TEMPLATE 4: ACTION PLAN

Case number: 2022ES813030

Name Organisation under review:

FUNDACION BCMATERIALS-BASQUE CENTER FOR MATERIALS, APPLICATIONS AND NANOSTRUCTURES

Organisation's contact details:

Barrio Sarriena s/n Martina Casiano Bld. 3rd floor. 48940 Leioa, Spain.

raquel.gonzalez@bcmaterials.net

SUBMISSION DATE: ……..

1. ORGANISATIONAL INFORMATION

*Please provide a limited number of key figures for your organisation. Figures marked * are compulsory.*

STAFF & STUDENTS	*FTE*
Total researchers = staff, fellowship holders, bursary holders, PhD. students either full-time or part-time involved in research	*84*
Of whom are international (i.e. foreign nationality)	*25*
Of whom are externally funded (i.e. for whom the organisation is host organisation)	*2*
Of whom are women	*37*
Of whom are stage R1, R2 or R3= Researchers with a large degree of autonomy, typically holding the status of Principal Investigator or Professor.	*40*
Of whom are stage R4, R5 or R6= in most organisations corresponding with postdoctoral level	*13*
Of whom are stage R7 = in most organisations corresponding with doctoral level	*31*
Total number of students (if relevant)	
Total number of staff (including management, administrative, teaching and research staff)	*92*
RESEARCH FUNDING (figures for most recent fiscal year)	*€*
Total annual organisational budget	*3.015.000€*
Annual organisational direct government funding (designated for research)	*300.000€*
Annual competitive government-sourced funding (designated for research, obtained in competition with other organisations – including EU funding)	*1.810.500€*
Annual funding from private, non-government sources, designated for research	*904.500€*
***ORGANISATIONAL PROFILE** (a very brief description of your organisation, max. 100 words)*	

BCM launched in June 2012 by Ikerbasque and the UPV/EHU, aimed at generating knowledge on new generation materials, as well as turn this knowledge into the next generation of (multifunctional) solutions and devices for the benefit of society. Materials are developed, evaluated, understood, and implemented for devices like sensors and actuators, critical for the IoT and Industry 4.0 paradigms that shape modern technological paradigms, along with drives, materials for advanced manufacturing applications, and materials for medicine, among others. It has around 90 members and its scientific production in 2021 were more than 150 published articles.

2. STRENGTHS AND WEAKNESSES OF THE CURRENT PRACTICE:

Please provide an overview of the organisation in terms of the current strengths and weaknesses of the current practice under the four thematic headings of the Charter and Code at your organization.

Thematic heading of the Charter and Code	**STRENGTHS and WEAKNESSES**
Ethical and professional aspects	STRENGTHS **Ethics**: BCMaterials provide research freedom to its researchers within the limits stablished by the institutes reference values and mission. In addition, it has an ethics committee and a written Code of ethics that sets the responsibilities that researchers acquire when they join the institution. **Accountability**: The accountability procedures are clearly stated at the Institute's statutes. BCMaterials have written a proposal submission policy to be fulfilled by all the researchers that submit a proposal for funding. Also, BCMaterials has hired an international projects manager to help researchers in all the process and justifications derived by research projects. Both the International Projects manager and the general manager of the institute provide support and were commissioned to review the accountability of the institute. Several audits were performed along the year to check the economic performance of the institute: an internal audit, and audits of regional, national, and European projects. **Safety and IT security procedures**. BCMaterials have its own safety committee, and in addition, the institutes that shared the building have created a second safety committee for general security purposes. BCMaterials has also appointed a director of the emergency plan, has written a self-protection plan and implements the security measures currently recommended in the market for IT services. Additionally, a large part of its assets, including the most critical elements, have an additional layer of IT security.

