



# **MSCA-COFUND infoday2022: The point of view of a beneficiary**

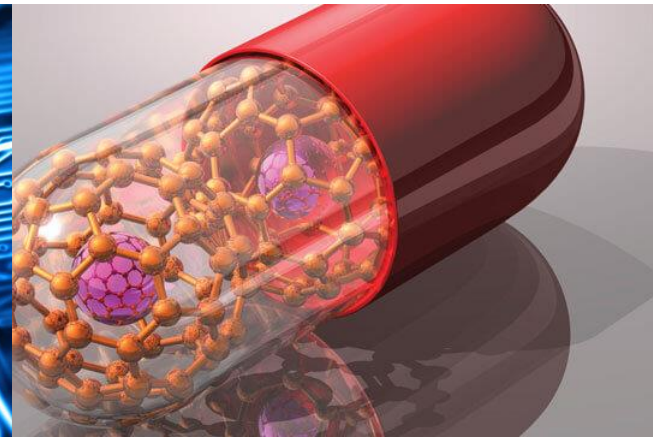
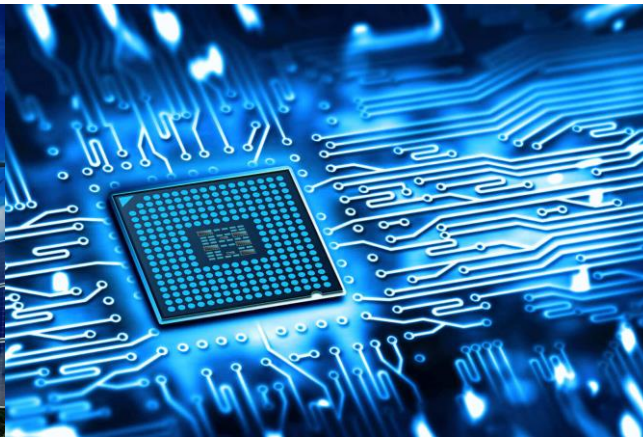
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**Laura Cabana**

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Strategic Managing Unit

Institute of Materials Science of Barcelona  
(ICMAB-CSIC)

A Severo Ochoa Center of Excellence focused on cutting-edge research in  
Functional Advanced Materials  
**for Energy, Electronics, and Nanomedicine**  
and application fields yet to imagine.



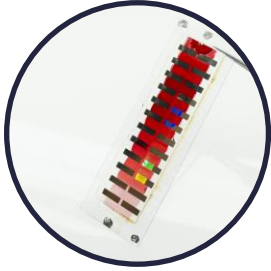




**Founded in 1986**



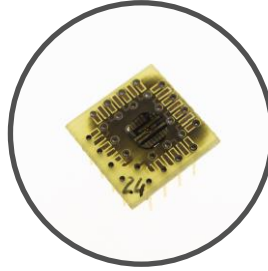
## 5 Research Lines



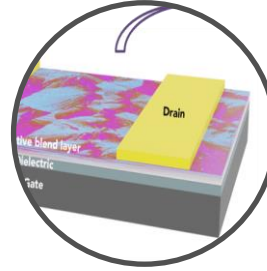
**Sustainable  
Energy  
Conversion &  
Storage Systems**



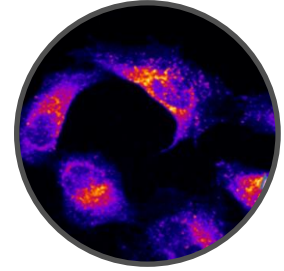
**Superconducting  
Materials for  
Emerging  
Technologies**



