

# UNIVERSITY OF THE BASQUE COUNTRY RESEARCH PLAN 2019-2022

## CONTENTS

---

|  |    |
|--|----|
| <b>1. INTRODUCTION</b>   | 2  |
| <b>2. ANALYSIS OF THE CURRENT SITUATION</b>                                    | 6  |
| <b>2.1. INTERNAL ANALYSIS</b>  |    |
| Weaknesses   |    |
| Strengths  |    |
| <b>2.2. EXTERNAL ANALYSIS</b>  |    |
| Threats  |    |
| Opportunities  |    |
| <b>3. CHALLENGES FOR THE RESEARCH PLAN</b>                                     | 9  |
| <b>4. STRATEGIC LINES, OBJECTIVES AND ACTIONS</b>                              | 10 |
| <b>4.1. STRATEGIC LINE I. PROFESSIONAL DEVELOPMENT</b>                         |    |
| <b>4.2. STRATEGIC LINE II. STRUCTURING RESEARCH</b>                            |    |
| <b>4.3. STRATEGIC LINE III. GENERATION OF INTERNATIONALLY-RELEVANT CONTENT</b> |    |
| <b>4.4. STRATEGIC LINE IV. KNOWLEDGE TRANSFER</b>                              |    |
| <b>5. INDICATORS</b>   | 14 |
| <b>6. RESEARCH PLAN METHODOLOGY</b>  | 15 |
| <b>APPENDIX</b>  | 17 |

# 1. INTRODUCTION

Over its 38-year existence, the University of the Basque Country (UBC) has established itself as a leader in research and education in the Basque Country. It provides students with a rounded education, fosters scientific and technological progress, and is a solidary, engaged and socially-responsible institution.

In terms of research, the UBC has increased its scientific output by more than 50% since 2010 and currently leads more than 60% of the research that takes place in the Basque Country. The impact of its scientific publications (measured using abstracts) has increased significantly (the h-index has increased 50% since 2010). The university is therefore the main producer of scientific research in the Basque Country. In the latest EU Framework Programme (FP7), there was a 600% increase in returns with respect to FP6.

The UBC has also consolidated its international scientific excellence. In 2012, it was ranked, *ex aequo*, in the 301-400 bracket in the Academic Ranking of World Universities (Shanghai Ranking). The UBC was ranked in the 401-500 bracket in subsequent editions before returning to the 301-400 bracket in 2018.

The UBC has a solid history of generating spin-offs with a high survival rate, working in harmony with the economic development departments of the regional governments in the three respective Basque regions and with the Basque Government. Though still a generalist university, it occupies fifth place among national universities for the creation of spin-offs.

Scientific dissemination plays an important role in the transfer of knowledge from our university to society. Furthermore, when it comes to dissemination in Basque – which also broadens the scientific and technological terminology in this language – the UBC Publishing Service has published the most Basque-language scientific works.

The UBC has also contributed to modernising the social and economic fabric of the local region. In accordance with the five-yearly impact study by the Valencian Institute for Economic Research (VIER, 2012), the UBC constitutes an additional output of almost 2 billion euros (20% greater than in 2007), income of 882 million euros (up 17.2% on 2007) and almost 20,000 jobs (up 18.7% on 2007), representing 1.31% of GDP and 1.89% of jobs in the Basque Country. More than a fifth of economic growth in the Basque Country over the last two decades is attributable directly and indirectly to contributions by the UBC.

As the only public university in the Autonomous Community of the Basque Country, the UBC is therefore fulfilling its mission to be the main provider of education to the area's human capital and to become the greatest source of scientific output. Until recently, however, the UBC was not the driving R&D&I force in the Basque Science, Technology and Innovation System that corresponds to its mission and size.

The CEI Euskampus project was set up to firmly position the UBC as a key and decisive agent in the development of the Basque Science, Technology and Innovation System through the creation of strategic alliances that link the university with the region and act as a lever for promoting international excellence and outreach.

