Proposal Intelligence

How to Support Researchers in Writing the Impact of a Horizon 2020 Proposal

Presented at EARMA Conference in Bologna
28th March 2019

COURSE PRESENTER

Dr. Seán McCarthy

(+Sylvia McCarthy)

HYPERION

Hyperion Courses

Designer and Presenter of Courses: Dr. Seán McCarthy Hyperion Ltd.

Hyperion specialises in the development of training courses for Researchers and Research Support Staff in Universities and Research Centres. Since 1995, over 76,000 people have participated in Hyperion Training courses in 29 countries.

Hyperion provides training courses to 74 of the top 100 Universities and Research Centres in Horizon 2020.

Getting Ready for Horizon Europe

Target Audience: Individuals and departments responsible for planning European research strategies in Universities, Research Centres and Research Intensive Companies

Location of Course: In-house courses held on-site

Next Open Course: Brussels, Thursday 23rd May 2019   www.hyperion.ie/course4800.htm

How to Write a Competitive Proposal for Horizon 2020

Target Audience: Researchers, Research Managers and newly appointed H2020 Support Staff

Location of Course: In-house courses held on-site

How to Write the Impact of a Horizon 2020 Proposal (Pillar II / III)

Target Audience: Researchers and H2020 Support Staff

Location of Course: In-house courses held on-site

Details of all courses on www.hyperion.ie

Follow us on Social Media   @hyperioncourses   Linked in. - Sean McCarthy Hyperion

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HYPERION

Proposal Intelligence Reports

Who wrote the Topic?
A Proposal Intelligence Report is an analysis of a research topic in Pillar II and III of Horizon 2020. The reports are designed to help researchers write the 'Impact' part of their proposals.

The reports identify:
- EU Policies behind the topic
- Expert Groups consulted
- Research Projects already funded in the topic
- Impact of research results on EU policies

Horizon Europe Intelligence Reports
These reports are currently being prepared for Horizon Europe clusters and missions.

Contact sylvia.mccarthy@hyperion.ie for more details on Hyperion's Proposal Intelligence Reports.

Details of all courses on www.hyperion.ie

HYPERION

Next Open Course

Getting Ready for Horizon Europe

Location of Course: Hotel Leopold, Brussels

Date: Thursday 23rd May 2019
(10:00 to 13:30)

Details: www .hyperion.ie/course4800.htm

Course Content:
1: From Horizon 2020 to Horizon Europe
2: The Formal Process for Preparing Horizon Europe
3: Participating in the Decision Making Process (Lobbying)
4: EIC (European Innovation Council)
5: European Partnerships
6: Horizon Europe Synergies with other EU Programmes
7: Research Support Services for Horizon Europe

Course Presenter: Dr Sean McCarthy

Booking details on www.hyperion.ie

Hyperion Ltd., Main Street, Watergrasshill,
Co-Cork, T56 CC93, Ireland

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Proposal Intelligence

How to Support Researchers in Writing the Impact of Horizon 2020 Proposals

PRESENTERS

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Sylvia McCarthy Hyperion Ltd.
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COURSE CONTENTS

1	Background to Impact in Horizon 2020
2	Impact in Horizon 2020 (Pillar II and III)
3	Proposal Intelligence for Horizon 2020
4	Proposal Intelligence for Horizon Europe
5	Guide for Research Support Staff on 'Impact'

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LIMITATION OF LIABILITY

Background of Presenters

Dr. Seán McCarthy
Seán specialises in the design of training courses for researchers and research support staff. Since 1995, over 76,000 researchers and research support staff have attended his courses in 29 countries. In 2017 the European Commission published the list of the top 100 research Organisations in Horizon 2020. Seán McCarthy has delivered training courses in 74 of these top 100 research Organisations.
Seán has a PhD in Engineering from University College Cork (Ireland)

Sylvia McCarthy
Sylvia is an EU Policy Analyst. Based in Brussels since 2008, Sylvia has worked in the European Parliament and various EU consultancies and representations.

Sylvia has a Bachelor's degree in European Studies (University College Cork, Ireland) and a Master's degree in International Politics and Europe (University of Warwick, UK).

www.hyperion.ie/seanmccarthy.htm

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From Policy to Programmes to Projects

Politicians

1. Strategic Phase (Impact Assessment)

EU Policy

European Commission

2 Programme Planning Phase (Impact Indicators)

'Lobby'*

Horizon 2020

3. Work Programmes (Topics) (Excellence and Impact)

Researchers

***COMMISSION**
Consulting Stakeholders

***RESEARCHERS**
Participating in the Decision Making Process

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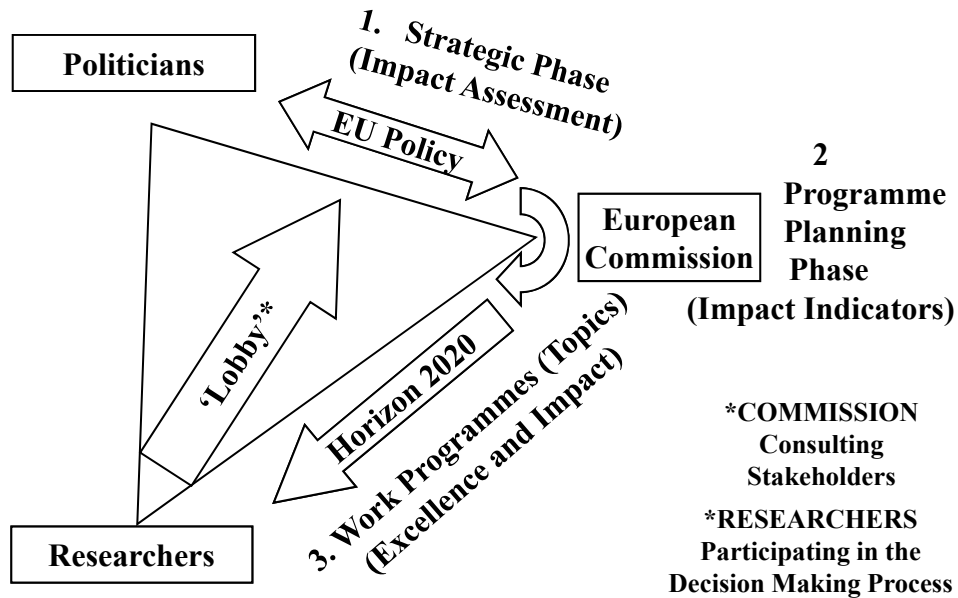
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What the Researcher Sees !

