Guidelines in brief of a "Marie Sklodowska Curie Actions" project
(COFUND Doctoral programmes)

Table of Contents

0. …

1 - EXCELLENCE

1.1 Quality of the selection/recruitment process for the researchers
1.1.1 Transparency of the selection process of the researchers

The "PROJECT ACRONYM" selection and recruitment process, from the publication of the Call to the management of the evaluation process up to the funding decision, will be managed by the applicant, the **University of Naples Federico II (UNINA)**, by its "DEPARTMENT/CENTRE" through the newly established **Governance Boards** (see *sections …… and … for details).* The "DEPARTMENT/CENTRE" combines facilities and experience of more than *(number)……* Academic scientists from *(number)……* different areas of …………, supporting research projects and activities involving *(activity)…..* studies on *………………………(field).*

Dissemination of the Call in appropriate ways: "PROJECT ACRONYM" Doctoral Programme will last *(number)……* months with *(number)…* Call will be launched in *M(number)…* to recruit a total of *(number)……* **international Early Stage Researchers** (**ESR**s) or **Experienced researchers (ERs).**
In order to reach and attract the best promising ESRs or ERs from all over the world, a global communication and dissemination campaign adverting the whole Programme will be launched well before the Call publication in *M1* during the Kick Off Meeting ("City") and then continuously implemented during the *(number)…* months of the Calls opening (from M.. to M..), through a wide range of channels and tools, as shown in **Table 1.1**.

Table 1.1 - List of Calls dissemination tools and channels

Tool	Channel/Source/Link	How the Call is promoted
EURAXESS Portal	*https://euraxess.ec.europa.eu/jobs*	Job application form to be published in the Job page of the European Portal for Researchers in Motion for the whole duration of the Call (3 months).
Applicant website/social media	www.unina.it DEPARTMENT/CENTRE **website** Instagram: uninait; Facebook: Unina News; Linkedin: Università degli Studi di Napoli Federico II; Twitter: @UninaIT	The Call will be published in the home page of UNINA and **"DEPT/CENTRE",** and in the newly developed **"PROJECT ACRONYM" website**, and promoted thorough the corresponding existing media (Linkedin, Twitter, Facebook, Instagram),and newly set project social reaching about

		...,000 followers.
Partner organisations websites/social media	At least *(number)……* websites plus social media accounts of the POs.	Partner organisation websites, and their social media accounts, will be actively used for the Programme and Call promotion at European and international level, allowing a strong multiplier effect.
Job databases	Science Career: www.sciencecareers.org	Use of specific European and international databases to promote **"PROJECT ACRONYM"** job opportunities.
	Euro Science: www.eurosciencejobs.com	
	Indeed: www.indeed.com	
	Academic Job Vacancies: www.physicaloxy.com	
	Research Jobs: www.researchgate.net/	
International research and project Networks	…….	The Call will be extensively promoted also through the applicant and participating organisation existing projects and research Networks Twitter accounts, reaching a target of more than ...,000 users.
Marie Curie Networks	*Horizon Europe Network of the Marie Skłodowska-Curie Actions*	For a wider impact of the announcement, full advertisement of the Call will be pursued through the 2 major European MSCA Networks that will be running under Horizon Europe.
	National Contact Points	
	Marie Curie Alumni Association: https://www.mariecuriealumni.eu	
Journals	*Science Jobs*: www.sciencejobs.org	The Call will be hugely promoted in well-known research journals in their dedicated job sections.
	Nature Careers: www.nature.com/naturecareers	
EU and international events	A brief list of possible conferences is provided in section …. "*(of the proposal)*"	Dissemination of the Call will take place at specific European and international events taking place and during the Call opening.
"Topic" scientific societies	…..	The Call will be promoted in the dedicated section of job opportunities of the main scientific societies in the field of ……………...

Information to be provided to the candidates*:* the public advertisement of the Call will contain a clear description of the selection and recruitment rules in place and will include a link redirecting to the newly developed "PROJECT ACRONYM" website, to be published on line in **Month …** of the running of the project (together with the Call). The website will provide clear information about: **(a)** background and objectives of the Doctoral programme; **(b)** number of positions and research areas that the candidates will have the option to choose; **(c)** list of Departments and supervisors/co-supervisors along with their profiles and secondment arrangements at partner and foreign institutions; **(d)** employment and working conditions including the contract that will be offered and its duration (*see also section 3.2 Appointment conditions of researchers*); **(e)** information **about the "DEPT/CENTRE" and the related Doctoral Schools**; **(f)** guidelines about the application and submission process (*Guide for applicants* easily downloadable, D 1.1); **(g)** details on the selection and evaluation process, including eligibility criteria, CV evaluation, interview, scoring (criteria/sub-criteria), redress & ethical procedures **(h)** details about the training to be provided; **(i)** links to all relevant templates needed to apply. In addition, the website will have links providing information about **(a)** UNINA as the main host organization, **(b)** life in Italy and Naples, including information on how to travel around, means and costs; **(c)** instructions for opening a bank account; **(d)** support for getting visas or residence permits for non- EU countries; **(e)** available services (IT Services, Labs, Library, Sport); and **(f)** societies for researchers.

Eligibility criteria: ESRs of all nationalities can apply for the "PROJECT ACRONYM" DP Programme.
An application will only be considered eligible if it meets the following 3 **main eligibility conditions**:
1. The application pack is received before the deadline given in the Call text;
2. The application pack is complete (i.e. all requested documents are submitted, see Table 1.3 below);
3. The applicant meets the main eligibility criteria defined in Table 1.2 below which in principle fully adhere to the rules set by the H2020 MSCA Programme.

Table 1.2 - "PROJECT ACRONYM" ESRs Eligibility criteria

1.Academic qualifications	Applicants must satisfy the MSCA definition of an Early Stage Researcher (ESR) must be in the first four years (full-time equivalent research experience, measured from the date the researcher obtained the degree entitling them to embark on a doctorate) of their research careers and must not have been awarded a doctoral degree at the time of the Call deadline (M6). Applicants must hold a relevant European Master degree or equivalent (EQF 7) at the time of the application. His/her educational background should preferably be in *"Topics"* or combinations thereof or consistent with the scope of the programme.
2.Proof of English	Candidates that are not native English speakers must provide proof of their English language capability as established via an internationally recognised test such as: IELTS: minimum 6.5 for PhD; TOEFL paper test: 550 (TWE 4); TOEFL internet test: 79 (R18, L17, S20, W17).

3.Mobility requirements	Applicants must not have lived or carried out their main activity (e.g. study, work, research) in Italy for more than 12 months in the past 3 years* immediately prior to the Call deadline. Compulsory national service and/or short stays such as holidays are not taken into account. **Less restrictive mobility rule:** The time spent in applying for refugee status or found refuge in Europe in accordance with the 1951 Geneva Convention and the 1967 Protocol, and career breaks for compulsory military service and vacation leave will not be taken into account.

Application requirements: Applications will be accepted if uploaded on-line on a specific reserved area developed within the "PROJECT ACRONYM" website or sent by mail to the dedicated address DEPARTMENT/CENTRE website). The **Project Manager (PM)** will forward an acknowledgement once an application is received. All applications must use the templates provided on the "PROJECT ACRONYM" website, i.e. the documents listed in **Table 1.3**. To help prospect applicants, a **detailed guide** (D1.1) for filling in a complete application will be available for download from the dedicated website. Links to the templates and to the guide will be provided in the Call's advert. Other CV formats or incomplete applications will not be accepted. Moreover, a Helpdesk managed by the PM with staff from UNINA DEPT/CENTRE Human Resources (**HR**) and Research Support (**RS**) offices will also be available during the Call's opening to support the potential candidates with any query they might have. A concise description of the application documents required by the applicants and how they will be used during the eligibility check and evaluation is presented in Table 1.3.

Table 1.3 - Application requirements

Application documents	Stage in evaluation process
Application form: Applicant details, current address and last 3 years address (for mobility requirement check).* **Freedom of choice:** ESRs can freely choose among 12 available research and training projects (i.e. PhD courses on offer). Potential ESRs will indicate a specific project that best fits with their main interest and background, with the possibility to indicate a second choice (see Table 1.6).	1.Eligibility Check
Appendixes: -A scanned copy of the original Master Degree **(EQF 7)** with full transcripts -English Proficiency certificates for non-native speakers -Signed Declaration of Honour to certify that the info in the application is correct and complete*	1.Eligibility Check

5

Applicants CV	2. CV evaluation
-Complete CV (template will be provided; max length will be 5 pages as for MSCA IF)* -**Two referee letters** with referees' contact details	3. Interview
Motivation letter: clearly explaining the candidate main choice, the adherence of his/her researchn background with his/her choices for selection, what are the expectations by undertaking such a training and research pathway, short- and long-term career development ambition.	3. Interview

* templates downloadable from the Programme website

1.1.2 Organisation of the selection process. The evaluation and final selection of 10 international ESRs (or *ERs)* will follow *an open, transparent, merit based, impartial and equitable procedure, fully adhering to H2020 MSCA rules and in line with the principles set by the European Code of Conduct for the Recruitment of Researchers*. "PROJECT ACRONYM" selection and recruitment process will be managed by the Programme Scientific Coordinator (**PC**) with the help of the Programme Manager (**PM**), in strong collaboration with the Supervisory Board (**SB**), and with the support of the Human Resources (**HR**) and Research Support (**RS**) offices at UNINA DEPT/CENTRE. The entire evaluation process will also entail **external international members from the academic and non-academic sector** that will be part of the **Evaluation and Selection Committee** (**ESC**), and of the specific **ESR Evaluation and Selection Team (EEST)** if selected/matched within the received applications and chosen to perform the evaluation after the eligibility check (step 1). Gender balance will be always taken into account in the composition of the ESC and EEST (*see section …..*).