**Oxides for New  
Generation  
Electronics**



**Tuneable and  
Low Cost  
Molecular  
Electronics**



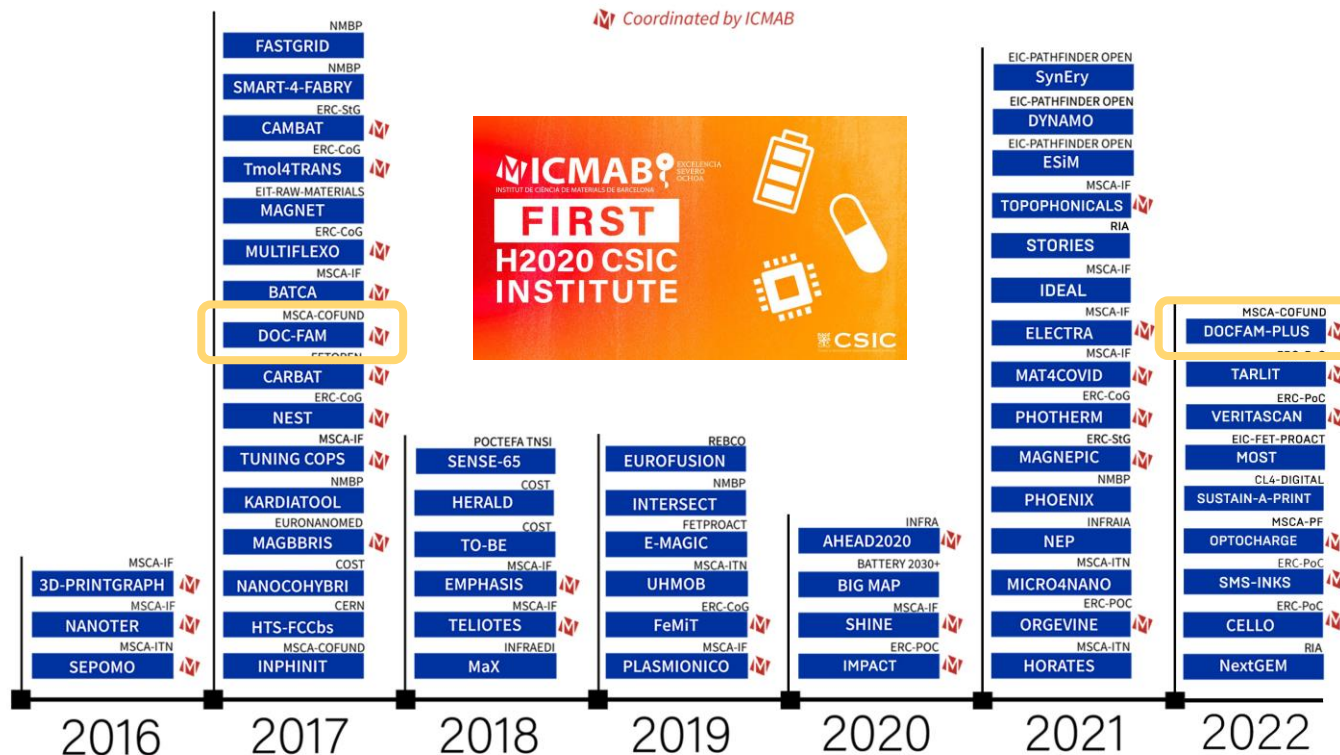
**Bioactive  
Materials for  
Therapy and  
Diagnosis**

**Smart Functional Advanced Materials for a Better Future**

# European Projects (2016-2022)



Coordinated by ICMAB



18 ERC in total  
13 ERC active (2022)



MSCA IF/PF  
MSCA ITN/DN  
MSCA RISE  
MSCA COFUND



**The best tip for (COFUND) proposals is... your story has to make sense**



**Why COFUND? Why you? Why now?**

**and these were our COFUND stories:**

DOC-FAM is an *excellence DOctoral training programme in Functional Advanced Materials*

Beneficiary



Partner organizations recruiting fellows



Partner organisations not recruiting fellows



## DISTRIBUTION OF THE FELLOWS

ICMAB-CSIC	IMB-CNM-CSIC	ICN2	IREC	ALBA-CELLS	TOTAL
9 (5+4)	2 (0+2)	2 (0+2)	4 (2+2)	5 (3+2)	22 (10+12)

ICMAB is one the 22 research centres in Spain awarded with the “Severo Ochoa” label of excellence for the development of “Smart Functional Materials for Social Grand Challenges” (FUNMAT, 2016-2020)

ICMAB is located in the Bellaterra Campus of the Autonomous University of Barcelona (UAB), the best University in Spain according to several international rankings (ARWU, CWUR), providing an excellent environment for the development of the doctoral programme. From 2009, the UAB Campus has been also recognised as a *Campus of International Excellence* (Sphere UAB-CIE).