European Commission

Horizon 2020

3. Work Programmes (Topics) (Excellence and Impact)

Researchers
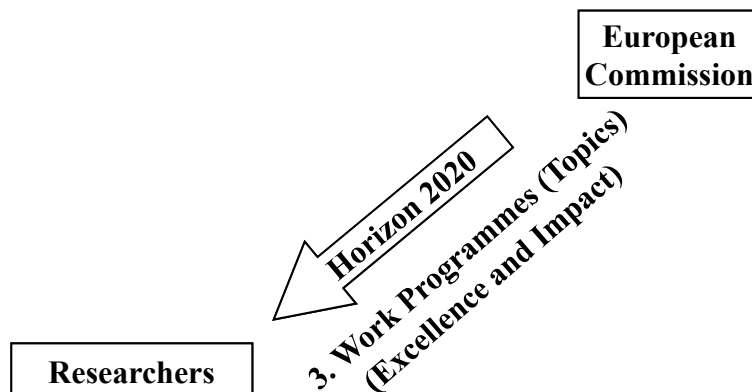
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Horizon 2020 (From EU Policy to Programmes)

Pillar I Excellent Science	European Research Council Future and Emerging Technologies Marie Curie Actions Research Infrastructures
Pillar II Industrial Leadership	Leadership in enabling and industrial technologies (LEIT): • Information and communication technologies (ICT) • Nanotechnology, Advanced Materials, Biotechnology, Advanced Manufacturing and Processing (NMBP) • Space Innovation in SMEs Access to Risk Finance
Pillar III Societal Challenges	Health, demographic change and wellbeing Food security, sustainable agriculture, marine,bio-economy Secure, clean and efficient energy Smart, green and integrated transport Climate, Environment, resource efficiency & raw materials Innovative, Inclusive, Reflective Societies Secure Europe

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Top-Down vs. Bottom Up Programmes

Pillar I Excellent Science	European Research Council Future and Emerging Technol Marie Curie Actions Research Infrastructures	'Bottom Up' Proposals
Pillar II Industrial Leadership	Leadership in enabling and industrial technologies (LEIT): Who Wrote the Topic? ion technologies (ICT), Nanotechnology, Advanced Materi Advanced Manufacturing and Pr Impact on EU Policies? Access to Risk Finance	'Top-Down' Proposals
Pillar III Societal Challenges	Health, demographic change and wellbeing Who Wrote the Topic? ture a Secure, clean and efficient energy Smart, green and integrated transport Impact on EU Policies? ency + raw materials Innovative, Inclusive, Reflective Societies Secure Europe	'Top-Down' Proposals

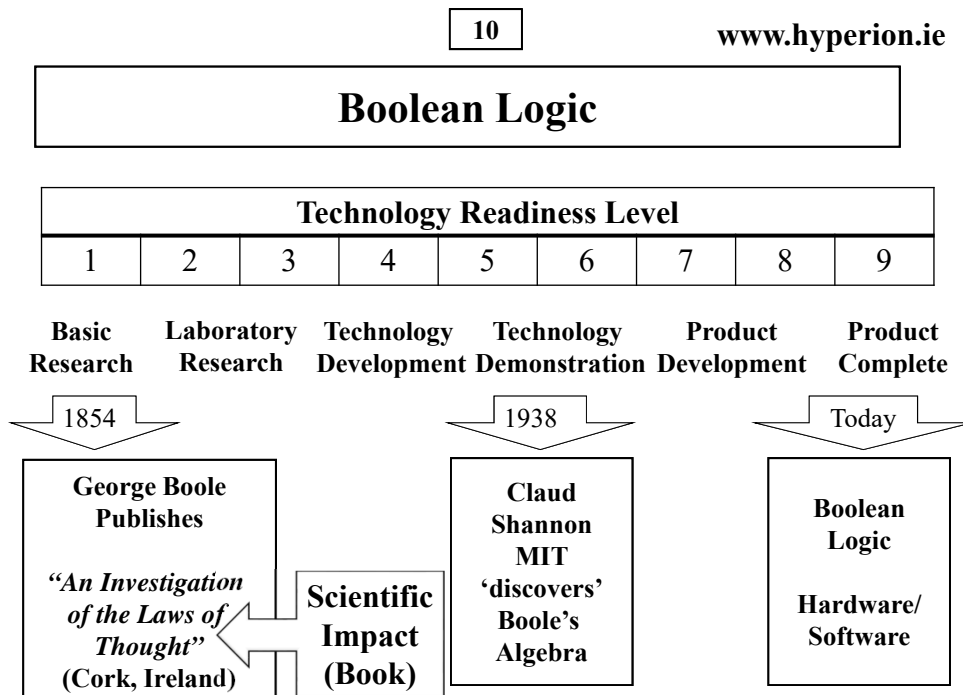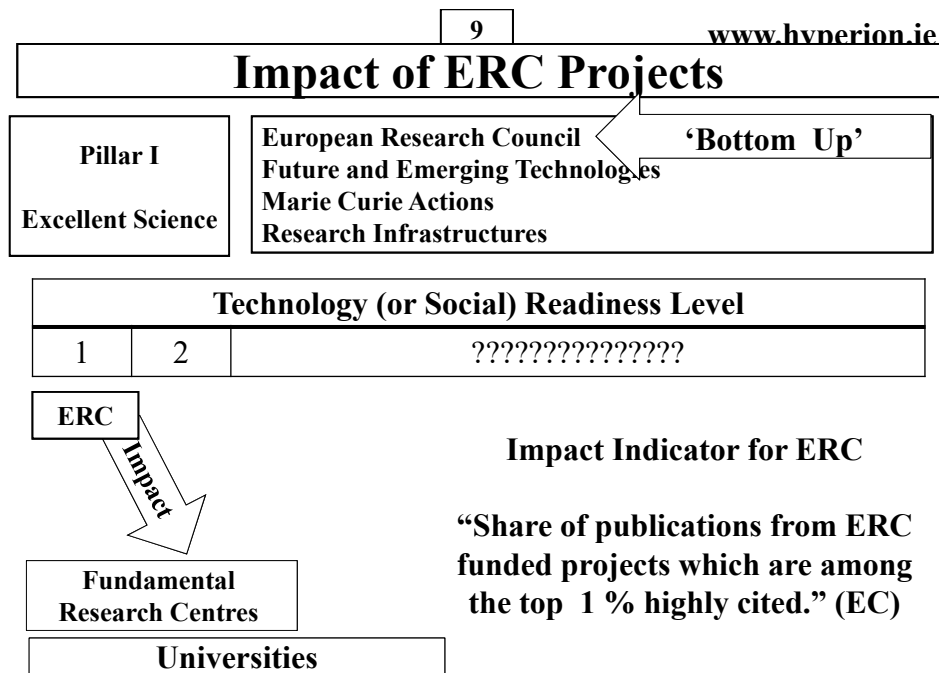| 9	www.hyperion.ie