	IP protection. In the last 4 years BCMaterials have presented 3 patents, usually a 15% of the research projects were funded directly by companies, and the 70% of the public founding projects were performed in collaboration with the private sector. To manage IP within research collaborations, BCMaterials has a written basal contract setting the clauses of the legal agreement in terms of the IP rights distribution of the inventions generated. In addition, BCMaterials has written a laboratory notebook's policy and a written knowledge protection and technology transfer policy, that clearly states the responsibilities, participation, and ownership of the rights of the inventions. **Dissemination and communication**: The statutes of BCMaterials states that one of its objectives to disseminate science materials discoveries to society, BCMaterials have recently hired a communication manger to centralize and improve the dissemination of the communication events performed at the institute. Some of the communication events already performed are the invited talks and fortnightly seminars. These events play an essential role in the activity of BCMaterials, helping to train researchers in excellence. During 2021, 18 invited talks and 19 fortnightly seminars were held at BCMaterials **Equality**. The statutes of BCMaterials states that the recruitment of researchers should be based in equality merit and capability. BCMaterials has an equality plan in which agrees to foster a gender equality representation in the different areas of the company and improve the training in equality issues to the staff. **Evaluation.** BCMaterials' researchers were evaluated periodically. IKERBASKE researchers were evaluated periodically each 4 years by IKERBASKE institution. The RYC and JdlC researchers were evaluated by their funding institutions WEAKNESS Although BCMaterials has internal norms and procedures, it seems that these are not known by researchers. BCMaterials will have to improve the internal communication about different aspects such as: professional responsibility and IP, contractual and legal obligations and ethical issues. In addition, BCMaterials should write additional documents, such as a Good research practices manual.

Recruitment and selection	STRENGTHS **Recruitment:** The statutes of BCMaterials states that the recruitment of researchers should be based in equality merit and capability. BCMaterials is committed with the equal representation of both genders in all the professional profiles in the institution. Job offers include the required research profile, but do not mention the salary, information about the selection process neither of the selection criteria. International mobility is one of the issues that were most positively evaluated in the CV judgement performed by BCMaterials and IKERBASQUE. Job offers were published at different webpages: Bizkaia Talent, Science.Eus, Euraxess etc. **Selection:** BCMaterials Research positions define a minimum threshold of experience that researchers should have to be accepted as candidates for the open positions. After the initial selection process start, candidates receive a notification by mail informing about the status of their application. Those candidates that were preselected were interviewed by the PI, the director, and the manager, and during these interviews candidates could show other aspects not written at their CV that could be advantageous for their selection. In the case that candidates ask for feedback, a copy of their evaluation template is provided WEAKNESS Although the current recruitment and selection procedures integrates some of the OTM-R criteria. These procedures should be fully aligned with the HRS4R strategy. This alignment should include among other minor aspects: Adapt the recruitment procedures to OTM-R and write a recruitment procedure. Define a training strategy for the recruitment committees. Provide feedback of the candidate's evaluation after the selection process.
Working conditions	**Recognition of the profession**: Researchers are recognized as professionals under the law of science. **Research environment**: Advanced laboratories have been implemented and are being implemented for all areas of activity of the research center. Those facilities are open to all our collaborators and paid services are also provided. BCMaterials has collaboration agreements with international organizations that support the collaborative scientific and research programs and promote the free exchange of

	scientist. In addition, BCMaterials leads a European H2020 Rise project for mobility of researchers. The consortium is composed by different research centres, universities and companies in Argentina, Chile, California, Portugal, and Spain. **Working conditions**: The Institution facilitates reconciling family life and work by offering flexibility in work schedules and sabbatical periods to those who request them **Stability and permanence of employment** The institute is aware of the lack of stability of the junior research positions, nevertheless the junior positions are considered as a training step of their career, Senior IKERBASQUE awarded positions were considered permanent although they were evaluated periodically. R3 researchers could stabilize their positions after a good performance evaluation and if there is an available position within the institute. **Salaries:** Signed labour conditions improve the salary set at the workers' statute. Researchers' salaries funded by different agencies are in the same range. **Mobility**: 70% of the senior researchers have an industrial experience before their recruitment. And international experience is a plus for the recruitment of junior researchers. Mobility experiences are positively considered both by IKERBASQUE and BCMaterials **Teaching**: BCMaterials' statutes state that one of its objectives is to provide support to the UPV in the direction of master's and excellence doctorates in the materials science area. Senior researchers only teach Master courses. **Complaints**: BCMaterials has a work council and a complaints box WEAKNESS Several aspects could be addressed to fully integrate HRS4R at BCMaterials. Disseminate information about current procedures to the research staff, specifically: contractual and legal obligations and IP, co authorship and the code of ethics Also, some procedures should be defined: Bachelor and Master projects Co direction rules, complaints procedures, mentorship program. Increase the participation of researchers at managing committees such as the ethical committee, and the creation of a consultant committee