Fig 1 Summary of "PROJECT ACRONYM" selection and recruitment process with the Committees involved
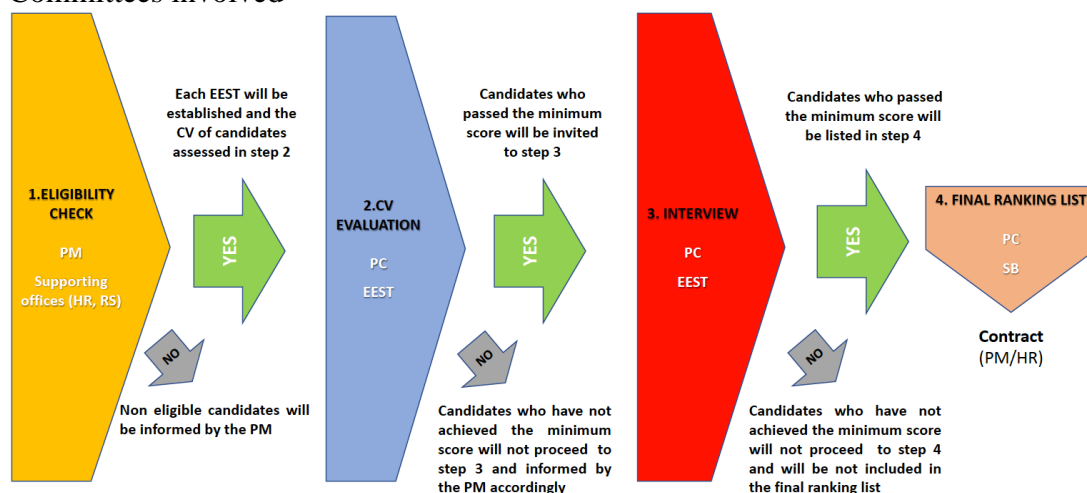
In the section that follows we present the specific role of the boards and committees involved **only** in the evaluation and selection process, while complete information on the programme/project management is provided in section …..

Role of the Supervisory Board (SB) in the evaluation and selection phases: the SB will monitor the overall quality of the evaluation and selection process through constant reporting by the PC. It is the SB that will make the final decisions about the development of the ranking list (*Step ..*) and take any decision about redressing procedure, if any (see Table 1.4). It will be chaired by the Project Scientific Coordinator (PC) and composed by a total of other *(number)…* members, *(number)…* of them formally nominated in M.. at the KoM:
- *(number)…* are DEPT/CENTRE existing managing board members (see their names in section …..)
- *(number)…* representatives from the Supervision Committee (SC), *(number)…* being main internal supervisors, the other *(number)…* co-supervisors from a hosting secondment PO
- *(number)…* representatives from the recruited ESRs; they will of course be part of the SB from M…, after starting their PhD and being elected by the other recruited ESRs.
The *(number)…* **members** of the DEPT/CENTRE existing managing board and of "PROJECT ACRONYM" SB will also be the internal members of the **Evaluation and Selection Committee (ESC)** and, if selected, being involved as evaluators, together with the nominated external experts (*see section that follows),* in the specific and individual **ESR Evaluation and Selection Team (EEST)** to actively work on Step 2 *CV evaluation* and Step 3 *Interview.*

Composition of committees involved in the different stages of the process. An **Evaluation and Selection Committee (ESC), chaired by the PC,** will be created with members formally appointed in M1 during the KoM. The ESC will be composed by a total of *(number)…* members:
• *(number)…* members of DEPT/CENTRE **existing managing board/** *(number)…* **internal members of the SB** (*see above*)
• *(number)…* international **external members from the academic and non-academic sector** (*see below*)
The full list of the *(number)…*ESC members will be published at the time of the Calls advertisement (M..).
"PROJECT ACRONYM" ESC is the *main "container" of all evaluators*, internal and external, who will, once matched with the applicants' background, be selected to work on a specific **ESR Evaluation and Selection Team (EEST).** In fact, once applications are received and the eligibility is checked, the PM will match the corresponding expertise and scientific background of the *(number)…* members of the ESC within the chosen ESR project and select for each candidate the experts that will best perform the evaluation, and will be part of the individual **EEST.** Each **EEST** will be chaired by the PC and composed by at least *(number)…* members: one internal plus *(number)…* external evaluators/members or *(number)…* internal members plus *(number)…* external, depending on the type of project and available expertise. In any case, **the ratio of internal or external evaluators will be kept as 1/3. If a candidate applies for two different projects, more experts will be invited in the EEST.** Each EEST will directly send the reports, scores/evaluation to the PC who will transmit them to the SB for final review and approval. The selected members (internal and external) of each EEST will be required to *declare potential conflicts of interest for each applicant*. Reasons for disqualification may include: (i) *personal or financial interest in the outcome of the assessment*; (ii) *close academic co-operation with the candidate*; (iii) *personal family or other relationship with the candidate*; (iv) *other issues that may raise questions about the member's impartiality*.

Selection of international experts: The selection of the *(number)…* external international experts, members of the *Evaluation and Selection Committee (ESC)* and, if selected, of the *specific ESR Evaluation and Selection Team (EEST),* will be based on their expertise and track record of research, will be gender balanced and include academic and non-academic professionals. During the Grant Agreement preparation (GAP) the DEPT/CENTRE will provide

names of possible external members, i.e. ***highly qualified scientists*** in the field of application or, in case of non-academic members, ***those with long industrial expertise*** in their field. Those names short-listed by the PC will be presented to the SB in M.. during the first Kick off meetings. The SB will discuss the proposed list of names and vote the best *(number)…* experts that will be invited to take part to the ESC. Particular attention will be paid to the inclusion of non-academic experts so that the industrial and societal impact of the overall programme can be maintained, and the gender ratio will be also managed (2/3). The *(number)…* selected experts will be asked to sign the due documents before starting their work (*see box below*). Few basic eligibility criteria must be met as reported in the following box.

Minimum eligibility criteria for external experts:
-at least 10 papers published in peer review journals in the last 5 years or
-in case of the non-academic sector, at least 5 years' experience in managing teams or research groups or industrial projects
-proficiency in English
-willing to sign:
-a confidentiality agreement
-a declaration of non-conflict of interest - she/he is not involved with the candidate (i.e. family or business ties, others)
-a non-discrimination – declaration, entailing that that they will not discriminate against ESRs in any way on the basis of gender age, ethic, or social origin, religion or belief, sexual orientation, language, disability, political opinion, social or economic condition.

1.1.3 ESRs' selection/recruitment workflow and powers entrusted to the different actors
"PROJECT ACRONYM" actors involved in the several steps of evaluation, selection and final **enrolment of … international ESRs in a doctoral programme** are identified in **Table 1.4**.

Table 1.4 - Evaluation, selection and recruitment steps

Steps	Tasks/Output	Actor
1-Eligibility and admissibility check	After the Call deadline due in M.., in **the first two weeks of M..** all submitted applications will be checked for eligibility according to the programme requirements (Table 1.2). Admissible applications must have all sections completed and all documents provided (Table 1.3). If the application is complete, then it will be evaluated. If not, then unsuccessful applicants will be notified by the PM.	**PM Supporting offices (HR, RS)**
2- CV Evaluation	Eligible applications will be matched by the PC that according to the choice of the candidates will select the internal member and external members that are part of the ESC to work on a specific EEST. The **matching will take place in the last 2 weeks of M..**, the **CV evaluation for the whole M..**, scores will be given by the EEST. Applicants scoring more than 40% will be part of a first ranking list and invited by the PM to the web interview (step 3).	**PC EEST**

