:** EUR 252 000

# Some example FP7/H2020 projects



## ASCIMAT

Project ID: 690599

Funded under: [H2020-EU.4.b. - Twinning of research institutions](#)

### Increasing the scientific excellence and innovation capacity in Advanced Scintillation Materials of the Institute of Physics from the Czech Academy of Sciences

From 2016-01-01 to 2018-12-31, ongoing project

#### Project details

**Total cost:**

EUR 999 991,25

**EU contribution:**

EUR 999 991,25

**Coordinated in:**

Czech Republic

**Topic(s):**

[H2020-TWINN-2015 - Twinning](#)

**Call for proposal:**

H2020-TWINN-2015 [See other projects for this call](#)

**Funding scheme:**

CSA - Coordination and support action

#### Objective

The overall aim of the ASCIMAT project is to boost the scientific excellence and technology-transfer capacity in advanced scintillating materials of the Institute of Physics from the Czech Academy of Sciences (FZU) by creating a network with the high-quality Twinning partners: European Organization for Nuclear Research (CERN), Institut Lumière Matière - Université Claude Bernard Lyon 1 (ILM-Université Lyon 1), Università degli Studi di Milano - Bicocca (UNIMIB), and Intelligentsia Consultants (Intelligentsia). To achieve this aim, the 3 year project will build upon the existing strong research and innovation base of FZU and its Twinning partners.

To boost their scientific excellence and technology transfer capacity in advanced scintillating materials, the partners will implement a research and innovation strategy focused on three sub-topics:

1. Radiation damage and timing characteristics of scintillation materials,
2. Material dimensionality influence and characteristics under different excitation modes, and
3. Defect influence on the transfer stage of scintillation mechanisms.

The research and innovation strategy takes into account the recent SWOT analysis of FZU and has the following objectives:

- Objective 1: Strengthen FZU's research excellence in advanced scintillating materials
- Objective 2: Enhance the research and innovation capacity of FZU and the Twinning partners
- Objective 3: Raise the research profile of FZU and the Twinning Partners
- Objective 4: Contribute to the SMART Specialisation Strategy of the Czech Republic
- Objective 5: Support research and innovation on a European level

In order to achieve these objectives, the consortium partners will implement a comprehensive set of measures via the project's work packages:

- Short term staff exchanges (WP1);
- Training workshops, conferences and summer schools (WP2);
- Dissemination and outreach (WP3).



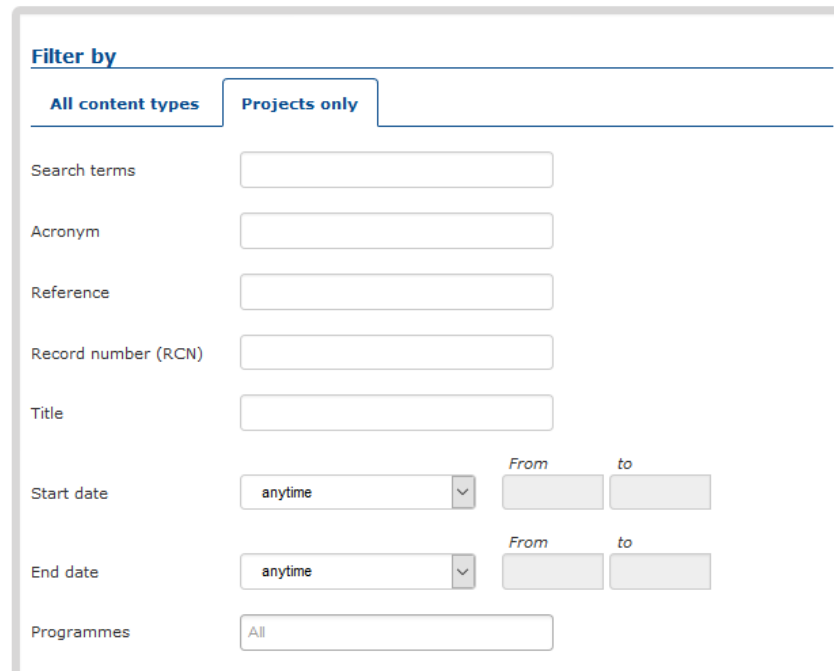
# How do I find such information?



