

CHECKLIST INDIVIDUAL FELLOWSHIPS

EXCELLENCE		
1.1 Quality, innovative aspects and credibility of the research (including inter/multidisciplinary aspects)		
1.2 Clarity and quality of transfer of knowledge/training for the development of the researcher in light of the research objectives		
1.3 Quality of the supervision and the hosting arrangements		

IMPACT		
2.1 Enhancing research- and innovation-related skills and working conditions to realise the potential of individuals and to provide new career perspectives		
2.2 Effectiveness of the proposed measures for communication and results dissemination		
Communication and public engagement strategy of the action		
Dissemination of the research results		
Exploitation of results and intellectual property rights		

IMPLEMENTATION		
3.1 Overall coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources		
3.2 Appropriateness of the management structure and procedures, including quality management and risk management		
3.3 Appropriateness of the institutional environment (infrastructure)		
3.4 Competences, experience and complementarity of the participating organisations and institutional commitment		

CHECKLIST INNOVATIVE TRAINING NETWORKS

EXCELLENCE		
1.1. Quality, innovative aspects and credibility of the research programme (including inter/multidisciplinary, intersectoral and, where appropriate, gender aspects)		
1.2 Quality and innovative aspects of the training programme (including transferable skills, inter/multi-disciplinary, intersectoral and, where appropriate, gender aspects)		
1.3 Quality of the supervision		
<ul style="list-style-type: none"> • Qualifications and supervision experience of supervisors • Quality of the joint supervision arrangements (mandatory for EID and EJD). 		
1.4 Quality of the proposed interaction between the participating organisations		
<ul style="list-style-type: none"> • Contribution of all participants to the research and training programme • Synergies between participants • Exposure of recruited researchers to different (research) environments, and the complementarity thereof 		

IMPACT		
2.1 Enhancing the career perspectives and employability of researchers and contribution to their skills development		
2.2 Contribution to structuring doctoral/early-stage research training at the European level and to strengthening European innovation capacity, including the potential for:		
a) Meaningful contribution of the non-academic sector to the doctoral / research training (as appropriate to the implementation mode and research field)		
b) Developing sustainable joint doctoral degree structures (for EJD only)		
2.3 Quality of the proposed measures to exploit and disseminate the project results: a) Dissemination of the research results b) Exploitation of results and intellectual property		
2.4 Quality of the proposed measures to communicate the project activities to different target audiences		
Communication and public engagement strategy of the project		

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)		
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)		
3.3 Appropriateness of the infrastructure of the participating organisations		
3.4 Competences, experience and complementarity of the participating organisations and their commitment to the programme		

MSCA – ITN - WEAKNESSES in EXCELLENCE

- The **state of the art** is **not** described in **sufficient detail** and the **originality** of the research program is not demonstrated.
- The **many different objectives** of the project are **inadequately interconnected**.
- **Contribution** of the **non-academic sector** to the training is **limited** given its small size compared to the academic sector.
- **No particular innovation** is seen in the methodologies proposed in the project.
- The **exposure** of recruited researchers to **different research environments** is not discussed in sufficient detail.
- The related workshops to '**Transferable skills**' has been planned **very late** in the timeline
- **Soft skills** training in **IP**, entrepreneurship and company management is only **briefly mentioned**.
- The proposal does not describe clearly the **mechanism** by which the two SMEs will be able to provide **co-supervision** to the 10 ESRs based in academic institution.
- The **methodology** is very general and does not provide sufficient evidence of **research rigour**.
- The proposal mainly focuses on training aspects, with too little emphasis being placed on closing technology gaps.
- The **training programme** is **not very innovative**.
- Local training courses are not described in sufficient detail.
- The **collaboration** between **academic and non-academic** participants is insufficiently documented in the proposal. The role of the nonacademic sector is marginal as it is not clear from the proposal that the companies involved are significantly related to the scientific programme.
- The **roles** of the **partner organizations** are not clearly defined in the proposal.
- The proposal does not make a sufficiently convincing case on how the proposed **research programme** challenges or advances the existing **state of the art**.
- The consortium **lacks** sufficient **industrial participation**.
- The proposal does **not** provide a **precise** and clearly defined **research and training programmes**.
- The **innovation** in the **methodology** is moderate. New insights are not evident.
- The **project schedule** is not properly optimised nor justified.
- The **contribution of non-academic** partners to supervision is not satisfactorily demonstrated. It is not fully clear what exactly the roles and responsibilities of supervisors would be.
- **Secondments** do **not** represent a **good cross-sectorial** exposure being primarily inter-academia exchange.
- The proposal does not make a sufficiently convincing case on how the proposed **research programme** challenges or advances the existing **state of the art**.
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- **Secondments** do **not** represent a **good cross-sectorial** exposure being primarily inter-academia exchange.
- The description of the **development of industrial applications** has not been sufficiently detailed.
- The **specific scientific training** measures that will be provided by the **industrial partner**, especially those that would be unique and different to the academic environment, are not sufficiently described.