The CEI Euskampus, led by the UBC, of which the Corporación Tecnológica Tecnalia (Tecnalia) and the Donostia International Physics Centre (DIPC) are also members, has been developed over five years as a smart specialisation programme focussed on the following specialised fields:

- innovative processes and new materials;
- sustainable ecosystems and environmental technologies;
- healthy ageing and quality of life;
- art, culture and society.

It uses a cooperative and multidisciplinary approach to take advantage of alliances and respond to the challenges and needs of society. International outreach has been a priority throughout the project's existence, notably via the creation of the Euskampus-Bordeaux Euroregional Campus of International Excellence. Following the end of the CEI Euskampus project, in late 2015, an international commission appointed by the Ministry for Education, Culture and Sport awarded the top score for the progress made by the grouping formed by the UBC, Tecnalia and the DIPC, thus confirming the Campus of International Excellence (CIE) rating.

The CEI Euskampus is a smart specialisation project which has helped define the Basque RIS3 Strategy and has had a significant impact on the design of the Basque Science, Technology and Innovation Plan 2020 (PCTI-EUSKADI 2020) and on the University Plan 2015-2018. The Euskampus-Bordeaux Euroregional Campus is also one of the key implementation features of the Aquitaine-Basque Strategic Plan 2014-2020.

PCTI-EUSKADI 2020 identifies three broad priority areas in the Basque Country: Advanced Manufacturing, Energy and Biosciences/Health. In addition to these priority areas, a series of regional activities have been identified as 'opportunity niches' on account of their scientific, technological and business potential. The following activities are classed as opportunity areas: agricultural sector; ecosystems and environmental regeneration; creative, tourism and cultural industries; activities linked to urban development and regional planning.

In short, the strategy rolled out over recent years has facilitated responses to societal needs and challenges linked to these specialised fields. However, this is just the beginning. There is still a need to properly consolidate an integrated ecosystem for the exploration and use of knowledge.

This is the backdrop for the second UBC Research Plan. The first such plan, in 2011, which aligned with the UBC Strategic Plan 2012-2017, and which established our university's commitment to:

- developing and consolidating first-rate cooperative research, establishing the UBC as the central thread of the Basque Science, Technology and Innovation System;
- positioning itself as a key driver of cooperative education and research in the Atlantic Arc Euroregion, integrating an international perspective in all university activity;
- an organisational structure based on modern strategic alliances fit for a research university which provides first-rate education, is rooted in its region and its culture, and has an international outlook and a multicampus setup;

highlighted the importance of developing a document that would enable the university to develop a comprehensive policy for research and for knowledge transfer and valuation, and which upholds our values as a Basque public university. The UBC Research Plan 2011-2014 set the following overarching objectives:

- To consolidate the UBC as the most important knowledge-generating agent in the Basque Country.
- To improve knowledge transfer by supporting the Euskampus strategic alliance, as well as scientific and technological communication to society.
- To increase the UBC's scientific, technological and artistic output and improve its quality.
- To boost international cooperation and collaboration in science, technology and innovation.
- To increase external R&D&I funding.

Research groups are fundamental to research. They are created with a desire for excellence and are stable over time. They are funded through competitive scientific and technological projects and they train researchers and technical staff, ensure technology transference, provide expert guidance and promote scientific culture, among other activities. They are therefore crucial to addressing the challenges in the advancement of knowledge which are so important to society. In this second plan, the research and education alliances from the last research plan which have a positive assessment will be developed and strengthened to foster excellence, multidisciplinary working and connections to the local area.

The different ways of structuring the research groups have resulted in new alliance models. Examples are:

## **1. Education and Research Units (ERUs)**

These strategic alliances in the UBC are set up to:

- generate structures which increase the quantity and quality of research, with a critical mass of first-rate researchers in all fields of knowledge.
- boost synergies, multidisciplinary working and collaboration to innovate, capture resources and carry out transference, with better results than the sum of individual contributions.

