

Funding opportunities for large networks in H2020-MSCA

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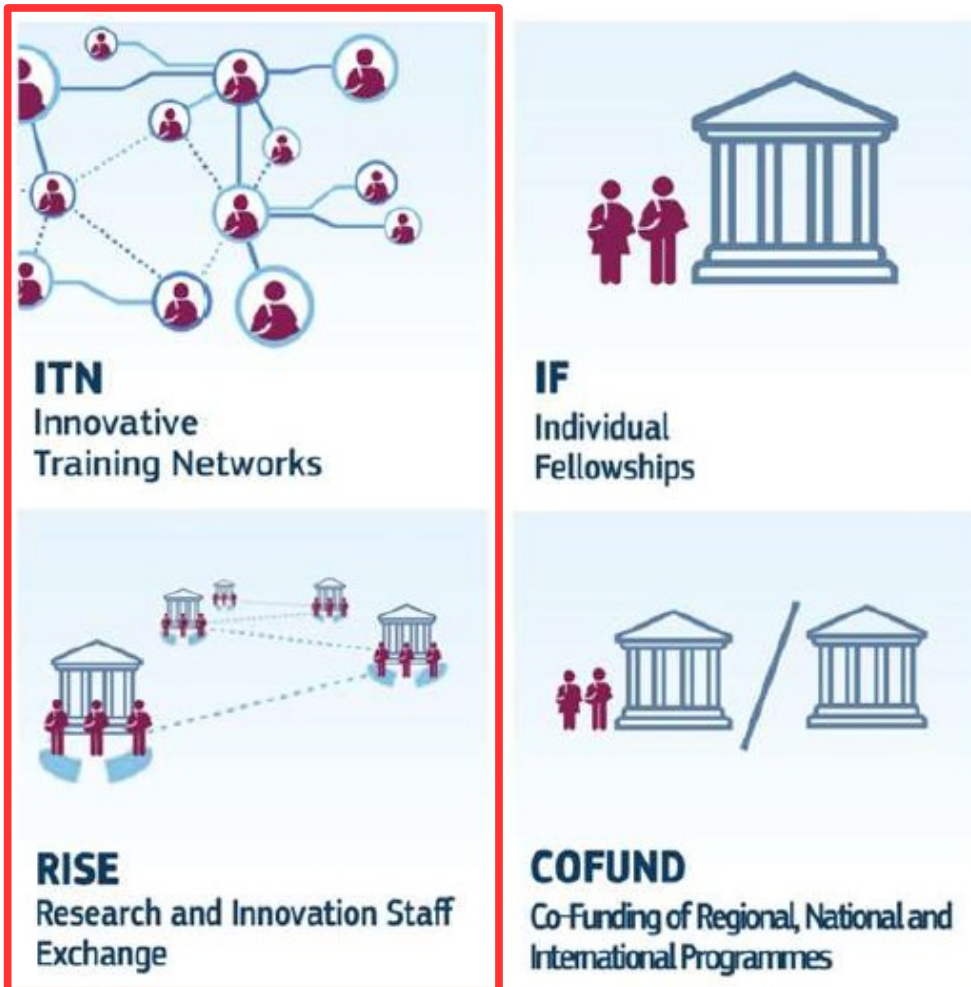
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Outline of this talk

- Spirit of H2020-MSCA networks
- Jargon
- Innovative Training Networks (ITN)
- Research & Innovation Staff Exchange (RISE)

Acknowledgment: I stole some material from presentations by Martin Muhleck, Emanuela Galeazzi, Ferreira Brito of the European Commission (from the ITN/RISE InfoSession of 5/10/2018 in Brussels)

H2020-MSCA



I will speak of these

My ITN and RISE experiences

- Funded:
 - ITN: *AMVA4NewPhysics*
 - Fundamental physics (LHC+theory) + Statistics + Data Science
 - Running from 2016 to 2019
 - Deputy Coordinator since 2017
 - **RISE: *INTENSE***
 - Fundamental physics (ν & μ -decay experiments) + **Muography**
 - Will run from 2019 to 2022
 - Coordinator of Muography work package
- Failed:
 - **ITN: *European Muography Network (EMN)***
 - Failed in 2018 with score 94.0% (threshold: 94.2%), will try again in 2019, again as main coordinator