- The description of **joint supervision arrangements** is very brief and general. It is **unclear** how the **co-supervisors** will interact with each other and with the ESRs.
- In terms of quality, the **expertise in training** was demonstrated **only by the academic group**.
- **Transferable skills** are not described and planned in adequate detail in the proposal.
- The description of the **training programme is too generic** and its innovative aspects are not clearly indicated. The network-wide training events are not planned with sufficient detail.

WEAKNESSES in IMPACT

- The **benefits for the ESRs** are not described in sufficient detail, only a generic description is presented.
- Most of the **communication activities** to the general public is left to the individual participant and a lot of **responsibility** is passed to the **ESRs**.
- A plan to **meet the stakeholders** to exploit the main results is **not sufficiently evident**.
- The description of **impact is rather generic** and not very specific to this particular project, reducing somewhat its credibility.
- **Specific tools for dissemination** to stakeholders are not sufficiently elaborated. **Exploitation of results** is insufficiently addressed.
- The predicted **scientific outputs** of the project are **not particularly ambitious**, and this may have a negative impact on ESRs career perspectives.
- The **secondments** to the non-academic sector could have been **better described**.
- **Practical arrangements** for the award of **double or joint** PhD degrees are not clearly presented.
- The proposal does not convincingly discuss how **European innovation** capacity will be **strengthened**.
- The **communication and dissemination** plan does **not** productively **engage key stakeholders** (e.g. NGOs, public authorities, private organisations etc). For example: using social media (not mentioned in the proposal) could be considered as a possible way of reaching nonacademic audiences.
- The proposal does **not** give **sufficient** information regarding the precise **expectations of ESRs** to provide concrete **outputs** (to conferences or public seminars)
- The description of the **contribution** to structuring doctoral training at the European level and of the value added by **non-academic partners** to the overall training programme is insufficient
- The **contribution to doctorate training** at a European level and to strengthening **European innovation policy** is not sufficiently evident in the proposal.
- Plans for **communication and dissemination** are too generic and unstructured. Moreover, scientific dissemination is not properly considered. The communication measures with respect to the **public engagement strategy** is not well presented in the proposal.
- The proposed strategies for the **exploitation of results** is not convincing. In particular, plans for patent applications are too non-specific and not appropriately justified.
- The plans for **dissemination** do not extend beyond a generic list of **standard instruments**.

WEAKNESSES in IMPLEMENTATION

- The **work package** descriptions and **milestones** list are very brief. The **deliverables** list of the work plan is **ambitious but not realistic**.
- The secondments are not thoroughly described too.
- The **letter of commitment** by one of the beneficiaries is not readable and **risk management** plan is lacking.

- The **dissemination** of results lacks clearly defined objectives.
- It is not sufficiently elaborated how the **joint degree structure** would be expanded beyond in this project.
- The **transparency of recruitment** procedures and career development plans for ESRs are not well presented.
- It is unclear whether the comments or input of ESRs will be adequately channeled to the **Supervisory Board**.
- The **involvement of the private sector** in the management of the project and ESR training is not properly addressed.
- The description of **risk management** at consortium level is not provided in sufficient detail.
- The proposed **management structure** and procedures are **insufficiently described**. The quality management for experimental investigations and code development is not adequately addressed.
- **Risk management** is too generally addressed and **not credible**.
- The program does not set up structures for innovative doctoral training.
- The **project deliverables** are unclear.
- It is not described in detail how personal career development plans for each ESRs will be drafted and adapted, if needed.
- The proposal does not provide sufficient details on **selection and recruitment process**.
- The **mandatory governing structure** for this EID is not sufficiently elaborated.
- The exploitation of partners' complementarities is not sufficiently demonstrated.
- There are many **inconsistencies** between the **individual work plans** and the **Gantt chart**.
- The ESRs' projects, **led by the non-academic sector**, appear of limited scientific content
- The presentation of the scientific deliverables is not comprehensive. All **ESRs working on the same WP** have the same deliverables which make it hard to evaluate which of these items were delivered and by which WP.
- It is not clear why **the recruitment description is associated** with the **scientific WPs** and not with the management WP.
- **ESR publications** are **not sufficiently described** as objectives in the milestone list.
- There are **inconsistencies regarding the ESR starting time**. In several cases the starting time is late in the program which will lower the efficiency of the joint research and cause the ESR to miss the Coordination chemistry course I.
- The **gender issue** behind the rationale for the ESR representative in the SB should have been further justified.
- **Scientific risk** analysis is not adequately addressed, namely the risks associated with structural biology are not sufficiently identified.

