"You cannot hope to build a better world without improving the individuals"

Marie Skłodowska-Curie

The Irish Marie Skłodowska-Curie Office's

ITN 2018 Handbook

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A. Introduction – The Policy Context for ITN 2018

The MSCA Work Programme for 2018-2020[1] sets out the policy context for the Call.

> **Objective:** The Innovative Training Networks (ITN) aim to train a new generation of **creative**, **entrepreneurial** and **innovative** early-stage researchers, able to face current and future challenges and to convert knowledge and ideas into products and services for economic and social benefit.
>
> ITN will raise excellence and **structure research and doctoral training**, extending the traditional academic research training setting, incorporating the elements of Open Science and equipping researchers with the **right combination of research-related and transferable competences**. It will provide enhanced **career perspectives** in both the **academic** and **non-academic sectors** through **international**, **interdisciplinary** and **intersectoral** mobility combined with an innovation-oriented mind-set.

Following on from these objectives, some important questions to answer when thinking about writing an ITN are:

- Why does Europe need a cohort of researchers trained up in this particular research area?
- Where could these researchers end up working?
  (Hint: think beyond academia!)
- How can we design the ITN programme to ensure that these researchers are employable in these areas?
- How will my ITN contribute to structuring research and doctoral training in Europe?

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[1] https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/03._h2020-msca-2018-2020_post_isc_post_pc_for_pre-publication.pdf

The Work Programme goes on to outline the Expected Impact of ITN 2018 – keep these in mind when writing the Impact section of the proposal.

At researcher level:
- Increased set of **skills**, both **research-related** and **transferable** ones, leading to improved **employability** and career prospects both **in and outside academi**a (leading in the longer-term to more successful careers)
- Increase in higher impact **R&I output** and more knowledge and ideas **converted** into products and services
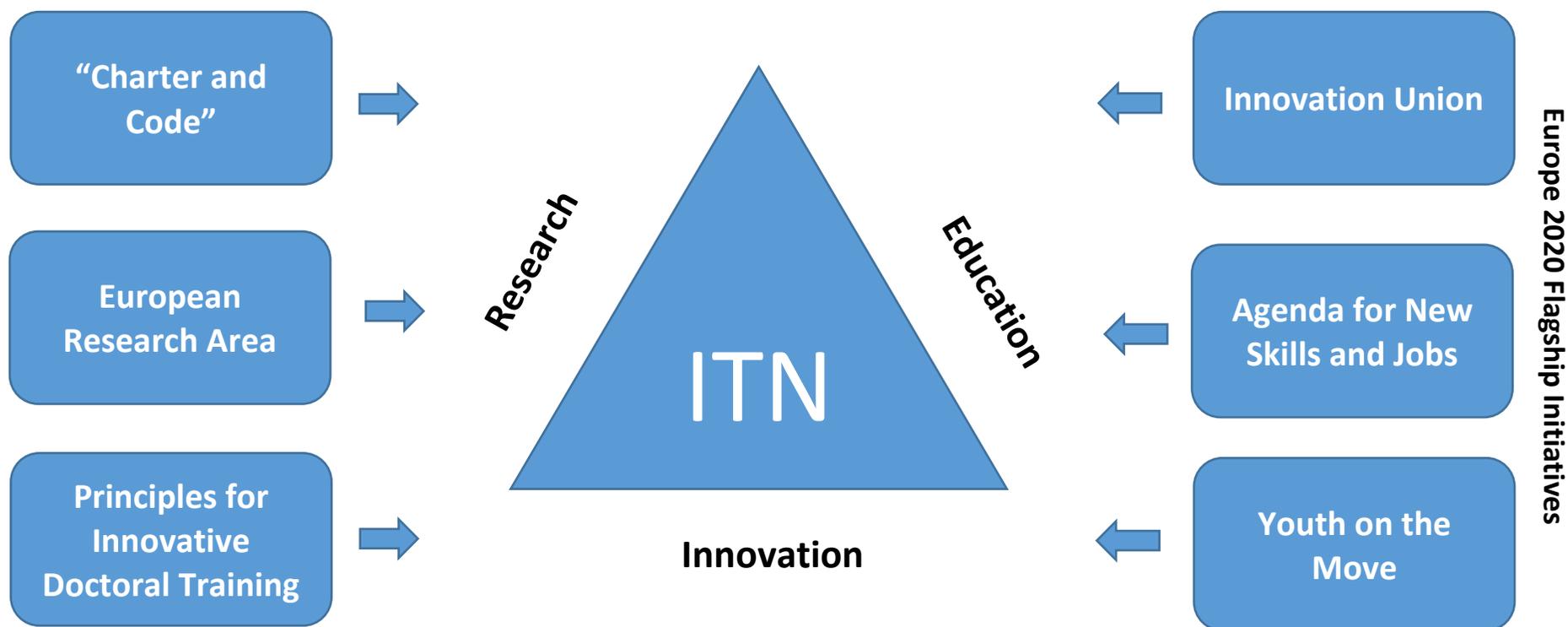- Greater contribution to the knowledge-based **economy** and **society**

At organisation level:
- Enhanced **cooperation** and better **transfer of knowledge** between sectors and disciplines
- Improvement in the **quality of training** programmes and **supervision arrangements**
- Creation of new **networks** and **enhanced quality** of existing ones
- Boosting **R&I capacity** among participating organisations
- Increased **internationalisation** of participating organisations

At system level (i.e. the research system in Europe):
- Increase in **international**, **interdisciplinary** and **intersectoral** mobility of researchers in Europe
- More **structured and innovative doctoral training**, enhanced implementation of the **European Charter and Code** and the **EU Principles for Innovative Doctoral Training**
- Stronger links between the **European Research Area (ERA)** and the **European Higher Education Area (EHEA)**, notably through supporting the knowledge triangle between research, innovation and education
- Improvement in the **working and employment conditions** for doctoral candidates in Europe
- Increased **societal and economic relevance** of European higher education
- Strengthening Europe's **human capital base in R&I** with a new generation of more entrepreneurial and highly-skilled early career researchers
- Increase in **Europe's attractiveness** as a leading research destination, accompanied by a rise in the numbers of talented researchers attracted and retained from abroad
- Better quality research and innovation contributing to Europe's **competitiveness and growth**

The overall strategy for ITN is built on a number of established EU policies,[2] as illustrated below. When writing an ITN, it is important to be aware of these policies. For convenience, we have inserted "Policy Boxes" containing information on a range of relevant EU policies into the Annotated Template in Section 2 below.

"Charter and Code"

European Research Area

Principles for Innovative Doctoral Training

Research

ITN

Education

Innovation

Innovation Union

Agenda for New Skills and Jobs

Youth on the Move

Europe 2020 Flagship Initiatives

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[2] A) "Charter and Code" ": The European Charter for Researchers and Code of Conduct for their Recruitment, http://ec.europa.eu/euraxess/index.cfm/rights/whatIsAResearcher B) European Research Area ERA Communication 2012 http://ec.europa.eu/research/era/pdf/era-communication/era-communication_en.pdf C) Principles for Innovative Doctoral Training http://ec.europa.eu/euraxess/pdf/research_policies/Principles_for_Innovative_Doctoral_Training.pdf D) Europe 2020 Flagship Initiative – Innovation Union http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=action-points E) Europe 2020 Flagship Initiative – Agenda for new skills and jobs http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=626&type=2&furtherPubs=yes F) Europe 2020 Flagship Initiative – Youth on the Move http://europa.eu/youthonthemove/docs/communication/youth-on-the-move_EN.pdf

There are a number of cross-cutting issues and areas of importance across Horizon 2020 that are relevant to ITN and should be considered when developing and writing the proposal:

Gender
- Gender balance amongst the recruited ESRs and in management structure.
- Gender aspects relevant to the research programme (where appropriate).
- Gender aspects relevant to the dissemination and communication activities.

Open Science
- Open access to research publications.
- Management of research data.
- Open publication of research data (where appropriate).

Communication & Dissemination
- Communication is not the same as Dissemination .
- Dissemination is towards potential users and a technical audience (research peers, industry, policymakers).
- Communication is to multiple audiences, including the media, the public and students.

Responsible Research and Innovation
- Adhering to ethical rules in performing the research.
- Ensuring that the research is perfomed with integrity - avoiding fabrication, falsification and plagiarism.

Sustainable Development and Climate Action
- 35% of H2020 budget will address climate action.
- 60% of H2020 budget will address sustainable development (economic, social and natural).

B. Key changes in ITN 2018

The WP 2018-2020 stipulates a few differences for ITN with respect to the previous WP, some of which are relevant to Irish applicants, namely:

- An "MSCA Special Needs Allowance", in the form of an additional lump sum of up to €60k, can be requested to enable Fellows with disabilities to carry out their fellowships.
- The mobility requirements for EID 2018 have changed with respect to 2017.
    - ✓ In 2017, the fellows had to spend at least 50% of their time in the non-academic sector and the intersectoral mobility had to be international too.
    - ✓ In 2018, the fellows still must spend at least 50% of their time in the non-academic sector, however the intersectoral mobility can happen within the same country as the academic beneficiary, provided that it is shorter than 30% of the overall fellowship time (see Example 2 below).
    - ✓ The ITN Guide for Applicants 2018[3] provides the following examples:
        1. Example 1. (Eligible in both EID 2017 and EID 2018) *An academic research institution in Austria, a university in Sweden and a research-performing enterprise in Cyprus propose an EID in the field of medical devices based on nanotechnology. The academic research institution in Austria cannot award doctoral degrees therefore the ESRs will be enrolled at the university in Sweden. The researchers will spend 50% of their time at the enterprise in Cyprus with their remaining time split between the research institution in Austria and the university in Sweden. Training will be offered by all three beneficiaries, with short-term secondment opportunities and transferable skills training offered by a number of other partner organisations.*
        2. Example 2. (Eligible in EID 2018, NOT in EID 2017. In this example the intersectoral mobility to the partner organisation is NOT international). *A researcher is recruited by a university in Italy (beneficiary 1) and spends 40% of the doctoral training there. In addition, he/she spends 40% of the fellowship at a company in France (beneficiary 2) and 20% at a company in Italy (partner organisation). The mobility between beneficiary 1 and beneficiary 2 is international (from Italy to France) and therefore eligible. The secondment to the partner organisation takes place within the same country as the academic beneficiary (Italy), but it is also eligible as it is shorter than the 30% limit for secondments to partner organisations.*

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[3]   http://ec.europa.eu/research/participants/data/ref/h2020/other/guides_for_applicants/h2020-guide-appl-msca-itn_en.pdf

C. Annotated Template

For the 2018 call, applicants must submit Part B of their proposal as two separate documents:

Part B1 (34 pages maximum)
- Start Page (1 page)
- Table of Contents (1 page)
- List of Participating Organisations (2 pages)
- 1. Excellence
- 2. Impact
- 3. Implementation

Part B2 (No overall page limit)
- 4. Gantt Chart
- 5. Participating Organisations Tables
  - Beneficiaries (1 page maximum)
  - Partner Organisations (0.5 page maximum)
- 6. Ethics Issues
- 7. Letters of Commitment
  - For ETN/EID/EJD: only include letters from Partner Organisations (one per organisation). Letters from beneficiaries should not be included (see exception for EJD below).
  - For EJD only: include a letter from each beneficiary participating in the joint/double doctoral degrees. This letter must be signed by a person who can commit the organisation to the joint/double/multiple degree e.g. Dean of Graduate Studies or Registrar, generally not the VP/Dean of Research.

MANDATORY FORMATTING REQUIREMENTS	
Body Text Font Size	11 points minimum
Table Font Size	8 points minimum
Page Margins	15 mm minimum (not including headers and footers)
Literature References	In Footnotes, font size 8 (included in page limit)
Required Header	PROPOSAL ACRONYM - ETN / EID / EJD (delete as appropriate)
Page Number Format	Page X of Y

START PAGE

MARIE SKŁODOWSKA-CURIE ACTIONS

Innovative Training Networks (ITN)
Call: H2020-MSCA-ITN-2018

PART B

"PROPOSAL ACRONYM"

Use a memorable acronym – a real word – you can use online acronym generators to help. Check http://cordis.europa.eu/projects/home_en.html to see if an EU project with the same acronym already exists.

This proposal is to be evaluated as:

[ETN] [EID] [EJD]
[delete as appropriate]

TABLE OF CONTENTS (max. 1 page)

Please insert a full table of contents with page numbers, including main headings and sub-headings. Include the sections from Document 1 and Document 2.

LIST OF PARTICIPANTS (*max. 2 pages*)

Please provide a list of the consortium's members (both beneficiaries and partner organisations) indicating the legal entity, the department carrying out the work and the scientist-in-charge of the action.

For non-academic beneficiaries, please provide additional data as indicated in the table below.

Consortium Member	Legal Entity Short Name	Academic (tick)	Non-academic (tick)	Awards Doctoral Degrees (tick)	Country	Dept./ Division / Laboratory	Scientist-in-Charge	Role of Partner Organisation[4]
Beneficiaries								
Insert full name here e.g. Dublin City University	Insert short name here e.g. DCU							Do not complete this section for beneficiaries
Partner Organisations								
Insert full name here e.g. Data Laboratories Inc.	Insert short name here e.g. DLI							e.g. Training, Hosting Secondments, Delivering Doctoral Degree

Data for non-academic beneficiaries:

Do not complete for non-academic Partner Organisations

Name	Location of research premises (city / country)	Type of R&D activities	No. of full-time employees	No. of employees in R&D	Web site	Annual turnover[5] (in Euro)	Enterprise status (Yes/No)	SME status[6] (Yes/No)

- The information in the above table **must be based on current data, not projections**
- The financial and operational capacity of organisations participating in successful proposals will be subject to verification during the grant preparation phase

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[4] For example, delivering specialised training courses, hosting secondments, etc. Can also be delivery of doctoral degree.
[5] Defined as the total value of sales of goods and services during the last accounting period.
[6] As defined in Commission Recommendation 2003/361/EC

Declarations

Name (institution / individual)	Nature of inter-relationship

- Applicants **must** use the table above to **declare any inter-relationship between different participating institutions or individuals** (e.g. family ties, shared premises or facilities, joint or part ownership, financial interest, overlapping staff or directors, etc.)

EU Policy Box 1

✓ **"Charter and Code": The European Charter for Researchers and Code of Conduct for their Recruitment,**
http://ec.europa.eu/euraxess/index.cfm/rights/whatIsAResearcher.