MSCA networks: general spirit

- "Making bridges" is valued in H2020-MSCA, e.g.:
 - Multidisciplinarity
 - Connection between academia and private sector
 - Collaborative tools, shared data, etc.
- Training (in a broad sense) is the key (especially for ITN)
 - Schools, workshops, invited lectures
 - ITN: emphasis on *training through research*
 - Not mandatory that Early Stage Researchers (ESRs) get PhD titles, but it is strongly encouraged
 - Both ITN & RISE: emphasis on *dissemination*
 - Outreach to society
 - Open data, citizen science → in my opinion, very fit for muography!

What we mean by: Sectors

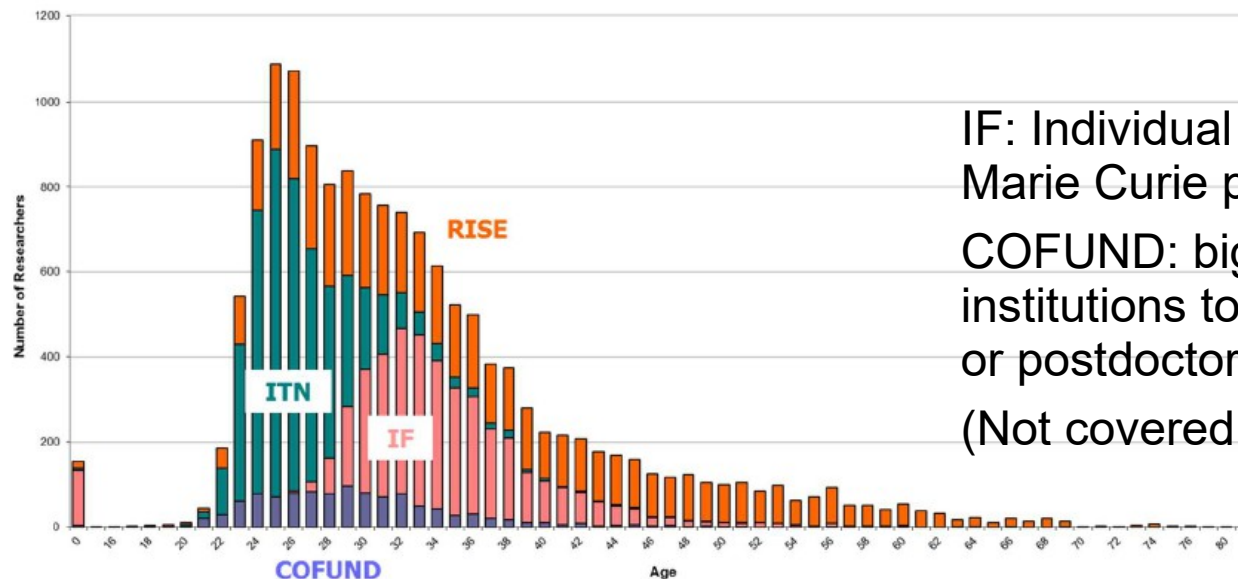
"Academic Sector" means public or private higher education establishments awarding academic degrees, public or private non-profit research institutes whose primary mission is to pursue research, and international European interest organisations. 'International European interest organisation' means an international organisation, the majority of whose members are EU Member States or Horizon 2020 Associated Countries, and whose principal objective is to promote scientific and technological cooperation in Europe (see Article 2.1(12) of the [Horizon 2020 Rules for Participation Regulation No 1290/2013](#)).

In short: universities and research centers
are academic

"Non-Academic Sector" means any socio-economic actor not included in the academic sector and fulfilling the requirements of the Horizon 2020 Rules for Participation Regulation No. 1290/2013. The non-academic sector may include for example industry organisations and business, government, civil society organisations such as non-profit or charitable organisations (NGOs, trusts, foundations, etc.), cultural institutions, museums, hospitals, international organisations (like UN or WHO), etc.