3- Inter view	All interviews **(M..)** will be conducted in English, applicants will be asked to present themselves, their latest achievements, their main research interests, awareness of *"topic"* relevance and to discuss the reasons for their specific project choice to assess their motivation, others. Basic knowledge and experience in the field of ……….. will be also explored. Interviews (max 30 min each) will be carried out via **video/web** conferencing. Each EEST will develop a final report with reviews and scores (CV and interview) for each candidate, and will send it to the PM that will prepare the documentation to be discussed in step 4 by the SB.		**PC EEST**
4- Fina l rank ing list	Applicants who will score **minimum …% will be eligible for funding**. Applications will be ranked, and the **top** *(number….)* **candidates will be offered a contract**. On the basis of the final report, the ranking list will be developed by the PM at the end of M.. and approved by the Supervisory Board (SB). The list will also have a reserve list of ... candidates: if an applicant refuses the funding, then the next candidate within the reserve list will be offered a contract. **Both successful and unsuccessful applicants will be informed via email by the PM** and will receive the Evaluation Summary Report with comments and scores. The candidates will have the possibility to choose the available projects according to their position in the final ranking.		**PC SB**
5- Offe r of cont ract	The selected candidates will be offered employment in line with the Italian legislation **(offer of contract, M..)** and **enrolment to a doctoral course (M1.., starting of the fellowship)**. The names of the selected ESRs will be published on the programme website. More information about the conditions of employment for the fellows can be found in section ……….		**PM Support ing offices (HR, RS)**

Redressing Procedure: All applicants will have the opportunity to redress **within** *(number….)* **days** from the communication of the final results (M..) using a template document available on the programme website. Redress can be based against the eligibility check and other technical issues, not against the quality of the evaluation performed. Re-evaluation will only be possible if the applicant provides enough evidence of shortcomings that could have affected the final score. The **SB** will formally accept or reject the redressing. In case it is accepted, a specific **Redressing Committee** (**RC)** will be established and will be composed by new members who did not participate to the previous EEST (*see above*). The RC will review the eligibility records and/or the CV and conduct the interview, grading the candidate independently from the previous evaluation. The RC will develop a final report that will be sent to the PC, and then to the SB, to assess whether the final vote might bring any change to the ranking list. The applicants will be

informed **within** *(number….)* **days** from their request about the outcome of the redressing (final decisions and ranking list due in M..).

Evaluation criteria/sub-criteria (scoring and threshold): The selection will be based on academic experience, technical ability, communication skills, interpersonal attitude and motivation. In particular, the main criteria of **CV assessment** will be:

1-*Previous academic experience* in relation to the proposed research project and research experience performed during MSc studies;

2-*Evidence of creative thinking and international experience* (as appropriate to the candidate's career stage) such as previous mobility (e.g. ERASMUS programme), active participation to European and international conferences in the chosen discipline, presentations, prizes and awards (if any). The distinctive elements of different educational systems will be considered by following the guidelines of the *National Academic Recognition Information Centres* (NARIC) and of the *European Network of Information Centres* (ENIC), in order to be able to evaluate a foreign qualification and to understand the level and the nature of a study programme.

For the **interview,** candidates will be asked to provide a brief presentation of maximum 10 minutes on their latest achievements and of the reasons for choosing to participate to that particular doctoral programme. They will be assessed through 1) *motivation*, 2) *academic/research experience and potentials for growth*, 3) *longterm career plans and potentials to reach a position of professional maturity/independence and leadership, 4) communication and English language skills*.

The weighted criteria against which candidates will be assessed at steps 2-3 are detailed below. A maximum **score of** *(number….)* is achievable and the minimum threshold is *(number….)***.** Candidates achieving the minimum score of *(number….)* will then be ranked and this list used at step 4 to make the final selection (i.e. ranking list).

Table 1.5 - Evaluation criteria

STEP 2: CV Evaluation	Max score / sub-criteria	Available score
-Education and qualifications as from the CV	*(number ….)*	
-Academic track record and reference letters	*(number ….)*	
-Evidence of creative thinking and international experience, including presentations at international conferences, any other award and /or recognition or mobility period	*(number ….)*	*(number….)* (minimum threshold to progress to step 3 =40)
STEP 3: Interview		**Available score**
-Scientific knowledge of the chosen discipline	*(number ….)*	
-Communication skills/English language skills	*(number ….)*	*(number….)* (minimum threshold to progress to step 4=30)
-Motivation (integrative comments the Motivation letter) and potential for career development	**15**	

In the event of a tie, candidates will be further evaluated against the following criteria (in order of importance):

1) background in relation to the chosen project; 2) Gender (see below); 3) International

experience (example participation to ERASMUS, others).

1.1.4 Ensuring equal opportunities. The "PROJECT ACRONYM" Programme will:
1) Ensure that the selection/recruitment process fully adheres to equal opportunities polices, being fair, open and transparent;
2) Ensure gender balance in all the bodies composition and overall management of the Programme.

1) All applicants regardless of their age, sexual orientation or nationality will be encouraged to apply.
Equal opportunities will be promoted in the programme website with a specific page entailing the Programme policies for *gender balance, equality and diversity*, to be applied by both the Applicant, from the selection stage, and the partner organisations (POs) for the full running of the Programme. Moreover, the Call documents, i.e. *Guides for Applicants* (D 1.1)*,* will clearly define and list these policies.
Since 2015, UNINA has established the *Comitato Unico di Garanzia* (**CUG**, namely a Guarantee Board) for equal opportunities, an *ad hoc* institutional body that carries out its activity towards the entire University community. **The CUG activities and tools will be applied to ESRs prior and during selection as potential members of the UNINA community.** Moreover, if the participation in "PROJECT ACRONYM" required an extra financial support, UNINA will apply to the Research Executive Agency for the dedicated special needs grant to ensure necessary assistance by third persons or for adapting ESR's work environment in accordance with
Council Directive 2000/78/EC establishing a general framework for equal treatment in employment and Regulation (EU) No 1290/2013.
Equal opportunities in the selection process: The attractiveness of the scientific scope of "PROJECT ACRONYM" along with the adequately wide measures of the Call advertisement are expected to rise adequate and diverse feedback from any candidate regardless of age, ethnicity, nationality, social background, religion, sexual orientation, disability, political opinion or economic condition. The Project Manager (PM) will monitor the process to ensure that applicants will be not discriminated for any of the above issues. Provided ESRs comply with the mobility rule of MSCA programme, "PROJECT ACRONYM" will be open to any eligible researcher around the world. Moreover, the GBC will monitor gender balance of eligible ESRs. "PROJECT ACRONYM" aims at having **no less than 40% of either male or female ESRs**. "*Scientists at risk*" management will be handled by the **SInAPSi** center (see section …) at UNINA should "PROJECT ACRONYM" get interest by refugee scientists in agreement with the EU *Science4Refugees* policy and initiative. UNINA will also implement a policy of continuous improvement of the selection process by inviting applicants to provide voluntary feedback, including issues relating to equal opportunities.
2) As part of the Strategic plan 2019-2021, UNINA has established a **Gender Balance Committee (GBC)** to monitor gender equal opportunities within UNINA community. The GBC will be part of the project governance, i.e. **actively interacting during the Programme implementation** (see Fig 4 and section ….).
Equal opportunities during the implementation of "PROJECT ACRONYM"*:* In addition to the application of UNINA equal opportunity policies in general, the following specific measure to monitor equal opportunity and gender equality during the implementation of the Programme will be used: a report based on *Quantitative and qualitative data* on non-discrimination policies, accessibility, attractiveness and openness to diversity will be collected and analyzed periodically (D1.4). Finally, the established bodies at UNINA will also assure that equal opportunities are respected also in the implementation of **all the boards and committees that will be active in "PROJECT ACRONYM" where at least 40% ratio of gender balance** will be respected.

The UNINA Gendere Equality Plan is available at the following link: https://webmailsso.unina.it/horde/imp/view.php?actionID=view_attach&id=2&muid=%7B13%7DPosta+invi ata8286&view_token=WT_KNf2_NHSGbJEFR0gPdg2&uniq=1639575299258

1.2. Quality of the research options offered by the programme in terms of science, interdisciplinarity, intersectoral and level of transnational mobility
1.2.1 Background, Relevance of ………. research and innovative aspects of the proposed DP programme. …..
1.2.2 Excellence of the research programme.
….
1.2.3 Quality of the research options in terms of interdisciplinary research options, inter-sectoral and international networking.
…

1.3. Quality of career guidance and training, supervision arrangements and transferable skills
1.3.1 Supervision arrangements.
…
1.3.2 Quality and experience of supervisors.
All UNINA DEPT/CENTRE main and second supervisors have previously operated in the pre-existing doctoral schools that are routinely accredited from the Italian Ministry of University and Research. The accreditation is periodically assessed on the basis of the scientific qualification of the supervisors involved, the infrastructures, and the high quality and impact of the proposed PhD programs.

List of 15 selected publications in the last 5 years from the **Supervisors of "PROJECT ACRONYM"**
(*a complete list is available on the ……. website www……).*
…….
…….

All supervisors have high standard research CV and publication track-record (box aside) and experience in supervision of PhD as well as MSc students (*at least (number…) between PhD and MSc students for each supervisor*) in research projects that are consistent with those included in "PROJECT ACRONYM". In addition, **they all already have previous experience in managing research projects and ongoing "Topic"-related researches and grants** that will be able to support the research costs detailed in the budget section. The supervisors will be indicated at the application stage, which will make clear to candidates which research group they would specifically going to join. Table 1.9 includes names of the main supervisors, their bibliometric parameters retrieved from the database Scopus (www.scopus.com) and the area of research identified for the different ESRs. The co-supervisors will be employees of the POs whose CV best fit with the scope of "PROJECT ACRONYM" and the specific activities that the ESRs will be required to carry out during their secondment at selected POs (as detailed in the letters of commitment from the POs).