The "Charter and Code" principles are mainstreamed into the MSCA. **Everyone applying for MSCA funding should read the C&C.**

Some principles which are particularly relevant to ITN (not exhaustive) are:

- Employers and/or funders of researchers should ensure that the most stimulating research or research training environment is created which offers appropriate equipment, facilities and opportunities, including for remote collaboration over research networks. *Particularly relevant to the Excellence section (1.1 research programme, 1.2 training programme) and the Implementation section (3.3 Infrastructure)*

- Employers and/or funders of researchers should draw up, preferably within the framework of their human resources management, a specific career development strategy for researchers at all stages of their career, regardless of their contractual situation, including for researchers on fixed-term contracts. It should include the availability of mentors involved in providing support and guidance for the personal and professional development of researchers, thus motivating them and contributing to reducing any insecurity in their professional future. All researchers should be made familiar with such provisions and arrangements. *Particularly relevant to the Excellence section (1.3 supervision).*

- Employers and/or funders must recognise the value of geographical, intersectoral, inter- and trans-disciplinary and virtual mobility as well as mobility between the public and private sector as an important means of enhancing scientific knowledge and professional development at any stage of a researcher's career. Consequently, they should build such options into the specific career development strategy and fully value and acknowledge any mobility experience within their career progression/appraisal system. *Particularly relevant to the Excellence section (1.2 training programme, 1.4 interaction between the participants) and the Impact section (2.2 Structuring research training-contribution of the non-academic sector).*

- Employers and/or funders should ensure that a person is clearly identified to whom early-stage researchers can refer for the performance of their professional duties, and should inform the researchers accordingly. *Particularly relevant to the Excellence section (1.3 supervision).*

- Employers and/or funders of researchers should recognise it as wholly legitimate, and indeed desirable, that researchers be represented in the relevant information, consultation and decision-making bodies of the institutions for which they work, so as to protect and promote their individual and collective interests as professionals and to actively contribute to the workings of the institution. *Particularly relevant to the Implementation section (3.2 management).*

In addition, the principles on Recruitment are of particular importance when outlining the ITN's recruitment strategy in the Implementation section.

1. Excellence (starting on p.5)

1.1 Quality, innovative aspects and credibility of the research programme (including inter/multidisciplinary, intersectoral and, where appropriate, gender aspects)

Required sub-headings:

1.1.1 Introduction, objectives and overview of the research programme. For ETN projects, it should be explained how the individual projects of the recruited researchers will be integrated into – and contribute to – the overall research programme. EJD and EID projects should describe the research projects in the context of a doctoral training programme.

Write the **first page** of your proposal **as an executive summary ("overview")** of your ITN. State the research/technical problem/knowledge gap your proposal addresses, its relevance to current European and/or international policies, your proposed solution to this problem. Your solution should be training the next generation of excellent researchers in the field, whereby the training should be delivered **through an excellent research programme and an excellent training programme**. Neither aspect should be neglected in this section.

- ✓ Start -or conclude- your "overview" with a short paragraph summarising the overall goal of the ITN programme, such as:
  - ○ *"The overarching objective of this ITN is to provide high-level training in the field of X to a new generation of high achieving early stage researchers to provide them with the transferable skills necessary for thriving careers in a burgeoning area that underpins innovative technological development across a range of diverse disciplines. This goal will be achieved by a unique combination of "hands-on" research training, non-academic placements and courses and workshops on scientific and complementary so-called "soft" skills facilitated by the academic-non-academic composition of the consortium".*
- ✓ The overview should briefly outline, and the remainder of section 1.1.1 may expand upon, the following aspects – in no prescriptive order:
- ✓ An outline of the overall field/research theme of the network, describing the **overall research goal** of the ITN. It is important that the research programme is cohesive and coherent.
- ✓ The timeliness and relevance, in terms of societal need and fit to sectoral policy targets, of the proposed research and training programme, as demonstrated by linking it to current sectoral policies, such as OECD policies (search in Topics at http://www.oecd.org/) and EU policies (https://ec.europa.eu/info/strategy_en). (This aspect can be further expanded upon in the Impact section).
- ✓ Why is this consortium best placed to address this research theme from a cohesive, multidisciplinary and intersectoral point of view, and how the outcome will be greater than the sum of its parts (see point on cohesiveness above).
- ✓ A clear outline of the key specific **Research Objectives** of the programme. For clarity present them in a bulleted list or text box, relating them to the relevant workpackages.
- ✓ Outline how the training programme is inter-multi-disciplinary and intersectoral.
- ✓ A brief description the **State of the Art** in the research area and how the specific Research Objectives will advance the field beyond the current state of the art. Support your state of the art review through key international bibliographic references (in footnotes, font size 8) – also cite the consortium (but not only!) to show that you are the experts in the field. Aim to be effective rather than exhaustive in terms of citations.

<u>1.1.2 Research methodology and approach</u>

The project should be divided in **Work Packages** and described in the table below. The Work Packages should reflect the research objectives. Only brief headings and overviews of the Work Packages should be presented in Table 1.1. More details in terms of actual implementation should be provided in the tables under section 3.1.

✓ Break down the research programme into (typically) three or four discrete research Work Packages **that relate to the Research Objectives** described above (put Table 1.1 here).

Table 1.1: Work Package[7] (WP) List

✓ Minimum font size for tables is 8 points. Aim for something that is readable when printed out as well as on screen.

WP No.	WP Title	Lead Beneficiary No.	Start Month	End month	Activity Type[7]	Lead Beneficiary Short Name	ESR involvement[8]
					For example, research, management, dissemination, etc.		Indicate which ESR(s) will participate in the Work Package in question e.g. ESR1, ESR3, ESR5, etc

✓ Give each workpackage a brief title, and a one-paragraph summary (aim for 10-12 lines of text) of each Work Package here – the corresponding full Work Package table should go in Section 3.1
✓ Methodology: in the Work Package descriptions, ensure to **describe in detail** how the objectives in the research programme will be explored - equipment, techniques, assays, types of research etc. You need to provide enough information so that the evaluator can understand how you will tackle the problem at hand, and can clearly see what is novel/interesting about your particular approach.
✓ Highlight the inter- / multi-disciplinary aspects of the research methodology.
✓ In research activities where human beings are involved as subjects or end users, gender differences may exist. This may apply to research involving the use of animals too. If this applies to your research programme, you must briefly explain how you have taken gender into account in the research methodology e.g. using animal models of both gender, separation of research subjects into male and

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[7] A work package is defined as a major subdivision of the proposed project.
[7] For example, research, management, dissemination etc.
[8] Indicate which ESR(s) will participate in the Work Package in question

female groups. Some examples of the gender dimension in different research areas can be found at https://genderedinnovations.stanford.edu/what-is-gendered-innovations.html

✓ Please note this is completely different from gender equality considerations, which have to do with the gender balance among the research performers (ESRs, supervisors, etc) and should rather be addressed in 3.2.

✓ Explain how the individual ESR projects fit into the Work Packages (use Table 1.1) and if possible use a figure to illustrate the relationship.

1.1.3 Originality and innovative aspects of the research programme (in light of the current state of the art and existing programmes / networks / doctoral research trainings)

✓ Expand on the state of the art outlined previously in 1.1.1, to explain why the research is original, innovative and timely compared to the state-of-the-art in the research area (i.e. how the research work described in 1.1.2 will advance the state of the art - for this to be clear it is essential that you have adequately explained the state of the art in section 1.1.1) – again, use footnotes to cite key relevant bibliography.

✓ Benchmark against other doctoral/research trainings at national or international level. Previous ITNs can be checked using http://cordis.europa.eu/search/advanced_en, but do not limit your benchmarking to EU funded consortia.

✓ Reiterate how the work is inter- or multi-disciplinary, and inter-sectoral.

Common Section 1.1 Weaknesses in unfunded ITNs:
- Poorly focused research theme/overall goal->cohesiveness not demonstrated
- State of the art poorly explained->novelty not demonstrated
- Unclear research objectives
- Reference to ultimate impact on society or sectoral policies lacking or insufficient-> Timeliness/societal relevance not demonstrated
- Lack of detail in describing research methodology, equipment/techniques/methods to be used->credibility/feasibility not demonstrated
- Lack of inter/multidisciplinarity
- Gendered innovations not mentioned

1.2 Quality and innovative aspects of the training programme (including transferable skills, inter/multi-disciplinary, intersectoral and, where appropriate, gender aspects)

Required sub-headings:

- 1.2.1 Overview and content structure of the training (ETN) or doctoral programme (EID/EJD), including network-wide training events and complementarity with those programmes offered locally at the participating institutions (please include table 1.2a and table 1.2b)

✓ Start with the Recruitment Table 1.2a – it shows at a glance how many ESRs each beneficiary will be responsible for

Table 1.2 a   Recruitment Deliverables per Beneficiary

For EID/EJD, add an extra column (as shown) to this table to show the details of the non-academic co-host for each ESR. You could also include details of the secondment hosts or the Supervisory Committee for each ESR (see 1.3.2 below) in this table.

Researcher No.	Recruiting Participant (short name)	Co-Hosting Participant	Planned Start Month 0-45	Duration (months) 3-36
1.		EID/EJD Only		
2.		EID/EJD Only		
3.		EID/EJD Only		
...				
Total				

- ✓ Make a strong link between your programme's elements and the EU policies about researcher training.
- ✓ Emphasise the "**triple i**" aspects of the programme: international, inter-sectoral and inter-disciplinary (from the EU Principles for Innovative Doctoral Training – PIDT)[8]
- ✓ Provide a list of overall **Training Objectives**, including developing three types of skills:
  - ➢ **Core Research Skills** (acquired via the ESR's Individual Research Project)
  - ➢ **Advanced/Additional Research Skills** (delivered by the consortium)
  - ➢ **Transferable Skills** (delivered by the consortium - particularly those useful in non-academic careers). The Vitae Research Development Framework can serve as inspiration.[9]
  - ✓ Three modes of delivery:
    - ➢ Local training: offered at the main host organisation where the ESR will work. Include a description of the skills acquired via the Individual Research Programme and the structured training offered by e.g. local graduate schools
    - ➢ Network-wide training: offered by the consortium at specific events e.g. workshops, summer schools, training weeks
    - ➢ Secondment programme: briefly mention here and refer to Section 1.4 for more details.
  - ✓ Describe the local training followed by the network-wide training:
    - ➢ **Local**: Describe what is offered for the ESRs at their main host in terms of research training (via their Individual Research Programme), research-related training (e.g. ethics, research integrity) and transferrable skills training. It can be additive if training available at one host can be opened up to ESRs from the other hosts in the consortium.
    - ➢ **Network wide**: Be very specific about the details. When and where it will take place, what areas will be covered, how long will it last, who will deliver the training. Our suggestion is to modify Table 1.2b to allow for this level of detail, although you can include extra tables to allow a fuller description of all the events.
    - ➢ Open up some events to the **wider research community**. It's typical to have a final conference for example or to make some places at summer schools open to ESRs who are not part of the network – a fee can be charged to cover the cost if necessary.
  - ✓ Earning a certain number of ECTS Credits (European Credit Transfer System)[7] via the local and network-wide training is becoming the norm – **mandatory for EJD**
  - ✓ Hot training topics! Evaluators could be looking out for training on EU **hot topics** such as Research Integrity, Gender Dimension in Research and Open Science.

Table 1.2 b   Main Network-Wide Training Events, Conferences and Contribution of Beneficiaries

	Main Training Events & Conferences	ECTS [9] (*if any*)	Lead Institution	Project Month (*estimated*)
1	When and where it will take place, what areas will be covered, how long will it last, who will deliver the training – modify the table if necessary			
2				

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[10] http://ec.europa.eu/euraxess/pdf/research_policies/Principles_for_Innovative_Doctoral_Training.pdf
[9] https://www.vitae.ac.uk/vitae-publications/rdf-related/researcher-development-framework-rdf-vitae.pdf/@@download/file/Researcher-Development-Framework-RDF-Vitae.pdf

3				
4				

✓ Complementarity between the local and network wide training is achieved by having a **Personal Career Development Plan** (PCDP) for each ESR. A PCDP will include at least:
  ➢ A personalised analysis of the requirements and goals of the planned training for the ESR.
  ➢ A list of courses (local and network-wide) to be taken by the ESR during their programme, including any ECTS credit requirements.
  ➢ A list of communication and dissemination activities to be undertaken by the ESR.
  ➢ A schedule for their programme, including secondments.
✓ The PCDP will be prepared at the start of the ITN between the ESR and their Supervisory Committee (see 1.3.2).
✓ It should be reviewed at least every six months.

- ## 1.2.2 Role of non-academic sector in the training programme
  ✓ Finally, provide precise details of the contribution of the non-academic **beneficiaries** and **partner organisations** in the training programme, including:
    ➢ Recruiting – for non-academic beneficiaries.
    ➢ Training (Hint! They should be delivering some of the network-wide training).
    ➢ Hosting secondments – mention briefly here and expand in Section 1.4
  ✓ It can be very helpful to **use a table** to list out the role of each non-academic participant – this makes the detail clear and easy to follow.

Common Section 1.2 Weaknesses in unfunded ITNs:
- No link to EU policies on research careers/research training
- Training programme is unfocused and not clearly presented
- Transferable skills poorly addressed esp. those related to innovation and entrepreneurship
- Insufficient local training opportunities (at each ESR's host organisation)
- Poorly thought-out network wide training opportunities
- Poorly-timed network wide training opportunities (too much at once)
- Balance between local and network-wide training (including online training) is poor (too much of one, not enough of the other)
- Non-academic contribution to the training is poor
- No plans to use Personal Career Development Plans
- Lack of detail on from where ESRs at non-academic hosts will receive their PhD
- All events closed to wider research community

1.3 Quality of the supervision (including mandatory joint supervision for EID and EJD)

The following section of the European Charter for Researchers refers specifically to supervision- your supervision mechanisms should align with these principles:

Supervision:

Employers and/or funders should ensure that a person is clearly identified to whom Early-Stage Researchers can refer for the performance of their professional duties, and should inform the researchers accordingly.

Such arrangements should clearly define that the proposed supervisors are sufficiently expert in supervising research, have the time, knowledge, experience, expertise and commitment to be able to offer the research trainee appropriate support and provide for the necessary progress and review procedures, as well as the necessary feedback mechanisms.