In short: all the rest

What we mean by: ESR, ER



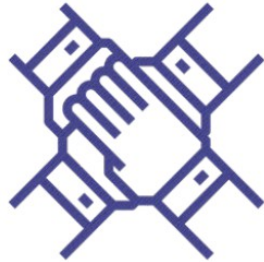
IF: Individual Fellowships, aka Marie Curie postdocs
COFUND: big fundings for institutions to implement PhD or postdoctoral programs
(Not covered in this talk!)

ESR = early-stage researcher
ER = experienced researcher



- **Early Stage Researcher (ESR)**: within 4 years of MSc degree, not holding a PhD yet; usually (but not necessarily) a PhD student
- **Experienced Researcher (ER)**: from postdoc to senior

What we mean by: Beneficiary and Partner



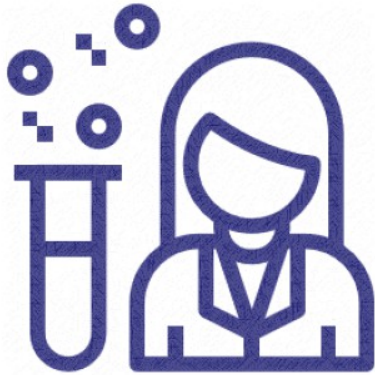
Beneficiary vs. **Partner Organisation**

	Beneficiary	Partner Organisation
Signs grant agreement	✓	✗
Recruits and hosts researchers	✓	✗
Claims costs to the EU	✓	✗
Trains/hosts seconded researchers	✓	✓
Participates in supervisory board	✓	✓

Eligible countries

- All member states of the European Union
 - Can receive funding as *beneficiaries*
 - Ad interim, this includes the UK
- Associated countries
 - Switzerland, Israel, Norway, Turkey, etc.
 - Can receive funding as *beneficiaries*
- Third countries
 - Cannot receive funding directly; but can be *partner*
 - Interest of the partner can depend on case-by-case negotiation (e.g., secondments, paid services, etc.)

ITN – Who

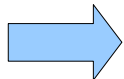


Researchers



- ✓ Only Early-Stage Researchers (**ESRs**):
 - ≤ 4 years of research experience
 - no PhD
- ✓ Mandatory **trans-national mobility*** at the time of recruitment
- ✓ Recruitment: **3 to 36** months after the project starts
- ✓ Researcher-months: requested in proposals

Nota bene



* **Mobility rule:** Researchers may have not resided or carried out their **main** activity (work, studies, ...) in the country of their host organisation for >12 months in the 3 years prior to the recruitment date.



Implication: you can't use an ITN to keep a promising local student with you... (But that promising student can get the opportunity of a PhD at another network node and then move back, more proficient and internationally-minded than before)

	ETN	EID	EJD
Beneficiaries	≥3 from 3 diff. MS/AC	≥2 from 2 diff. MS/AC: (≥1 academic + ≥1 non-academic)	≥3 from 3 diff. MS/AC ≥3 awarding PhD, of which ≥2 in MS/AC
Person-months	Max. 540	Max. 180 / 540	Max. 540
Researchers	ESRs only (3-36 months)		
Partner Organ.	Unlimited (any country / sector / discipline)		
PhD enrolment	typically expected	mandatory	mandatory
Non-academic participation	essential	mandatory	essential
Inter-sectoral exposure	possible through secondments	≥50% in non-academic International (for beneficiaries)	possible through secondments
Panels and rank lists	8 panels: CHE, ECO, ENG, ENV, LIF, MAT, PHY, SOC (400 M€)	EID panel (35 M€)	EJD panel (35 M€)

Action	Call opening	Call closure (at 17:00:00 Brussels time)	Budget*
ITN 2019	13/09/2018	15/01/2019	470.00 M€ (ETN 400 M€; EID 35 M€; EJD 35 M€)