Table 1.9 - Overview of the Supervisors and their qualifications

ESR N.	Main Supervisor	UNINA Department	Bibliometric profile	Research experience	Co-supervisor(s) at POs

…					
.	….	….	….	….	….
…	…	…	…	…	…

1.3.3 Description of the training

1.3.3.1 Training on research skills within the appropriate discipline(s) and/or to gain new skills. The training programme will incorporate general **interdisciplinary research courses** common to all the ESRs (Table 1.10), including ………… *(topics)*, as well as courses useful to support the ESRs in developing **complementary skills**, such as *scientific communications, research projects writing and patents applications, ethics* (see section ……...). The different projects will be characterized by relevant …….. and ………. challenges, which align with their growing importance in industrial "topic" applications and growing demand of professional figures with such skills. These courses will be mostly organized **in the first 2 years** to allow adequate time for research and secondment to the ESRs in the second part of their PhD programme. Details on the research training activities are reported in the WP… description ("Topic" research). **Multiple webinars** will be also organized, given by internationally recognized experts on microbiome in different specific fields. The topics will cover ………… *(topic)*, as well as related subjects, such *as ………… (topics)*. Some webinars will be given by *experts from industry*, that will give an overview of the industry requests and interests in "topic" -related studies. International companies from different sectors will be invited to give webinars: companies producing ………………

Table 1.10 – "PROJECT ACRONYM" core "topic" courses for all participating ESRs

Course	Year	Learning outcome
…	…	…
…	…	…

ECTS (European Credit Transfer and Accumulation System) will be set according to the EU Higher Education Area and Bologna Process principles.

1.3.3.2 Complimentary and Transferable skills. Some courses proposed to the enrolled ESRs will provide complimentary and transferable skills. These will include courses on *scientific communication* (publication writing, presentations at conferences), *research grants writing, ethics, patent applications and IP management*. ESRs will be also involved in several events and seminars of *scientific dissemination to the general public* and to *school students* (World "topic" Day, European Researchers' Night, Open Days and others organized by the hosting institution), to learn how to *communicate research to a non-scientific audience (see also section .....)*. The trainings will be organized in *modules* (taught courses with part of practical activity), *seminars* (1-2 h given by expert in the specific subject) or *workshops* (meetings of few days, with several speakers on specific topics and space for discussion sessions with the ESRs). The activities will be open to all ESRs, however, participation to some specific seminars maybe discussed between each ESR and the supervisors according to the specific research field. To capitalize on the vibrant start-up culture in Europe and **promote entrepreneurship principle** and knowledge transfer, "PROJECT ACRONYM" will also organize a **two-day workshop** with international start-up founders, entrepreneurs and investors. The meeting will bring together emerging start-up companies and stakeholders in the "topic" industry and expose the ESRs to the start-up and entrepreneurship culture and business creation principles, contaminating the ESRs' future career path with a new vision of future employment. ESRs will be coached by non-academics and will actively work in a business hackathon to design a mini-business plan for an innovative

microbiome-related venture. This will provide the ESRs with complimentary and transferable skills useful to translate their research into business, favour knowledge transfer and increase employability within the industry sector.

Table 1.11. Complimentary and transferable skills courses available to alla ERSs

Courses/other activities	Year	Learning outcome	Type
…	…	…	Module
…	…	…	Seminar
…	…	…	Workshop

ECTS (European Credit Transfer and Accumulation System) will be set according to the EU Higher Education

Area and Bologna Process principles.

2. IMPACT

2.1 Enhancing the potential and future career perspectives of researchers; strengthening human resources on regional, national or international level

As introduced in section …, "topic" science is a relevant and attractive topic. As such, it is one of the best fields to involve young scientists in research and training. Although there are surely single PhD projects at national and international level that are focused on "topic" research, "PROJECT ACRONYM" will represent an initial step to establish doctoral schools in "topic" Science in Europe being the proposed doctoral programme one of the first initiatives fully dedicated to this subject area. In addition, at national and regional levels, very few PhD projects are focused on "topic" and this will have remarkable consequences on the career opportunities and professional development of "PROJECT ACRONYM" recruited ESRs. They will be MSCA doctors after 3 years, with a strong multi/transdisciplinary, international and intersectoral background in the …… field. Additionally, "PROJECT ACRONYM" has been designed to provide the ESRs with transferable skills and expose them to entrepreneurial and start-up environments.

2.1.1 Enhancement of the potential and future career perspectives of the recruited ESRs

The research ad training route that will lead to the career ladder development of "PROJECT ACRONYM" ESRs is depicted in Figure …. Starting from the solid multidisciplinary expertise of the DEPT/CENTRE, "PROJECT ACRONYM" will provide the ESRs with exciting research and training opportunities in different areas, training in basic and applied "topic"-related disciplines, coupled with training complementary skills such as those related to data science communication, open science, IP management, grant applications, ethics, entrepreneurship business creation and much more. Such solid background will be enriched by attractive research experiences on relevant topics, secondemnets at Pos with possibilities with further experience gain in intersectoral, business-oriented dimension and international mobility and networking. In this way, the ESRs research training will be **fully embedded with the 3i dimension** (Fig….): "PROJECT ACRONYM" PhDs will be trans-disciplinary "topic" scientists with intersectoral and international experience and with a multidisciplinary scientific and technical background. *This route will give to ESRs fantastic career perspectives in both companies and research/academic environments when the endless applications of "topic" science can be useful.*

2.1.2 Impact of the proposed programme on strenghtening research on human reseources at regional, national and international level

European and international level. The potential applications of "topic" research will impact all productive sectors, translating scientific advances into jobs and opportunities for competitive

growth and new businesses creation. The global market size of the "research field" segment alone was valued at ~… million USD in 2018, with a projected of … billion by 2027 at a CAGR of ….%. The growth is expected to be driven largely by human "research field" therapy, followed by application in ……… and ……, …… and ……….. sectors. While estimating the impact of "topic" research on the job market is difficult due to the wide range of applications and the fast-paced nature of the field, the growing "research field" economy has the possibility of creating up to *.. million new jobs by 2030* according to the latest European Commission report. **A large portion of these jobs will be driven by new professional profiles trained interdisciplinary in the broad field of "topic" research and applications.** "PROJECT ACRONIM" ESRs will have the potential to be key player at the regional, national and international level. The *"research field" training*, coupled with the *intersectoral*, *business-oriented experience carried out at the POs*, will help to strengthen the human resources in this area. *The ESRs will be also exposed to the start-up ecosystem and entrepreneurship*, favouring business creation and encouraging technology transfer.

<u>National/regional level.</u> "PROJECT ACRONYM" Programme perfectly fits with the current National/Regional innovation strategies for smart specialisation (RIS3). Among others, the RIS rationale and aims are: to make innovation a priority, to respond to economic and societal challenges, to make regions more visible to international investors, to promote knowledge spill over and technological diversification. *All these aspects can benefit from the creation of new researchers in the "topic" field*, **ready to respond to the needs of specialized scientists in the ………. applications of "research field"**. In Italy, smart specialisation priority areas are mostly consistent with the research and training offered in "PROJECT ACRONYM". Importantly, **the National Committee for …………… has elaborated the document "…………"** in support of Italian research and innovation on the "topic" front as enabling component for ………."sector" production. ***The document highlights the needs of a national strategy to support research and innovation in the sector***, in which it is appropriate to aggregate and enhance the skills and infrastructures existing in the country to encourage innovation and a better positioning of Italy in Europe and internationally. Although the current RIS3 is expiring, it is expected that such suggestions will be taken and it is foressen that specific measures to support "topic" research and investments will be included in the imminent new agenda. In such frame of recognition of the economic and scientific value of the "topic" research, the "PROJECT ACRONYM" PhDs will have even ***further chances of placement*** after their PhD programme at UNINA. The RIS3 *2021-2027 is expected to be innovation- and market-oriented and to apply the knowledge produced in the most relevant research field, a venue where the "PROJECT ACRONYM" ESRs will be surely able to capitalize their skills and knowledge*. At regional level, the RIS3 plan was adopted in Campania Region to promote regional development in specific fields, such as ……………….. and ………¨fields". **The DPs proposed in "PROJECT ACRONYM" cover all these strategic points**, including ……….. (project …), (project …).

2.2 Aligning practices of participating organizations with principles set out by th EU for human resources development in research and innovation.
Despite the high level standard applied by the participating organization in the "PROJECT ACRONYM" project, there is room for improvement and better homogenization of the practices related to human resource development among "PROJECT ACRONYM" participating organization (POs). "PROJECT ACRONYM" will strive to support the implementation of the EU principles for human resources development in research and innovation. In particular, "PROJECT ACRONYM" POs will aim to align to the principles of non-discrimination, gender balance and value of mobilety, including geographical, intersectoral, and trans- and interdisciplinary mobility of ESRs. Additionally, the POs will commit to the recognition of the scientific value of the ESRs, and will strive to provide supportive, fair and growth-

oriented working conditions, a stimulating research environment where appropriate resources and a strong commitment are provided for the ESRs career development.