## **2. New structures: Plentzia Marine Station (PMS) and Centre for Advanced Aeronautical Manufacturing (CAAM)**

Over recent years, the UBC has created new research structures without legal status which have facilitated strategic alliances and collaborations with public and private entities. These include the following:

- The Research Centre for Experimental Marine Biology and Biotechnology (Plentzia Marine Station, PMS). This is a UBC centre without legal status. It was set up in December 2012 thanks to the fact that the BBK transferred what is now the headquarters of the PMS to Plentzia Town Hall on the condition that it be transferred to the UBC, to the Ministry for Development which prevented the demolition of the building as required under the Coastal Act, and to funding which was received from the Regional Government of Biscay for the refurbishment of the building housing its headquarters, and from the Basque Government for acquisition of the first basic research equipment. The centre conducts scientific and technical research into the interaction between the oceans, ecosystem health and human health.
- The Centre for Advanced Aeronautical Manufacturing (CAAM). This is a mixed UBC centre without legal status. It was set up in November 2014 as a new working model, promoted and funded by the Basque Government and the Regional Government of Biscay. The UBC is the leading science and technology body for the centre which has a further 13 founding industry members from the aeronautics and machine tool sectors, together with the Biscay Technology Park and Aeronautical and Machine Tool clusters and collaborating entities. The centre promotes the development of manufacturing technologies applicable over short time frames to the processes of the business members of the project and to industry in the area in general.

The recent reorganisation of the centres undertaken by our university, which culminated in 2016 with the conversion of 32 faculties and schools across the three campuses into 20 new centres, is an opportunity to incorporate the research activity of all UBC professors by bringing it to the recognised research groups in the new centres. This reorganisation is also an opportunity

to pool resources and strengthen interdisciplinary working among TRS. In particular, the commitment document agreed with the new centres should 'facilitate the incorporation of research activity by professors from centres without a critical mass of researchers', as established in the objectives of the report on the reorganisation of the centres.

We shouldn't forget the influence that the marked globalisation of R&D&I is having on research, especially given the highly unfavourable economic context. The launch of the EU's Horizon 2020 framework for R&D&I and its reflection on the great challenges and opportunities in R&D&I, research and innovation policies are particularly relevant when it comes to obtaining funding – something that cannot be achieved without sufficient critical mass and specialist knowledge. Furthermore, the launch of the Science, Technology and Innovation Act in Spain, the Spanish Science, Technology and Innovation Strategy 2013-2020 and PCTI-EUSKADI 2020 with its specialisation areas (RIS3) have all influenced the design and creation of the UBC's research strategy.

In short, the UBC Research Plan 2019-2022 must draw on the context described above to build new R&D&I strategies for tackling new economic, social and environmental challenges.

This document is structured as follows:

- First, we present an analysis of the current situation.
- Then, we define the purpose and the challenges underpinning the Research Plan 2019-2022.
- We then set out four broad strategic lines which address the challenges and define the corresponding objectives for these and the specific actions for achieving the objectives.
- We then list the relevant indicators with a reference value and the objectives for the four years of the plan.
- Lastly, we explain the methodology used in developing this plan.

## 2. ANALYSIS OF THE CURRENT SITUATION

Using the assessment of the UBC Research Plan 2011-2014, we now set out the internal and external analysis of the current situation regarding research in the UBC.

A SWOT analysis was used to help the university to identify its critical strategic factors so that it can use these to consolidate its strengths, rectify its weaknesses, exploit opportunities and address threats.

### 2.1. Internal analysis

#### WEAKNESSES

1. Ageing teaching and research staff (TRS), and difficulties in finding replacements.
2. Lack of a clearly defined research career path.
3. Difficulty in attracting and retaining predoctoral, new doctoral and senior research talent.
4. Lack of research support staff with a range of specialisms and lack of job stability for said staff.
5. TRS with little research background in some knowledge areas.
6. Gender imbalances in managerial roles in research and those research roles with greater academic status.
7. Insufficient level of research internationalisation.
8. Absence of a collaborative research culture among UBC groups.
9. Insufficient collaboration with agents from the Basque Science, Technology and Innovation Network (BSTIN) for training for consortia taking on wide-reaching projects.