The header of the CORDIS website features the European Commission logo on the left, followed by the text "CORDIS" and "Community Research and Development Information Service". Below this is a navigation bar with the breadcrumb "European Commission > CORDIS > Search > Advanced". A search bar with a "Search" button and a "Sign in" link are positioned on the right. A home icon and a list of navigation links ("NEWS & EVENTS", "PROJECTS & RESULTS", "RESEARCH\*EU MAGAZINES", "PARTNERS") are located at the bottom of the header.

**Investigate the Cordis  
Projects Database**

**(Google search “Cordis  
project database” and  
you will find it!)**



The search filter interface is titled "Filter by" and has two tabs: "All content types" and "Projects only". It contains several search criteria with input fields: "Search terms", "Acronym", "Reference", "Record number (RCN)", and "Title". The "Start date" and "End date" fields have dropdown menus set to "anytime" and "From" to "to" date range selectors. The "Programmes" field has a dropdown menu set to "All".

# Background searches: it pays to do your homework!

- ❑ What research projects have already been funded
- ❑ Who are the 'players' (universities, public research organisations, private companies, etc)
- ❑ How much funding they received (overall project, coordinator and consortium partners)
- ❑ How long the project lasted
- ❑ What were the main results of the project
- ❑ Etc ...

# If you wish to submit a proposal, you need to register on the H2020 participant portal ...

Go to <http://ec.europa.eu/research/participant/portal/desktop/en/home.html> or Google search “H2020 participant portal”

European Commission

## RESEARCH & INNOVATION

### Participant Portal

European Commission > Research & Innovation > Participant Portal > Home

HOME FUNDING OPPORTUNITIES HOW TO PARTICIPATE EXPERTS SUPPORT Search LOGIN REGISTER

## Horizon 2020 Funding

Starting from 1/1/2014

On this site you can find and secure **funding** for projects under the following EU programmes:

- **2014-2020** Horizon 2020 - research and innovation framework programme
- **2007-2013** 7th research framework programme (FP7) and Competitiveness & Innovation Programme (CIP)
- 3rd Health Programme, Asylum, Migration and Integration Fund, Consumer Programme, COSME, Internal Security Fund Borders, Internal Security Fund Police, Justice Programme, Promotion of Agricultural Products Programme, Rights, Equality and Citizenship Programme and Research Fund for Coal & Steel

**Non-registered users**

- search for funding
- read the H2020 Online Manual & download the legal documents
- check if an organisation is already registered
- contact our support services or check our FAQs

**Registered users**

- submit your proposal
- sign the grant
- manage your project throughout its lifecycle
- register as expert advising the Commission

WHAT'S NEW? FUNDING OPPORTUNITIES HOW TO PARTICIPATE WORK AS AN EXPERT MY PERSONAL AREA INFORMATION AND SUPPORT

HORIZON 2020 RESEARCH ON EUROPA CORDIS OLAF

Let's talk now about a couple of EU funding schemes that could be interesting to you as individual researchers ...

- ☉ Marie Skłodowska-Curie Actions Individual Fellowships (MSCA-IF)
- ☉ European Research Council Starting Grant (ERC Starting Grant)

# MSCA-IF: What are the main objectives?

- ◎ **Support individual researchers at postdoctoral level** (must have a PhD or at least 4 years' full time equivalent research experience beyond MSc ) to work on a research project of their own design that **advances their careers**.
- ◎ **Mobility between countries is required** in order to acquire **new skills and experience**, as well as to enhance the **employability** of the supported researcher in the future.
- ◎ **Mobility between academic and non-academic sectors** is also encouraged where this increases the impact of the fellowship.