2.2.1.Contribution to the implementation of principles set out by the EU Charter for Researchers

The applicant has adhered, by means of the deliberation of the Academic Senate (N.14 - 29/10/2018), to the European Charter for Researchers (2005/251). A clear plan has already been crafted to better implement the EU Human Resources Strategy for Researchers (HRS4R) for "PROJECT ACRONYM" as outlined below.

Table 2.1 - The principles of the European Charter for Researchers applied in "PROJECT ACRONYM"

	Principles	How it is applied to "PROJECT ACRONYM"
Code of Conduct for the Recruitment of Researchers	Recruitment and Selection	Recruitment and selection procedures will be clearly described and will follow an open, transparent, merit based, impartial and equitable procedure, with three evaluation phases that will lead to a final ranking list (Table 1.4). The results of each evaluation step will be communicated to candidates, and the final ranking list published on the programme website. Equal opportunities will be ensured during the application and implementation phases of "PROJECT ACRONYM".
	Transparency	The Call will provide clear information about the selection and recruitment rules; the type of contract and the working conditions; the research areas of the Doctoral programme; the arrangements at POs; a list of the supervisors/co-supervisors with their profiles and CVs. The call will contain all the information about eligibility criteria (Table 1.2) and application requirements (Table 1.3). In addition, a detailed guide for preparing and submitting the application and all the necessary templates will be available for download from the programme website.
	Judging merit	Evaluation criteria for each step and scores will be detailed in the call text (Section …. and Table 1.5). In the CV evaluation, mainly the previous academic experience in relation to the proposed research project will be considered. However, evidence of creative thinking, international experience (i.e., periods of mobility) and research attitudes will be considered. During the interview, the knowledge of the research area, as well as communication and language skills and motivation will be evaluated.
	Recognition of mobility and career breaks	Candidates will be also evaluated taking into account any international mobility experiences (i.e., ERASMUS). ESRs will not penalized for any career breaks they might have highlighted in their application.
	Recognition of qualifications	Academic qualifications will be evaluated considering the European Qualification Framework (EQF7 will be required). The distinctive elements of different educational systems will be considered following the guidelines of the National Academic Recognition Information Centres and European Network of Information Centres
European Charter for Researchers (employer' s perspective)(employer' s perspective)	Working conditions	The enrolled ESRs will work in a multicultural and stimulating environment. Besides the full support in the development of their research/training projects, ESRs will find support for administrative and practical issues by dedicated offices. ESRs will sign a Research contract under the Italian regulation (Reg. 240/2010), that includes social security, insurance for accidents and civil liability towards third parties, coverage of sick and maternity leaves (Section ….. and ………….). In addition, a family allowance of €…….. per ESR/month will be provided to those researchers that have a family (Section ………).
	Research environment	ESRs will have access to expertise and knowledge of more than ….. Academic scientists from …. different UNINA Departments in different research areas, as well as the necessary equipment, facilities, infrastructure and technologies at the forefront in the study of "topic" (Section ….. and …..).
	Career development	ESRs will receive a complete and interdisciplinary training in the broad field of "*scientific field*" research, leading to development of new professional profiles, responding to the increasing demand of such professionals that is expected in the future. They will all sign a PCDP at the beginning of the fellowship also to monitor their career development.
	Access to continuos research training	ESRs will be trained to the most up-to-date methodologies for the study of the "*scientific field*". Moreover, the training programme incorporates courses, workshops and seminars by International experts, covering different aspects of "*scientific field*" research. (Section …..).

| | Supervision | Because of the transdisciplinary and intersectoral nature of the research projects, each ESR will have more supervisors. Each ESR will be mentored by 1 main supervisor, for the individual research and training project, in some cases jointly with a 2nd internal supervisor. All ESRs will be assigned a co-supervisor from a PO (i.e. foreign institutions, industry). This arrangement will ensure the ESRs a transdisciplinary support. All the supervisors have high standard CVs, publication track-record, and experience in supervision of PhD and MSc students (Section … and …., Table 1.9). |

	Principles	**How it is applied to "PROJECT ACRONYM"**
European Charter for Researchers (ESR's perspective)	Research freedom	ESRs will freely choose among …. available research projects, choosing the one that best suits their main interests and background, with the possibility to indicate a second choice. *(Insert number)* …. projects will be activated at the end of the selection procedure.
	Ethics	*ESRs will be trained on ethical issues to be considered in "topic" studies.*
	Dissemination, exploitation of results, IPR	Specific courses on scientific communication to specialist (publication writing, presentation at conferences) and non-specialist public, IP management, open science will be taken by all ESRs (Section ….) Publications in international, peer-reviewed journals and participation to conferences for the dissemination of results will be encouraged.
	Public engagement	ESRs will attend a specific module to learn how to communicate research to a non-scientific audience and how to use social media to disseminate their research to the lay public. In addition, ESRs will be involved in several events and seminars of scientific dissemination to the lay public and to school students (Section ..).
	Supervision	Although ESRs considered in "PROJECT ACRONYM" are in the first stage of their career in research, they will be involved in supervision of BSc and MSc students (together with more experienced researchers) to develop their role as mentors.
	Redressing	All applicants will have the opportunity to redress within … days from the communication of any result (e.g. eligibility, CV or interview) using a template document available on the programme website. Re-evaluation will be possible if the applicant provides enough evidence of shortcomings that could have affected the final score. The SB will be in charge to assess whether to accept or reject the request. If accepted, a specific Redressing Committee (RC) will be created, that will evaluate the candidate again.

2.2.2. Contribution of the programme to the implementation of the principles for Innovative Doctoral Training.
The adherence of "PROJECT ACRONYM" to the 8 principles set out by the EU for the Human reosources development in R&I and the strategy for their implementation is summarized in the Table 2.2.

Table 2.2 - The principles for Innovative Doctoral Training applied in "PROJECT ACRONYM"

Principles	How it is applied to "PROJECT ACRONYM"
Research Excellence	The importance of "research field" for the ………….. "PROJECT ACRONYM" will represent the first example of doctoral programme in Europe with such a multidisciplinary research field related approach. Unina DEPT/Centre represent an ideal environment to support training and research in the research field, requiring diverse and inter-disciplinary expertise, competences, and facilities, fully covered by the Unina DEPT/Centre members.
Attractive Institutional Environment	The enrolled ESRs will work in a multicultural and stimulating environment. Every year, UNINA hosts several international students (MSc, BSc), visiting researchers (PhDs, Post-Docs) and Professors, besides foreign students regularly enrolled in UNINA Bachelor, Master or PhD Programmes and foreign Professors employed here (Section ….). ESRs will have access to expertise of the Academic scientists of the Unina DEPT/Centre, as well as laboratories, facilities and equipment at the forefront in the study of research field (Section ….. and ….).
Interdisciplinary Research Options	The Unina DEPT/Centre combines facilities and experience of more than … Academic scientists from … different UNINA Departments in the areas of *Biology, Medicine, Biotechnology, Food, Agricultural and Veterinary Sciences, Chemistry, Pharmacy, Engineering, Maths and Social Sciences,etc.*. supporting research projects and activities involving research field studies on human, animal, soil, plant, food, environment and marine systems, etc**.** Investigating "***research field***" involves multiple disciplines, technical skills and facilities. All the possible multidisciplinary expertise will be offered by the Unina DEPT/Centre to support both research and training of the ESRs. In addition, each ESR will be also given the opportunity to work in non-academic environment through the involvement of ad hoc POs.
Exposure to industry and other relevant employment sectors	"PROJECT ACRONYM" DP will lead to development of new professional profiles trained interdisciplinary in the broad field of "*research field*", responding to the increasing demand of "*research field*" experts that is expected in the future. All doctoral projects will be developed in close connection with an industry or a non-academic research centre (Partner Organizations, POs) working in the specific field of the project (industries, SMEs, hospitals, non-academic centres), where the ESR will be hosted for at least 6 months. In addition, workshops and meetings with experts from industry and Start-Ups will be held to give the ESRs an overview of the possible future work opportunities.
Internationalnetworking	ESRs will spend a minimum of 6 months abroad at POs. In addition, participation to international conferences, courses, seminars and project meetings will be encouraged. A travel allowance will be provided to each ER to promote secondment abroad and International networking.
Transferable skills training	ESRs will be offered courses to acquire complementary skills, such as scientific communication (publication writing, presentations at conferences), research grants and CV writing, ethics, patent applications and IP management.
Quality Assurance	The selection procedures will be carried out by a specific Evaluation and Selection Committee (ESC), including internal and international external members, who will be selected for their expertise and track record of research, including academic and non-academic professionals (Section …. and …..). In addition, the SB will monitor the development of the research and training, the appearance of risks and will provide reports and mitigation actions (Section …). In addition, each ESR will be supported by an ESR Supervisory Team (EST): all members of the ESTs will form the Supervisory Team that will monitor the quality of research and training and review any progress (Sections … and …).