Impact of ERC Projects

Pillar I Excellent Science	European Research Council Future and Emerging Technologies Marie Curie Actions Research Infrastructures	'Bottom Up'

Technology (or Social) Readiness Level		
1	2	???????????????

ERC

Impact

Fundamental
Research Centres

Universities

Impact Indicator for ERC

"Share of publications from ERC funded projects which are among the top 1 % highly cited." (EC)

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Boolean Logic

Technology Readiness Level								
1	2	3	4	5	6	7	8	9

Basic Research	Laboratory Research	Technology Development	Technology Demonstration	Product Development	Product Complete

1854

1938

Today

George Boole Publishes

"An Investigation of the Laws of Thought" (Cork, Ireland)

Scientific Impact (Book)

Claud Shannon MIT 'discovers' Boole's Algebra

Boolean Logic

Hardware/ Software

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Impact of FET Projects

Pillar I Excellent Science	European Research Council Future and Emerging Technologies Marie Curie Actions Research Infrastructures	'Bottom Up'

Technology (and Social) Readiness Level

1	2	3	4	5	6	7	8	9

FET

Impact

Research Organisation
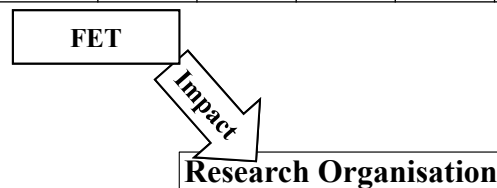
Research Intensive Companies

"Initiating a radically new line of technology."
"Kick-starting an emerging innovation eco-system."

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MP3 Technology

Technology Readiness Level

1	2	3	4	5	6	7	8	9

Basic Research	Laboratory Research	Technology Development	Technology Demonstration	Product Development	Product Complete
		1977	1989	1994	1997
		Prof. Dieter Seitzer Patent Rejected	Patent for MP3 awarded	First Prototype on the market	Era of MP3 begins
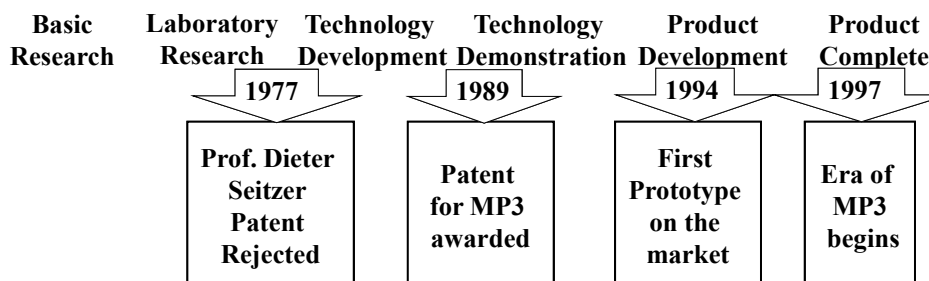
"We put in almost 15 years of hard development work
between the initial concept and the finished standard"
(Source: Fraunhofer Magazine 2.09)

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Impact of Marie-Sklodowska-Curie Projects

Pillar I **Excellent Science**	**European Research Council** **Future and Emerging Technologies** **Marie Curie Actions** **'Bottom Up'** **Research Infrastructures**

Impact on Career

Marie Curie Actions add to researchers' <u>employability</u>, develop their entrepreneurship and innovation-related competences."
Source: Marie Curie Work Programme (H2020).

Impact on EU Policy

"62% of Marie Curie budget (2014-2015) was awarded to projects related to Sustainable Development"
Source: Work Programme 2018-2020

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Notes

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COURSE CONTENTS

Background to Impact in Horizon 2020

| 2 | **Impact in Horizon 2020 (Pillar II and III)** |

Pillar II

Industrial Leadership

**'Top-Down'
Who Wrote the Topic?
Impact on EU Policies?**

Pillar III

Societal Challenges

**'Top-Down'
Who Wrote the Topic?
Impact on EU Policies?**
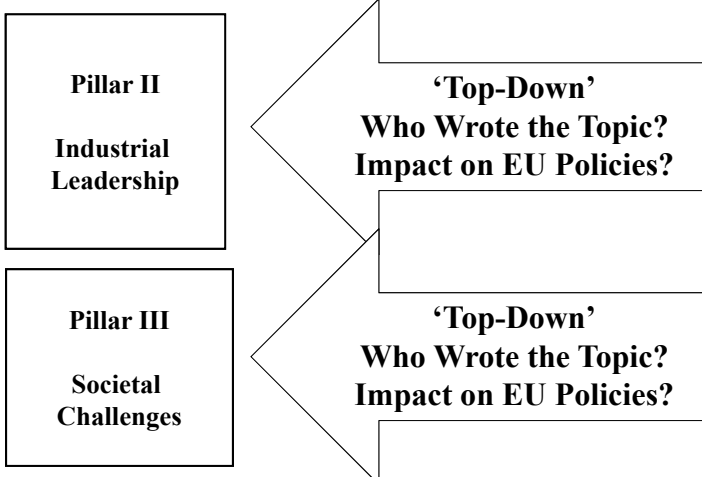
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Impact of Pillar II/III Projects