**DOC-FAM** is a COFUND Doctoral Programme that aims to train 22 PhD fellows as the next-generation of scientists in the exciting field of Functional Advanced Materials, while at the same time offering a complete training experience to the recruited fellows.

The fellows will be exposed to a **multidisciplinary and intersectorial programme** combining several research and training activities, including secondments in top international laboratories and industries at the forefront of research, access to state-of-the-art facilities to carry out advanced experiments, and a number of training activities

**DOC-FAM** will also contribute to enhance Europe competitiveness in the field of advanced functional materials, increasing the critical mass in a demanding sector of our current society.



DOCFAM+ is an **excellence DOctoral training programme in Functional Advanced Materials: towards a better future**

Beneficiary



Implementing partners



- Program duration: **60 months**
- Number of positions: **26**
- No. Calls: **2**
- Starting date: **1st May 2023**

+ a list of Associated partners (secondments, training)

## DISTRIBUTION OF THE FELLOWS

ICMAB-CSIC	IMB-CNM-CSIC	ICN2	IREC	ALBA-CELLS	UAB	IFAE	TOTAL
9	3	3	4	3	2	2	26

DOC-FAM COFUND programme (MSCA-COFUND-2016) laid the foundations for a stronger collaboration between several top-performing research organisations in the Autonomous University of Barcelona (UAB)

The aim of **DOCFAM+** is to go one step further by strengthening the collaborative approach of DOCFAM and enhance the potential and future career perspectives of recruited fellows, consolidating the excellence and outstanding track-record of participating entities.

ALBA-CELLS is promoting, in collaboration with the Autonomous University of Barcelona (UAB) and several first-class research and technology centers: the **ALBA Science, Technology & Innovation Park (ASTIP)**, an interdisciplinary hub for complex materials and biological systems and a 4th generation synchrotron facility

one of the new buildings being the Complex Materials and Technologies (**COMTEC**), promoted by ICMAB, ICN2 and IFAE alongside ALBA-CELLS

**DOCFAM+** is to **provide a future connection to the ASTIP strategic facility**, thus **creating a workflow of excellent researchers as future leaders** for the implementation of this infrastructure.

**DOCFAM+** will maximise the impact on the career perspectives of recruited fellows. Their training will combine of research-oriented and demanding soft skills. A new dimension: **highly interdisciplinary and intersectoral research while fulfilling all the principles of Open Science and maintaining the highest research quality standards.**



## DOC-FAM (2016-2022) – what evaluators saw in our proposal



**DOC-FAM**

DOCTORAL training  
programme in  
Functional  
Advanced Materials

H2020-MSCA-COFUND-2016



## Excellence

*The dissemination strategy of the call is very well defined. The eligibility criteria are well formulated.*



- Website
- Mailing campaign (associations, MsC coordinators)
- Web portals
- Euraxess
- Social media
- Adverts (leaflet, poster, flyer...)

This plan for dissemination of the calls will be carefully **monitored** and **evaluated** by the Management Team

*A carefully designed redress procedure is foreseen, enhancing significantly the transparency of the process.*

*The selection process is described in detail and is of good quality in terms of transparency and equal opportunities for the candidates.*

*The composition of the selection committee including the selection procedure of the external experts guarantees the transparency of the process.*

- **STAGE 0 DOC-FAM website:** general info, call documents, application package, Eligibility criteria, FAQ, welcome pack...