	and include senior researchers as well as participation of R1 and R2 researchers. Develop strategies of providing professional career advice to researchers.
Training and development	**STRENGHS** **Training:** The statutes of BCMaterials states that one of the duties of the Director is to foster the training of the researchers at the institution. Researchers have access to regular internal seminars and formation courses, as well as to a large variety of training courses provided by the UPV/EHU. Researchers perform compulsory training seminars in laboratory safety **Supervision:** The qualification needed for being a codirector of a thesis at the UPV is rather strict in terms of the supervisor's qualification. WEAKNESS Researchers consider that supervisors are the only figure that provides professional or scientific advice to researchers. There is not a specific norm for setting the interaction between senior and junior researchers, and, in some cases, this relation should be regulated Researchers consider that training opportunities were scarce.

3. ACTIONS

The Action Plan and HRS4R strategy must be published on an easily accessible location of the organisation's website.

Please provide the web link to the organisation's HR Strategy dedicated webpage(s):

* https://www.bcmaterials.net/people/HRS4R/

Please fill in a sum up list of all individual actions to be undertaken in your organisation's HRS4R to address the weaknesses or strengths identified in the Gap-Analysis:

Proposed ACTIONS	***GAP Principle(s)***	***Timing (at least by year's quarter/semester)***	***Responsible Unit***	***Indicator(s) / Target(s)***
1. Update recruitment procedures to HRS4R criteria. • *Publish the recruitment handbook online, translate it into English and reference it in job offers.* • *Include salary ranges in all job offers.* • *Draft rules for the constitution of selection committees, offering training in selection to the members of these committees.* • *Give feedback to candidates.*	*12. Recruitment* *13. Recruitment (Code)* *14. Selection (Code)* *15. Transparency (Code)* *16. Judging merit (Code)* *17. Variations in the chronological order of CVs (Code)*	*2022Q4-2023Q1*	*RRHH*	• *The recruitment handbook is published and is accessible by candidates and BCMaterials staff.* • *The option to identify as belonging to disadvantaged groups is available.* • *All job offers have guidelines for the evaluation of the selection committee.* • *100% of the Selection committees' members are acquainted with the OTM-R selection criteria.* • *100% of the rejected candidates receive feedback on their evaluation.*
2. Offer tools for career development counselling. • *Make available to researchers a guide of career options,* • *Organise information sessions on alternative Research Career Development, e.g. by inviting HR*	*28. Career development* *30. Access to career advice*	*2023Q3* *2024Q3* *2025Q3* *2026Q3* *2027Q3*	*OUTREACH AND COMMUNICATION*	• *Guide of career option published online* • *Organize an annual career development workshop. 90% of the R1 and R2 researchers should have attended at least one of the workshops.*

professionals, researchers with alternative careers, etc. • *Organise forums on entrepreneurship.* • *Include relevant information in the welcome handbook and on the website.*				• *Career development initiatives are included in the welcome manual.*
3. Design a Career Development Mentoring Programme for researchers. • *Design a pilot mentoring programme in research career development and options for R2 researchers following the methodology developed in the Euraxess REBECA project.* • *Evaluate the pilot programme and make it available to all researchers who request it.* • *Improve the dissemination of the services offered by the Euraxess Service Center like the Career Orientation Tool* • *Include relevant information in the welcome manual and on the website.*	*28. Career development* *30. Access to career advice*	*2023Q2*	*RRHH*	• *20% of the R1 and R2 researchers were mentored in the pilot mentorship program.* • *Once defined the final mentorship program will include 100% of R1 and R2 researchers.*
4. Improve the representation of researchers in the Foundation's decision-making bodies. • *Establish a consultative*	*5. Participation in decision-making bodies*	*2025Q2*	*SCIENTIFIC DIRECTION*	• *. Enable means for R1 and R2 researchers to submit their concerns to decision-making bodies and be*