MSCA-ITN STRENGTHS IN EXCELLENCE

- Individual **ESR projects** are **well integrated** into the work packages, which in turn are clearly articulated and **adequately complemented** by each other.
- The considerable number of **industrial partners** involved in the consortium proves that the planned research is very **appealing to industry** and ensures the enhanced **transfer of results** from bench to application.
- The **PhD training** programs for all ESRs are of **excellent** quality and contain sufficient **interdisciplinary** and **intersectoral** elements.
- The **exposures of ESRs** to other, both academic and industrial, environments are well balanced and appropriately described in sufficient detail.

- The network wide **training activities** are convincingly described, with precisely defined roles for the partners involved.
- The consortium is assembled of **highly competent scientists** of very good quality from **academia and industry** with ample experience in successful **supervision** of young researchers.
- This EID programme identifies **four complementary training pillars**, includes scientific excellence and technology innovation, and also transferable skills. Mapping between S&T milestones and PhD projects demonstrates the complementarity between research challenges, with a sound methodology, making the project fully credible.
- The **training programme** includes a set of **complementary activities**, including individual supervision and coaching, workshops, and peer-support. Mapping of domain-specific and transferable skills is presented in detail, very well balanced between theory and practice, and it is supported by an adequate application scenario.
- The **Supervisory Board** consists of 12 supervisors with a track-record of successful PhD supervision and completion. The team has a highly interdisciplinary profile.
- **Industry supervisors** will have access to the Researcher Development Programme course portfolio offered by the Graduate School, as the “Good Supervisory Practice” course.
- An **effective joint supervision** is provided for all ESRs. Each student will have an individual supervisory team consisting of **three supervisors** from different organisations.
- The ESRs will benefit from the **additional interdisciplinary and cross-sectoral training and supervision opportunities** from the six partners.
- The rich and complementary **nature** of the **different partners** also offers very fruitful interactions between the partners and the ESRs.
- **Beneficiaries** and **partner organisations** have a **good track record of collaboration** and the interaction between the different partners is carefully shaped to deal with the high level of integration of the different individual research projects of the ESRs into one framework.
- The **contribution** of all participants to the **research and training** program is very well demonstrated in the proposal.
- The **synergies** between partners are clearly highlighted.
- The innovative aspect of the proposed project is well argued by **emphasizing its transnational character** as well as by engaging a large number of **non-academic partner organizations** with extensive experience in educational praxis.
- The **non-academic partners** are coconstructors of the research questions based on the practical experience in the educational field.
- There is a well-identified **multidisciplinary dimension, multi-sectoral approach**, appropriate emphasis upon lifelong learning and a well argued case studies and comparative research design supported by appropriate research training and involvement of the non-academic partners.
- The EJD-project and its **training section** are well grounded on a previous **Erasmus-project**.
- The training objectives and modules are clearly related to ECTS-points that are to be obtained by the ESRs
- The **lead beneficiary** has significant **expertise** in relevant programs as well as international collaborations in the proposal’s specific field
- The concept of **virtual European seminars** is an attractive one, as it will facilitate more regular interactions between the ESRs
- The **excellent qualifications of the supervisors** are clarified. These assure high quality supervision and co-supervision. The joint supervision arrangements are of high quality.
- A detailed account of the **synergies between the partners** is provided and these are seen as a key driver in securing a more informed contribution to **transnational accreditation of professional doctorate studies**

- The **non-academic sector** will adequately **contribute** to the **supervision** by providing guidance and scientific monitoring to the fellows in their field research in educational settings.