- **STAGE 1 Call:** Publication, call openings, applications (acknowledge of receipt), deadline

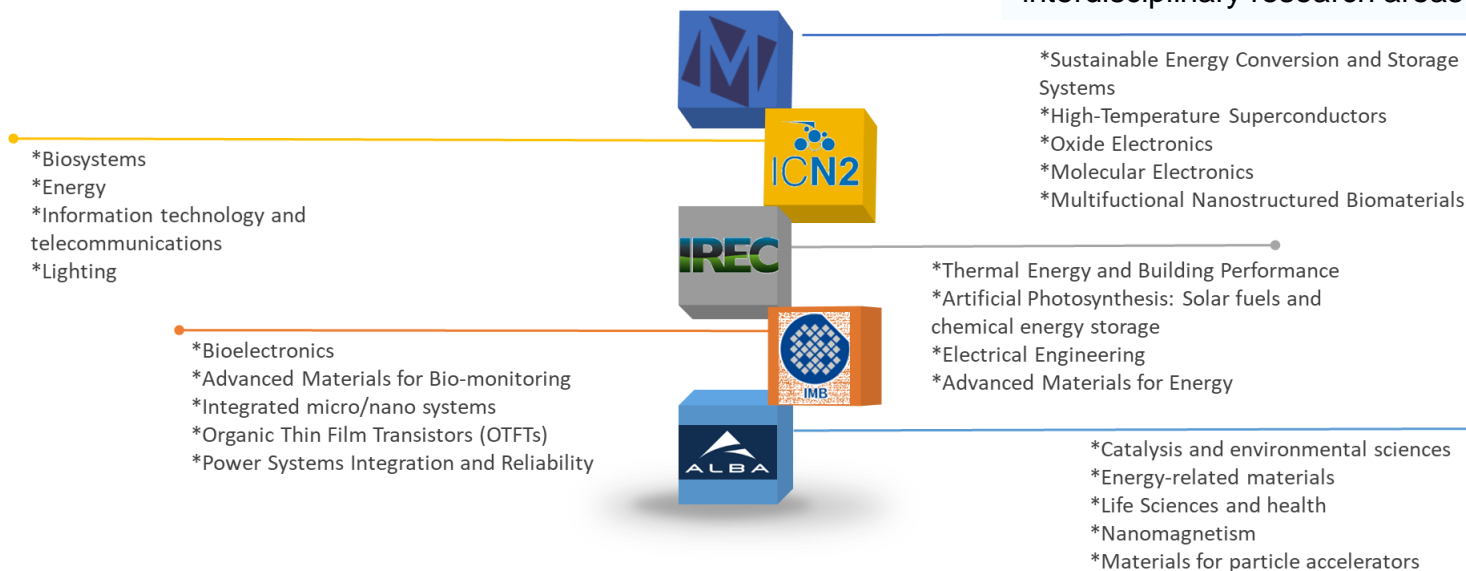
Dissemination campaign

- **STAGE 2 Selection process:** Eligibility check (notification), external evaluation (3 external evaluators, 1 host, 1 UAB), interviews, selection, final ranking

- **STAGE 3 Contract negotiation:** list of awarded fellows, contract signature, start of the fellowship

*A broad range of research topics available for applicants is nicely spread among partners, securing interdisciplinary.*

## DOC-FAM fields of research



**Strengths:** existing collaborations (papers together), complementary research topics, closeness, interdisciplinary research areas fellows can benefit...

Specific research topics and supervisors (and their indicators) described in the proposal



*The proposed supervision program is well structured with several interlinking levels, with supervision including a promoter and a copromoter. The supervisors will be trained in supervision skills.*

*A mandatory career development plan, including aspects of monitoring will be drawn up for each ESR.*

## DOC-FAM Supervision arrangements

### Career Development plan (updated yearly)

- Brief overview of research project and major accomplishments expected
- Long-term career objectives (over 5 years)
- Short-term objectives (1-2 years): research, skills, management, communication, dissemination

### Fellow Progress Report (yearly)

- Progress made during the period
- Anticipated progress for the next 12 months
- Impediments and setbacks to the thesis progress

### Supervisor Progress Report (yearly)

- Thesis progress
- Objectives and improving aspects
- Additional remarks

In case of a not positive evolution of the fellow or issues with supervisor/s, Panel chair members will meet and decide following actions