Technology (or Social) Readiness Level									End Users (Economic or Social)
1	2	3	4	5	6	7	8	9	
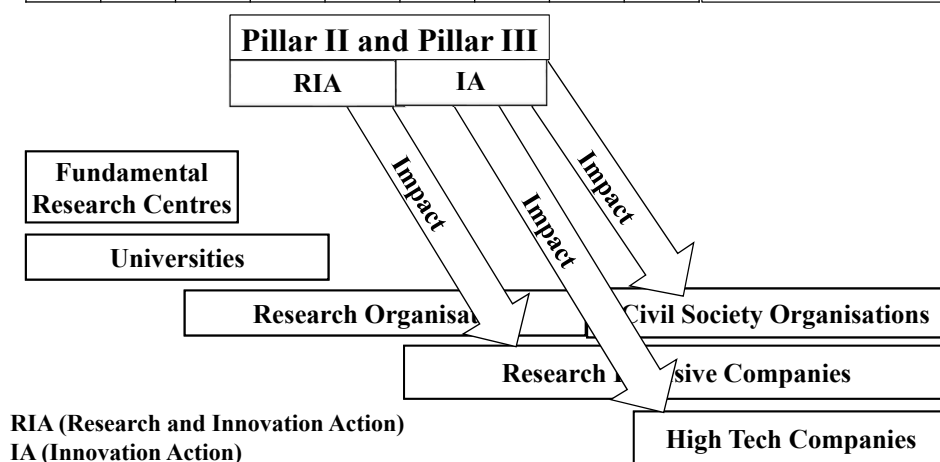
Pillar II and Pillar III

| RIA | IA |

Fundamental Research Centres

Universities

Impact

Impact

Impact

Impact

Research Organisa

Civil Society Organisations

Research **sive Companies**

High Tech Companies

RIA (Research and Innovation Action)
IA (Innovation Action)

Impact on EU Policies? (Pillar II/III)

Politicians

EU Policy

European Commission

Impact on EU Policies

Horizon 2020

Researchers   **FUNDED PROJECT**
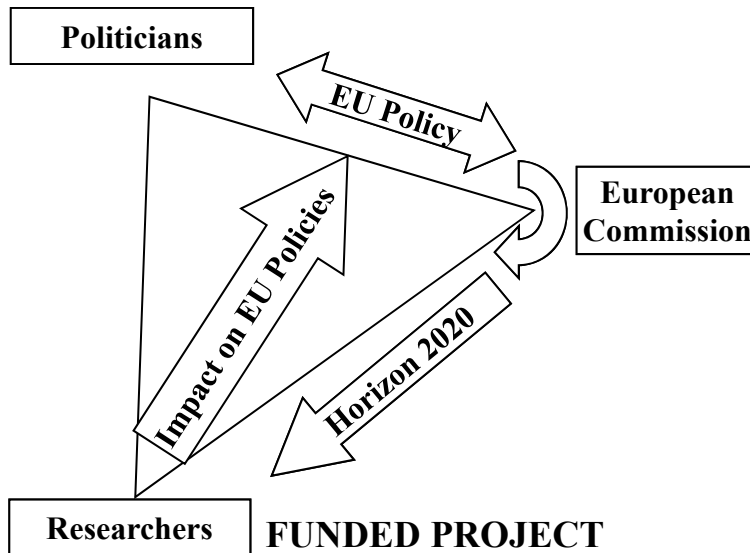
What the Researcher Sees !! (Pillar II/III)

EU Policy

Impact on EU Policies

Researchers   **FUNDED PROJECT**
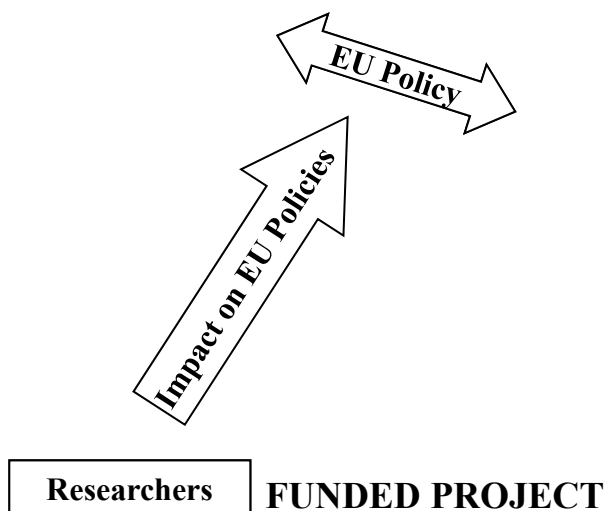
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How Pillar II/III Proposals are Evaluated

How Proposals are Evaluated

Eligibility ← **European Official** (Are forms filled in properly?)