Required sub-headings:

- 1.3.1 Qualifications and supervision experience of supervisors

  ✓ Demonstrate, with hard evidence, the collective quality of the research supervisors in training of researchers
  ✓ Note the instruction: *To avoid duplication, the role and scientific profile of the supervisors should only be listed in the "Participating Organisations" tables (see section 5 below).* This means that you do not have enough space to write one paragraph per participating PI.
  ✓ Instead write a collective statement about the expertise of the consortium. Don't leave out the Partner Organisations.
  ✓ Include number of PhDs graduated, numbers of postdocs mentored, and where they are now. We recommend that a **Table** is used to encompass this information plus pertinent information on the

research excellence of the supervisor such as notable grants, editorial board membership, awards, important journal articles/conference papers/monographs etc.

- **1.3.2 Quality of the joint supervision arrangements** (mandatory for EID and EJD).
  - ✓ The template states that this is only mandatory for EID and EJD **but please also include for ETN.**
  - ✓ The aim is to demonstrate that each ESR is assured high-levels of contact with their supervisor(s) through a supervision policy that is consistent across the consortium (particularly for EJD).
  - ✓ Each ESR should have a Supervisory Committee (SC) of minimum three persons – at least one should be from a non-academic beneficiary or PO.
    - ➢ Include a Table which shows the composition (names) of the Supervisory Committee for each ESR.
  - ✓ Role of SC is to ensure that a Personal Career Development Plan for their research and training is put in place for each ESR and reviewed at regular intervals.
  - ✓ Describe a regular series of meetings between ESR and SC – can mention open door policy as well.
  - ✓ Each SC should report into an overall training/doctoral studies or similar committee (describe this in 3.2 Management).

EU Policy Box 3

✓ **Gender in Horizon 2020**

Gender equality is a cross-cutting issue in Horizon 2020 and shall be implemented across **all areas of Horizon 2020, including the MSCA**. This will extend to promoting the gender dimension in research and innovation content. Gender equality is also included in Horizon 2020 monitoring and evaluation exercises.

Key objectives include:

- Gender balance in decision-making: The aim is to reach the Commission's target of 40% of the under-represented sex in each group and panel. For Horizon 2020 Advisory Groups, the target was raised to 50%, given the high response rate from women to the Commission's call for interest launched in February 2013.
- Gender balance in research teams at all levels: Applicants for funding are encouraged to promote equal opportunities and to ensure a balanced participation of women and men at all levels in research and innovation teams and in management structures. Gender balance in teams will also be taken into account when ranking proposals with the same evaluation scores.
- Gender dimension in research and innovation content: Gender is explicitly integrated into several topics across the Horizon 2020 Work Programme. Topics with an explicit gender dimension are flagged, to ease access for applicants, but all H2020 applications should take the gender dimension into account.

Factsheet:
https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/FactSheet_Gender_2.pdf
Document: Gendered Innovations – How Gender Analysis Contributes to Research
http://ec.europa.eu/programmes/horizon2020/en/news/%E2%80%9Cgendered-innovations-how-gender-analysis-contributes-research%E2%80%9D

Gender Toolkit
http://www.yellowwindow.be/genderinresearch/index_downloads.html
The European Commission sponsored the development of a Gender Toolkit for FP7 by Yellow Window Management Consultants. The documents are freely available on the web, and include an overview of gender in research, a checklist for help in preparing grant applications, and detailed, discipline specific, documents examining the role of gender.

European Institute for Gender Quality (EIGE)
EIGE is an autonomous body of the European Union, established to contribute to and strengthen the promotion of gender equality, including gender mainstreaming in all EU policies and the resulting national policies, and the fight against discrimination based on sex, as well as to raise EU citizens' awareness of gender equality.
EIGE also assists EU institutions and the Member States in the collection, analysis and dissemination of objective, reliable and comparable information and data on equality between women and men. You may find useful statistics for use in your proposal at:
http://eige.europa.eu/gender-statistics

1.4 Quality of the proposed interaction between the participating organisations

Required sub-headings:

- 1.4.1 Contribution of all participating organisations to the research and training programme

  ✓ Describe what tasks each participant (beneficiaries and partner organisations) will undertake in the research & training programmes – use a **table** (template below) for clarity and brevity. The aim is to show that each participant is fully engaged in the programmes – a higher level of engagement would be expected of beneficiaries compared to POs.

	Recruiting	Hosting Secondments	Delivering Training	Awarding PhDs
Name	✓ or ESR1, ESR2 etc.	✓ or ESR4, ESR5 etc.	✓ or course names	✓ or ESR1, ESR2 etc.

- 1.4.2 Synergies between participating organisations

  ✓ Show why this consortium is best placed to deliver the programme (synergies/overlaps in expertise) – a diagram/schematic is the best way to demonstrate this.
  ✓ Describe the "added value" of working together to deliver this programme – if available, include information on previous and current collaborations between participants (including COST Actions) and any successful outputs of same.

- 1.4.3 Exposure of recruited researchers to different (research) environments, and the complementarity thereof
  ✓ i.e. Describe different research environment that the ESRs will be exposed to. Focus on the "triple i" aspects e.g. exposure to **international**, **interdisciplinary** and **intersectoral** research environments. A description of the secondment programme should form the basis for this.
  ✓ Provide a table summarising the secondments for each ESR – where, when, for how long. Could merge this information into Table 1.2a to save space.
  ✓ **Tip!** ETN/EJD: each ESR should get a secondment of at least 3 months to a non-academic beneficiary or partner organisation
  ✓ For EID, make sure it is crystal clear that each ESR will achieve the minimum 50% of time in the non-academic sector
  ✓ Explain how the secondments are linked to ensuring the excellence of the research & training programmes and are personalised to the research training needs of each individual ESR.

Common Section 1.4 Weaknesses in unfunded ITNs:

- The role of each participating organisation (or some of them) in the research training programme is not clear
- It is unclear how the participants have complementary expertise and will utilise this in the programme
- The role of the non-academic organisations is not clear and/or the programme does not fully exploit their potential
- Not every ESR has a secondment to a different sector and/or the secondments are too short to have a meaningful impact (< 1 month)
- The exposure of ESRs is not homogeneous across the consortium – e.g. secondments have different durations, in companies of different sizes -> non-uniform meaningfulness of intersectoral exposure across the ESR cohort

2.   Impact

2.1   Enhancing the career perspectives and employability of researchers and contribution to their skills development

In this section, please explain the <u>impact of the research and training</u> on the fellows' careers.

Overall aim is to show a detailed understanding of how the ESR graduates will be employable, and by who, and why.

✓ Describe the potential employment sectors that the ESRs might end up working in. Consider both academic and non-academic career opportunities.

✓ Present an analysis of how the elements of the programme will make them employable in these sectors, e.g.:
  - ✓ Research Training
  - ✓ Transferable Skills Training
  - ✓ Secondments and/or other opportunities for exposure to other organisations (e.g. networking opportunities)
  - ✓ Communication/Dissemination/Public Engagement/Exploitation activities

Do not repeat how these skills will be delivered, instead focus on the impact of the skills on the ESR's employability

✓ Make a strong link between your programme's elements, the EU policies about researcher careers/employability (EU Policy Box 4), and any sectoral policies referring to a skill gap in the relevant sector.

EU Policy Box 4

✓ **Europe 2020 Flagship Initiative – Agenda for new skills and jobs**
http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=626&type=2&furtherPubs=yes
The Agenda, published October 2010, presents a set of concrete actions that will help:
  1. Stepping up reforms to improve flexibility and security in the labour market ('flexicurity')
  2. Equipping people with the right skills for the jobs of today and tomorrow
  3. Improving the quality of jobs and ensuring better working conditions
  4. Improving the conditions for job creation

<u>Key points relevant to ITN:</u>
- Providing the right mix of skills
- Matching people's skills and job opportunities, and capitalising on Europe's potential jobs
- Enhancing geographical mobility throughout the EU
- Promoting entrepreneurship, self-employment and innovation

✓ **Europe 2020 Flagship Initiative – Youth on the Move**
http://europa.eu/youthonthemove/docs/communication/youth-on-the-move_EN.pdf
Youth on the Move is a comprehensive package of policy initiatives on education and employment for young people in Europe. Launched in 2010, it aims to improve young people's education and employability (specific focus on reducing youth unemployment) by:
- making education and training more relevant to young people's needs;
- encouraging more of them to take advantage of EU grants to study or train in another country;
- encouraging EU countries to take measures simplifying the transition from education to work.

<u>Key points relevant to ITN:</u>
- Developing modern education and training systems to deliver key competences and excellence
- Promoting the attractiveness of higher education for the knowledge economy
- Supporting a strong development of transnational learning and employment mobility for young people
- Supporting young entrepreneurs and self-employment

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Common Section 2.1 Weaknesses in unfunded ITNs:

- Proposal does not (or weakly) describe the impact of the programme on the ESRs' career opportunities
- No mention of potential for careers outside of academia and how the programme will help them develop the required skills and explore these opportunities
- Poor description of the effect of transferable skills training on the ESRs' career perspectives
- No justification of how the potential career opportunities are linked to current and future labour market needs
-

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2.2 Contribution to structuring doctoral/early-stage research training at the European level and to strengthening European innovation capacity, including the potential for:

Divide into three (ETN/EID) or four (EJD) sub-headings:

a) 2.2.1 Contribution to structuring doctoral/early-stage research training at the European level

- ✓ There are two agreed set of "rules" for doctoral/research programme elements: Salzburg II Recommendations[11] & Principles for Innovative Doctoral Training,[10] which derives from the Salzburg II Recommendations[11].
- ✓ Explain how your programme adheres to those "rules" – i.e. take the seven Principles for Innovative Doctoral Training and explain how your ITN incorporates each of those Principles.
- ✓ Explain how your programme will help the further development and spreading of best practice in European collaborative research training programmes
- ✓ Describe how you will continue the programme after the ITN is over e.g. seeking further funding or at a minimum informally continuing the collaboration.

EU Policy Box 5

✓ **The Principles for Innovative Doctoral Training** (see Policy Box 3)

✓ **Erasmus Mundus Handbook of Excellence – Doctoral Programmes**
http://eacea.ec.europa.eu/erasmus_mundus/tools/documents/repository/handbook_of_excellence_2012_doctoral_en.pdf
Prepared via the Erasmus Mundus Quality Assessment Process, this document's Annex A provides a useful overview of the research and policy literature that provide a background to EU policies on doctoral/research education as part of the Bologna process. The following statements in the Annex will be useful for *this section*, in particular:

- Quote from the Bucharest Communíqúe: "***Study programmes must reflect changing research priorities and emerging disciplines, and research should underpin teaching and learning. In this respect, we will sustain a diversity of doctoral programmes. Taking into account the Salzburg II recommendations and the Principles for Innovative Doctoral Training, we will explore how to promote quality, transparency, employability and mobility in the third cycle, as the education and training of doctoral candidates has a particular role in bridging the European Higher Education Area (EHEAR) and the European Research Area (ERA).***"

- ***In just over a decade, the EHEA has made significant progress in creating a more "European" doctorate, which takes doctoral programmes beyond mono-disciplinary and single-institution silos, into a multi-disciplinary and collaborative activity that is focused not just on local and national goals, but those of Europe positioning itself in the competitive global higher education environment.***

✓ **Good Practice Elements in Doctoral Training**
http://www.leru.org/files/publications/LERU_AP_15_Good_practice_elements_in_doctoral_training_2014.pdf
LERU, the League of European Research Universities, published this guide in 2014. It provides examples of good practice elements in doctoral training at LERU member organisations across four areas:
- Professional development for researchers as now done through formal workshop-style professional development sessions to develop skills which can then be put to use in research and will be valuable in future careers. Examples of good practice at LERU universities under this first category are given under the heading of 'formal research training'.
- The section on 'career development' provides examples of activities at LERU universities to promote awareness of both academic and non-academic careers that are open to doctoral graduates, highlighting in particular some areas that are less well known to our candidates.
- The category 'concepts and structures' describes some of the innovative structures that LERU universities have developed for managing and promoting innovation in doctoral programmes, particularly for providing international and interdisciplinary exposure.

These good practice examples could be used as "inspiration" for ITN activities, which could be linked back to the good practice guide in the Impact section, e.g., "The ESRs in our ITN will have the opportunity to explore academic and non-academic careers, in line with the LERU Good Practice Elements in Doctoral Training".

b) <u>2.2.2</u> Meaningful <u>contribution of the non-academic sector to the doctoral / research training</u> (as appropriate to the implementation mode and research field)

   ✓ Demonstrate how the exposure of ALL the fellows to the non-academic sector is meaningful, i.e. it has sufficient duration and content to ensure a) the employability of the trained fellows in the non-academic sector and b) excellence and impact of the research training.
   ✓ Explain how the contribution of your non-academic sector participants to this particular programme is essential to improving inter-sectoral collaboration in research training in this area.

EU Policy Box 6

✓ **The Principles for Innovative Doctoral Training** ⁽(see Policy Box 3)
✓ **Erasmus Mundus Handbook of Excellence – Doctoral Programmes** (see Policy Box 5)
✓ **Good Practice Elements in Doctoral Training** (see Policy Box 5)

✓ **Mobility of Researchers between Academia and Industry: 12 Practical Recommendations**
http://ec.europa.eu/euraxess/pdf/research_policies/mobility_of_researchers_light.pdf
Although this document was published ten years ago (2006), it still contains recommendations that are relevant to researchers moving between academia and industry (non-academia).
Some recommendations relevant to ITN 2017 are:

1. Developing **joint training programmes** to better address future employers' needs, including developing doctoral programmes **in partnerships** with the business community;
2. Preparing early stage researchers for a **career in both sectors**, including developing **entrepreneurial skills**. Recognising merits by adding to the diploma a record of courses taken and experience acquired;
3. Providing **supervision quality insurance**, in particular for early stage researchers. Researchers should be followed by two supervisors with adequate training, **one from each sector**;
4. Increasing **inter-sector mobility possibilities** for both early stage and established researchers.