*Training in transferable skills is an integral part of the programme.*

## Level 1 - Training offered as part of the doctoral programme

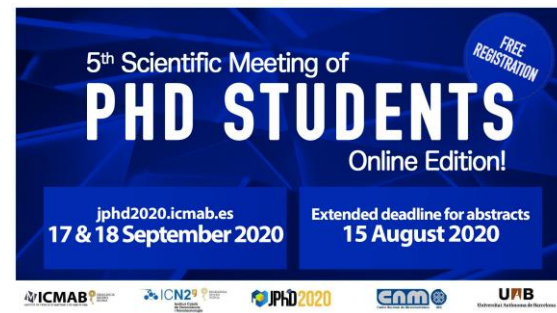
- Compulsory: one seminar per year
- Annual meeting with University panel for follow-up
- Transversal skills workshops available (2 hour seminars)



## Level 2 - Training offered by the recruiting organisations

## Level 3 - Training offered by DOC-FAM

Welcome day	
Supervision arrangements	
Hands-on-schools (2 days)	
<i>"Preparation and Characterization of Advanced Functional Materials"</i>	ICMAB/ICN2
<i>"Nanofabrication for Advanced Materials"</i>	CNM/ICN2
<i>"Applications of Synchrotron Radiation for Advanced Materials Research"</i>	ALBA-CELLS
<i>"Functional Advanced Materials for Energy Applications"</i>	IREC
<i>"The Use of Cleanroom Facilities for the Preparation of Functional Advanced Materials"</i>	ICMAB/CNM
Summer School (1 week)	
<i>"Summer School in Functional Advanced Materials"</i>	
Secondment (1-3 months)	



*The evaluation criteria are merit-based, well-defined and will be available to all the applicants beforehand. A procedure for dealing with cases having identical numbers is given.*

STEP OF THE EVALUATION	CRITERIA	SCORING (over 100)	THRESHOLD
1. eligibility check 2. <u>EVALUATION OF MERITS</u>	-Education: graduate and postgraduate education.	60	40
	-Research and working experience: participation in projects, publications, conferences and events, patents	25	10
	-Others: mobility (research stays), supervision and mentoring, dissemination & communication, english level, suitability of the profile to the doctoral programme.	15	5

STEP OF THE EVALUATION	CRITERIA	SCORING (over 100)
<u>3. INTERVIEW</u>	Videoconference. 15 minutes. English skills, adequation to the project, willingness to join DOC-FAM. Questions from panel members.	10

**Panels:** PHYSICS – ENGINEERING, CHEMISTRY, BIOLOGY and BIOCHEMISTRY

**Panel members:** 1 panel chair from ICMAB-CSIC + 1 member from each partner organisation receiving fellows

**Evaluation Summary Report (ESR):** sent to all the applicants.

Final score, funding decision, summary of strengths and weaknesses as identified by the members of the Committee based on the comments from the evaluators.



## Impact

- + The programme correctly aligns practices set out by the EU for human resources development in research and innovation.*
- + Intellectual property issues are recognized and addressed in an appropriate way.*
- + The programme has the potential to enhance the cooperation between the research institutes partnering this proposal under the umbrella of the Spanish National Research Council.*
- + The Principles of Innovative Doctoral Training are recognized and more than adequately addressed.*
- + A well-structured activity plan for dissemination of results is presented. The communication measures are listed.*

## Implementation

- + The work plan is effective and is supported by a robust managerial scheme which is based on the prior expertise of the host from similar projects.*
- + The administration parts and the financial management are described in a convincing manner. Together with the contingency plan these will enhance the credibility of the programme.*
- + The host and partners have all the necessary administrative, technical and human resources and expertise to implement the project successfully.*
- + Support offered to candidate researchers through all phases of the application, recruitment and implementation will be sound.*
- + The appointment conditions will be above national standards and follow the EU and national rules.*

## ... And was a weakness

Total score: 86,80

### Excellence

- *The selection procedure of internal experts is not clearly defined.*
- *The strategy for the implementation of mobility to non-academic partners is not detailed.*
- *The evaluation process does not include direct interaction with the applicants.*
- *The information provided in the “Application Package” is insufficient to evaluate the candidate in accordance with defined criteria.*

### Impact

- *Due to of low intersectoriality, it is no clear, how the ESRs will benefit from the programme to enter into the non-academic employment as the career perspectives are foreseen mainly in an academic environment.*
- *The objectives and the expected impact of the communication measures are not clearly formulated.*