Scientific Evaluators ← **Independent Experts**
Score B1 (Excellence)
Score B2 (Impact)
Score B3 (Implementation)

Agree Consensus Report

Panel ← **Final Selection of Proposals**
- Evaluator's Scores
- Impact on EU Policies

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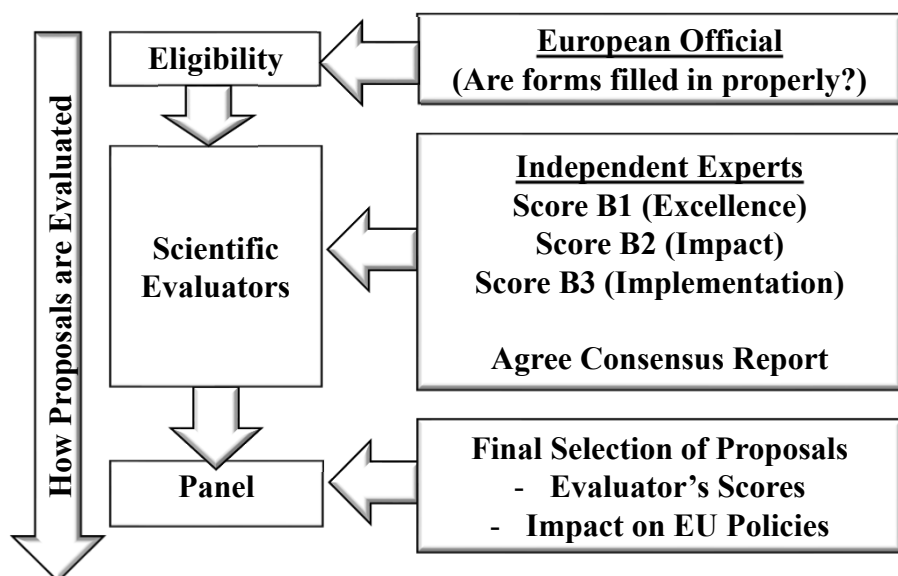
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How to Prepare Pillar II/III Proposals

How Proposals are Evaluated

Eligibility

Scientific Evaluators

Panel

Screening Proposals

Full Proposal (70 Pages)

↑

Evaluators' Consensus Report (Evaluators' Questions)

↑

Impact on EU Policies? (Proposal Clinic)

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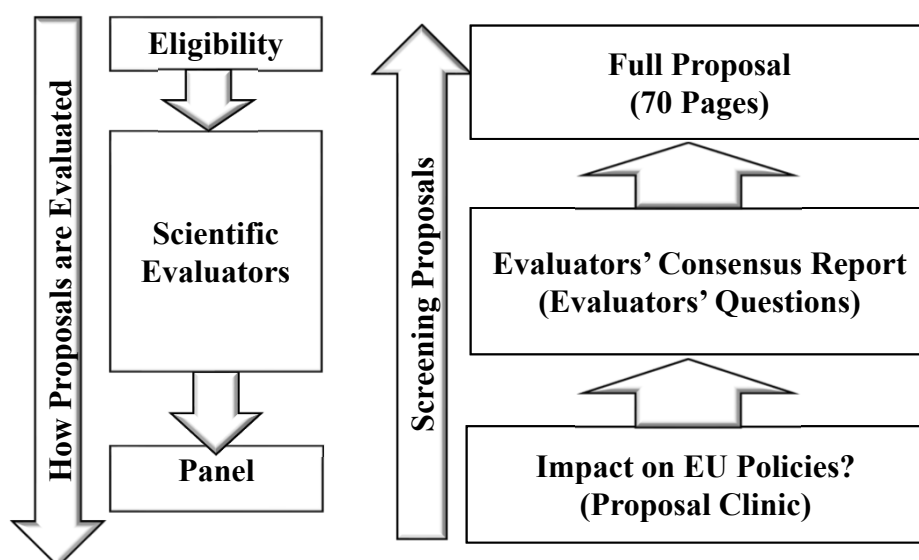
Proposal Clinic (Pillar II/III)

Topic	Who Wrote the Topic?
Impact Questions	Background to Impact Questions?
Outputs to Impact	Impact of Project on EU Policies?
Impact Partner	Who is the 'Impact Partner'?

The Project

Title	Title (Slogan) ACRONYM (Brand name)
Objective	What is the Research Question? TRL?
Research	Overview of the Proposed Research

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The 'Impact Partner' in Pillar II/III Proposals

Who writes?	'Impact Partner' (not written by Researcher!)
Work Package	Impact Work Package (Led by 'Impact Partner')

Type of Project	Profile of 'Impact Partner'
Industry	Typically person with MBA/Business Skills
Social	Political Scientist/Economist/Civil Society

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3	Proposal Intelligence for Horizon 2020
	Proposal Intelligence for Horizon Europe
	Guide for Research Support Staff on 'Impact'

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Who Wrote the Topic? (Pillar II and III)

Politicians

EU Policy

Which EU Policies?

Which Expert Groups?
(Potential Partners)

'Lobby'

Pillar II/III

Topic
(Excellence and Impact)

Understand
'Impact'
Questions

Who Wrote
the Topic?

Researchers
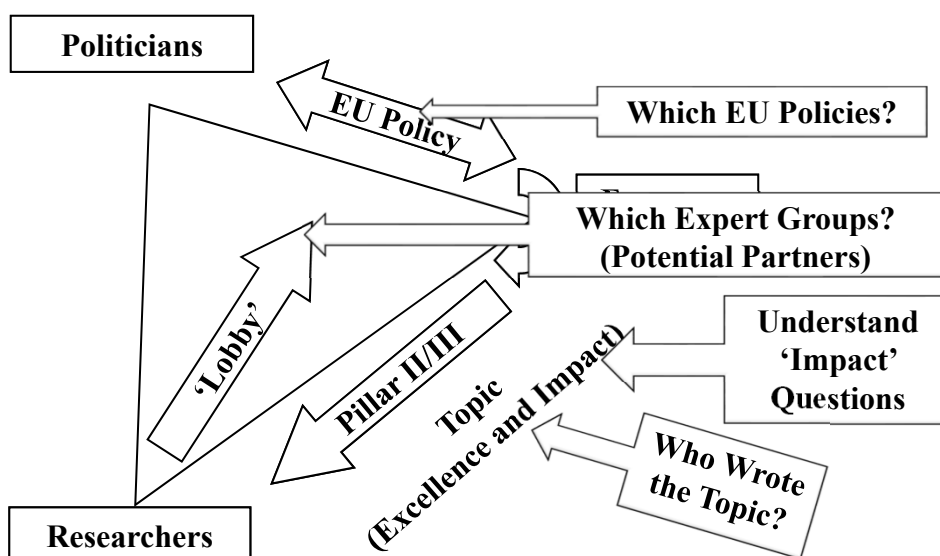
UN Sustainable Development Goals