✓ **Collaborative Doctoral Education: University-Industry Partnerships for Enhancing Knowledge Exchange.** http://www.eua.be/Libraries/research/doc-careers.pdf?sfvrsn=0
In this report, the European University Association (EUA) in "Collaborative Doctoral Education: University-Industry Partnerships for Enhancing Knowledge Exchange" presents the findings of the project "DOC-CAREERS: From Innovative Doctoral Education to Enhanced Career Opportunities".
A number of comments in this document are relevant to the **European Industrial Doctorate (EID)**, in particular:

- Collaborative Doctoral Programmes involving industry and university are a good vehicle to enhance knowledge transfer, intersectoral mobility and mutual understanding. Doctoral programmes enable companies to take part in researchers' education and training, exposing them to environments which will allow candidates to acquire skills relevant to the business world in addition to those relevant to the academic world.
- Collaborative Doctoral Projects are doctoral theses carried out with interaction between a university, a company and a doctoral candidate. A distinctive characteristic is that industry experts take part in the supervisory committee. Industry can play several roles, but being in the supervisory committee is what effectively reflects the specific nature of the collaborative doctoral project.
- Structured industry placements (periods of internship of doctoral candidates in business premises where they have the opportunity to perform their research while experiencing the "life" of the company) are seen as one of the most important contributions that an industry can offer to the education of a doctorate holder wishing to gain insight into the business world (e.g. from using business labs and participating in business meetings to having lunch in the canteen).
- Main outcomes in terms of qualifications of doctorate holders are that they gain an understanding of the role of research beyond the academic world and hence they are better prepared for employment in industry and for establishing better links with it if employed elsewhere.
- Companies regard collaborative doctoral programmes as a genuine part of developing stronger relations with universities and may perceive that doctorate holders educated between and by the two worlds are better prepared to fit in corporate positions than doctorate holders educated exclusively in a university environment.
- Benefits to doctoral graduates of participating in a collaborative doctoral programme:
    1. Broader employment perspectives for doctoral graduates, especially outside academic environments.
    2. Better awareness of the broader employability opportunities for doctorate holders
    3. Understanding the industry research environment
    4. Embedding industrial mindset as well as university mindset in his/her education
    5. Able to deal easily with the two worlds because of better understanding
    6. Those who follow a subsequent academic career path can inform academic curricula development
    7. Improving CV: when looking for employment, doctorate holders take with them the good reputation of the scheme that funded their research and/or the name of the company and university in which they worked.

c) ~~2.2.3~~ Developing sustainable joint doctoral degree structures (for EJD only)

- ✓ A key policy goal in this area is overcoming differences/fragmentation in doctoral training across Europe – bringing a degree of consistency, as described in the Erasmus Mundus Joint Doctorate Handbook (see EU policy box 5).
- ✓ The harmonisation of institutional processes involved in developing joint degrees will help to bring consistency to the doctoral experience across Europe.
- ✓ Explain how your EJD will help with developing the consistency of the doctoral experience – unified selection, recruitment, monitoring, awarding processes etc.
- ✓ Explain how you will continue the joint degree process in the consortium after the EJD is over.

d) 2.2.4 Strengthening European innovation capacity

- ✓ Explain how the research programme and the ESR's work (including dissemination/exploitation/communication/outreach activities) will contribute to Europe's economy and/or society.
- ✓ Explain how the research and training programme will help bringing ideas to market. The role of the participants from the non-academic sector in this respect should be described, either in terms of research commercialisation, training in entrepreneurship/tech transfer to the fellows, etc etc
- ✓ Expand on link to EU research/policy goals e.g. Horizon 2020 Societal Challenges or Industrial Leadership Pillar, Research Roadmaps, EU sectoral policies.[10]
- ✓ If your programme builds on an existing ITN, COST Action or other funded project, explain how it does so, making it very clear that you are proposing to go beyond the work already funded by those projects.
- ✓ Could your research contribute to the development of a new European Standard? If yes, describe this briefly here and explain the details in Section 2.3 under 'Exploitation'. See http://www.cencenelec.eu/research/Pages/default.aspx for details of European standardisation under Horizon 2020.
- ✓ Recall that ideally 35% of the H2020 budget will be spent on climate action and 60% on sustainable development. Can you make a realistic link to either or both of those areas? [11]

Common Section 2.2 Weaknesses in unfunded ITNs:

- Comments on how the proposed programme will structure doctoral/early stage research training in Europe are missing
- Potential synergies with other doctoral/research training programmes (at EU or national level) are not described
- The role of the non-academic sector in the training programme is limited, limiting the impact of the programme to structuring training at EU level.
- Comments on the lasting impact of the ITN (continuation after completion of the programme) are missing.
- The contribution of the non-academic sector to the doctoral training is not described in sufficient detail (especially for EID).
- No/weak description of how the cohort of ESRs trained via the programme will have potential to enhance Europe's innovation capacity.
- No/weak mention of how the research programme will impact on Europe's innovation capacity.
- The relationship to the basic science being proposed in the programme to the "real world" problems of the H2020 Societal Challenges is poorly justified (relevant to 1.1.1 too)

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[10] http://www.oecd.org/; https://ec.europa.eu/info/strategy_en
[11] http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/climate-sustainable-development_en.htm

EU Policy Box 9

✓ **Europe 2020 Flagship Initiative – Innovation Union**
http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=action-points

The Innovation Union, published October 2010, outlines over 30 action points with the aim to do three things:
1. make Europe into a world-class science performer;
2. remove obstacles to innovation – like expensive patenting, market fragmentation, slow standard-setting and skills shortages – which currently prevent ideas getting quickly to market; and
3. revolutionise the way public and private sectors work together, notably through Innovation Partnerships between the European institutions, national and regional authorities and business.

The 30 IU commitments are broken down into chapters:
1. Promoting excellence in education and skills development
2. Delivering the European Research Area
3. Focusing EU funding instruments on Innovation Union priorities
4. Promoting the European Institute of Innovation and Technology (EIT) as a model of innovation governance in Europe
5. Enhancing access to finance for innovative companies
6. Creating a single innovation market
7. Promoting openness and capitalising on Europe's creative potential
8. Spreading the benefits of innovation across the Union
9. Increasing social benefits
10. Pooling forces to achieve breakthroughs: European Innovation Partnerships
11. Leveraging our policies externally
12. Reforming research and innovation systems
13. Measuring Progress

It is clear that all commitments relevant to Horizon 2020 have been incorporated into the Horizon 2020 programme.
Specific IU Commitments which appear particularly relevant to ITN 2017:
- #1: By the end of 2011, Member States should have strategies in place to **train enough researchers** to meet their national R&D targets and to promote attractive employment conditions in public research institutions.
- #2: The Commission will also support business-academia collaborations through the creation of **"Knowledge Alliances" between education and business** to develop new curricula addressing innovation skills gaps (see also commitment 3 on e-skills). They will help universities to modernise towards **inter-disciplinarity, entrepreneurship and stronger business partnerships**.
- #7: The Commission will design future EU research and innovation programmes to ensure simple access and **stronger involvement of SMEs**, in particular those with a high growth potential.
- #20: The Commission will promote **open access** to the results of publicly funded research. It will aim to make open access to publications the general principle for projects funded by the EU research Framework Programmes. The Commission will also support the development of smart research information services that are fully searchable and allow results from research projects to be easily accessed

2.3 *Quality of the proposed measures to exploit and disseminate the results*

Note that the following section of the European Charter for Researchers refers specifically to dissemination - ensure that your plans align with these principles.

Dissemination, Exploitation of Results:

All researchers should ensure, in compliance with their contractual arrangements, that the results of their research are disseminated and exploited, e.g. communicated, transferred into other research settings or, if appropriate, commercialised. Senior researchers, in particular, are expected to take a lead in ensuring that research is fruitful and that results are either exploited commercially or made accessible to the public (or both) whenever the opportunity arises.

Before writing discuss with all beneficiaries about their own dissemination and exploitation channels/mechanisms.

Remember that Horizon 2020 is about bringing research "closer to the user", so activities in Section 2.3 and 2.4 must target a broader audience than just your peers in your own research area.

Guidance on Dissemination and Exploitation can be found at http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/dissemination-of-results_en.htm

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EU Policy Box 10

✓ **ERA Communication 2012**
http://ec.europa.eu/research/era/pdf/era-communication/era-communication_en.pdf
This document refocuses the European Research Area policy into five key priorities:
1. More effective national research systems
2. Optimal **transnational co-operation and competition** (On common research agendas, grand challenges and infrastructures)
3. An open labour market for researchers (Facilitating **mobility**, supporting **training** and ensuring **attractive careers**)
4. **Gender** equality and gender mainstreaming in research (Encouraging gender diversity to foster science excellence and relevance)
5. Optimal circulation and transfer of scientific knowledge (To guarantee access to and uptake of knowledge by all)

Point 5 is essentially about **open access** to research publications and research data and is particularly relevant to sections 2.3 (Dissemination & Exploitation) and 2.4 (Communication & Public Engagement) of the proposal. A commitment to open access on behalf of all participants in the ITN (after any necessary procedure to protect Intellectual Property) would be well received by the evaluators. Open access to publications (green or gold model) is acceptable, and open access to research data through the Open Research Data Pilot would be additive http://www.openaire.eu/en/open-access/open-access-in-h2020/h2020-oa-data

Required sub-headings:

- <u>2.3.1 Dissemination of the research results</u>
  - ✓ In Horizon 2020, **dissemination** is sharing research results with potential users - peers in the research field, industry, other commercial players and policymakers.
  - ✓ Describe in detail what activities you will organise and participate in to disseminate the research results to this audience.
    - ➢ For STEM, state in which target specialist journals the results be published in and how many articles each ESR will aim to produce. Be ambitious in defining the target journals (high impact factors!), but realistic.
    - ➢ For AHSS, define an ambitious set of publications and assign targets to each of those.
    - ➢ Describe which conferences the ESRs will attend or organise, present at, and how often.
    - ➢ Describe activities targeted to other potential users e.g. attending trade shows to engage with industry, organising workshops for clinicians in healthcare-related projects, workshops for NGOs, etc
    - ➢ If you will participate in the Horizon 2020 Open Data Pilot, describe the potential impact of sharing your research data openly. See http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-dissemination_en.htm for more details.
  - ✓ Remember that this is the Impact section. Describe the potential impact of disseminating to these audiences – it might be a different impact for each audience type.

- <u>2.3.2 Exploitation of results and intellectual property</u>
  - ✓ In Horizon 2020, **exploitation** is using results for commercial purposes or in public policymaking. There's a close link between dissemination and exploitation. Dissemination feeds into exploitation.
  - ✓ Depending on the type of research area, the research results might be useful to business, to policymakers/society or to both.
  - ✓ If the results are useful to business:
    - ➢ How have you decided to "allocate" IP in your consortium? The Model Grant Agreement outlines for the "MSCA rules" for IP. A simplified explanation is given in a short booklet offered by the IPR Helpdesk.[12]
    - ➢ Where relevant, remember that the results can and should be widely disseminated AFTER IP protection has taken place. Seek advice from your Technology Transfer Office on these matters.
    - ➢ Outline plans to exploit any IP/commercial potential arising from the programme. Briefly describe the role of any Technology Transfer Office or similar in helping you to commercialise the results.
    - ➢ Remember that this is the Impact section. Describe the potential impact of exploiting the commercial potential of the research results.
  - ✓ If the results are useful to policymakers/the wider society:
    - ➢ Outline what activities you will engage in to ensure that relevant policymakers/societal actors (community or voluntary sector) etc. will be informed about the research results. E.g. could you organise a special workshop or information event? For **health-related projects**, involvement of patient groups is becoming an unwritten requirement for successful projects, so please include them in your plans.
    - ➢ Remember that this is the Impact section. Describe the potential impact of disseminating the research results to this audience.

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[12] https://www.iprhelpdesk.eu/Fact-Sheet-IP-Management-in-H2020-MSCAs

2.4 Quality of the proposed measures to communicate the activities to different target audiences

Note that the following section of the European Charter for Researchers refers specifically to public engagement - ensure that your plans align with these principles.

Public Engagement

Researchers should ensure that their research activities are made known to society at large in such a way that they can be understood by non-specialists, thereby improving the public's understanding of science. Direct engagement with the public will help researchers to better understand public interest in priorities for science and technology and also the public's concerns.

Before writing discuss with all beneficiaries about their own communication and public engagement channels/mechanisms.

In Horizon 2020, Communication means promoting the programme and its results to multiple audiences (including the media and the public) in a strategic and effective manner. For more details see **http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/communication_en.htm**

Required sub-heading:
- 2.4.1 Communication and public engagement strategy
  - ✓ **Communication** is one-way from sender to receiver e.g. an article in a newspaper or on TV or radio.
    - ➢ Describe the activities the consortium will perform to ensure media coverage about the programme and its results e.g. press releases to newspapers, feature articles in magazines, articles on social media. Is there any potential to have the programme featured on local/national TV or radio in any of the countries in the consortium?
    - ➢ Explain who will help you with seeking media coverage e.g. Communications Office/Officer.
    - ➢ Remember that this is the Impact section. Describe the potential impact of getting media coverage of the activities of the programme.
  - ✓ **Public engagement** is meant to engage a large audience and/or two-way from sender to receiver, and to bring knowledge and expertise on a particular topic to the general public.
    - ➢ Describe what activities the consortium will perform to engage the **general public** about the activities of the ITN.
    - ➢ Plan a range of **face-to-face activities** (e.g. school visits, lab "open days", public talks, science festivals) targeted at multiple audiences.
    - ➢ Talk to experts at your institution. See what local/national activities you can join in e.g. Pint of Science,[13] SFI Discover and Science Week[14] European Researchers' Night.[15] Activities need to take place across the whole consortium, not just in Ireland, so ask your consortium

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[13] https://pintofscience.com/
[14] http://www.sfi.ie/engagement/science-week/
[15] https://ec.europa.eu/research/mariecurieactions/about/european-researchers-night_en

➢ If applicable, explain who will help you with public engagement activities e.g. Education/Outreach Officer.
➢ Remember that this is the Impact section. Describe the potential impact of engaging the public in the activities of the programme.

Concrete plans for sections 2.3 and 2.4 must be included in the corresponding implementation tables, i.e. in the details here must match that in the work package tables in Section 3.1.

Must Have! Include quantifiable targets for measuring the effectiveness of dissemination, exploitation, communication and public engagement activities

✓ Include targets in terms of n. of publications/year/ESR, n. of international conferences/year/ESR, etc, for all deliverables.