internal scientific advisory committee composed of senior researchers, and include representatives of post-doctoral scientists in this committee. • *Include relevant information in the welcome manual and on the website.*				*informed of the outcome.*
***5. Develop a manual of good research practices**.* • *Draft a manual of good research practices or adopt "The European Code of Conduct for Research Integrity" (published by ALLEA), which should include in addenda, among others: European standards on co-authorship and plagiarism.* • *Offer training seminars.* • *Include relevant information in the welcome manual and on the website.*	*2. Ethical principles, 3. Professional responsibility 32. Co-authorship*	*2024Q1*	*TECH TRANSFER DEP.*	• *Publish good research practice manual on the web.* • *Number of downloads of the manual.* • *100% of the researchers knew of the existence of the manual.* • *70% satisfaction about the manual in the quality survey.*
6. Improve the training of supervisors. • *Provide training in "Supervision and management of research projects", "Scientific leadership", etc. for research project leaders.* • *Match the number of students to the capacities of the researchers*	*37. Supervision and managerial duties 38. Continuing Professional Development 39. Access to research training and continuous development 40. Supervision*	*2025Q1*	*PROJECT AND TECH TRANSFER*	• *All senior researchers are aware of the Institute's guidelines on how to supervise junior researchers.* • *100% of researchers leaving the Institute give feedback on its experience on supervision process.*

leading the projects. • *Draft a supervision commitment setting out the duties and rights of supervisors and supervisees.* • *Include relevant information in the welcome handbook and on the website.*				• *Guidelines are available to researchers* • *The number of Undergraduates and Master students is matched .to the time availability of the researchers*
7. Design a comprehensive training plan in BCMaterials. • *Carry out a diagnosis of training needs for each professional profile.* • *Visibilise and distribute the training provided by the UPV both at a technical or academic level and at a transversal skills level within the institute.* • *Evaluate the level of user satisfaction on a biannual basis.* • *Include relevant information in the welcome manual and on the website.*	*37. Supervision and managerial duties* *38. Continuing Professional Development* *39. Access to research training and continuous development*	*2023Q2*	*RRHH*	• *The training plan evaluation outcome is increasingly positive in successive years.* • *Include relevant information on the intranet.*
8. Make a complaints mechanism available to researchers. • *Write a complaints procedure.* • *Appoint a complaints mediator with clear competencies to mediate or resolve conflicts between researchers.*	*34. Complaints/ appeals*	*2022Q4*	*ADMINISTRATION*	• *The complaints procedure has been written and made available to all researchers.* • *Number of downloads/visits to the complaints policy covers at least 80% of the Institute's staff. .* • *The mediator mediates in all the reported conflicts where*

• *Include relevant information in the welcome handbook and on the website.*				*his/her presence is necessary*
9. Draft the welcome handbook. • *Draft and update annually the welcome manual (in digital version), available in Spanish and English.* • *To present its contents at the welcome sessions for new researchers.*	*All*	*2024Q1*	*OUTREACH Dept.*	• *All researchers have been informed of the publication of a welcome handbook.* • *HR department inform to new contracted researchers about the existence of this manual when the contract is signed.*
10. Launch, awareness raising, communication in HRS4R and OTM-R and evaluation. • *Project kick-off.* • *Awareness-raising seminar for researchers and managers (e.g. in the framework of the annual researchers' conference).* • *Elaborate contents in Spanish and English for the HRS4R website.* • *Periodically evaluate the level of knowledge and involvement of researchers.*	*All*	*2023Q4* *2024Q4* *2025Q4* *2026Q4* *2027Q4*	*OUTREACH Dept.*	• *All BCMaterials researchers have been informed about the awareness session and encourage to attend, either life or watching a video of the session.* • *All the documents generated plus other related documents were posted on the webpage.* • *The involvement of researchers increases in successive evaluations.*

The establishment of an Open Recruitment Policy is a key element in the HRS4R strategy. Please also indicate how your organisation will use the Open, Transparent and Merit-Based Recruitment Toolkit and how you intend to implement/are implementing the principles of Open, Transparent and Merit-Based Recruitment. Although there may be some overlap with a range of actions listed above, please provide a short commentary demonstrating this implementation. If the case, please make the link between the OTM-R checklist and the overall action plan.

In the Action Plan described above there are several actions that deal with specific elements of the principles of open, transparent, and merit-based recruitment.

Actions 1 and 10 address the provision and dissemination of guidelines that establish clear contracting procedures and practices.