### Implementation

- *Information about financial contribution of the partners is not clear.*
- *The risk analysis is not adequate as it is only discussed for the application process.*

## DOCFAM+ (2023-2028) – let's avoid the weaknesses



**DocFam+**

- The selection procedure of internal experts is not clearly defined

## DOCFAM+ panels:

Panel name	
Scientific Evaluation Committee (SEC)	Pool of external experts in 3 panels (health, energy, electronics)
Interview panel	4 panels of 6 members: 2 from SEC + 1 ICMAB + 3 implementing partners
Steering Committee (SC)	Beneficiary (ICMAB PI) + 6 PI implementing partners
Ethics Committee (EC)	Chaired by PMT. 1 representative/partner
Training Committee	Chaired by PMT. 1 representative/partner

### ■ SEC

- ✓The experts will have **extensive knowledge** of the field of research A **gender-balanced** selection process will be favoured: at least 40% of the external experts will be female;
- ✓Participation from the **non-academic sector** will be also encouraged.
- ✓**International experts** must be selected if possible.



- The strategy for the implementation of mobility to non-academic partners is not detailed.

- Due to of low intersectoriality, it is no clear, how the ESRs will benefit from the programme to enter into the non-academic employment as the career perspectives are foreseen mainly in an academic environment.

## Associated partners (secondments, training...no recruitment)

2	ALTERNATIVE ENERGY INNOVATIONS SL	ES	10	NANOMOL TECHNOLOGIES SL	ES
3	ONALABS INNO-HUB SL	ES	11	HELMHOLTZ-ZENTRUM BERLIN FÜR MATERIALIEN UND ENERGIE GMBH	DE
4	FUELIUM SL	ES	12	UNIVERSITAT DE VALENCIA	ES
5	BLUEPLASMA POWER SL	ES	13	MAX-PLANCK-GESELLSCHAFT ZUR FÖRDERUNG DER WISSENSCHAFTEN EV	DE
6	FUNDACIO EURECAT	ES	14	CHALMERS TEKNISKA HOGSKOLA AB	SE
7	CENTRO DE INVESTIGACION COOPERATIVA DE ENERGÍAS ALTERNATIVAS FUNDACION, CIC ENERGIGUNE FUNDAZIOA	ES	15	ELETTRA - SINCROTRONE TRIESTE SCPA	IT
8	Institut Néel	FR	16	ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE	CH
9	INSTITUT MAX VON LAUE - PAUL LANGEVIN	FR	17	FUNDACION ESADE	ES

## DOCFAM+ training:

DOCFAM+ Industry Day	-	All
DOCFAM+ Introductory Course in Entrepreneurship	-	ESADE
DOCFAM+ Retreat for personal development	-	All

**+ secondments**

- *The objectives and the expected impact of the communication measures are not clearly formulated.*

### Dissemination, Communication and Exploitation Plan (DCEP)

- Detailed list of dissemination activities, including: objective, KPI and targets.
- ESR actively participate in the dissemination activities, and required to participate.
- Communication and public engagement activities activities. In collaboration with IP Communication offices. Dedicated training modules and activities for fellows. Objectives, KPIs, targets.

## ... And was a weakness

### Excellence

- *The selection procedure of internal experts is not clearly defined.*
- *The strategy for the implementation of mobility to non-academic partners is not detailed.*
- *The evaluation process does not include direct interaction with the applicants.*
- *The information provided in the “Application Package” is insufficient to evaluate the candidate in accordance with defined criteria.*

### Impact

- *Due to of low intersectoriality, it is no clear, how the ESRs will benefit from the programme to enter into the non-academic employment as the career perspectives are foreseen mainly in an academic environment.*
- *The objectives and the expected impact of the communication measures are not clearly formulated.*

### Implementation

- *Information about financial contribution of the partners is not clear.*
- *The risk analysis is not adequate as it is only discussed for the application process.*