Common Section 2.3 & 2.4 Weaknesses in unfunded ITNs:
- Lack of detail on external communication/dissemination methods
- Poorly defined/lack of public engagement strategy
- Dissemination focuses on communicating with other researchers – there is no mention of other stakeholders such as e.g. policy makers, politicians, NGOs, private companies, public bodies
- Lack of dissemination/exploitation/communication/public engagement targets
- Lack of detail on the goals and potential impact of exploiting the results of the project for societal/economic benefits (including exploiting any IP)
- Dissemination/public engagement events are poorly timed and/or only occurring in the country of the Coordinator – all countries/participants must have a role

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3. Quality and Efficiency of the Implementation

3.1 Coherence and effectiveness of the work plan, *including appropriateness of the allocation of tasks and resources (including awarding of the doctoral degrees for EID and EJD projects)*

Required **sub-headings**:
- Work Packages description (please include table 3.1a);
  - ✓ Use Table 3.1a to describe the Work Packages (WPs)
  - ✓ Typical to include 3 -4 Research WPs (matching the description in Section 1.1)
  - ✓ Also include non-research Work Packages:
    - ○ Management WP
    - ○ Training WP
    - ○ Dissemination/Exploitation/Communication/Public Engagement WP
- List of major deliverables *(*please include table 3.1b*),* including the awarding of doctoral degrees, where applicable[18];
- List of major milestones (please include table 3.1c)
- Fellow's individual projects*, (*please include table 3.1d*);*
- Gantt Chart, including secondment plan (please use template below*)*[19].

Note - Due date: The schedule should indicate the **number of months** elapsed from the start of the project (Month 1).

Table 3.1 a — Description of Work Packages

WP Number		Start Month – End Month
WP Title	*(e.g. including Research, Training, Management, Communication and Dissemination…)*	
Lead Beneficiary		
Objectives		
Description of Work and Role of Specific Beneficiaries / Partner Organisations *(possibly broken down into tasks), indicating lead participant and role of other participants* *Description of Work: Break down each WP into several Tasks (3-6 is typical). Here you can provide details on the methodology that were not described in Section 1.1.* *Task 1* *Task 2* *Task 3* *Role: Use org short names from Participants Table to indicate which org(s) are responsible for each Task e.g. DCU, DLI* *Indicate timescales for the Tasks (in months elapsed from the start of the project) e.g. M6, M12* *Ensure everything matches the details given elsewhere in the application (esp. the Gantt chart)*		
Description of Deliverables *(brief description and month of delivery)*		

Table 3.1 b — Deliverables List

A **deliverable** is a distinct output of the project, meaningful in terms of the project's overall objectives and constituted by **a journal publication, a report, a document, a technical diagram, a software, training content, conference proceedings, etc**. These should be divided into scientific deliverables and management, training, recruitment and dissemination deliverables. Scientific deliverables have technical/scientific content specific to the action. The number of deliverables in a given Work Package must be reasonable and commensurate with the Work Package content. Note that during implementation, the submission of these deliverables to the REA will be a contractual obligation.

Keep the number of Deliverables to a minimum. Remember you will have to actually deliver each Deliverable if the project is funded and implemented, and too many Deliverables will make the admin workload very high. **Deliverables would be submitted to the REA Project Officer in PDF format**, so ensure that it would be feasible to package your Deliverables in this way.

Example
A poor-quality Deliverable would be: Dx.x Dissemination and Communication Activities (Month 8-Month 44). This Deliverable is poor because a) it is not clear that this could be feasibly packaged in PDF format for submission to the Project Officer and b) it has a broad range of delivery dates, making it impossible to discern when it will actually be delivered – at M8 or M44 or monthly between M8 and M44?

A high-quality Deliverable would be: Dx.x Report on Dissemination and Communication Activities (Month 20, Month 46). This is clearly feasible to send to the Project Officer in PDF format and has two fixed delivery dates at regular intervals during the project lifetime.

Scientific Deliverables						
Deliverable Number[20]	Deliverable Title	WP No.	Lead Beneficiary Short Name	Type[21]	Dissemination Level[22]	Due Date
Use the convention Dx.y where x is the Work Package number and y is the deliverable number, e.g. D1.2						
Management, Training, Recruitment[23] and Dissemination Deliverables						
Deliverable Number	Deliverable Title	WP No.	Lead Beneficiary Short Name	Type	Dissemination Level	Due Date

Table 3.1 c   Milestones List

Milestones are control points in the project that help to chart progress. Milestones may correspond to the completion of a key deliverable, allowing the next phase of the work to begin. They may also be needed at intermediary points so that, if problems have arisen, corrective measures can be taken. A milestone may be a critical decision point in the project where, for example, the consortium must decide which of several technologies to adopt for further development.

Milestones are major checkpoints for measuring progress e.g. all ESRs recruited, completion of training programme, delivery of doctoral degrees, organization of a conference. Also must have some research milestones – major points in the work which need to be reached before further progress can be made.

Tip: You should have more Deliverables than Milestones. 6 or 8 Milestones covering major achievements in the lifetime of the project is sufficient.

Number	Title	Related Work Package(s)	Lead Beneficiary	Due Date [24]	Means of Verification[25]
Use the convention Mx.y where x is the Work Package number and y is the deliverable number, e.g. M1.2					

Table 3.1 d Individual Research Projects

If applicable and relevant, linkages between the individual research projects and the work packages should be summarised here (one table /fellow).

Fellow (e.g. ESR1)	Host institution	PhD enrolment (Y/N)	Start date (e.g. Month 6)	Duration (e.g. 36 months)	Deliverables (refer to numbers in table 3.1b)
Project Title and Work Package(s) to which it is related:					
Objectives:					
Expected Results:					
Planned secondment(s): *Host, supervisor, timing, length and purpose* Provide **precise** details here.					
Enrolment in Doctoral degree(s): **EJD specific:** institutions where the ESR will be enrolled to obtain a joint/double or multiple doctoral degree should be included **EID specific:** institution where the ESR will be enrolled to obtain a doctoral degree should be included **ETN if applicable:** institution where the ESR will be enrolled to obtain a doctoral degree should be included					

Common Section 3.1 Weaknesses in unfunded ITNs:
- WPs are only about research, with no WPs for management, dissemination/communication, training etc.
- The content of the WPs is poorly described (lack of detail on methodology)
- The descriptions of the Individual ESR projects (all or some of them) are lacking in detail – cannot understand precisely what they will do
- Details of secondments are unclear
- Deliverables are poorly defined and do not provide an effective means for monitoring the outputs of the programme
- Project is poorly timed, with some deliverables occurring too late or too early in the process
- Milestones for assessing the quality of the Individual Research Projects are missing (related to quality management)
- Coordinator leading too many WPs (capacity issue)

3.2 Appropriateness of the management structures and procedures, including quality management and risk management (with a mandatory joint governing structure for EID and EJD projects)

Quote from Erasmus Mundus Handbook of Excellence – Doctoral Programmes:*"We ensure our participants can work together to provide coherent and comprehensive support for our programme in the areas of management, finance and administrative support. We will formalise the partnership through a Consortium Agreement, and understand how we will deal with IPR issues. ESRs will be provided with an employment contract. When all is in place, we will market the programme professionally."*

Coherent management is the aim here. **Consult Chapter 4 of the EMJD document to assist with writing Section 3.2 (See Policy Box 5).**

Required sub-headings:

- <u>Network organisation and management structure</u>, including financial management strategy, strategy for dealing with scientific misconduct

    ✓ Manage the programme via a series of **gender-balanced** committees:
    ✓ Essential! **Supervisory Board**. All beneficiaries and POs represented, plus at least one ESR representative (consider rotating representation among all ESRs). Main decision-making body.
    ✓ Suggested Management Structure (can be simpler for a smaller project such as a two-beneficiary EID):
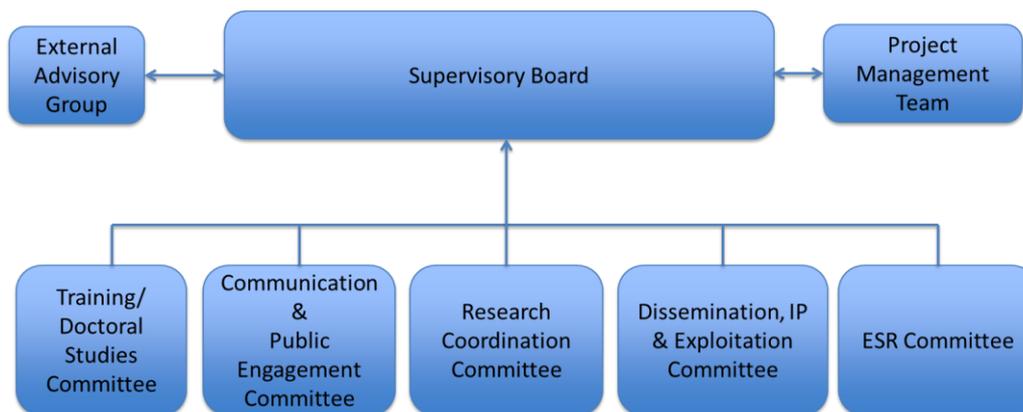
    ✓ Describe each Committee (composition and role). Gender balance is very important (no more than 40% of either gender on each).
    ✓ Explain decision making processes (e.g. majority rules) and conflict resolution strategy.
    ✓ Describe the use of the Consortium Agreement and what that will cover – a good sample specifically for MSCA is available from the LERU website.[26]
    ✓ Describe the financial management strategy – resource planning and allocation of finances. Ensure it is clear that the financial resources are allocated transparently and efficiently across the consortium so that the money is linked to the delivery of the programme.
    ✓ Where doctoral degrees in participating organisations require 4 years, if possible, do state where you will find the additional funds for the additional year: evaluators are specifically instructed by REA to reward this proactivity with extra points, and to not penalise proposals who don't.
    ✓ Strategy for dealing with Scientific Misconduct. What would you do if an ESR accused another of Falsification, Fabrication or Plagiarism? What processes are in place in the participants to deal with misconduct? State that the consortium will abide by the European Code of Conduct for Research Integrity.[16] **Note: do not overstress the likelihood of this risk by including it in the risk table.**

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[16] http://www.allea.org/wp-content/uploads/2017/03/ALLEA-European-Code-of-Conduct-for-Research-Integrity-2017-1.pdf

- ✓ Describe the internal communications strategy to keep the consortium and the ESRs in regular contact e.g. intranet or other document repository, regular face-to-face and/or virtual meetings.
- <u>Joint governing structure</u> (mandatory for EID and EJD projects)
  - Describe the structures that will be put in place to oversee the doctoral programme and ensure quality control, making sure that the various administrative units across the participants with responsibility for doctoral programmes are working in a coherent and coordinated manner.
  - The Doctoral Studies Committee in the management structure could include a representative from the Graduate Studies Office or equivalent.
  - One issue to specifically address is that of mutual recognition – it is important that research training done at participant A is recognised by participant B for the purposes of earning a doctoral degree.
- For EJD, <u>joint admission, selection, supervision, monitoring and assessment procedures</u>
  - Admission, Selection, Supervision, Monitoring & Assessment should be coherent across the consortium. As far as possible, the same procedures should be applied to each ESR.
  - For example, in terms of monitoring, University A requires a yearly report, University B requires a quarterly report. Will the ESR have to do both?
  - For example, in terms of assessment: University A does a closed viva voce, University B does an open thesis defence. For a joint/multiple degree, will the ESR have to do both?
- <u>Supervisory board</u> – move this up to the sub-heading on Network Organisation and Management Structure.
- <u>Recruitment strategy</u>

The following sections of the European Code of Conduct for the Recruitment of Researchers refer specifically to recruitment and selection - ensure your plans align with these principles:

Recruitment

Employers and/or funders should establish recruitment procedures which are open, efficient, transparent, supportive and internationally comparable, as well as tailored to the type of positions advertised.

Advertisements should give a broad description of knowledge and competencies required, and should not be so specialised as to discourage suitable applicants. Employers should include a description of the working conditions and entitlements, including career development prospects. Moreover, the time allowed between the advertisement of the vacancy or the call for applications and the deadline for reply should be realistic.

Selection
Selection committees should bring together diverse expertise and competences and should have an adequate gender balance and, where appropriate and feasible, include members from different sectors (academic and non-academic, and disciplines, including from other countries and with relevant experience to assess the candidate. Whenever possible, a wide range of selection practices should be used, such as external expert assessment and face-to-face interviews. Members of selection panels should be adequately trained.

- Centralised recruitment is best. Describe the application process, applicant requirements, composition of selection committees, decision making/selection process. Use EURAXESS Jobs to advertise. Explain employment conditions (employment contracts with full social security benefits are mandatory unless prevented by national legislation).
- <u>Progress monitoring and evaluation of individual projects</u>
  - Individual Projects: Link back to 1.3 Supervision, particularly on monitoring of Personal Career Development Plans. Focus on timings and structures here (individual SCs feedback back into oversight committee – Training/Doctoral Studies Committee in the suggested management structure above).
  - Address the issue of overall quality assurance – will there be external review/monitoring of the ITN by an independent panel/external advisory group?

- Risk management at consortium level (including table 3.2a)
  - Include a list incorporating research risks and project management risks. Describe practical mitigation and contingency plans for both.

Table 3.2a Implementation Risks

Risk No.	Description of Risk	WP Number	Proposed mitigation measures	Contingency Measures
R1	e.g. Delay in recruitment	WP x		

- Intellectual Property Rights (IPR)
  - Describe how the rules for IP across the consortium will be set down in the Consortium Agreement. Explain how you will monitor the creation of any IP, how you will exploit it and who in your institution will help with this e.g. Technology Transfer Office. Adhere to the IP rules in the MSCA Grant Agreement – summarized in a booklet from the IPR helpdesk.[14]

- Gender aspects (both at the level of recruitment and that of decision-making within the project)
  - Describe how you will recruit a gender balanced mix of ESRs e.g. targeted advertising to women-in-science groups (name any relevant to your research area, e.g. IEEE Women in Engineering, plus multi-disciplinary groups such as the European Platform of Women Scientists), more proactive measures such as adding gender as a ranking criterion in the selection process, etc
  - Describe how your management committees are gender balanced. Useful statistics on gender proportions across different research areas can be found at http://eige.europa.eu/gender-statistics/dgs/browse/ta .

- Data management plan (*see page 22 of GFA regarding Open Access and Open Data under Horizon 2020)*
  - From page 22 of the Guide for Applicants:
    "Open Data: beneficiaries will engage in research data sharing by default, as stipulated under Article 29.3 of the Horizon 2020 Model Grant Agreement (including the creation of a Data Management Plan). Participants may, however, opt out of these arrangements, both before and after the signature of the grant agreement. Note that information related to Open Research Data provided in the proposal will not be subject to evaluation. In other words, proposals will not be evaluated negatively because they opt-out of the data sharing."
  - Concise information on the Data Management Plan and the Open Research Data pilot can be found in the Horizon 2020 Online Manual.[28]
  - Describe who will be responsible for preparing and maintaining the Data Management Plan – be sure to add the DMP as a Deliverable in Section 3.2

3.3   Appropriateness of the infrastructure of the participating organisations

Explain the appropriateness of the infrastructure of each participating organisation, as outlined in Section 5 (Participating Organisations), in light of the tasks allocated to them in the project.