10. Lack of systematisation in obtaining R&D&I data in the UBC.
11. Rigid rules, excessive bureaucracy and stilted communication between the various departments involved in managing research.
12. Little marketing of the UBC's science and technology offer.
13. Little awareness among TRS of the importance of collaborating with the communication media on scientific dissemination to develop a more educated and critical society.

#### STRENGTHS

1. UBC research groups in all fields of knowledge capable of reliably addressing challenges to the advancement of knowledge.
2. Consolidated in-house programme for education, strengthening research and supporting groups.
3. Availability of competitive scientific and technological infrastructure and qualified support staff.
4. Very significant increase in the quantity and quality of scientific production in all fields of knowledge.
5. Growing ability to obtain funding through international calls for proposals.
6. The prestige of the UBC is reflected in it being the main choice for research staff from the Ikerbasque programme.
7. Generation and transfer of knowledge about Basque language and culture.
8. Highly renowned science dissemination programme.

9. Recognition of the UBC as a Campus of International Excellence.
10. The UBC has everything necessary for the advancement of society: people, education, research and transference.
11. Consolidated history of external research assessment.
12. Progress in establishing the UBC's reputation as a research university.
13. Societal recognition of UBC researchers as leaders in the Basque Country.

## 2.2. External analysis

### THREATS

1. Difficulties in growing research activity owing to a reduction in public and private funding.
2. Lack of regulatory flexibility for developing TRS and ASS hiring policies.
3. Loss of highly qualified research staff with the consequent danger of the university being left without resources.
4. Significant increase in competition from internationally-renowned universities and research centres for R&D&I funding.
5. Difficulty in accessing calls for proposals by groups not aligned with the RIS3.
6. Generation of knowledge with long-term applications is undervalued.
7. Little socioeconomic interest in some research fields.
8. Reduction in public funding for sustaining science and technology platforms, particularly the General Research Services (SGIker).
9. Current policy of co-funding calls for proposals for attracting research staff via the Fundación Ikerbasque.
10. Some sectors of society do not have an accurate picture of the university's research work.

### OPPORTUNITIES

1. Recognition by Basque society of the UBC as the main generator of research in the Basque Country.
2. Social recognition of the work of research staff and of the importance of research to societal progress.
3. Social assessment of international rankings for identifying quality higher education institutions.
4. Development of the Cross-Border Euroregional Campus.
5. Existence of the Ikerbasque programme for attracting international research talent.
6. Greater recognition, under the new university regulations, of the importance of research activity to the academic careers of TRS.
7. Development of new models for relationships and collaboration with other R&D&I agents.
8. UBC participation in the BERC (Basque Excellence Research Centres) programme via mixed entities (UBC, CSIC) and invested entities (EHU Taldea).
9. Ability to attract new R&D&I activity owing to the development of the UBC Science Park and new science and technology infrastructures.
10. Rollout of the EHUalumni network and of patronage and sponsorship programmes.
11. Greater social demand for science and technology dissemination activities.
12. Collaboration and alliances in strategic initiatives for H2020 and Structural Funds 2014-2020.

## 3. CHALLENGES FOR THE RESEARCH PLAN

At the heart of the Strategic Plan 2018-2021, the UBC is recognised as a public university that responds to society's higher education needs. It conducts quality research and works cooperatively to generate knowledge which is transferred to the local area and the international community. Moreover, the university is rooted in Basque society yet has a global outlook. It provides an open space for reflection and critical thinking. It is a leader in Basque-medium education and focusses particularly on Basque culture, carrying out its work with an ethical and social commitment.

The Research Plan 2019-2022 aims to address these challenges drawing on the R&D&I definition, mission and vision underpinning the UBC Strategic Plan 2018-2021. The UBC therefore has the following vision for research:

To strengthen the UBC's international research renown to address new social, economic and environmental challenges as a leader in using knowledge to transform society.

To achieve this vision, the UBC has set the following research challenges:

- ✓ Support new and trainee researchers and foster the research culture.
- ✓ Boost knowledge and innovation geared towards the Basque Country. To achieve this, research must be a fundamental part of university education.