# MSCA-IF: European and Global Fellowships

European Fellowships	Global Fellowships
Duration between 12 and 24 months	Duration between 24 and 36 months
	12-24 months outgoing phase in TC + 12 months mandatory return period in EU/AC
Host organisation = target organisation, situated in EU/AC	Host organisation in EU/AC, partner organisation in TC
For all nationalities without limitations	For all EU/AC nationalities without limitations, for TC nationalities long- term residence (5 yrs) in EU/AC required
Secondments in EU/AC possible	Secondments in EU/AC possible

☉ TC = Third Country (e.g. Canada, India, Japan, Taiwan, USA, etc)

☉ AC = Associated Countries (e.g. Israel, Norway, Switzerland, Ukraine, etc)

# MSCA-IF: European and Global Fellowships

**European Fellowships**  
-12 -24 months  
-Secondments



**Global Fellowships**  
-24-36 months, including  
compulsory return 12 months





# MSCA-IF: European Fellowships – Four Types

- **Standard European Fellowships (EF-ST):** dedicated to experienced researchers going from one academic organisation in EU/AC/TC to another academic organisation in EU/AC
- **Society & Enterprise Panel (EF-SE):** dedicated to experienced researchers seeking to work on research and innovation projects in an organisation from the non-academic sector
- **Career Restart Panel (EF-CAR):** dedicated to experienced researcher who have undertaken a career break in research, i.e. s/he must not have been active in research for at least 12 months immediately prior to the deadline for submission of proposals
- **Reintegration Panel (EF-RI):** dedicated to experienced researchers who wish to return and reintegrate in a longer term research position in Europe



# MSCA-IF: European Fellowships - Features

- ① 12 to 24 month fellowship based at and employed by a university
- ① Mobility Rules (no more than 12 months in the last 3 years with beneficiary for EF-ST or 3 years in the last 5 for EF-CAR/EF-SE/EF-RI)
- ① Optional non-academic secondment (3 months for <18 months or 6 months for >18 months)
- ① Career Development Plan

# MSCA-IF: Global Fellowships - Features

- ⦿ Based on 12-24 months in third country plus a mandatory 12 month return period to a European host (24-36 months in total)
- ⦿ Living allowance based on rates adjusted for each country co-efficient
- ⦿ Cannot have worked in TC for more than 12 months in last 3 years
- ⦿ Must have resided in EU/AC for >5 years

# MSCA-IF: Beneficiary and Partner Organisations

- ◎ **Beneficiary:** Host organisation located in EU or AC
  - ◎ The researcher must apply to MSCA-IF via the host organisation
  - ◎ This means the researcher must indicate the host organisation's PIC when applying (PIC = Participant Identification Code, which identifies them on the Horizon 2020 participant portal)
- ◎ **Partner Organisation:**
  - ◎ Organisations in EU or AC that host the researcher during secondments and provide additional training or
  - ◎ Organisations in TC that host the researcher during the initial outgoing period and provide training (Global Fellowships)

# MSCA-IF: The Research

- ⦿ **Research - completely bottom up** – any excellent research project in any research / innovation field
- ⦿ Calibre of researcher important
- ⦿ Researcher and host institution work together on application
- ⦿ Grant beneficiary is the host institution
- ⦿ Grants can exceptionally be portable and flexible
- ⦿ Expectation of full-time research fellowship but can incl. some supervision, teaching etc.