> The aim here is to explain who is doing what, and show that they have the necessary infrastructure to do it.
> - Section 5 will include a Capacities Table for each participant.
> - This section should complement Sec. 5 not duplicate it.
> - Describe how the consortium has the necessary infrastructure (research and administrative) to implement all aspects of the programme (research, training. admin, communications, exploitation etc.).
> - Describe how the consortium provides an excellent environment for hosting and supporting the ESRs, including assisting the ESRs with settling into their new countries and research environments. Specify the use of EURAXESS Services for relocation assistance.
> - Have the organisations endorsed the Charter & Code – if yes, say so! List at http://ec.europa.eu/euraxess/index.cfm/rights/charterAndCode
> - Have the organisations earned the "HR Excellence in Research" logo? If yes, say so and include the logo in the Capacities Table! List at http://ec.europa.eu/euraxess/index.cfm/rights/strategy4ResearcherOrgs

3.4   Competences, experience and complementarity of the participating organisations and their commitment to the programme

Required sub-headings:

- ✓ <u>Consortium composition and exploitation of participating organisations' complementarities</u>: explain the compatibility and coherence between the tasks attributed to each beneficiary/partner organisation in the action, including in light of their experience;

- Explain how the consortium are the best people to implement this programme including:
- Complementarities/synergies between all participants and how these will be exploited to deliver an excellent programme (use a diagram or table).
- How their previous experience makes them suitable for their tasks here.

✓ <u>Commitment of beneficiaries and partner organisations to the programme</u> (for partner organisations, please see also sections 5 and 7).

- Outline the commitment of each participant by showing that they are all highly active in the project – refer to earlier sections.
- Critical to highlight strong non-academic sector involvement.

i) Funding of non-associated third countries (if applicable): Only entities from EU Member States, from Horizon 2020 Associated Countries or from countries listed in Annex A of the Work Programme are automatically eligible for EU funding. If one or more of the beneficiaries requesting EU funding is based in a country that is not automatically eligible for such funding, the application shall explain in terms of the objectives of the why such funding would be essential. Only in exceptional cases will these organisations receive EU funding.[29]
The same applies for **international organisations** other than IEIO.

We do not recommend including countries not automatically eligible for Horizon 2020 funding as beneficiaries. It is rare that the evaluators will agree that funding is essential (happened only twice during FP7). Organisations from these countries can be included as Partner Organisations instead.

ii) Partner organisations: The role of partner organisations and their active contribution to the research and training activities should be described. A letter of commitment shall also be provided in section 7 (included within the PDF file, but outside the page limit).
- Ensure that the content of the Letter of Commitment matches precisely their stated tasks in the programme.

Common Section 3.4 Weaknesses in unfunded ITNs:
- The complementarity between the capabilities of the organisations (in light of their tasks in the programme) has not been made clear.
- Inconsistencies between the stated role of Partner Organisations in the proposal, and the content of their Letter of Commitment.

STOP PAGE COUNT – MAX 30 PAGES (SECTIONS 1-3)

DOCUMENT 2 (*no overall page limit applied*)

4.   Gantt Chart

Modify this chart if you need to – note that month 33 is missing from the chart

Reflecting ESR recruitments, secondments, training events, management and dissemination / public engagement activities

Gantt chart covering Months 1–48 (Month 33 omitted).

Researcher Recruitment
- ESR 1: recruitment bar begins around Month 4 and runs to ~Month 40; Secondments (S) at Months 13, 14, 15, 16, 17, 18.
- ESR 2: recruitment bar from ~Month 5 to ~Month 41.
- ESR 3: recruitment bar from ~Month 3; Secondments (S) at Months 8, 9, 10; S at Month 23; S, S, S at Months 37, 38, 39.
- ESR 4: recruitment bar from ~Month 4.
- ESR 5: recruitment bar from ~Month 5; Secondments (S) at Months 14, 15, 16; S, S, S at Months 37, 38, 39.
- ESR 6: recruitment bar from ~Month 12; Secondments (S) at Months 24, 25, 26, 27, 28; S at Month 38.
- Etc.

Training
- Workshop (green): Months 13, 20, 38.
- Conference (purple): Months 28, 47.
- Visiting Scientist (V, orange): Months 20, 38.
- Other.

Management
- Continuous black bar across Months 1–48.
- Meetings: K at Month 4; 1 at Month 13; 2 at Month 20; 3 at Month 29; 4 at Month 40; E at Month 48.

Dissem. / Public engagement
- Dissem. (blue): Months 25, 26, 27, 28 and Months 44, 45, 46.
- Public Engagement (green): Month 26 and Month 48.

S = Secondment[30]
K = Kick-off meeting
E = End of project

5. Participating Organisations

All organisations (whether beneficiaries or partner organisations) must complete the appropriate table below. Complete one table of <u>maximum one page per beneficiary</u> and <u>half a page per partner organisation</u> (minimum font size: 9).

For **beneficiaries**:

Beneficiary Legal Name:	
General Description Include HR Excellence in Research and/or Athena SWAN logo here if applicable	Add a general description of the beneficiary and a short description of the actual centre/department/school participating in the action.
Role and Commitment of key persons (including supervisors)	*Including names, title and the intended extent of involvement – in the action- <u>percentage of full-time employment</u> - of the key scientific staff who will be involved in the research, training and supervision*
Key Research Facilities, Infrastructure and Equipment	*Outline the key facilities and infrastructure available and demonstrate that each team has sufficient capacity to host and/or offer a suitable environment for supervising the research and training of the recruited Early-Stage Researchers*
Status of Research premises	*Please explain the status of the beneficiary's research facilities – i.e. are they owned by the beneficiary or rented by it? Are its research premises wholly independent from other beneficiaries and/or partner organisations in the consortium?* This is relevant to academic spinouts –the company premises should not be the academic laboratory and should not be rented, i.e. they should be independent premises, or the Operational Capacity criterion might not be met
Previous Involvement in Research and Training Programmes	*Detail any relevant EU, national or international research and training actions/projects in which the beneficiary has previously participated*
Current Involvement in Research and Training Programmes	*Detail any relevant EU, national or international research and training actions/projects in which the beneficiary is currently participating*
Relevant Publications and/or Research / Innovation Product	*Max. 5*

For **partner organisations:**

Partner Organisation Legal Name:	
General description	
Key Persons and Expertise	
Key Research Facilities, Infrastructure and Equipment	Please be sure to list all facilities that will be needed by ESRs on secondment at this organisation.
Previous and Current Involvement in Research and Training Programmes	Detail any relevant EU, national or international research and training projects in which the partner is currently participating. Internal research projects (not funded by external sources) can also be included here. Do not leave this blank – it will be penalised.
Relevant Publications and/or Research / Innovation Product	*Max. 3* Do not leave this blank. It could be publications, patents, policy interventions, trade secrets, new products (including software) or processes,…..

6.   Ethics Issues

All research activities in Horizon 2020 must respect fundamental ethics principles, including those reflected in the Charter of Fundamental Rights of the European Union.[31] These principles include the need to ensure the freedom of research and the need to protect the physical and moral integrity of individuals and the welfare of animals.

Research ethics is of crucial importance for all scientific domains. Informed consent and confidentiality are as important for a sociological study as they are for clinical research.

All proposals considered for funding will be submitted to an Ethics Review. The Ethics Review is the core of the H2020 Ethics Appraisal scheme, which concerns all proposals and projects, and also includes the Ethics Checks and Ethics Audit that can be initiated during the project implementation.

In this context, please be aware that it is the applicants' responsibility to identify any potential ethical issues, to handle the ethical aspects of their proposal, and to detail how they plan to address them.

If any ethics issues have been entered in the ethical issues checklist in Part A of the proposal, then an ethics self-assessment must be included in this section. For more details, please refer to the "H2020 How to complete your Ethics Self-Assessment" guide.[32]

The self-assessment in this section must:

1) Describe how the proposal meets the national legal and ethics requirements of the country or countries where the tasks raising ethical issues are to be carried out.

Should the proposal be selected for funding, applicants will be required to provide the following documents, if they are already in their possession:

- The ethics committee opinion required under national law
- The document that is mandatory under national law notifying activities raising ethics issues or authorising such activities

2) Explain in detail in the ethics issues table how the consortium intends to address the issues, in particular as regards:

- Research **objectives** (e.g. study of vulnerable populations, dual use, etc.)
- Research **methodology** (e.g. clinical trials, involvement of children and related consent procedures, protection of any data collected, etc.)
- The potential **impact** of the research (e.g. dual use issues, environmental damage, stigmatisation of particular social groups, political or financial retaliation, benefit-sharing, malevolent use, etc.).

7.   Letters of Commitment

Please use this section to insert scanned copies of the required **Letters of Commitment from partner organisations**. These should be on headed paper and signed in order to demonstrate the credibility of the organisation's commitment to the ITN.

You should not include Letters of Commitment from beneficiaries. The exception to this rule is for EJD applications – see below.

Ensure that the content of the Letter of Commitment from Partner Organisations matches precisely their stated tasks in the programme.

For EJD, Letters of Institutional Commitment must also be included from those academic beneficiaries that will award the doctoral degrees. These letters should be signed by an authorised legal representative of the organisation in question so as to offer reasonable assurance regarding the commitment to award the joint, double or multiple doctoral degree(s). A template for these letters is provided and must be followed by all academic EJD applicants awarding the doctoral degree(s) (please see Annex 6)

Ensure that these Letters of Commitments are signed off by the person authorised to commit the organisation to the joint/double degree. This is typically the Dean of Graduate Studies or equivalent, not the Vice President/Dean of Research.

END PAGE

MARIE SKŁODOWSKA-CURIE ACTIONS

Innovative Training Networks (ITN)
Call: H2020-MSCA-ITN-2017

PART B

"PROPOSAL ACRONYM"

This proposal is to be evaluated as:

[ETN] [EID] [EJD]
[delete as appropriate]

D. Step-by-step proposal submission on the Participant Portal

1. Selecting the Topic MSCA-ITN-2018

To begin the submission process, go the Participant Portal homepage. To select the topic follow these steps:

Step 1. Log into the Participant Portal
Step 2. Select the tab 'Funding Opportunities'

Step 3. Click 'Search Topics' as shown in the image below:

Step 4. Search directly for the Topic MSCA-ITN-2018.
- You can filter your results by selecting the programme H2020.
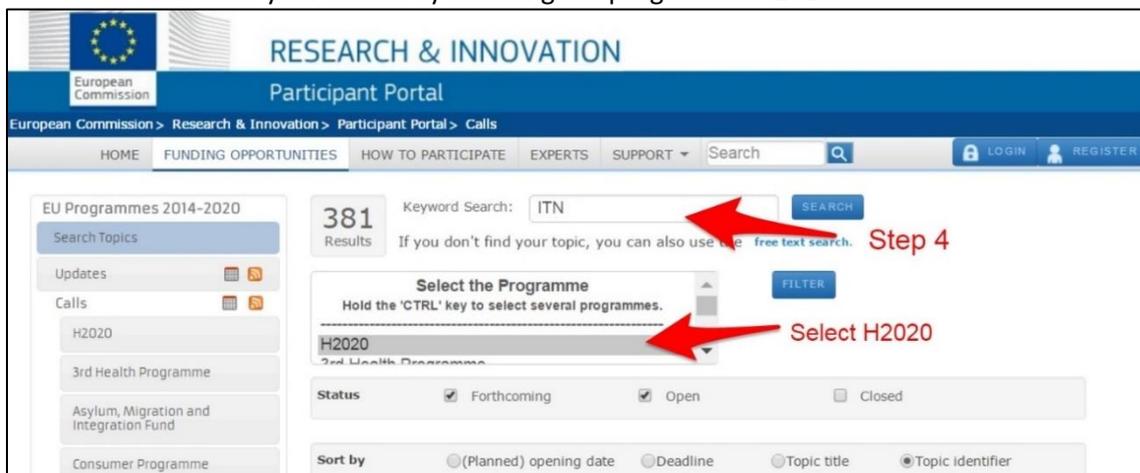
Step 5. Select the Topic MSCA-ITN-2018: Innovative Training Networks.

When you select the topic MSCA-ITN-2018: Innovative Training Networks you will land on the page the official page for the topic MSCA-ITN-2018.

The topic page contains the following information:

- **Topic Description** gives an overview of the call
- **Topic Conditions and documents** provide further documents that relate to this call such as the Guide for Applicants and Frequently Asked Questions.
- The **Submission Service** section on the topic page allows you to access the Electronic Submission Service:

Step 6. Select the Type of ITN

On the Innovative Training Network topic page, go to the **Submission Service** section. Click **Start Submission** on the type of action you will be submitting:

- European Industrial Doctorates [MSCA-ITN-EID]
- European Joint Doctorates [MSCA-ITN-EJD]
- Training Networks [MSCA-ITN-ETN]

2. Create a Draft on the Online Submission Service

Once you are on the Online Submission Service it should look like the following:

Step 1. Enter your organisation's PIC
Entering the PIC will automatically populate the name field and highlight the address:

If you do not have the full PIC number, you can search by name:

Step 2. Indicate your role in the proposal

The Proposal Coordinator organisation should select the top-level role (Main contact) for during the initial proposal draft creation.

Step 4. Fill in the Acronym field
Step 5. Fill in the Summary field
Step 6. Select one of the 8 scientific panels

- The applicant chooses the panel to which the proposal will be associated at the proposal stage (using the field "Scientific Panel" in section 1 of the proposal submission forms) and this should be considered as the core discipline. Additional descriptors are used to define the other disciplines that may be involved.
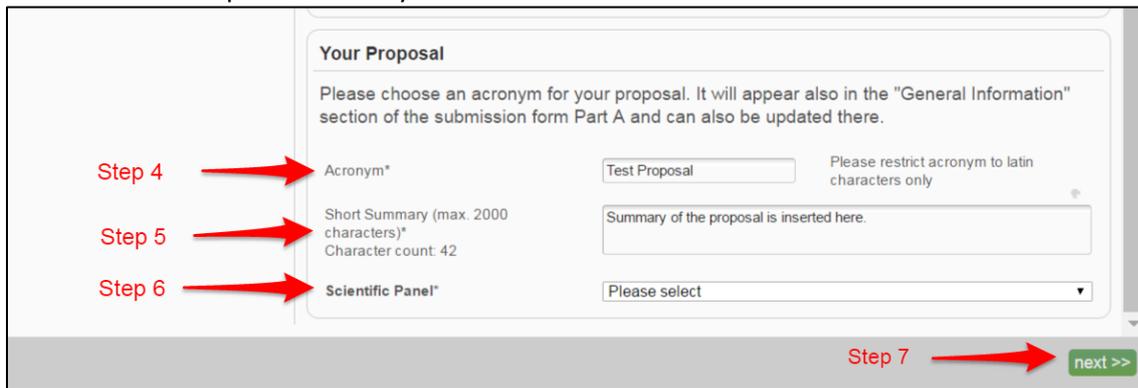
Step 7. Click Next

This will bring you to the next stage of adding the participating organisations.