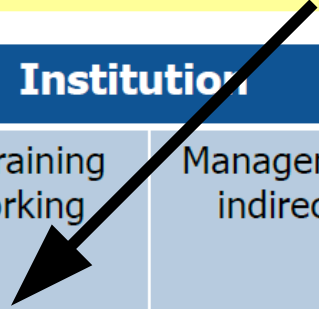
My comment: ETN is the most standard type of ITN
This includes the European Muography Network proposal

ITN budgets

Unit costs/1 researcher month:

- Workshops, schools, ...
- Scientific missions

Researcher			Institution	
Living allowance	Mobility allowance	Family allowance	Research, training and networking costs	Management and indirect costs
3.270*	600	500**	1.800	1.200



- * Country correction coefficient applies to the living allowance
- Researcher allowances include employer contributions
- Researcher allowances are a minimum to be paid (top-up funds from other sources permitted)
- ** If applicable



RISE budgets

Marie Skłodowska-Curie Action	Staff member unit cost *	Institutional unit cost *	
	<i>person/month</i> Top-up allowance	<i>person/month</i> Research, training and networking costs	<i>person/month</i> Management and indirect costs
Research and Innovation Staff Exchange	2 100	1 800	700

- On top of the base salary; tax-free
- Can't be used instead of a salary
- Quantum of secondment: 1 month
- Not more than 12 months in total for a single researcher
- Any staff category (from PhD student to senior professor) can profit from secondments

- Workshops, schools, ...
- Scientific missions

Research & Innovation Staff Exchange (RISE)



Who

Minimum 3 independent organisations from 3 different countries; 2 of which MS/AC

What

Joint R&I activities

How

Staff exchanges (1-12 months)

How long

Up to 4 years

How much

Up to 2.48 million Euro (unit cost)



There is a muography work package in the INTENSE network (funded: '19-'22)

Success rates

ITN Statistics – Results 2017

	ETN 2017	EID 2017	EJD 2017
No of eligible proposals	1437	191	86
Main list (No of projects)	98	20	9
Success rate	6,80%	10,47%	10,47%
<u>Cut-off score</u>		91,4	92,8
CHE	94,8		
ECO	91,4		
ENG	94,4		
ENV	95,6		
LIF	95,2		
MAT	94,2		
PHY	96,2		
SOC	97,4		
Reserve list	41	9	4

Statistics – RISE 2017

	RISE 2017
No of eligible proposals	321
Main list (No of projects)	80
Success rate	24,9 %
<u>Cut-off score</u>	
CHE	86,4
ECO	86
ENG	83,2
ENV	88,6
LIF	84,8
MAT	86,6
PHY	85,4
SOC	82,6
Above threshold (No of projects)	210
Reserve list	40

(For 2018, I only have data about ITN – see backup – but success rates were very similar to 2017, although average scores went down)

Some fuel for discussion

- Applying for large networks is a lot of work but can be useful even in case of failure: useful contacts with new potential collaborators, including other sectors/disciplines
- We will resubmit the "EMN" proposal (a very large and unspecific network), but we should maximize our chances by also submitting proposals for smaller and specialized networks
 - We can also insert muography as WP in broad networks on other topics (as in RISE "INTENSE"; see also ITN "CHANCE")
- ITN-ETN are so competitive that, close to the threshold, luck plays an oversized role; ITN-EID and ITN-EJD have better success rate, but are more demanding in the implementation
- RISE have a nice success ratio; but only useful if you already have personpower, and need to send people abroad
- What about INFRAIA? (Remember "G-ENDEAVOR")

Backup slides

H2020-MSCA financial overview

ITN	Research, networking, training costs	1800 €	Living allowance*	3270 €
	Management and indirect costs	1200 €	Mobility allowance	600 €
IF	Research, networking, training costs	800 €	Family allowance	500 €
	Management and indirect costs	500 €	Living allowance*	4880 €
RISE	Research, networking, training costs	1800 €	Mobility allowance	600 €
	Management and indirect costs	700 €	Family allowance	500 €
COFUND	Management costs 325 €		Top-up allowance	2100 €
			Living allowance Early-stage researchers	1935 €
			Living allowance Experienced researchers	2740 €