GOAL 1: No Poverty
GOAL 2: Zero Hunger
GOAL 3: Good Health and Well-being
GOAL 4: Quality Education
GOAL 5: Gender Equality
GOAL 6: Clean Water and Sanitation
GOAL 7: Affordable and Clean Energy
GOAL 8: Decent Work and Economic Growth
GOAL 9: Industry, Innovation and Infrastructure
GOAL 10: Reduced Inequality
GOAL 11: Sustainable Cities and Communities
GOAL 12: Responsible Consumption and Production
GOAL 13: Climate Action
GOAL 14: Life Below Water
GOAL 15: Life on Land
GOAL 16: Peace and Justice Strong Institutions
GOAL 17: Partnerships to achieve the Goal

Topic MIGRATION-03-2019

Social and economic effects of migration in Europe and integration policies

Politicians

EU Policy

'Lobby'

Expert Group

Projects

Funded Projects

Researchers

SDG 10: Reduced Inequalities

Commission Action Plan:
Integration of 3rd country nationals (2016)

Parliament: 24 Reports on Migration

Council: Finding solutions to migratory pressures

Expert Group:
European Integration Network

H2020: 15+ Projects
FP7: 17+ Projects
COST Actions: 2

Impact of Research on EU Policies?

Politicians

EU Policy

European Commission

Impact on EU Policies

Research Project
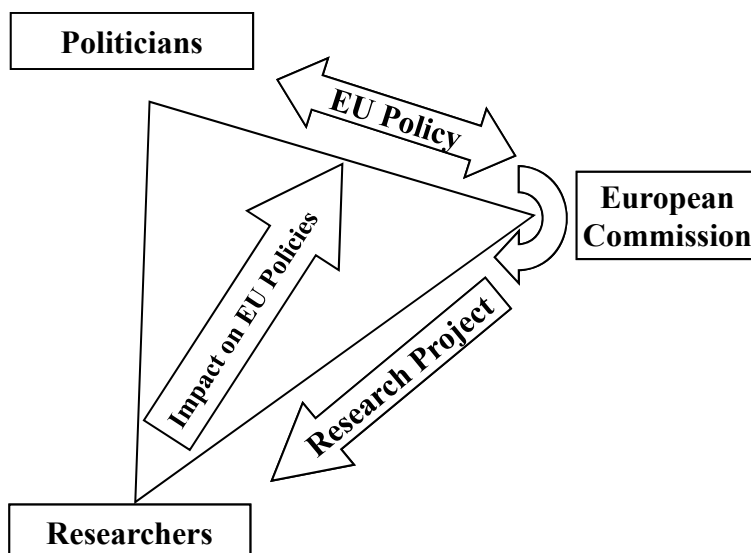
Researchers

Impact of MIGRATION-03-2019

Social and economic effects of migration in Europe and integration policies

Politicians

Justice & Home Affairs Council

COREPER II
- Working Party on Integration, Migration and Expulsion
- Working Party on Asylum

European Parliament Committees

LIBE: Civil Liberties, Justice and Home Affairs
AFET: Foreign Affairs
DEVE: Development
EMPL: Employment and Social Affairs

European Commission

DG HOME: Directorate-General for Migration and Home Affairs
DG DEVCO: Unit B.3: Migration, Employment

European Agencies
EASO: European Asylum Support Office
Eurofound: Foundation for the Improvement of Living & Working Conditions
Europol: European Police Office
FRA: Agency for Fundamental Rights

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Research Area: Personalised Medicine

Politicians

EU Policy

'Lobby'

Expert Group

Projects

Researchers

Funded Projects

SDG 3: Good Health and Well-Being

Commission: Digital Transformation of Health and Care in the Digital Single Market

Council: Personalised medicine for patients (2015)

ICPerMed: International Consortium for Personalised Medicine

EIP on Active and Healthy Ageing

IMI: Innovative Medicines Initiative

H2020: 30+ Projects
FP7: 20+ Projects

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Impact of Research on Personalised Medicine

Politicians

Employment, Social Policy, Health & Consumer Council
COREPER I
Working Party on Public Health
Working Party on Pharmaceuticals and Medical Devices

European Parliament Committees

ENVI: Environment, Public Health & Food Safety
IMCO: Internal Market & Consumer Protection
ITRE: Industry, Research & Energy
EMPL: Employment & Social Affairs

European Commission

DG RTD: Unit E2 Innovative and Personalised Medicine
DG SANTE: Unit B3 European Reference Networks and Digital Health
DG CONNECT: Unit H3 eHealth, Well-Being and Ageing

European Agencies
CHAFEA: Consumers, Health, Agriculture & Food Executive Agency
EMA: European Medicines Agency

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COURSE CONTENTS

Background to Impact in Horizon 2020

Impact in Horizon 2020 (Pillar II and III)

Proposal Intelligence for Horizon 2020

4   **Proposal Intelligence for Horizon Europe**

Guide for Research Support Staff on 'Impact'

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Negotiating Horizon Europe (9th Dec 2018*)

Pillar I Excellent and Open Science

ERC (European Research Council)
MCSA (Marie Skłodowska-Curie Actions)
Research Infrastructures

Pillar II Global Challenges and European Industrial Competitiveness

Clusters and Missions
1. Health, 2. Culture, Creativity and Inclusive Society,
3. Civil Security for Society 4. Digital, Industry and Space
5. Climate and Energy 6. Mobility, 7. Bioeconomy, Food,
Natural Resources. Agriculture and Environment, 8. JRC