*Note: When you add your organisation, the LEAR person in your organisation is informed about the involvement of their organization. You as the person who added the organisation will see this warning message. Click OK to this message:
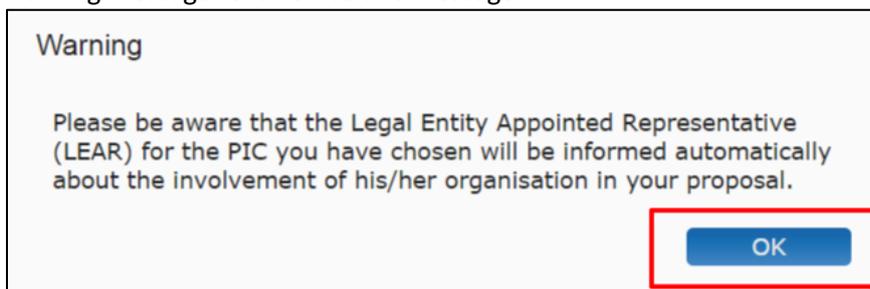
Step 7. Disclaimer

You will be presented with the following Disclaimer – click to accept it and proceed, or to decline it and cancel the proposal submission:

Submission and Evaluation of Proposals Assent Disclaimer

Please read and accept this disclaimer to proceed with the creation of your draft proposal:

Proposal pre-registration data

1. In order to plan the evaluations, the Commission services need access to a limited amount of information about your draft proposal (the so called pre-registration data) prior to call deadline. The pre-registration data is limited to: call, topic, type of action, Participant Identification (PIC) code of the participating organisation(s), project acronym, short summary and - where applicable - panel and keywords. **Neither the Part B nor any annexe(s) form part of the pre-registration data that can be accessed by the European Commission services before the call deadline.**
2. You do not have to list sensitive/confidential information in the 'Short Summary' (entered on Step 3). Where relevant, sensitive/confidential information can be added to the 'Abstract' field in the Part A administrative form at a later stage in the submission process; this Abstract is not included in the pre-registration data. Therefore, please provide as the 'short summary' the relevant information (keywords, non-confidential information) for the planning of the evaluation.

○ *I agree that the pre-registration data becomes available to the European Commission services prior to call closure.*
○ *I wish that the pre-registration data does not become available to the European Commission services prior to call closure. (Applicants are advised to use this option only in well justified cases, as it hinders the planning of the evaluation process and the timely processing of proposals).*

Part B

3. **File format:** For the Technical Annex (part B) you must use exclusively PDF ("portable document format", compatible with Adobe Acrobat version 5 or higher, with embedded fonts). Annexes might have an obligatory page limit. Please check for the number and type of mandatory or optional annexes for the call in the relevant call documentation. Annexes with excess pages where page limit applies, will receive a watermark upon upload to the system. Users will receive a warning when trying to submit an annex with excess pages.
4. **Time constraints:** Preparation and uploading of the PDF formatted technical annex may take some time. You should ensure that this has been completed in time, well before the call closure deadline.

Submission

5. Proposals must be submitted prior to the call closure deadline. Likewise, modifications to proposals or uploaded attachments are also required to be submitted prior to the call closure deadline or they will not be taken into account. Proposals may be submitted or withdrawn at any time prior to the call closure deadline. There is only ever one version of a submitted proposal, as submission over-writes the previous version.

Personal Data

6. We will process personal data in accordance with Regulation No 45/2001 and according to the "notifications of the processing operations" to the Data Protection Officer (DPO) of the Commission/Agency (publicly accessible in the DPO register). Read more on the Legal Notice of the Participant Portal.
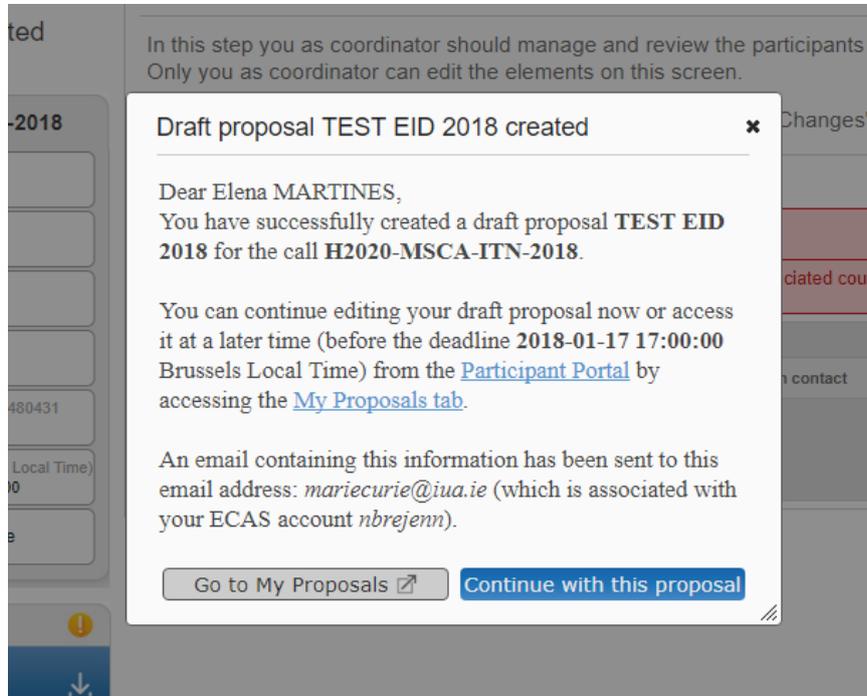
Step 7 ⟶ [accept]   [decline]

Step 8. Confirmation of draft proposal

- The following message below confirms that your draft proposal has been created. You will also receive a confirmation email.
- To postpone this action for a later time and return to your list of proposals in the participant portal, click 'Go to My Proposals'

3. Adding Beneficiaries' Details

The next stage of the Online Submission will be to add the various beneficiaries (termed "Participants" in the online system) involved in the proposal. After you complete the first section 'Create Draft' you should now be on the next section called 'Parties':
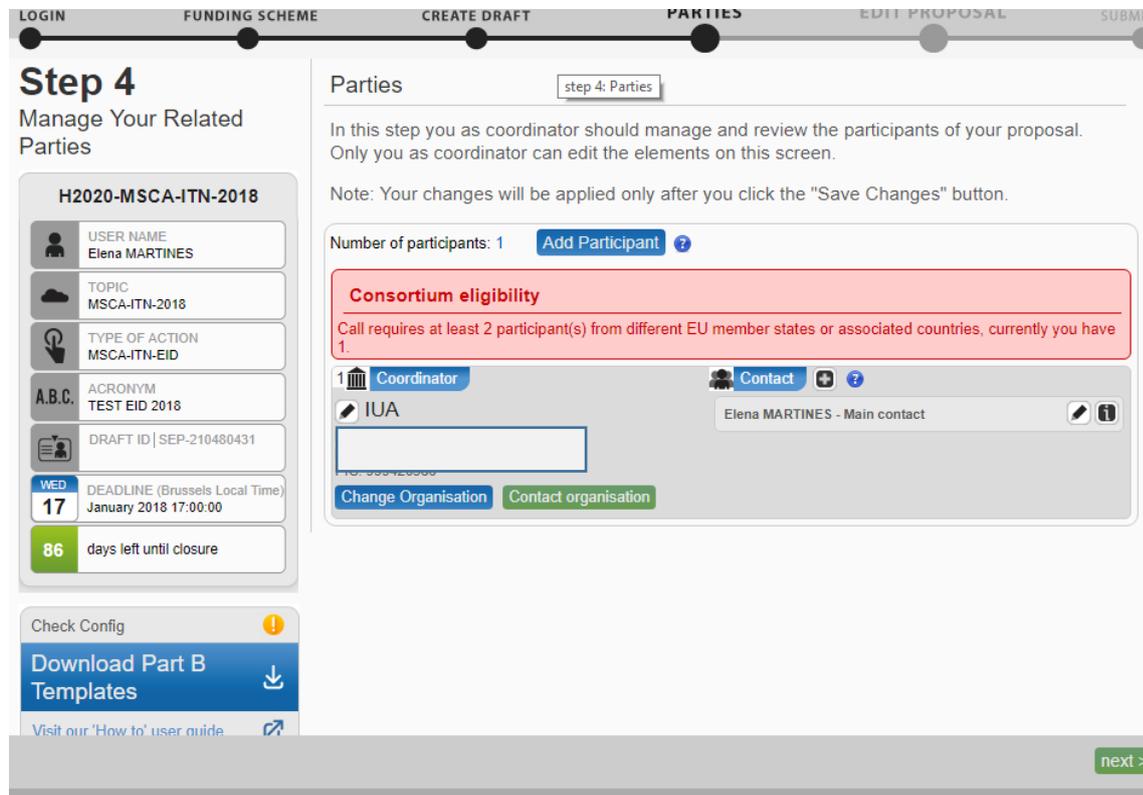
- In the image above there is a red sign which will be presented if you don't have the correct beneficiary requirements relating to ETN, EID or EJD as shown in the image above.
- In the example above of an EID proposal, it has highlighted that there needs to be at least 2 participants (beneficiaries) from different sectors.
- *Note: Beneficiaries can also come from Associated Countries or Third Countries listed in General Annex A to the Work Programme.*

- Each type of ITN has have different beneficiary requirements which are as follows:

Minimum Number of Participating Organisations			
Network Status	ETN	EID	EJD
Beneficiary	3	2 1 academic; 1 non-academic[6]	3 doctoral degree-awarding
Partner	No minimum	No minimum	No minimum

[6] Should none of the academic beneficiaries be entitled to award a doctoral degree, a university entitled to award a doctoral degree must be associated to the action as a partner organisation.

Image from ITN Guide for Applicants 2018

CONTACT PERSON - A Proposal Coordinator or a Partner may decide to delegate some of the work involved in filling in or reviewing parts of the proposal submission forms to one or more additional Contact Persons. You can grant each Contact Person full access rights or read-only access to the forms data. A Contact Person will only be entitled to edit/view the parts of the proposal that his/her organisation is responsible for.

- You can add another contact within your organisation that can have access to your proposal as well as the main contact. By selecting the 'Access rights' tab you can allow the contact to have full access to the proposal or read only:
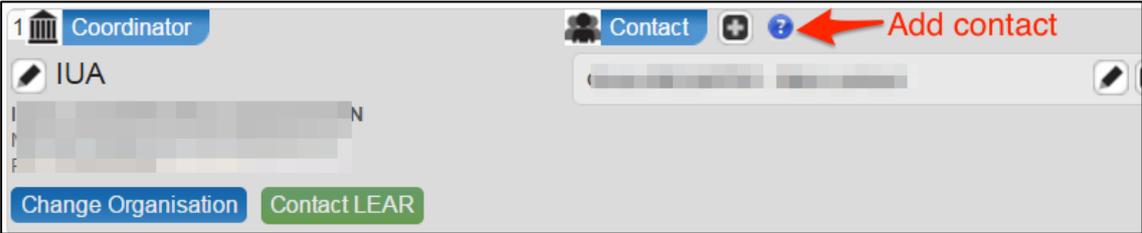
The following steps will go through how to add the other beneficiaries:

Step 1. Add Participants (i.e. Beneficiaries)

- Click the tab 'Add Participants'.
- A reminder that Participants here refers to the beneficiaries in your consortium.
- You can search for the beneficiary organisations as seen in the image below.
- **Note: Do not add details of Partner Organisations at this stage. Their details are only added in the Part A Administrative Forms (Section 5)**
- The following window will appear:
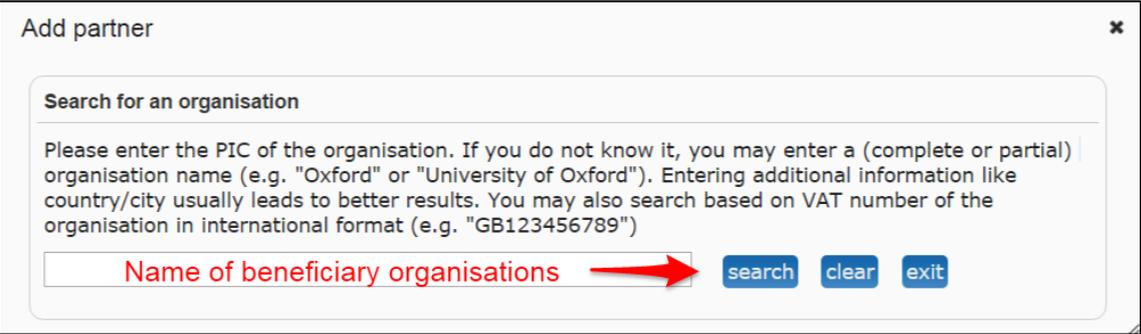
Step 2. Select your beneficiary organisation

- Click the 'use' button as seen in the image below. This will make the Add Contact window appear.

Step 3. Fill in the Add contact window

- Select the appropriate role for the beneficiary. <u>Ensure each beneficiary has a main contact.</u>
- If the contact person does not have an ECAS account yet, the system will use the email provided for that contact to send them an invitation and grant ECAS access.
- Select the access rights of this beneficiary. The can have full access or read only access.
- If you need more information here select the question mark in the window.
- Fill the name of contact details of the user.

Once you add the organisation you can perform the following actions:

- ❖ Delete participant
- ❖ Partner information
- ❖ Edit existing contact
- ❖ Delete existing contact
- ❖ Contact information
- ❖ Change organisation
- ❖ Contact LEAR

- The system will automatically generate emails to all the beneficiary contacts. The emails include all relevant information and links to access the proposal. The Access rights granted to each beneficiary contact will determine the level of access that the contact will have.