- The living allowance base rate (= 100%) is multiplied by a Country (NB. The researcher unit costs refer to gross salary)

COFUND



Doctoral Programmes



Fellowship Programmes

- **Co-funding of regional, national and international programmes** for research training and career development, involving **mobility** to or from another country

- Mono-beneficiary
 - **Legal entities** established in MS or AC or international European interest organisations **that fund or manage doctoral programmes or fellowship programmes** for researchers
- Duration of projects: maximum 60 months
- **Researchers** recruited for **minimum 3 months**
- EU unit cost contribution to: **living allowances for researchers** and **management costs**
- **Minimum living allowance** fixed in the WP

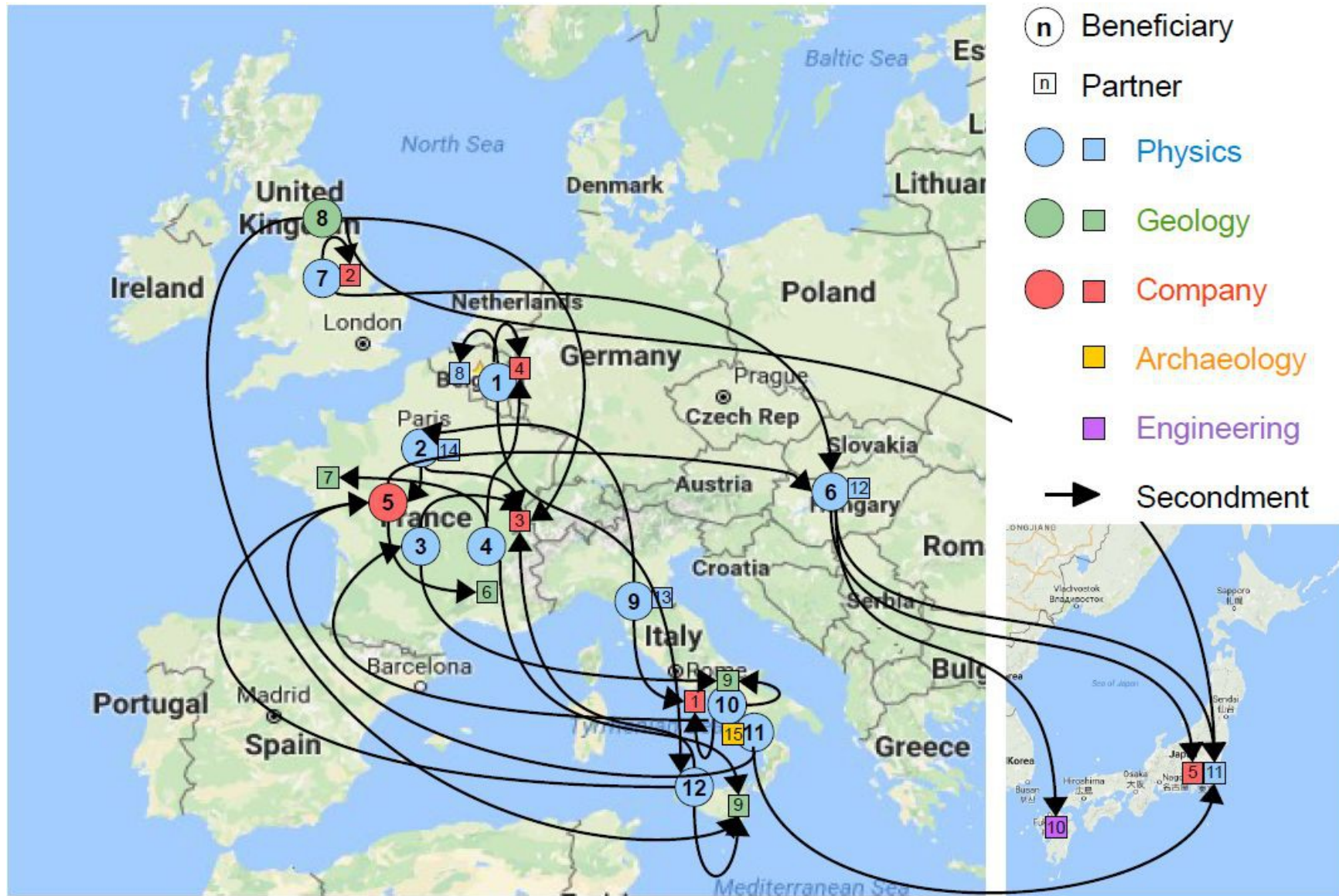
Statistics COFUND – Results 2016

	Doctoral Programmes	Fellowship Programmes
No of eligible proposals	43	68
Main list (No of projects)	16	17
Success rate	37,21%	25%
Cut-off score	86	90,6
Above threshold (No of projects)	38	51
Reserve list	5	4

Antecedents

- First large-scale EU-funding bid for a muography consortium in EU (+ Japan): G-ENDEAVOR, coordinated by Salerno University
 - INFRAIA call in 2016, meant for funding of research infrastructures, including budget for personnel (post-docs)
 - Below the threshold for "step 2", but encouraging score
- October 2016: discussion on EU funding opportunities during topical muography workshop in Tokyo
- I suggested that muography is intrinsically fit for H2020-MSCA, and we could build upon the G-ENDEAVOR experience
 - General rule: if you propose extra work, you do it yourself :)
 - Already familiar with ITNs as member of AMVA4NewPhysics (coopted after funding in 2015, deputy coordinator since 2017)