- ✓ Foster multidisciplinary, cutting-edge research that contributes to increasing the internationalisation of science and technology.
- ✓ Strengthen the university's international renown.
- ✓ Reinforce leadership as a driver of knowledge generation and transfer and of cooperation with Basque society to boost competitiveness and social development.

## 4.

# STRATEGIC LINES, OBJECTIVES AND ACTIONS

With the SWOT analysis of the current situation completed, and with the challenges defined, we now set out the 4 broad strategic lines of the research plan.

These 4 broad strategic lines will guide UBC work towards meeting its objectives over the coming years, and against its indicators.

### 4.1. Strategic Line I. Professional Development

To address the challenge to Support new and trainee researchers and foster the research culture, we must achieve the following objectives:

- Promote a research career model for TRS built upon effort, commitment and excellence.
- Achieve adequate generational replacement of TRS and ASS.
- Develop a proactive policy for generating, attracting and retaining talent.
- Promote a career model for support ASS.
- Foster a commitment, among all people at the UBC, to research and to technological, social and humanistic development.
- Foster equality and the gender perspective in research.

To achieve these objectives, we propose the following actions:

1. Define and develop a research career model that prioritises internationalisation and is in line with the needs of our society and the capabilities of the UBC.

2. Launch a personalised career development tutoring system based on the specificities of each field/sub-field of knowledge and which sets out measures for closing the existing gender gap.
3. Review the criteria established in the Academic Dedication Plan (ADP) to ensure a minimum level of research work by TRS.
4. Foster generational replacement at leadership level in projects and research groups and which strengthens researcher leadership and generates new opportunities for our talent.
5. Develop a strategy to attract talent, in collaboration with existing programmes, particularly with the Ikerbasque programme.
6. Use financial incentives to recruit and retain talent from the Ramón y Cajal and Juan de la Cierva programmes.
7. Promote participation in ERC grants.
8. Boost mobility programmes and research residencies.
9. Promote the programme of contracts to train research staff (trainee and doctoral) for recruitment into research groups.
10. Increase the number of international doctoral theses.
11. Analyse the possible participation of new research staff in the Research, Development and Innovation Committee (RDIC).
12. Stabilise existing research support staff and recruit new support staff with the appropriate qualifications and experience to meet the needs of the university's research work.

## 4.2. Strategic Line II. Structuring Research

In addressing the challenge to Boost knowledge and innovation geared towards the Basque Country. To achieve this, research must be a fundamental part of university education, the research groups constitute crucial infrastructure for achieving scientific objectives through research funded by competitive calls for proposals and contracts with public and private entities. In that regard, we must achieve the following objectives:

- Position the research groups at a competitive international level within their field of knowledge.
- Foster collaboration and the flow of knowledge between the research groups.
- Foster flexible, stable and first-rate organisation of research support services.
- Develop new models for relationships and collaboration with other R&D&I agents, especially with EHU taldea.
- Contribute to making research a fundamental part of the UBC, with involvement from all TRS.
- Boost research into the Basque language and culture and strengthen research dissemination in Basque.
- Bring the work of research groups into classrooms or stimulate students' scientific creativity to strengthen the relationship between research and teaching.

To achieve these objectives, we propose the following actions:

1. Support existing research groups as reference points for structuring research so that they can compete internationally.
2. Generate new groups in less traditional research areas.
3. Incentivise the incorporation of active teaching and research staff into existing groups.
4. Promote and support programmes to connect research groups with students at degree, baccalaureate, secondary school and vocational training level.
5. Boost cooperation between research groups or research staff at the UBC working

in different fields of knowledge. Increase the interdisciplinary nature of the groups and ensure they tackle joint large-scale projects that increase their impact and prominence.