With the publication of scientific employment announcements on EURAXESS and in other international academic platforms, BCMaterials will guarantee the dissemination of job offers to a wider audience by increasing the internationalization of researchers. In addition, a special effort will be performed to attract researchers that belong to underrepresented groups.

The main actions that will be carried out to address the principles of the OTM-R will be:

1. Define an OTM-R recruitment policy: and

2. Launch, awareness and communication on HRS4R and OTM-R » The strengthening of researchers' knowledge about the principles of the C&C in BCMaterials will include the dissemination of these principles in all of the institution, and the inclusion of the procedures in the Welcome meeting. These tasks will be implemented by the Human Resources Department

To assure the OTM-R principles, BCMaterials will update its recruiting procedure including the C&C principles.

Based on the results of the OTM-R checklist, BCMaterials will update the following actions:

1. Advertising and application phase:

- Update the recruitment regulations. Publish it online in English and Spanish.
- Write and publish on the web, in English and Spanish, the norms for the recruitment of the researchers and the regulations for the incorporation of researchers
- Make offers more accessible by publishing them on international portals.
- To inform about the selection procedures.

2. Evaluation and selection phase:

- Include in the scale's indications to favor access to vulnerable groups
- Provide feedback to selected and unselected candidates.

3. Appointment phase:

- Improve and communicate career development for researchers by publishing information in the website and at the welcome meeting,
- Monitor and assess whether the OTM-R system is being implemented. BCMaterials will also adopt a quality control system that will check (internally) the whole recruitment process.

At the end, the OTM-R system will implement the following principles:

1. REVIEW CURRENT OTM-R POLICY, PRACTICES AND PROCEDURES

BCMaterials will carry out an initial review of the current system.

2. DEVELOP AND PUT IN PLACE A REVISED OTM-R POLICY

The OTM-R policy will encourage external applicants by:

a) Providing clear and transparent information on the whole selection process, including selection criteria and an indicative timetable.

b) Posting a clear and concise job advertisement with links to detailed information.

c) Ensuring that the levels of qualifications and competencies required are in line with the needs of the position.

3. PUBLISHING THE OTM-R POLICY

The OTM-R policy will be published on the BCMaterials website. The OTM-R policy will be complemented with templates for the process.

4. QUALITY CONTROL SYSTEM

As mentioned, the whole recruitment process is administered by the HR staff in collaboration with the human resources committee, and both the (review of indicators and level of implementation of each proposed action).

5. ESTABLISH OR ADAPT AN INTERNAL OTM-R GUIDE

As mentioned, an internal guide setting out clear and explicit rules and procedures for the recruitment of all researcher positions, and their templates, scales, etc. will be available on the intranet following the European Framework for Research Careers, which identifies four broad career profiles for researchers (R1-R4).

The guide will address all the issues in the toolkit which sets out, in chronological order, the whole recruitment process, from the job advertising/application phase through to the appointment phase.

6. TRAINING AND AWARENESS-RAISING WITHIN THE INSTITUTION

Training sessions will be provided to all those who are involved in the recruitment process. Communication meetings will include updates regarding the use of the OTM-R guide.

If your organisation already has a recruitment strategy which implements the principles of Open, Transparent and Merit-Based Recruitment, please provide the web link where this strategy can be found on your organisation's website:

If your organisation already has a recruitment strategy which implements the principles of Open, Transparent and Merit-Based Recruitment, please provide the web link where this strategy can be found on your organisation's website:

URL:

4. IMPLEMENTATION

General overview of the expected implementation process:

The design of this plan has allowed the development of a governance model, coordination mechanisms and monitoring tools that will accelerate the adoption of new policies and practices of human resources management in research, which, in turn, will allow BCMaterials to be in line with its European competitors.

Therefore, regardless of the duration of the evaluation process to obtain the HR Award, the implementation of the plan will begin in the fourth quarter of 2022.

It is planned to perform an introductory meeting to all the BCMaterials members about the HRS4R implementation, in which a call for volunteers to integrate the different committees will be done. Leaders of the different actions, and the technical secretariat will be appointed. Periodic meetings with representants of BCMaterials' units will be scheduled to receive their input

The implementation process will be carried out through four different levels of responsibility:

1. The Steering Committee of HRS4R (SC) will be the maximum responsible and will supervise the implementation process on a regular basis. It will have the following members Scientific Director, General Manager and Project Manager.