Network composition, last year



In 2019 there will be some small differences in composition, discussed later

Work Packages

WP No.	WP Title	Lead Beneficiary No.	Start Month	End month	Activity Type	Lead Beneficiary Short Name	ESR involvement
1	Management	1	1	48	Management	UCL	All (two ESRs in the Supervisory Board)
2	Training	7	4	40	Education	Sheffield	All
3	Events	1	4	48	Education	UCL	All
4	Outreach	12	2	48	Education	INAF	All
5	Simulations	11	4	40	Tools&Standards	UNISA	All
6	Analysis Tools	9 & 3	4	40	Tools&Standards	INFN & UCA	All
7	Combination with Standard Methods	4 & 8	4	40	Tools&Standards	UCBL & Durham	All
8	Open Data	6	2	48	Tools&Standards	WRCP	All
9	Volcano Studies	10	4	40	Applications	UNINA	1,3,4,8,10,11,12
10	New Applications ²⁵	5	4	40	Applications	IRIS	2,5,6,7,9

Our Evaluation Summary Report

Evaluation Result

Total score: **94.00%** (Threshold: 70/100.00)

Criterion 1 - Excellence

Score: **4.70** (Threshold: 0/5.00 , Weight: 50.00%)

Criterion 2 - Impact

Score: **4.70** (Threshold: 0/5.00 , Weight: 30.00%)

Criterion 3 - Quality and Efficiency of the Implementation

Score: **4.70** (Threshold: 0/5.00 , Weight: 20.00%)

How close we got...

Statistics of the 2018 ITN call regarding the numbers of eligible and positively evaluated proposals, proposals recommended for funding and cut-off score per panel are provided in the table below.

Panel	Received eligible proposals	Positively evaluated proposals (score above 70)	Proposals recommended for funding	Score cut-off
EID	153	132	20	90.8
EJD	81	64	9	94.2
CHE	166	159	11	96
ECO	20	16	1	97.2
ENG	417	360	28	94
ENV	175	165	12	96.4
LIF	396	353	27	95
MAT	11	10	1	93
PHY	99	95	6	94.2
SOC	132	116	8	95.8
Total	1,650	1,431	123	



Source: German NCP MSCA, www.nks-msc.de