# MSCA-IF: Activities

- **Training-through-research** at the host institution of Fellow's choice, with named Supervisor
- Realistic and well-defined objectives in terms of research project and career advancement, including a **Career Development Plan** (if successful)
- Develop and significantly widen the **competences** of the researcher, incl. multi-interdisciplinary expertise, inter-sectoral experience and **transferable skills**
- **Public engagement activities**
- **Optional secondment** (should significantly add to the impact of the research project) of up to 3-6 months

# MSCA-IF: Need to create impacts on different levels

- ◎ Researcher level
- ◎ Organisation level
- ◎ System level

# MSCA-IF: Impacts – at researcher level

- ⦿ **Increased set of skills**, both research-related and transferable ones, leading to improved employability and career prospects both in and outside academia
- ⦿ **Increase in higher impact research and innovation output**, more knowledge and ideas converted into products and services
- ⦿ Greater contribution to the knowledge-based economy and society

# MSCA-IF: Impacts – at organisation level

- Enhanced cooperation and stronger networks
- Better transfer of knowledge between sectors and disciplines
- Boosting of research and innovation capacity among participating organisations



# MSCA-IF: Impacts – at system level

- ⦿ Increase in international, interdisciplinary and intersectoral mobility of researchers in Europe
- ⦿ Strengthening of Europe's human capital base in research and innovation with more entrepreneurial and better trained researchers
- ⦿ Better communication of research and innovation results to society
- ⦿ Increase in Europe's attractiveness as a leading destination for research and innovation
- ⦿ Better quality research and innovation contributing to Europe's competitiveness and growth

# MSCA-IF: Financial Aspects

	Researcher unit cost in EUR person/month			Institutional unit cost in EUR person/month	
	Living Allowance	Mobility Allowance	Family Allowance	Research, training and networking costs	Management and indirect costs
<b>Individual Fellowships</b>	4,650 <sup>★</sup>	600	500	800	650

★ Living allowance adjusted according to a country correction coefficient (e.g. in 2016: CH = 1,131, CZ = 0,838, FR = 1,11, IT = 1,067, UK = 1,203, JP = 1,159, UA = 0,923, US = 0,994)

# MSCA-IF: Evaluation Criteria

- Three scoring criteria: Excellence, Impact and Implementation.
- Each scoring criteria is marked out of 5 points and then multiplied by the weighting factor.