. The SC will be responsible for coordinating the implementation and monitoring of the measures derived from HRS4R.

2.–Training and mobility Committee and Ethic and Complaints Committee will consist of 6-8 members including members of the administrative and research staff (R1 to R4) These members will be voluntary It will coordinate the deployment of the HRS4R Action Plan and will also oversee quality control.

3. The Human Resources Committee, will be composed of the BCMaterials Human Resources officer. Other members of the administrative staff and researchers involved in recruitment processes, will be invited to participate. It will coordinate the deployment of specific actions related to OTM-R of the HRS4R Action Plan and will also oversee quality control and monitoring of the indicators.

4. The Project Leader (PL), will be the Project Manager and Technology Transfer Manager, that will report to the SC, and will be supported by the above-mentioned committees for deliverables development and progress and will support the SC in their control and follow-up of indicators. The PL will also be responsible for the workflow of the Plan: an easy-to-access tool for

information, regular meetings, ad-hoc subcommittees with key people for specific issues, quality control and international reference perspective will be developed.

Make sure you also cover all the aspects highlighted in the checklist below, which you will need to describe in detail:

Checklist	***Detailed description and duly justification**
How will the implementation committee and/or steering group regularly oversee progress?	Once the different members of the three committees were selected, an initial meeting will be held with the PL to evaluate the tasks necessary for the fulfilment of the actions. Each committee will meet every three months with the PL to report on the progress of the tasks defined and the problems encountered. The PL will inform and hold semi-annual meetings with the Steering Committee. Progress will be analysed by monitoring the indicators defined for each action.
How do you intend to involve the research community, your main stakeholders, in the implementation process?	As previously seen, the research community (R1-R4 and non-research staff) will be part of the Committees. They will be involved in the design of the actions, the pilot tests deployment and the periodic surveys developed by the PL. In addition, one or several directed-researchers surveys will be launched (to learn more about researcher´s awareness of HRS4R criteria, to identify training needs, etc.) Through ACTION 11. The launch, awareness and communication of both the HRS4R and OTM-R, are designed with the objective of sensitising the research community about the C&C and OTM-R criteria as well as to report on its application progress. At least once a year an email will be sent to the entire research community to explain the progress in the implementation of the action plan. The committees will be responsible for the implementation of most relevant actions. e.g.: the improvement of the performance assessment tool, the mentoring programmes, training for

	supervisors, or the update and dissemination of Good Practices Guidelines, etc. These working groups will integrate staff from different units, representing the institutional diversity.
How do you proceed with the alignment of organisational policies with the HRS4R? Make sure the HRS4R is recognized in the organisation's research strategy, as the overarching HR policy.	Some of the actions defined in this action plan are already included in the current 22-25 Strategic Plan. The HRS4R strategy is totally aligned with the strategy of the centre, which establishes the need to build a team of people aligned with the organisational model, based on OTM-R policies, which implies promoting and energising the development of people and talent as well as facilitating an efficient organisational model. The PL will also be responsible for verifying that BCMaterials policies are consistent with the HRS4R and the actions developed within these action plans.
How will you ensure that the proposed actions are implemented?	The Steering Committee will check potential deviations from the original calendar, in order that contingency measures can be adopted to solve the problems and to accelerate the process. Finally, an internal audit will be carried out in the fourth year of implementation.
How will you monitor progress (timeline)?	A continuous supervision and monitoring of the plan will be established, as one of the main roles of the PL. In this sense, the committees will hold quarterly meetings with the PL to review the development of the implementation of the tasks according to the Plan schedule.
How will you measure progress (indicators) in view of the next assessment?	All previously detailed indicators will be included in the BCMaterials' scorecard and will be checked at least biannually to find evidence of any deviation from the HRS4R or the internal policies. Close to the end of the second year, it will be sent a new survey to all the employees, to assess again their satisfaction and awareness on HRS4R policies and actions implemented. The results of said survey will be analysed and considered for further actions.

	After 24 months, the final report will be submitted for formal interim assessment. The evaluation templates available in EURAXESS will be used for these reports. These reports will be approved by the Steering Committee.

Additional remarks/comments about the proposed implementation process:

(free text, 1000 words maximum)