6. Promote the involvement of the various departments in research work and establish commitments that enable monitoring of research work by teaching and research staff.
7. Invigorate knowledge hubs.
8. Create new research structures without legal status which can foster new models for relationships and collaboration with other R&D&I agents.
9. Analyse the work of research institutes, in their capacity as a specific research structure, and establish a procedure to assess said work.
10. Coordinate UBC participation in the BERC, particularly those supported by mixed centres and invested entities, and support the dual affiliation of their research staff.
11. Implement systems for comprehensive research management to facilitate agile and efficient monitoring and supervision.
12. Promote scientific dissemination in Basque and support research actions related to Basque language and culture.
13. Ensure that ethics committees have the necessary staff and tools and that their members have the right training, and educate the university community in areas linked to research ethics.
14. Develop process-based working by implementing service charters in all research departments.
15. Consolidate support for administrative tasks related to research management and which facilitate access to competitive calls for proposals.
16. Prepare an infrastructure plan to support research. The plan should take into account existing research infrastructure in the Basque Country.
17. Strengthen the library's role as a centre for scientific documentation at the UBC.
18. Promote the quality certification of SGIker services and carry out widespread implementation of approved procedures.

## 4.3. Strategic Line III. Generation of Internationally- Relevant Content

To address the challenges to Foster multidisciplinary, cutting-edge research that contributes to increasing the internationalisation of science and technology and to Strengthen the university's international renown, we must meet the following objectives:

- Increase the volume and quality of publications with an international impact in all fields of knowledge.
- Improve the university's position in certain international research rankings.
- Boost the UBC's international position and visibility.
- Increase UBC participation and leadership in European and international research projects and its participation in first-rate consortia and networks.
- Promote the international mobility of TRS and the presence of international research staff at the UBC.

To achieve these objectives, we propose the following actions:

1. Set up a UBC data unit and staff it with qualified personnel who can permanently monitor academic activity and coordinate all information sources.
2. Analyse actions to bring the UBC in line with the criteria for each relevant ranking.
3. Increase the visibility of scientific production by UBC research staff by:
  - » including it in the ADDI institutional repository.
  - » providing training in open access publications.
  - » using ORCID codes.
4. Foster UBC participation and leadership in projects under the EU Framework Programme for Research.
5. Work closely with the Basque Government and CRUE offices in Brussels to support the International R&D Office.

6. Promote alliances with internationally prestigious institutions.
7. Strengthen and improve relationships with prestigious international research groups by incentivising mobility, exchange and collaborative research projects.
8. As part of the Euroregional Campus of International Excellence, set up stable consortia and international networks for accessing competitive international R&D&I calls for proposals.
9. Incentivise participation in networks, publishing committees and international scientific bodies.

## 4.4. Strategic Line IV. Knowledge Transfer

In addition to being a source of financial resources, knowledge transfer enables us to show society how we use public money and hence boost our social position.

To address the challenge to Reinforce leadership as a driver of knowledge generation and transfer and of cooperation with Basque society to boost competitiveness and social development, we must meet the following objectives:

- Promote a culture of collaboration with the region.
- Contribute to the smart and sustainable development of the Basque Country.
- Promote public-interest projects and initiatives that could be funded by contributions from society (patronage and sponsorship programme).
- Incentivise a knowledge transfer culture among the researcher and student community.
- Increase the potential and social impact of research transfer via strategic alliances in the region.
- Bring the socioeconomic sphere into contact with the UBC's knowledge and its scientific and technological capabilities.
- Foster an entrepreneurial culture in the university community.

To achieve these objectives, we propose the following actions:

1. Promote the University-Society call for projects.
2. Organise information sessions about transference for research groups.
3. Consolidate the scientific communication programme via various structures and events with a focus on fostering scientific vocations among young girls and adolescents.
4. Organise information sessions about the entrepreneurial options and resources available.
5. Collaborate with organisations working in knowledge dissemination.
6. Boost the number of doctoral theses conducted in collaboration with institutions and businesses.
7. Develop a website to showcase the scientific and technological capabilities of research groups.
8. Disseminate research, transference and innovation work through non-specialist communication media.
9. Establish agreements with institutions and businesses for public-interest projects and activities that may attract sponsorship.
10. Work with the respective regional governments to design a legal framework to cover and promote patronage.
11. Participate, together with institutions and businesses, in internationally-relevant consortia aligned with the RIS3 strategy.
12. Organise and participate in regular sectoral meetings involving research groups and socioeconomic agents.
13. Establish strategic alliances with agents from the Basque Science, Technology and Innovation Network (BSTIN), in accordance with the RIS3 strategy.
14. Launch a call for proposals geared towards supporting the mobility of teaching and research staff within BSTIN agents.
15. Develop processes to value and license research results.
16. Establish contacts with local institutions and businesses to improve marketing of the technology offer of research groups and general research services.