….

2.3. Quality of the proposed measures to exploit and disseminate the results. "PROJECT ACRONYM" dissemination and communication activities are entailed in WP… (*section ….)* with dedicated tasks for exploitation and dissemination of results and communication of the programme activities, including public engagement. "PROJECT ACRONYM" will use a variety of measures to **maximise the impact** of the cross-sectoral and interdisciplinary research activities. These tasks are vital in **promoting the outputs** of both the **individual projects of the recruited ESRs and of the doctoral programme as a whole**. It is expected that ESRs will significantly advance the state of the art in their area, and in disseminating their results, they will come in contact with a **range of potential stakeholders** – from **research**, to **industry**, to **policy makers and publicat large** – enabling the ESRs to benefit from interaction across sectors and disciplines.

2.3.1. Results dissemination to the scientific community.

- **Scientific thesis:** All ESRs individually will produce a high-quality **scientific thesis in *"research field"* Sciences (year 3)** leading to a worldwide appreciated PhD degree that will be extremely valuable in terms of career perspectives.
- **Peer-reviewed publications:** Results of ESR projects are primarily communicated to the research community via peer-reviewed publications in **open access high-impact journals**. The SB, in accordance with the SC, will have an active role in ensuring that the data generated is combined and published in the most appropriate and highest impact factor journals and ensure fair authorship allocation valorising the role of the ESRs. We expect **at least 2 journal papers for each ESR**, in year 2 and 3 of their PhD, with conference abstracts and presentations usually preceding papers (Table 2.3).
- In a **Final dissemination conference**, to be held in Naples in M.., the ESRs will be invited to present their results remotely, via teleconference.
- **Conferences and meetings participation:** An integral part of the project activities is focused on networking to distribute knowledge and best practices, disseminate results and promote interactions in the scientific community. When applicable, the '*"research field"* conferences' organizing committees will be asked to develop a *"*PROJECT ACRONYM *corner"* where the ESRs will be able to hang posters or give short talks to disseminate their interdisciplinary experience and acquired knowledge in the field while also disseminating the MSCA initiative at UNINA. This will allow expansion of the network and establishment of a relevant forum or dedicated society for the future and attraction of business operators in need of microbiome experts for innovation and implementation activities. Moreover, ESRs will be required to attend a series of conferences, with an active role, such as **poster presentations, stands, speakers.** Table 2.3 provides examples of usually periodic "*research field"*-related European/international conferences that can be used as a possible venue for dissemination, together with the expected target audience type and the set **KPIs** that will be part of each ESR PCDP. **Each ESR is bound to participate to at least 2 events in the 3 years running of their PhD.** The list below will be finalised by M.. and be part of the project Dissemination and Data management Plan (D2.2). The target audience during conferences is mainly of scientists and fellow research students. According to the risk management plan (Table 3.5), in case of extension of pandemic, the participation to conferences will be achieved online.

Table 2.3 - List of some of the most renowned international conferences on" *research topic".*

Name	Periodicity	Topic	KPI
International ….. Consortium Congress	Every 2 years	Multidisciplinary	Reach at least … participants with poster session or stand
EMBO EMBL ….. Symposia	More in a Year	Multidisciplinary	Present research results to … attendees
International Conference on …..	Yearly	Clinical	Reach at least … participants with poster session/stand
Conference on ……..	Yearly	Data science & bioinformatics	Present research results to … attendees

Workshop for ……….	Every 2 years	Data science & bioinformatics	Present research results to … attendees
International Society of………	Yearly	Microbial Ecology	Present research results to 1… attendees
American Society of …………….	Yearly	Multidisciplinary	Present research results to …. attendees

2.3.2. **Research and Data Management Plans and Implementation of FAIR data management.** All ESRs will adhere to the set project research data and management plan (RDMP, D2.2) so that all data generated in the project adheres to Findable, Accessible, Interoperable and Reusable (**FAIR**) data management guidelines[13]. The RDMPs also allows to share information between ESRs via a password protected intranet website. The scientific results obtained by each ESR within "PROJECT ACRONYM" will be published following the FAIR principles. These are strongly respected in the "research" field, all the scientific journals that are the possible target for dissemination by the ESRs have such FAIR data publication as a mandatory requirement and this will assure the fulfilling of the principles. *Research field* data are basically ………….of the samples, all these are made available and reusable by depositing the data on public databases such as the ……………. Archive. "PROJECT ACRONYM" website will be also a further venue for deposition and sharing of the ESRs' results. In this way, the data produced can be assessed, used for other metanalyses and many other scientists can benefit from the study. The practice will be taught in the communication training to the ESRs and the supervisors will assure the FAIR data principles are respected in dissemination.

2.3.3. **Intellectual property right issues.** "PROJECT ACRONYM" participants are encouraged to properly protect and exploit the results of their projects and thus bridge the gap towards application on the market. Patentable results (e.g. research, materials and technologies) may be generated during the programme and these will be optimally protected and exploited. The PC, in close collaboration with the Supervisory team (ST) and SB, will be involved in i) detecting possible IP in the research projects and ii) protecting IP via patent applications. For each secondment, separate agreements will be set up between UNINA and the POs. Briefly, knowledge shall be owned by the organisation that has generated the knowledge. If knowledge is jointly generated, the beneficiary and the PO will get joint ownership, based on the ratio of effort made to obtain the knowledge. The PO will agree on arrangements for obtaining or maintaining shared rights on a case-by-case basis.

2.4. **Quality of the proposed measures to communicate the project results to different target audiences.** *Branding of* "PROJECT ACRONYM". UNINA, the DEPT/Centre and POs will work in synergy to promote an *ad hoc* communication strategy of the project. Extensive profiling is foreseen via national and international news channels and via widely distributed publications. In addition, the general public will be reached by social media, and the task will be achieved by an appropriate communication campaign supervised by the PM who will take care of developing, feeding and maintaining "PROJECT ACRONYM" **social media**. Moreover, the network of "*research field*" scientists of the DEPT/Centre will help feeding the news related to the project and its development through social media accounts (mainly Twitter and Linkedin) of "*research field*" *writers and influencers*, which is a key point for branding a concept or a programme these days. These measures will ensure that the general public, but also governmental and industrial policy makers, business managers, institutional leaders, etc. are informed about the programme.

2.4.1. **Public engagement strategy**. It is vital that ESRs can communicate their research to a wide audience. This increases public awareness of the importance of research and MSCA funding/grants to society. For these reasons, ESRs with their main supervisors will perform a wide range of outreach activities, of which few examples are reported in **Table 2.4** below. Each ESR should contribute to at least **one outreach activity per year** and regularly to the **network's external communication activities**. **These activities will be part of the signed PCDP and updated regularly.** Specific courses will train ESRs in i) presenting their work to a general audience, ii) identifying and communicating the impact of their work to society, iii) understanding public interest and concerns about science and technology and iv) media-interactions. ESRs will be also encouraged to **use social media channels** (e.g. Twitter, Instagram, LinkedIn) to communicate their projects. They are furthermore encouraged to **submit non-scientific articles in English to appropriate outlets** to raise awareness among the general public and non-specialized audience.

13   ec.europa.eu/research/.../data/ref/.../h2020-hi-oa-data-mgt_en.pdf

Moreover, **podcasts** form the ESRs sharing their achievements and their experience and skill development will be periodically recorded and disseminated through the social in order to make the general public aware of the "PROJECT ACRONYM" impact. The importance of public engagement in science is emphasized by offering ESRs a specific training in science communication to the media. ESRs are expected to develop creative ways to disseminate their findings. These engagement strategies will increase public awareness of the programme, but also generate interest in research and scientific measures to achieve key breakthroughs in society.

Table 2.4 - Summary of "PROJECT ACRONYM" outreach activities

Type of	Goals and expected impact	Target audience	KPI	When
Traditional communication through general media, press releases and publication of major scientific findings	Communicate research findings and implications, assure media coverage (newspapers, blogs). Promote public awareness of importance of science.	General public, students, policy makers	3 published articles in blogs and newspapers, 1 press release	Throughout the programme
e-Communication through public section of network's website, blog, LinkedIn, Twitter, YouTube, Instagram and Facebook accounts and podcasts	Impact public awareness of importance of research and science in general, interaction with public, lead-users and end-users.	General public, larger research community, technologists, innovators, students	10 podcasts on social media and minimum 200 contacts reached	Throughout the programme
Participation and presentations in scientific events and exhibitions, or at the open day of the universities	ESRs as MSCA ambassadors to promote communication and engagement of fellows with general public, to communicate research findings and implications, to inform prospective students about career opportunities in science and how scientists can have an influence on public health, environment and society.	General public, MSc and BSc students, undergraduates	150 participants reached	Yearly
Outreach to expose high school children to science, participating in science exhibitions, preparing materials or digital data for high school projects, visit programs related to public understanding of science.	Communication and direct engagement of fellows with general public, soliciting feedback of public and increase the interest of the general public in performing science.	School students of all levels	At least 300 students reached	Yearly

3. QUALITY AND EFFICIENCY OF IMPLEMENTATION
3.1. Coherence, effectiveness and appropriateness of the work plan
3.1.1. Programme workplan and Calls timeline

......