STRENGTHS in IMPACT

- This proposal aims to train a **new generation** of qualified ***** researchers with **managerial** competences and **entrepreneurial** spirit and the proposed training programme will substantially enhance the **employability** of the fellows in industry and business stakeholders.
- The non-academic sector **secondments** and other activities are **genuinely complementary** to the ESRs' projects and will provide them with valuable experience.
- **Non-academic partners** will provide state of the art and complementary training in *****,
- The consortium should significantly contribute to the establishment of a **new doctoral programme**, which should provide the tools and skills for efficient **translation of research findings into products**. As a consequence, there is strong potential to strengthen European innovation capacity.
- Good **measures for communication** with the scientific community and **stakeholder** sections of general society have been carefully planned and described.
- **ESRs participate in outreach activities**, but will also receive adequate **training** in how to plan and organize such events.
- Plans for *exploitation of the results* are adequately described and it is expected that any output generated by the ITN will be transferred for commercial development.
- The **balance** between **dissemination and protection** of IP has been carefully considered.
- The scheduled **attendance of partners to public events** is very extensive.
- A **personal career development plan** will be designed for each ESR and will be properly monitored.
- The **proposal** convincingly reports on how the project will **contribute** significantly to **enhancing the potential** of the ESRs in terms of **research and innovation** capabilities, providing them with very **good career perspectives**.
- The **contribution** of the **non-academic sector** is well-formulated and evidence of their impact in the implementation of the research field is realistic.
- **International impact** via planned collaboration with existing IEEE task forces is convincing.
- Both **outreach and dissemination** activities are comprehensively and clearly explained. Clear and effective measures are provided for communication and dissemination towards both **academia and the general public**.
- The proposal will contribute to **structuring doctoral** research training at **European level**.
- The proposal will contribute to **strengthening European innovation capacity**.
- This ETN has high potential to positively impact the research- and innovation-related human resources in Europe due to its fundamental science approach and its large translational potential. The ESRs will be **trained in various disciplines and will be exposed to different research environments** within the academic and non-academic sectors via extended secondments.
- This **ETN aims to establish permanent collaborations between partners** and has the potential to strengthen the European innovation capacity in radical biochemistry.
- The proposal has a **high impact on structuring doctoral training in the EU** via the setting of a joint training program with a standard crediting system that includes the industrial sector.
- **Dissemination and communication activities are adequate and are well structured** to deliver the results and the **knowledge outside of the network**. Measures include publishing, presentations at international workshops and via a network's website.