Pillar III Innovative Europe

EIC (European Innovation Council)
European Innovation Ecosystems
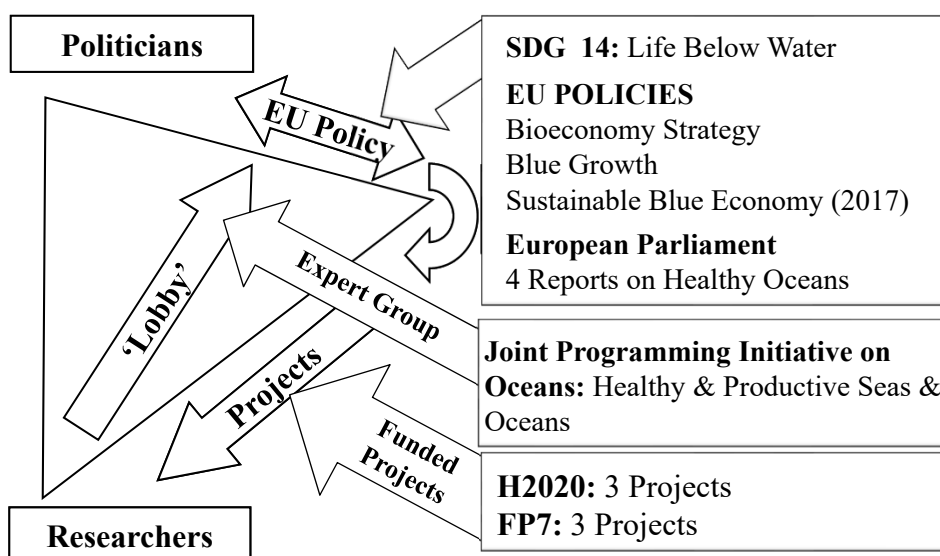**EIT (European Institute of Innovation and Technology)**

Widening Participation and Strengthening the European Research Area

* Titles subject to change – Negotiations still in progress

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Proposed Missions (19th February 2019)

1	Adaption to Climate Change (+ Social Transformations)
2	Cancer
3	Healthy Oceans, Seas, Coastal and Inland Waters
4	Carbon Neutral and Smart Cities
5	Soil Health for Sustainable Food

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Mission Healthy Oceans (Proposal Intelligence)

Politicians

EU Policy

'Lobby'

Expert Group

Projects

Funded Projects

Researchers

SDG 14: Life Below Water

EU POLICIES
Bioeconomy Strategy
Blue Growth
Sustainable Blue Economy (2017)

European Parliament
4 Reports on Healthy Oceans

Joint Programming Initiative on Oceans: Healthy & Productive Seas & Oceans

H2020: 3 Projects
FP7: 3 Projects

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COURSE CONTENTS

| Background to Impact in Horizon 2020 |
| Impact in Horizon 2020 (Pillar II and III) |
| Proposal Intelligence for Horizon 2020 |
| Proposal Intelligence for Horizon Europe |

| 5 | Guide for Research Support Staff on 'Impact' |

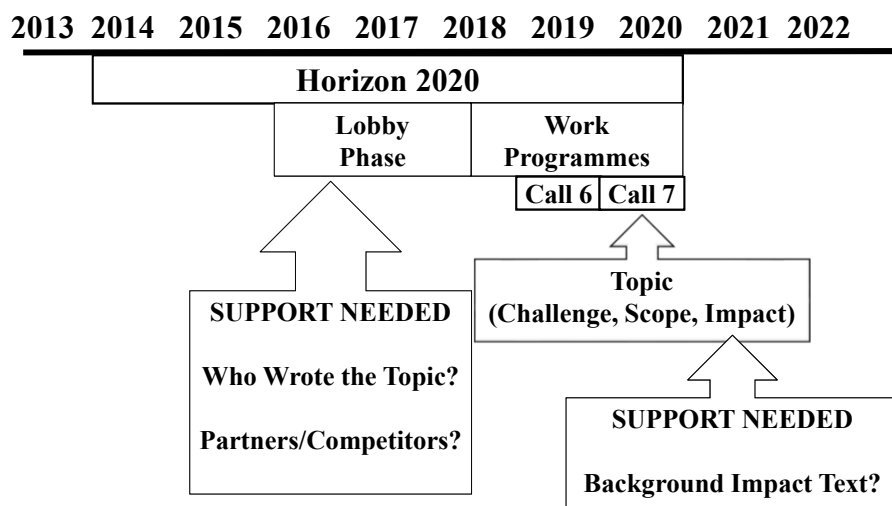| 36 | www.hyperion.ie |

Support Needed by Researchers

'Filling in the Forms'   'Competitive Proposal'

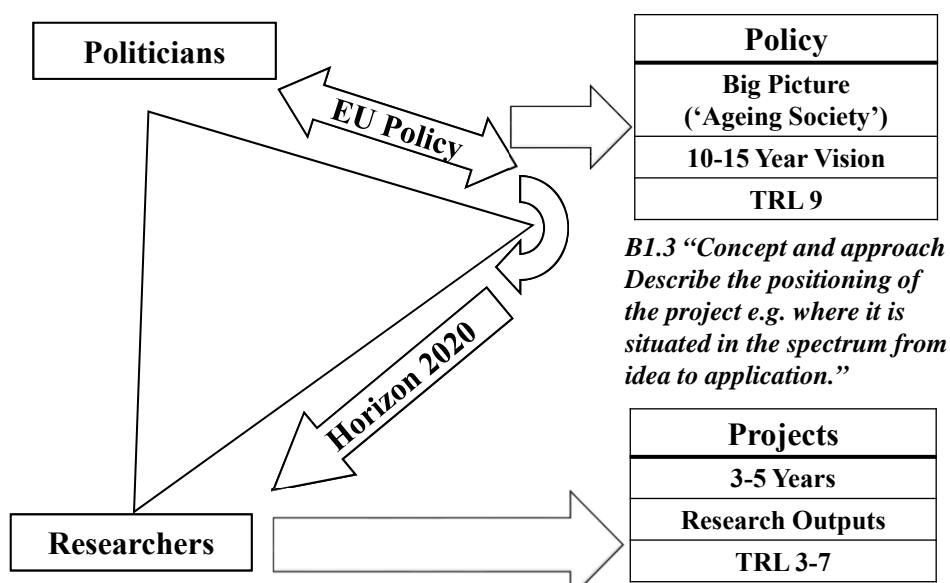| **Content** | Part B

B1: Excellence
B2: Impact
B3:Implementation
Level 2 Support | Proposal Intelligence