## 5. INDICATORS

| No. | Indicator  | 2016 Data | 2022 Target         |
|-----|--|-----------|---------------------|
| 1   | No. beneficiaries of predoctoral financial support   | 217       | 247                 |
| 2   | No. beneficiaries of postdoctoral financial support  | 59        | 70                  |
| 3   | No. theses defended  | 574       | 400                 |
| 4   | No. international theses   | 171       | 136                 |
| 5   | No. theses in collaboration with businesses and other organisations  | 266       | 240                 |
| 6   | No. full time TRS participating in mobility programmes (more than 4 weeks)   | 125       | 140                 |
| 7   | No. researchers accepted by the Marie-Curie programme (more than 4 weeks)  | 36        | 45                  |
| 8   | No. European Research Council (ERC) grants obtained  | 2         | 8(1)                |
| 9   | No. recognised research groups   | 282       | 300                 |
| 10  | No. accreditations and certifications obtained in relation to general support services for research and transfer (ENAC, AENOR) | 18        | 27                  |
| 11  | University H-index   | 184       | 247                 |
| 12  | No. research lines accredited by CNEAI or Unibasq  | 4,351     | 4,620               |
| 13  | No. scientific publications (WoS)  | 2,818     | 3,034               |
| 14  | No. scientific publications (Scopus)   | 2,648     | 3,132               |
| 15  | % first quartile publications (WoS)  | 56.8%     | 60.0%               |
| 16  | % first quartile publications (Scopus)   | 63.3%     | 60.0%               |
| 17  | % international scientific co-publications (Scopus)  | 51.8%     | 50.0%               |
| 18  | % international scientific co-publications (WoS)   | 52.3%     | 50.0%               |
| 19  | Returns from non-international calls for proposals (€M)  | 17.0      | 78.8(1)             |
| 20  | Returns from Horizon 2020 and other international calls for proposals (€M)   | 7.0       | 31.4(1)             |
| 21  | No. patents or licences owned by the university or in which the university played a decisive role                              | 5         | 7                   |
| 22  | No. researchers participating in contracts with businesses   | 411       | 490                 |
| 23  | No. researchers participating in contracts with non-business entities  | 162       | 200                 |
| 24  | Contractual income (€M)  | 8.0       | 39.4 <sup>(1)</sup> |
| 25  | No. spin-offs created by the university in the last four years   | 53        | 62                  |
| 26  | No. jobs in businesses created by the university in the last four years  | 65        | 88                  |

Note<sup>(1)</sup>: Accumulated values for the four years

## 6.

# RESEARCH PLAN METHODOLOGY

The Research Plan 2019-2022 has been prepared in line with the UBC Strategic Plan 2018-2021 and the University Plan 2019-2022.

The initial process comprised three successive phases, preceded by the evaluation of the former plan for the period 2011-2014, which was presented to the Governing Council on 1st October 2015.

The **first phase** focussed on presenting and discussing a draft Outline Research Plan in the Governing Council. Preparatory work was conducted using the following:

1. The results from the Research Plan 2011-2014, presented to the Governing Council.
2. Current UBC planning instruments (UBC Strategic Plan 2012-2017, Basque Plan, Postgraduate Studies Plan, Internationalisation Plan, Equality Plan, etc.).
3. New European, national and Basque research and innovation plans.

We started by analysing the current situation and framework relative to developing research policies at the UBC. This analysis enabled us to identify the UBC's strengths and weaknesses, as well as external variables which constitute threats or which, if exploited, can be opportunities to develop its research work. We also established objectives and strategic lines.

This first phase culminated with the presentation of the Outline Research Plan to the Governing Council on 29th September 2016.