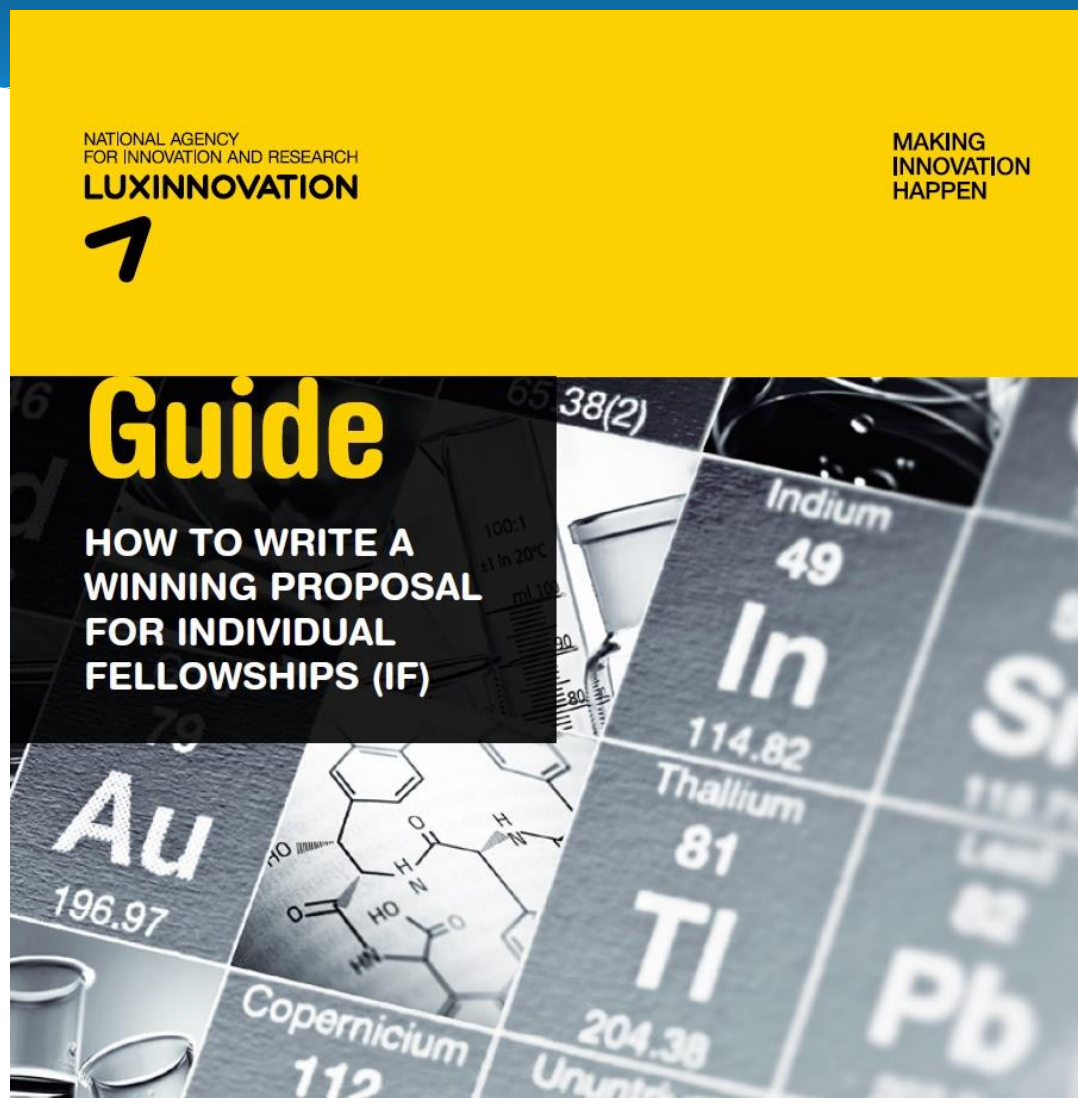
<b>IF - Marie Skłodowska-Curie Individual Fellowships</b>		
<b>Excellence</b>	<b>Impact</b>	<b>Quality and efficiency of the implementation</b>
<b>Quality and credibility of the research/innovation project;</b> level of novelty, appropriate consideration of inter/multidisciplinary and gender aspects	<b>Enhancing the potential and future career prospects of the researcher</b>	Coherence and effectiveness of <b>the work plan</b>
<b>Quality and appropriateness of the training</b> and of the two way <b>transfer of knowledge</b> between the researcher and the host	Quality of the proposed measures to exploit and <b>disseminate</b> the project results	Appropriateness of the allocation of <b>tasks and resources</b>
<b>Quality of the supervision</b> and of the integration in the team/institution	Quality of the proposed measures to <b>communicate</b> the project activities to different target audiences	Appropriateness of the <b>management structure and procedures</b> , including risk management
<b>Capacity of the researcher</b> to reach or re-enforce a position of professional maturity/independence		Appropriateness of the <b>institutional environment</b> (infrastructure)
<b>50%</b>	<b>30%</b>	<b>20%</b>
<b>Weighting</b>		
<b>1</b>	<b>2</b>	<b>3</b>
<b>Priority in case of ex aequo</b>		
<b>NB: An overall threshold of 70% will be applied to the total weighted score.</b>		

# MSCA-IF: Getting started for the next call ...

- ☉ One deadline a year. Next deadline 14 Sept 2017
- ☉ Next call officially open on 11 April 2017
- ☉ Download: [MSCA Work Programme 2016-17](#) (see pages 34-37)
- ☉ Download: [Guide for Applicants](#) (2016 version!)