3.1.2. Work packages description

......

3.1.3. Gantt chart

…..

3.1.4. "PROJECT ACRONYM" management structure

......

3.1.4.1. Financial Management

…..

3.1.5. Risk Management/Contingency Plans of the Programme. The Programme individual research projects risk monitoring is a task mainly allocated to the EST of each fellow. They will regularly report any issues to the PC/PM, and together take actions within the SB if needed. In terms of risks related to the running and implementation of the proposed DP, few important risks are reported in Table **3.5**.

Table 3.5 - Risk management/contingency plans				
Risk no.	Description of risk	WP N.	Probability of risk	Proposed mitigation measures
R1	Travel or laboratory access limitations due to the COVID-19 pandemic	All	Medium	In case of travelling restrictions will be still in place at the time of ESR enrolment, during the GAP the PC will agree with the REA PO a postponed starting date to meet the emergency requirements. In case access to laboratories and facilities is restricted, UNINA will apply current measures of entrance that will allow a regular activity of the ESRs. Attendance to conferences in case of pandemic will be online.

R2	Low number of candidates	W P.. WP..	Low	The programme foresees to employ a total of ...... ESRs, not such a huge number, compared to the options offered. If this problem arises, the PC will seek for assistance to MSCA NCPs around Europe, and the EURAXESS Network of local mobility centres, to strongly promote the Call and try to attract other candidates.
R3	Incorrect estimates of fellowship budget and planned expenses	WP..	Low	The forecasts and total planned budget (*see section ....*) for the activities covered by programme are part of UNINA standard management activities. Possibilities to cover unplanned expenditure, if any, will be afforded by UNINA- DEPT/Centre financial offices.
R4	Delays in selection and fellowships approval	WP..	Medium	High number of submitted applications would primarily influence eligibility check, and then the independent peer review. UNINA may fully involve internal human resource already employed by the running doctoral programme in case extra support is needed for a smooth implementation of the eligibility check and the organisation of the evaluations. Therefore, any risk of delay would be minimised.
R5	Delays with the employment contracts and fellowship implementation	WP..	Medium	Applicants will be supported by the PM, UNINA staff and welcome office on visa, work permit, accommodation, family, etc. A two months period is granted to each selected fellow between selection and fellowship starting date. Any delays with visa, work permit or employment agreement will be swiftly communicated to the PC and dealt with accordingly. In case of major delays and risk for fellowship implementation, another shortlisted candidate may be considered.
R6	Underperforming communication among the involved parties	All WPs	Low	Flow of information among the Programme participants is ensured via meetings, web calls, emails; staff members will select appropriate measures to ensure timely communication. Programme related documents will be available on internal network shared by programme members; updates will be also sent via email.
R7	Possible conflicts of interests	WP..	Medium	Independent international experts, members of the ESR committee, as well as internal experts involved in the selection procedure, will all declare absence of conflicts of interests. However, if a conflict of interest arises, upon receipt of CV by EEST member, specific actions will be taken by the PC, such as replacement of the evaluator.
R8	Possible learning problems of the ESRs during the training activities	WP.. lOW		The SB of "PROJECT ACRONYM" will invite the ESRs to report any learning difficulties due to different scientific and technical background that can be sometimes troublesome in assuring a prompt learning of the research topics-related disciplines. In case of problems, appropriate scientists in the DEPT/Centre will be recruited to assist the ESRs by integrating their background knowledge to help facing the problematic modules
R9	Obstacles during the development of the research projects	WP..	Medium	The supervisors will discuss possible problems associated with the development of the research projects within the Supervision Committee. Issues will be reported to the SB that will take actions by involving facilities/expertise of the >(insert number) DEPT/Centre/TaskForce experts providing alternative supporting strategies to assure the research progress.

3.2. Appointment conditions of researchers

The selected ESRs will have **research contracts** for the length of their PhD (36 months) developed according to the Italian contract Law. The contracts will have <u>complete coverage of social security</u>. The salary will be established considering the national laws, regulation and practices concerning the employment contract of the Italian doctoral students and research employees.

Amounts for the benefit of the researcher and for the organisation that is hosting the researcher. "PROJECT ACRONYM" financial budget is based on unit costs per person/month and it is detailed in Table 3.4. The total **living allowance per ESR/month is €....,** of which €.... are the maximum EU contribution and € .... per ESR/month are from UNINA co-funding. Each ESR will be also provided a **€... mobility allowance**, thus reaching the minimum total remuneration costs provided in the MSCA Work Programme of **€... gross salary**. Living allowance, mobility allowance, social security contributions, taxes, and other costs are all included in the remuneration. UNINA will provide a **family allowance of €..** per ESR/month for those researchers having a family status at the time of the Call deadline. UNINA will provide each ESR with **€.../month of travel allowance** in the form of refunding travel costs for secondments and international networking. This budget will be available as cumulative amount for the 3 years (>10k€) of contract and can be spent any time needed by the ESR, this is only intended for travels for the secondment periods. Additional costs for traveling to conferences and training venues will be refunded through research and training costs that are available from UNINA resources at the Departments were the research activity of the ESRs will be carried out. The same budget will be also used to cover the **Research costs of up to €... per ESR/month** associated to the research activity (consumables, services, reagents, data analysis etc.) that the ESRs will carry out at UNINA, and **€... per ESR/month** will be provided for the **Training activities**. The **management**

of the programme will be supported by the dedicated budget funded by the EU (€ …/ESR/month) to which UNINA will add €…. per ESR/month for a total of **€… per ESR/month** towards the management of "PROJECT ACRONYM".

3.2.1……

3.2.2. Working conditions, institutional administrative support, and available services/facilities
The enrolled ESRs will work in a multicultural and stimulating environment. Every year, UNINA hosts several international students (MSc, BSc) within the Erasmus Programme, visiting researchers and Professors involved in seminars and courses, besides foreign students regularly enrolled in UNINA Bachelor, Master or PhD Programmes. Dedicated offices are available to support ESRs in administrative and practical issues. UNINA has an **International Affairs Office**, that will help with bureaucracy and with the paperwork to be prepared to formalize the enrolment in the DP. On behalf of UNINA, the International Students Union (ISU) (www.isu-services.it/en/universities/universita-degli-studi-di-napoli-federico-ii) will offer a free service to ESRs to find accommodation in Naples and to solve other important practical issues (e.g., social security card, bank account, visa). The ESRs will be able to participate in several leisure activities: UNINA facilities include 5 free-of-charge museums (www.musei.unina.it), a central library and several libraries dislocated in the different Departments (www.sba.unina.it). The University Sport Center (CUS; www.cusnapoli.org/) will offer them discounted prices for gyms, swimming pools and other sport activities. Besides services offered by UNINA, ESRs will also find at UNINA **research facilities and technologies** at the forefront in the study of research field, having access to all laboratories, research equipment and expertise on research field -related studies available within the DEPT/Centre as described in section …. Depending on the specific project, ESRs will have access to "research field" laboratories, ……………, equipment for metabolomics and clinical trials on humans and animals and all the research equipment and materials needed to develop the DP. In addition, the datacenter **SCoPE** (*Cooperative System for multidisciplinary Scientific Computing*), a set of computing and storage resources available by means of distributed computing paradigms, will be available for computationally intensive analyses requested by for the ESRs' projects.

3.2.3.Employment conditions, including statutory working practices, SSC and social benefits
ESRs will receive, as set by the European Charter for Researchers, an employment contract of the duration of 3 years (full-time basis), issued by the applicant UNINA, the only organization providing recruitment to the 10 ESRs. ESRs will have a **Research contract** under the competent Italian regulation (Reg. 240/2010) and according to the University regulation (510/24.04.2019 and subsequents). Fiscal treatment, Social security (SSC) and sick/maternity leave will be fully covered according to the Italian regulation. According to UNINA research contract regulation, the ESRs grant holders will have the right to use facilities, equipment, research laboratories, services and offices in the specific Departments/Centres where their activities will be carried out. **Insurance** will be also provided to cover for accidents and civil liability towards third parties in favour of the ESRs during the development of their research and training activities.

3.2.4 Comparison of the proposed working conditions of the programme with the regional and/or national and/or sectoral ones.
Located in Naples, UNINA offers a high quality of life with comparative low prices with respect to major other Italian and European cities. "PROJECT ACRONYM" salary **is far more competitive compared with those of the Italian national system for doctoral students**. The Italian doctoral students are usually supported with a 3 years fellowship, the gross salary of each PhD student is of €1578/month before taxes and full SSC. Such fellowships are all equal at national level regardless of the Italian University issuing the contracts. The salary for the "PROJECT ACRONYM" ESRs (€…., excluding possible family allowance, travel and training costs refunding) will be **therefore more than 70% higher** than those normally applied to Italian PhD students at UNINA or elsewhere in Italy. With the PROJECT ACRONYM salary the ESRs will have adequate support to live in Naples. Adjusted cost of living in Naples is 20% lower than Milan, 18% lower than

Rome and 38% lower than Paris. The ESRs will have an idea of the costs for living in Naples far before their application. In fact, the "Academic and student life" section of the UNINA international website has a whole section dedicated to "The costs of living in Naples" where the candidate ESRs are provided info on costs of housing, public transports, food, market, restaurants, beer, sport etc., so that they will be fully aware of how adequate the "PROJECT ACRONYM" salary can be for living in a not expensive city like Naples.