STRENGTHS in IMPLEMENTATION

- The science has a clear defined theme and the research **work packages are well integrated**.
- The well elaborated **work packages** perfectly **organize** the research activities with clearly **described objectives** where the role of partners, including industrial ones, is well balanced.
- **Tasks** are clearly divided between the individual **ESR projects**.
- The **career development plans** (WP5) is well described.
- The recruitment strategy is efficient and is in line with the principles set out in the **European Charter** for researchers and in the **Code of**
- **Conduct** for the recruitment of researchers.
- The **gender issue** was taken into appropriate consideration.
- The scientific and **technical infrastructure** provided by the ETN can fully support the scientific research and training programmes of the network.
- **Participating organisations** have the **competences** to run the project, with **highly relevant experience** and with complementary areas of expertise.
- The research **work plan** is well structured and developed in a **logical sequence**.
- The **ESR tasks** are well **integrated** into the **work packages** with many links, thereby **exposing the ESRs** to a broad spectrum of **research activities**.
- The very careful **description of the individual research projects** for all ESRs specifies objectives, expected results and well planned secondments to both academic and industrial partners (for every ESR) with well planned activities.
- **Credible recruitment strategy**, selection rules and procedures with coordination between the supervisor's institution and a secondary node, where each ESR will be trained, are envisaged.
- **Progress monitoring and evaluation of the individual projects** will be done **twice a year** and compared to the very well selected performance **indicators**.
- The overall **work plan** is effective and coherent for the planned project activities.
- The lists of major **deliverables** and **milestones** are very well structured, in terms of succession, scientific content, planning and timing for release. The Gantt Chart is well organised and presented.
- The **management structure** is presented properly.
- The **supervisory board and management team** are carefully planned with overall responsibilities.
- The **risk management strategy** and mitigation measures at consortium level are adequately justified. The **strategy for conflicts** and misconduct activities is well planned.
- The **IPR management** is clearly laid out.
- The **recruitment** steps and procedure are specified.
- **Gender issues** are carefully addressed by the consortium partners.
- **Progress monitoring and evaluation** of the individual projects are well explained.
- The research **work plan** is well structured and developed in a **logical sequence**.
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- The **recruitment** steps and procedure are specified.
- **Gender issues** are carefully addressed by the consortium partners.
- **Progress monitoring and evaluation** of the individual projects are well explained.
- The strong **institutional commitment** to the development of a joint doctorate is expressed in the letters institutional commitment by the legal representatives of all five beneficiaries in five European countries
- **WPs** explain convincingly the role of the beneficiaries, project objectives, outputs, milestones, planned secondments, and the ESRs Individual Projects
- The proposal gives a very precise **description of the role** of each of the beneficiary partners in the project.
- The **secondments** of the fellows are set out convincingly in relation to projects and strands
- The proposed **joint consortium's structure** is convincingly demonstrated.
- A convincing **recruitment strategy** is demonstrated. Clear criteria for selection were established.
- ESRs are to be involved in various levels of the **project governance**
- The **gender issue** is approached convincingly.
- The role of the **Supervisory Board** is convincingly explained. The Board will include **3 external members**, who are recognised international experts in the field. They will assume responsibility for monitoring and assessment of the progress and the quality of the EJD
- A **strategy** related to **scientific misconduct** as well as to other **ethical issues**, such as transparency in recruitment, ethical research standards to be followed etc, is in place.
- The **coherence** between the proposed **participants** is convincingly explained. The already **existing collaboration** in Erasmus program between the beneficiaries favors the implementation of the proposed EJD. In addition, a large number of partner institutions, such as schools, teacher organizations, non-governmental educational institutions, and research institutions allow for an effective interaction between the participants.
- The **competences, experience** and **complementarity** of the participating organisations and their commitment and contributions to the program was convincingly demonstrated

COMMUNICATION STRATEGY

2.3 Quality of the proposed measures to exploit and disseminate the project results:

a) Dissemination of the research results

SCIENTIFIC COMMUNITY. OPEN ACCESS. CONGRESS. PAPERS

GENERAL PUBLIC. PROJECT WEBSITE DESCRIPTION.

SOCIAL NETWORKS

DISSEMINATION TO INDUSTRIAL SECTOR. COLLABORATION WITH ENTERPRISE EUROPE NETWORK

PHD THESIS DISSERTATION

b) Exploitation of results and intellectual property

DESCRIPTION OF OUTCOMES. INNOVATIVE RESULTS. INVOLVEMENT INDUSTRIAL SECTOR. WHO WILL BE IN CHARGE. NEW KNOWLEDGE IMPACT IN INDUSTRY.

EXPLOITATION OF THE RESULTS. FURTHER COLLABORATIONS. INTERNAL PRODUCT DEVELOPMENT, SPIN-OFF, LICENSINGS. IPR STRATEGY. WHO IN CHARGE. EXPERIENCE.

2.4 Quality of the proposed measures to communicate the project activities to different target audiences. Communication and public engagement strategy of the project

SCOPE OF COMMUNICATION AND PUBLIC STRATEGY

CONSORTIUM PARTNERS EXPERIENCE IN COMMUNICATION

COMMUNICATION AND PUBLIC ENGAGEMENT ACTIVITIES. REAL ACTIVITIES. DESCRIPTION.

COMMUNICATION AND PUBLIC ENGAGEMENT ACTIVITIES IN INDUSTRIAL PARTNERS

RISK MANAGEMENT

Risk management at consortium level

BRIEF DESCRIPTION OF RISK MANAGEMENT PROCEDURE. INTERNAL AND EXTERNAL RISK. TYPE OF RISK (TECHNICAL DIFFICULTIES, SCIENTIFIC FINDINGS, LACK OF COLLABORATION BETWEEN PARTNER, IMCOMPLETE TASK). WHO IS RESPONSIBLE. ALERT PROCEDURE. RESPONSIBLE FOR MITIGATION ACTIONS

Table 3.2a Implementation Risks

Risk No.	Description of Risk	WP Number	Proposed mitigation measures
R1			
R2			
R3			
R4			
R5			
R6			
R7			