## Excellence

### Strengths

- + The selection process is described in very good detail, eligibility and evaluation criteria are clearly defined, and a redress procedure is adequately considered.*
- The PhD Calls will be appropriately advertised through several means including a programme-specific website, social media exploitation, email campaigns targeting relevant networks and specifically organised launching events.*
- The composition and organisation of the selection committee is very well described and will guarantee a fair and effective selection procedure.*
- The applicants will be given appropriate information regarding the research topics as well as the qualifications and infrastructure of the host laboratories including hosting arrangements (financial conditions, practical information on the campus, etc.). The candidates will also receive relevant information regarding the selection procedure including eligibility and evaluation criteria.*
- Measures to maintain an appropriate gender balance amongst the selected PhD candidates as well as in the selection committee are comprehensively described and very convincing.*
- Appointment conditions and proposed incomes are attractive for PhD candidates and are in line with standard salaries of the hosting country.*
- The host and the partner organisations demonstrate convincing excellence in science and training. The research options and scientific environment at the host institution are excellent. Expertise and competencies in the field of the proposal, functional advanced materials and nanomaterials, are very convincingly demonstrated. The research topics that will be offered to the PhD candidates are described in detail and are highly relevant and innovative.*

## Excellence

- *Interdisciplinarity as well as intersectorality and the international aspects of the proposed research programme are very convincing. A large number of national and international partners with different competencies are credibly involved in the training programme, from both industry and academia.*
- *Open access practices will be appropriately implemented through data deposition on online platforms and repositories in accordance with the provisions included in the Horizon Europe Programme. Data will be adequately managed according to FAIR principles.*
- *The training programme is excellent and described very well with an indication of the scientific content and organisation of each planned activity. The involvement of the private sector in the training actions is clearly specified.*
- *Training in transferable skills is comprehensive and includes courses in scientific dissemination and communication, intellectual property and patenting and entrepreneurship.*
- *The measures for appropriate supervision of the PhD candidates are credibly described and include the design of a valid personalized career development plan and effective actions for project progress monitoring.*
- *The qualifications and research experience of the supervisors involved in the programme are very convincingly demonstrated.*

## Weaknesses

***No significant weaknesses identified.***



## Impact

### Strengths

- *The training and research programme will have a high impact on the beneficiary and partner organisations by enhancing their collaboration and improving their competitiveness.*
- *The programme is fully aligned with the human resources practices set out by the EU Charter & Code for Researchers. The programme will contribute to spread these good practices to all participating partners and at the regional, national and international level.*
- *The PhD fellows will be endowed with a complete set of innovative technical & soft skills that will significantly enhance their employability in both academic sector and industry.*
- *The dissemination and communication plan is outstanding. Measures to disseminate and communicate the results and activities of the programme are extensive and very well presented and the direct participation of the PhD fellows properly considered. KPIs to measure the impact of these actions are very convincingly described.*
- *Strategies for the exploitation of the results and management of intellectual property issues are comprehensive and appropriate.*

### Weaknesses

- ***Plans to ensure the impact of the research and training programme on the career perspectives of the PhD candidates are only generically described and concrete actions to ensure them are insufficiently elaborated.***

## Implementation

Total score: 94,60

### Strengths

- *The work plan is appropriately designed. Lists of deliverables and milestones are adequately provided with appropriate effort assigned to the work packages.*
- *The programme management structure is well presented with clear specification of the different actors and specific roles.*
- *The overall potential risks are credibly elaborated and mitigation and contingency plans are convincing.*
- *Experience in research and training and the quality of the infrastructure of the host institutions are very convincingly addressed. Importantly, the host institution is very experienced in managing European projects. All partner organisations are credibly committed to the project.*

### Weaknesses

- *The timeline for the selection phase is not fully convincing. It is not sufficiently justified why the final selection of doctoral candidates will occur at M24 while PhD fellows are expected to sign contracts and start working occurs at M23.*
- *Procedures for resolution of conflicts between the consortium's partners are insufficiently elaborated.*

# If I were asked how to approach a COFUND proposal

**Strategic vision**

**The ideal PhD/Postdoc  
programme**

**Clear ideas**

**Institution is prepared  
(but will improve with it)**

**Impact in your  
institution**

**Specific in every aspect**

**organized**

**transparency**

**Thank you for your attention!**

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**MSCA-COFUND infoday2022:  
The point of view of a  
beneficiary**

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