Screening Proposals

Coaching/Mentoring
Level 4 Support |
| **Rules** | Part A
- Legal Rules
- Financial Rules
- Procedures
Organisation's Rules
Level 1 Support | Streamlining Processes
-Templates
-Sample Proposals
-Guidelines
-Process Analysis
Level 3 Support |

Support in Understanding the Topic (Pillar II/III)

2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Horizon 2020

Lobby Phase	Work Programmes
	Call 6	Call 7

SUPPORT NEEDED

Who Wrote the Topic?

Partners/Competitors?

Topic (Challenge, Scope, Impact)

SUPPORT NEEDED

Background Impact Text?

What is the 'Big Picture'?

Politicians

EU Policy

Horizon 2020

Researchers

Policy
Big Picture ('Ageing Society')
10-15 Year Vision
TRL 9

B1.3 "Concept and approach Describe the positioning of the project e.g. where it is situated in the spectrum from idea to application."

Projects
3-5 Years
Research Outputs
TRL 3-7

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Proposal Clinics for Pillar II/III Proposals

How Proposals are Evaluated

EU Official

Scientific Evaluators

Panel

Screening Proposals

**Full Proposal
(Proposal Forms)
(70 Pages)**

**Evaluators' Consensus Report
(Evaluators' Forms)
(4 Pages)**

**Impact on EU Policies?
(Proposal Clinic)
(1 Page)**

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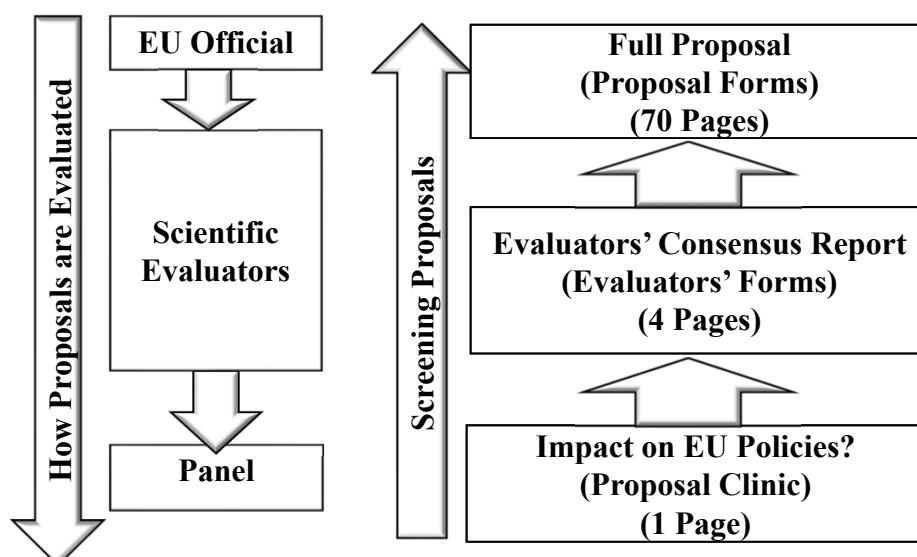
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Getting Ready for Horizon Europe

2013 2014 2015 2016 2017 2018 2019 2020 2021 ---   2027

FP7	Horizon 2020	Horizon Europe

Preparation of Horizon Europe

Work Programmes

Call 1	---	Call 7

Intelligence Needed for Horizon Europe (Pillar II)

Impact	Increase in Impact in Pillar II
Topics	Who Will Write the Topics?
Missions	Who will Define the Missions?
Partnerships	Who will Define the Partnerships?

* Top-Down Programmes

Hyperion Ltd. provides a training programme to help research organisations design and implement their 'European Research Strategy'.

Hyperion provides training courses to 74 of the top 100 Organisations in Horizon 2020 (EC Annual Report)

Hyperion provides training courses to 58 of the top 100 European Universities (THE Ranking)

The training courses are relevant to Research Centres, Universities, research active companies and regional development organisations. Since 1995, over 76,000 researchers have participated in Hyperion's training courses in 29 countries. The courses are based on over 36 years experiences in all aspects of European research. We deliver our courses as In-house (in the host organisation) and Open (Course organised by Hyperion Ltd.).

All courses are delivered by Dr. Seán McCarthy www.hyperion.ie/seanmccarthy.htm

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In-house Courses

Dates available for in-house courses in 2019 www.hyperion.ie/2019.htm

All courses are half-day courses (9:00 to 12:30)	Handbook Sold Out
Workshops for Directors and Senior Support Staff ■ **Getting Ready for Horizon Europe** **Training Courses for Researchers and Research Support Staff** **(From Telling to Selling)** ■ **How to Write a Competitive Proposal for Horizon 2020** ■ **How to Write the Impact of a Horizon 2020 Proposal** ■ **Proposal Clinics (Pillar II and Pillar III of Horizon 2020)** **Training Courses/Workshops for Research Support Staff** ■ **How to Support Researchers in Writing Competitive Proposals** ■ **Presentation Skills for Research Support Staff (Horizon 2020)** **Finishing School for Researchers** ■ **How to Present R&D Activities to Business Executives, Public Officials and Politicians** ■ **Skills for International Business** ■ **Workshop on Innovation (from Science to Shares)** ■ **Horizon 2020: Opportunities for Companies** ■ **Horizon 2020: Opportunities for Voluntary Organisations**	**How to Write a Competitive Proposal for Horizon 2020** Seán McCarthy www.hyperion.ie

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http://www.hyperion.ie/