3.3. Competence of the participant to implement the programme

3.3.1. Administrative, technical and human resources to be used to implement the programme. Established in 1224, UNINA is the oldest public University of the western world. It is one of the largest general research universities in Europe with more than 2,500 academic staff and about 80,000 students, of which half are postgraduates. UNINA has a vast experience in managing EU- and national-funded projects. Until today, we have received about **100 EU grants in the last 5 years**, 20% of which as coordinator. In particular, **34 projects are from MSCA calls** (most of the MSCA grants are from MSCA-ITN calls and none has been granted yet under the MSCA-COFUND programme) and **12 ERC calls**, UNINA is also recipient of **over** **500 grants** from national and regional bodies and the above figures exclude contracts with private companies. UNINA has therefore developed a consolidated expertise in the management of grants and is surely capable to assure full competence in the implementation of "PROJECT ACRONYM". The management, review and support bodies of "PROJECT ACRONYM" will consist of experienced research, technical and administrative staff with expertise in different areas. These will be assured by the well-structured network of Departments/Centres, facilities and expertise of the applicant Dept/Centre (recently established at UNINA (www.......unina.it*).* The extensive body of human resources, technical facilities and infrastructures at UNINA will be used to maximise the value of the Programme. UNINA has a dedicated "*Support Office for Funding Opportunities and Management of Research Projects*" that will support all stages of the development of "PROJECT ACRONYM". The office will support the research office that will manage the project located in each Dept/Centre in negotiation and contracting phases, in the agreements with the PO and in periodic technical and administrative reports. In addition, *the Doctorate, Research contracts and Scholarships Office* at UNINA will deal with registration and career monitoring and organization of final examinations of the ESRs as doctoral students. The research of the ESRs will be carried out in at least ... different Departments/Centres, all fully equipped with human resources, administrative, technical and academic staff that will be of essential support for the life of the ESRs during their career development as Research topic scientists.

3.3.2. Description of partner organizations, and their interactions with the applicant.
……
3.3.3. Support offered to candidate researchers during the application/recruitment/implementation
ESRs will be given full support at all stages of the programme development since its application stage. As detailed in section 1.1.2, the candidates will be able to ask questions on how to apply to the specifically established **helpdesk**. In addition, more specific scientific and technical questions on the projects (scientific content, timing, secondment, PO involvement) will be addressed directly to the PC. Upon recruitment, ESRs will be offered the full-service package for international students and researchers in force at UNINA and detailed in section 3.2.2. Assistance in finding accommodation, dealing with visa, bank account, bureaucracy and other relevant issues will be provided by the **ISU office at UNINA**. ESRs will be also informed of all the chances and services offered by **Euraxess Italy** for a personalized support in their relocation in Italy. All the required info will be given in a Welcome event (i.e. projects and programme overview, research and training activities at UNINA, ESRs' rights and duties, others). During implementation, ESRs will be scientifically supervised by the individual and specific EST. In addition, administrative staff of the UNINA Departments/Centres will offer help towards any possible need of the ESRs, including the *Services for the Active and Participatory Inclusion of Students* (SInAPSi) that facilitate the participation in UNINA life. SInAPSi is also the UNINA

Center for all the students/workers with the aim of fostering full active participation and social inclusion of all university students.

4. ETHICS ASPECTS

The University Federico II Ethical Code of Behaviour pools the principles that all members of the University community accept and share. These also apply to all who enter into relations with the University and share its values. The new University Ethical Code of Behaviour gives effect to DR/2012/2425 released on July 11th 2012. The Code lays down the basic values of the University community and the rules for avoiding all forms of discrimination and abuse, as well as for regulating cases of conflict of interest and the area of intellectual property. It is a benchmark document providing an ethical framework for the University's internal and external relations and stands as a declaration of principles accepted and shared by teachers and researchers, managing and technical-administrative staff, students and all who enter into relations with the University and share its values. Where compatible, these also extend to all forms of University collaborator and consultant. The same norms of behavior were approved by the Administrative Board, and apply to those working for firms carrying out works, or suppliers of goods and services, on behalf of the Administration. All members of the university community are equally responsible for upholding and applying in full the rules of the University Ethical Code of Behaviour. All procedures related to the activities of this proposal will be carried out in compliance with the rules of this code (http://allegati.unina.it/ateneo/regolamenti/2012/DR_2425_1107.pdf).

The main principles of the Ethical code are included in the following topics:

1. Collaboration, intellectual property and plagiarism;
2. Cultural initiatives and use of research funds;
3. Conflict of interest;
4. Nepotism and favoritism;
5. Power abuse;
6. Sexual abuse and annoyance;
7. Use of the University resources;
8. Use of University name and reputation;
9. Offices organization and operation.

The following is a summary of main ethical principles that will be applied:

- Honesty: Honestly report data, results, methods and procedures, and publication status. Do notfabricate, falsify, or misrepresent data.
- Objectivity: Strive to avoid bias in experimental design, data analysis, data interpretation, peer review, personnel decisions, grant writing, expert testimony, and other aspects of research.
- Integrity: Keep your promises and agreements; act with sincerity; strive for consistency of thoughtand action.
- Carefulness: Avoid careless errors and negligence; carefully and critically examine your own workand the work of your peers. Keep good records of research activities.
- Openness: Share data, results, ideas, tools, resources. Be open to criticism and new ideas.
- Respect for Intellectual Property: Honor patents, copyrights, and other forms of intellectual property. Do not use unpublished data, methods, or results without permission. Give credit where credit is due.Never plagiarize.
- Confidentiality: Protect confidential communications, such as papers or grants submitted for publication, personnel records, trade or military secrets, and patient records.
- Responsible Publication: Publish in order to advance research and scholarship, not to advance just your own career. Avoid wasteful and duplicative publication.
- Responsible Mentoring: Help to educate, mentor, and advise students. Promote their welfare and allow them to make their own decisions.
- Respect for Colleagues: Respect your colleagues and treat them fairly.
- Social Responsibility: Strive to promote social good and prevent or mitigate social harms throughresearch, public education, and advocacy.
- Non-Discrimination: Avoid discrimination against colleagues or students on the basis of sex, race, ethnicity, or other factors that are not related to their scientific competence and integrity.

- Competence: Maintain and improve your own professional competence and expertise through lifelong education and learning; take steps to promote competence in science as a whole.
- Legality: Know and obey relevant laws and institutional and governmental policies.
- Human Subjects Protection: When conducting research on human subjects, minimize harms and risks and maximize benefits; respect human dignity, privacy, and autonomy.
- Animal Subjects Protection: When conducting research on animal models, comply wit all the authorizations and rules in order to have animal welfare respected in all the activities.

Not all the research projects that will be implemented in "PROJECT ACRONYM" rise ethical issues associated to human or animal subjects in the research. For all the projects that need approval from the Ethics committee before the research can start, the approval will have been already received by the PI of the research (ESR supervisor) prior to the start of "PROJECT ACRONYM". In alternative, the PI will prepare and submit an appropriate protocol to the Ethics Committee of the University of Naples Federico II. The PhD students will be involved by the PIs of each research project in the submission procedure of the proposals to the Ethics Committees. Training on ethics is scheduled for all the ESRs in "PROJECT ACRONYM" (Table 1.11). Moreover, interaction with the Ethics committee at UNINA will be a further growth opportunity for the ESRs to develop skills on how to prepare a fair and ethically acceptable research protocol. The Members of the Ethics Committees will guide the PhD students on how to write a research proposal involving animals or human subjects. All the procedures involving animals will be approved by the Institutional Committee on the Ethics of Animal Experiments (CVS) of UNINA and by the Italian Ministry of Health. Also in this case PhD students will be instructed on best animal care practice in research, and how to avoid unnecessary or poorly designed animal experiments.

ESRs will receive a high degree of knowledge on research ethics by the Members of the *Ethics Committee* of the University of Naples "Federico II". The Ethics Committee of University of Naples "Federico II" is structurally part of the Division of Legal Medicine of the Department of Advanced Biomedical Sciences, and is composed by experts in field of biomedical research. The Committee will evaluate research protocols and clinical trials with the aim to protect the person's rights and to guarantee the safety and well-being of the enrolled subjects. The Members of the Ethics Committee will participate in the teaching activities for the PhD students providing the pivotal elements in the field of bioethics, and guidelines for the responsible conduct of research. In addition, the Members will monitor the scientific activities of the PhD students to ensure a high ethical standard.