# How to write a winning proposal for MSCA-IF

- ⦿ <http://horizon2020.lu/content/download/22323/205102/file/How%20to%20write%20a%20winning%20MSCA%20proposal.pdf> or Google “Luxinnovati on MSCA-IF winning proposal”



# Thoughts on how to structure a proposal

1. Excellence

3. Implementation

2. Impacts

Overall Objective

Impact Indicators

Sub-Objective 1

Work Package 1

SO1 / WP1

Sub-Objective 2

Work Package 2

SO2 / WP2

Sub-Objective 3

Work Package 3

SO3 / WP3

Sub-Objective 4

Work Package 4

SO4 / WP4

Sub-Objective 5

Work Package 5

SO5 / WP5

WP6 – Dissemination/  
Promotion/Outreach

SO6 / WP6

WP7 – Project  
Management

Respect Scope &  
Objective of Call!

Respect Expected  
Impacts of Call!

# Group Exercise

- MSCA IF proposal to develop combined PET and MRI scanning for breast imaging
  - French Researcher (at CERN) wanting to go to UNIMIB (Italy)
- MSCA IF proposal to develop micro-pull-down techniques to produce heavy fibres
  - Czech Researcher (at FZU) wanting to go to Tohoku University (Japan)
- MSCA IF proposal to develop cerium aluminate ( $\text{CeAlO}_3$ ) shaped crystals
  - Ukrainian Researcher (at ISM-NASU) wanting to go to CNRS Lyon (France)
- MSCA IF proposal to develop superfast composite scintillators (nanoscintillators embedded in a plastic host)
  - Italian Researcher (at UNIMIB) wanting to go to Envinet (Czech Republic)

# Group Exercise

- ◎ In teams of 3-4 researchers, prepare a short research proposal:
  - ❑ European or Global Fellowship?
  - ❑ How many months?
  - ❑ What budget (you can choose if the research has family or not)?
  - ❑ Provide overview of the scientific and technical objectives/sub-objectives/targets
  - ❑ Provide graphical view of the related work packages
  - ❑ Provide table of impact indicators
  - ❑ Provide dissemination plan
- ◎ Present the short research proposal to the audience



# European Research Council Starting Grant (ERC Starting Grant)

- **Eligibility:** researchers of any nationality with 2-7 years of experience since completion of PhD (extensions are possible – see the latest ERC Work Programme for details), a scientific track record showing great promise and an excellent research proposal
- **Principal investigator:** must have already shown the potential for research independence and evidence of maturity e.g. having produced at least one important publication as main author or without the participation of their PhD supervisor
- **Location:** research must be conducted in a public or private research organisation (known as a Host Institution/HI). It could be the HI where the applicant already works, or any other HI located in one of the EU Member States or Associated Countries
- **Funding per grant:** up to € 1.5 million
- **Duration:** up to 5 years
- **Sole evaluation criterion:** scientific excellence of researcher and research proposal
- **Calls for proposals:** published once a year – March 2014, Feb 2015, Nov 2015, Oct 2016, next deadline ??

# ERC Starting Grant: Important websites and documents

- 🕒 **Where to look:** <https://erc.europa.eu/funding-and-grants/funding-schemes/starting-grants>
- 🕒 **Download:** [ERC Work Programme](#) (most recent version, see pages 21-22)
- 🕒 **Download:** [Guide for Applicants](#) (most recent version!)

## Short recap

- A brief history of EU Framework Programmes for Research and Technological Development
- Scintillating materials and EU funding
- Searches on the Cordis project database
- Marie Skłodowska-Curie Actions Individual Fellowships (MSCA-IF)
- Thoughts on how to structure a proposal
- Group exercise
- European Research Council Starting Grant (ERC Starting Grant)

# Final Thoughts!

*“Screw It, Let's Do It!”*

Richard Branson, Entrepreneur, Virgin Group

*“Nobody wants to fail. But in highly complex organizations, success can happen only when we confront our mistakes, learn from our own version of a black box, and create a climate where it's safe to fail.”*

Matthew Syed, Journalist and Author, Black Box Thinking