*Note: The Proposal Submission System checks automatically if the first and last names of the contact match the name details of the user currently logged in the active ECAS session. Adding a contact with a name that does not match the user name registered in ECAS will give you a warning message. The mismatching name details will then be circled in red colour. If you receive such a message, it probably means that the information provided does not match the information registered in the ECAS account.

4. Edit Proposal Forms

The next section on the Online Submission is the 'Edit Proposal' section. This is where you fill out the forms required. The following table includes all the information required in each form. The next sections will go through how to edit Part A and Part B forms.

Table: *Forms for Submission*

Form	Information
Part A forms (Administrative forms)	- Section 1: General information about the proposal Section 2: Data on participating organisations - Section 3: Budget (request for funding in terms of person-months) - Section 4: Ethics table - Section 5: Information on Partner Organisations
Part B (Proposal)	Part B Document 1 - Section 1-3 Part B Document 2 - Section 4-7

Step 1. Go to My Proposal(s) page on the Participant Portal.

- Click on or, to access a previously saved draft proposal form, go to the MY AREA > My Proposal(s) page in the Participant Portal (you must be logged in).
- Click on the "ED" button to access the draft as shown in the image below:

Step 2. Select the edit draft button

This will bring you onto the 'Edit Proposal' section of the Online Submission where you can edit the administrative forms (Part A)and upload Part B Document 1 and Document 2:

A. Part A (Administrative) Forms

In Part A applicants will be asked for certain administrative details that will be used in the evaluation and further processing of their proposal. Part A constitutes an integral part of the proposal. The proposal coordinator has the rights to edit all sections of the administrative form, participants can only update their relevant sections - including the budget form.

Step 1. Edit Forms to access the Part A forms

- Click on "edit forms" to access the Part A forms which will open in Adobe Acrobat

The administrative form (Part A) requires Adobe plug-in support.

- If you have a browser/OS combination which offers an Adobe Acrobat browser plug-in, then the forms will open within this browser session
- As can be seen in the image below, If your browser/OS does not support a plug-in then the forms will open in a separate Adobe Acrobat window.
- In order to be accessible offline, the form must be downloaded, edited and saved within 2 hours. This can be repeated multiple times.
- If you continue using the offline form you will get the following message if your Adobe Reader needs an update:

Adobe plug-in not configured correctly

Adobe plug-in is not installed or not correctly configured on your computer.
The administrative form (Part A) requires Adobe plug-in support.
You can configure your Adobe plug-in or use the offline version of the administrative form.

In order to be accessible offline, the form must be downloaded, edited and saved within 2 hours. This can be repeated multiple times.
To find out how to use the offline version of the form, please read the 'IT How to' User guide.

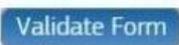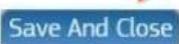[View guidelines for setting up the plug-in]   [Continue using the offline form]

"The document you are trying to load requires Adobe Reader 8 or higher. You may not have the Adobe Reader installed or your viewing environment may not be properly configured to use Adobe Reader."

- The following table shows the operating systems and browsers actively supported by the system, as well as the Adobe Reader version required for each configuration.

Operating system	Internet browser	Adobe Pro or Acrobat Reader
Windows Vista & 7	Internet Explorer from 8 to 11 Firefox 3.6 or above Chrome from 10 to 44	Version X or above
Windows Vista 10	Firefox 40 IE 11 Chrome until 44	Version X or above
Mac OSX	Safari 5 or above	Version XI
Linux (Xubuntu 14.04)	Firefox 28.1	Version 9.5.5

Step 2. Edit and Complete form

- Begin completing the form by scrolling down or clicking the blue button to navigate to the respective section of your form.
- This is primarily an administrative form that should include general information, administrative data of participating organizations, budget information by partner, and also Call-specific information.
- Two action buttons in the PDF form help you find and verify the information easily. These Action buttons 'Validate form' and 'Save and Close' will be outlined in Step 3 and Step 4 below.

Button	Description
Validate Form Step 3 Step 4	When you click this button, all data fields in the forms will be validated against a set of rules. The system assesses if the available data is valid, checks the data formats, performs computations, and checks interlinked data for consistency. Any issues found in the form are reported at the end of the PDF form.
Save And Close	Click to save the completed administrative form and close it for editing. You can save your form data even if the form is not completely filled in - you can edit it at any moment prior to the deadline. Save and Close does not validate the data.

Step 3. Validate Form

- You must click the button to make sure that your application meets the administrative requirements. The form will run a self check and prompt you in case of errors or warnings.
- When all errors are corrected, the validation test will confirm that there are no errors as shown in the image below:

Step 4. Save and Close

- When all issues are fixed, click the 'save and close' button. Your form will be saved on the Commission servers, but it is not yet submitted. Your proposal submission takes place next.
- You may return to edit the form as many times as you wish before the closing date of the call. Any changes saved on the form need to be resubmitted in order to be received by the European Commission and considered for evaluation.

5. Part B Templates

Step 1. Download Part B Templates.

The templates are available to download as shown in the image below. This will download the required proposal templates in a readily editable RTF file:

H2020-MSCA-ITN 2018- Part B-DOCUMENT 1.rtf

H2020-MSCA-ITN 2018- Part B-DOCUMENT 2.rtf

Step 2. Complete the templates
- The templates describe the information that must be included in your application and how to structure that information. You will need to complete this package as thoroughly as possible.

Part B Templates

Part B Templates	
Document 1	**Document 2**
1. Excellence	4. Gantt Chart
2. Impact	5. Participating Organisations
3. Quality and Efficiency of the Implementation	6. Ethics Issues
	7. Letters of Commitment

Step 3. Convert to PDF
- Once you have completed your proposal based on the downloaded template, you must convert it into a PDF file, which you will then upload as an Annex form of the proposal. This is referred to as Part B of your proposal. However you must ensure the limitations and requirements are in place for uploading. These are described in the next steps. Once the downloaded templates have been completed and all the formatting requirements have been met you can upload the templates.

6. Preparing the Part B Templates for uploading.

When you complete the Part B Document 1 and Document 1 described above , you must prepare them for uploading. A number of limitations and requirements are in place for each of the forms described in the following steps 1-5. The breach of certain limitations, could result in failure of the upload – as a result you may need to amend the documents and upload them again.

Step 1. Check the page number limit
- If you exceed the page number limit, you will be still able to upload the document but all of the excess pages will contain a watermark. <u>Your proposal will be considered ineligible if any one of these formal requirements is not met</u>.
- After the deadline, any excess pages will be overprinted with a 'watermark', indicating to evaluators that these pages must be disregarded.
- The image below take from the MSCA ITN Guide for Applicants 2018 shows the page limit requirements for Part B Document 1 and Document 2. Double check you have the correct page limits (as outlined in Annex 4 of the Guide for Applicants MSCA ITN 2018):

Step 2. Formatting Requirements

- The image below shows the ITN Part B form template with detailed instructions on the font size, literature references, numbering, file format.
- The following image was taken from the MSCA ITN Guide for Applicants 2018:

> **Step 2**
>
> The **minimum font size** allowed for the main text is **11** points. The page size is A4, and all **margins** (top, bottom, left, right) should be at least **15 mm** (not including any footers or headers). Ensure that the font chosen is clearly readable (e.g. Arial or Times New Roman). As an indication, such a layout should lead to a maximum of between 5,000 and 6,000 possible characters per page (including spaces).
>
> For the Gantt chart and tables, the font size chosen must be clearly legible by the expert evaluators. The minimum font size is therefore 8 points. **Literature references should be listed in footnotes**, font size 8. All footnotes will count towards the page limit.
>
> Please make sure that both documents comprising Part B of the proposal carry as a **header to each page** the proposal acronym and the implementation mode applied to (i.e. ETN, EID or EJD). All **pages should also be numbered** in a single series on the footer of the page to prevent errors during handling. It is recommended to apply the following numbering format: **"Part B - Page X of Y"**.
>
> For both documents comprising Part B of the proposal, applicants must use exclusively PDF ("Portable Document Format", compatible with Adobe version 3 or higher, with embedded fonts). Other file formats will not be accepted by the Electronic Submission Services of the Commission.

Step 3. Graphical resolution
- Use a maximum resolution of 300 dpi for all graphics and text (photocopy quality). This can dramatically reduce the PDF file size.

Step 4. Printer-friendliness
- Proposals will be printed out in **black-and-white colour** on plain A4 paper. If you have used other colours in your annex forms, make sure that they are correctly interpreted and visible as nuances of grey in the output PDF file.
- Ensure that printing is done at 300 dots per inch and that no scaling is applied to make the page "fit" the window.
- Print a test copy of your PDF files before uploading them.

Step 5. Document file name and security
- Ensure that the annex forms file names contain alphanumerical characters only (A-Z, 0- 9).
- Do not protect the uploaded files with a password.

Step 6. Post-upload verification
- Once you upload your files, check their quality - download them to check whether the file transfer was successful and if the file is complete. If not, make the necessary corrections and upload again.

*Note: Make sure that the files you upload can be opened and printed without any problems! If the Commission encounters a problem when opening or printing a file you have uploaded as part of a proposal, the complete proposal will be considered ineligible.

7. Uploading Templates

Step 1. 'Upload" the respective document in Step 5 of the Submission Wizard.

- Select the file to upload from the File Upload window. If your file has blank spaces in its name, the system will upload it filing the blank spaces with "_".

Note: If the file uploaded is not in a valid PDF format, an error message will appear instead of a confirmation mail.

- The uploaded file will be shown in the list and a green check mark will appear next to it, as shown in the picture below:
- Optionally, you can an uploaded file and replace it with a new file.

8. Validate and Submit Application

Step 1. Validate your Applications
- To make sure that your application meets the requirements click the 'Validate' button.
- In order to make your application meet the requirements of partners, file sizes, number of pages, etc, you will be prompted to correct any errors that have been detected in the forms.
- When all errors and warnings are corrected, click the button again to make sure you have not missed anything.
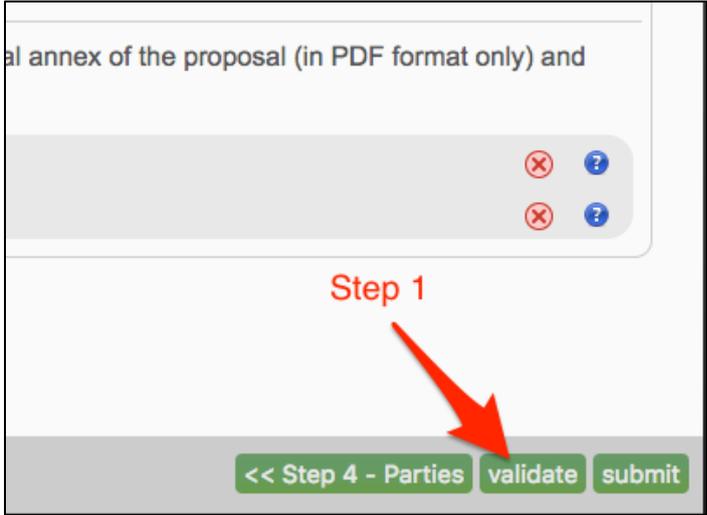
Step 2. Submit Application
- Once you get the No Errors validation screen, click on the 'submit' button. Your proposal has now been submitted and the system displays a message to confirm that the proposal has been received:
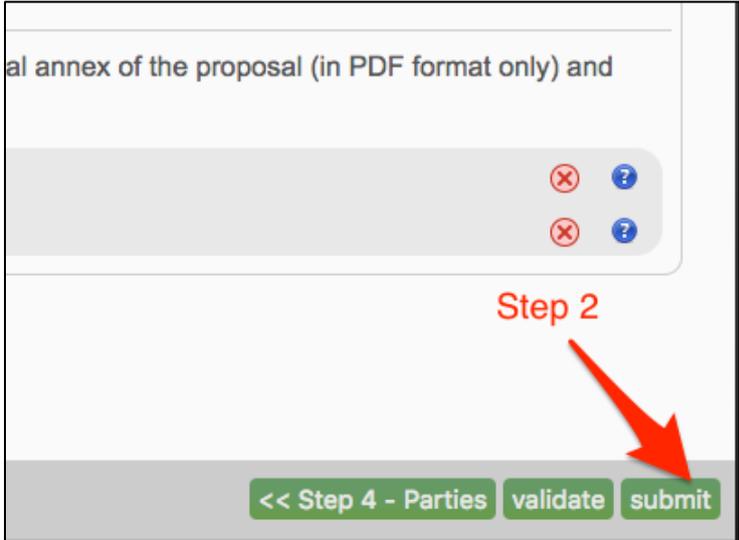
Step 3. Confirmation email
- The Submitted status will also be shown on the My Proposals page of the Participant Portal. The Proposal Coordinator will also receive a submission confirmation e-mail, including details about the submitted proposal. Note that the e-mail could end up in the spam folder or get blocked by the antispam software of your organisation, so make sure that you check your inbox regularly.
- **The submission is completed when the Proposal Coordinator clicks , and receives an email confirming that the proposal has been received.** Uploading the Annex documents in itself does not finalise the submission process so it is important to upload your proposal as early as possible.

*Note-You can upload your Annex documents or <u>submit your proposal as many times as you wish</u> prior to the call deadline, but it is strongly advised not to wait until the last few days to do so. Each time you upload a new Annex document, you must click to save your changes.

9. Proposal Submitted Page

The 'Proposal Submitted' Page means that your proposal has been successfully submitted and therefore sent to the European Commission services for evaluation. Once your proposal has been submitted you can carry out the following actions:

Revise (Re-edit) the Proposal
If you need to revise your proposal, click the button to go back to 'EDIT PROPOSAL". The Proposal Coordinator may continue to modify the proposal and submit revised versions overwriting each preceding one right up until the deadline.

Download Submitted Proposal Package
After submission of the proposal, it is advised to download your proposal in order to check that it has been correctly submitted. A digitally signed and time-stamped version of the latest submitted version of your proposal can be viewed/downloaded.

Withdraw Submitted Proposal
If the proposal is withdrawn, it will not be considered for evaluation. However, the system will keep the proposal draft and the withdraw action may be reversed by re-submitting the proposal before the specified deadline. You will have to enter a reason for the withdrawal. When a proposal is withdrawn, a message is displayed on the screen, as shown in the picture below. The system also sends a submission confirmation e-mail to the Proposal Coordinator, including the details of the withdrawn proposal. Note that the e-mail might get lost in your spam folder or get blocked by the anti-spam system of your organisations, so make sure that you check for it as needed.