The documents were put together by the Driving Group, initially comprising the Vice-Rector of Research, Fernando Plazaola, the Vice-Rector of Outreach and Transference, Amaya Maseda, the SGIker Director, Maribel Arriortua, and the Director of Innovation and Transference, Gorka Artola. The **Driving Team** coordinated all their work with the university's Governance Team. The Research, Development and Innovation Committee (RDIC) acted as a verification and support group for the Driving Group throughout the process.

The **second phase** began with the preparation of a first draft, expanding on the outline document. This was carried out by the **Driving Group** in coordination with the Governance Team and contributions from the RDIC.

Following a change in the rectoral team, in which José Luis Martín became Vice-Rector of Research and Arturo Muga Vice-Rector of Scientific Development and Transference, substituting Fernando Plazaola and Amaia Maseda, respectively, in the Driving Group, an internal UBC committee was set up for each of the four strategic lines underpinning the research plan. The appendix details the structure of the committees.

These committees worked in a participative and iterative manner to analyse, verify and complete the main document and proposed actions for reaching the objectives in the outline document. The committee coordinators set the pace, gathered contributions and put together the proposal for each strategic line before referring their work to the **Driving Group**.

As a result of work on the UBC Strategic Plan 2018-2021, which includes a strategic line for Research, in accordance with the outline document approved at the faculty meeting of 23rd November 2017, the **Driving Group** decided to halt the preparation of the Research Plan and to wait for the Strategic Plan to be approved by the Governing Council. At the same time, the Basque Government began work on the University Plan 2019-2022. This required that the UBC put together a Plan for Excellence in Research. The university's Governance Team decided to present the Research Plan, which is at an advanced phase of preparation, thus limiting future participation in its development given the time frames involved.

Lastly, the **third phase** focussed on finalising the content of the Research Plan. This was carried out by the Driving Group in coordination with the university's Governance Team. Following its presentation at the RDIC, it was submitted to the UBC's Governing Council.

# APPENDIX

## COMMITTEE MEMBERS

### Strategic Line I: Professional Development

**Coordinator:** José Luis Pizarro Sanz  
Agnieszka Tercjak Sliwinska  
Aitor J. Garrido Hernández  
Ana de Zaballa Beascoetxea  
Arantza Ibabe Lujambio  
Domingo Carlos Salazar García  
Jesús Vázquez Pérez  
Luisa Ugedo Urruela  
Marilo Gurruchaga Torrecilla  
Mikel Alayo Anasagasti  
Urtzi Akesolo Muguruza

### Strategic Line II: Structuring Research

**Coordinator:** Alvaro Arrizabalaga Valbuena  
Arantxa Eceiza Mendiguren  
Conchi de la Rua Vaca  
Esperanza Iñurrieta Ambrosio  
Eva Portillo Pérez  
Fede Recart Barañano  
Ionan Marigomez Allende  
Javier Gardeazabal Matias  
José Manuel Nicolau Expósito  
Josu Rekalde Izagirre  
Luis Javier Rodriguez Barrón  
Miren Korta Merino

### Strategic Line III: Generation of Internationally-Relevant Content

**Coordinator:** Sofia Arana  
Basilio Sierra Araujo  
Fátima Pastor Ruiz  
Gorka Orueta Estivariz  
Gotzone Barandika Argoitia  
Izaskun Garrido Hernández  
Jesús Mª Blanco Ilzarbe  
Juan Manuel Madariaga Mota  
María José Gutierrez Huerta  
Noelia Aldai Elkoro-Iribarne  
Ricardo Martínez Santa María  
Ruth Lazkoz Saez

### Strategic Line IV: Knowledge Transfer

**Coordinator:** Gorka Artola Beobide  
Agustín Azcarate Garay-Olaun  
Aitzol Lamikiz Mentxaka  
Amaia Maseda García  
Enrique Amezua San Martín  
Francisco Santaolalla Montoya  
Garikoitz Beobide Pacheco  
Ignacio Lombraña Alonso  
Laura Casas de Sopeña  
Miguel Angel Gomez Solaetxe  
Ricardo Merino Valdeolmillos



