

Open Knowledge Action Plan: Frame of action

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Index

Introduction		
U 1	Universities as knowledge hubs	į.
	1.1. The UOC as an open, global knowledge hub	(
U 2	General context	8
	2.1. Open science and responsible research and innovation	
	2.2. From open educational resources to open education	10
U 3	The open UOC: background	12
U 4	Open Knowledge Action Plan	13
	4.1. Why have an Open Knowledge Action Plan?	1
	4.2. Preparation: collective, cross-cutting work	1
	4.3 Main areas of work	1
	4.3.1. Open publications	10
	4.3.2. FAIR data	1
	4.3.3. Open learning	1
	4.3.4. Open innovation	19
	4.3.5. Open to society	20
	4.3.6. Research assessment models	2
	4.3.7. Training, communication and awareness raising	2
	4.3.8. Open infrastructure 4.3.9. Participation in leading forums	2:
U 5	Monitoring and governance	23
Referen	ices	24

Introduction



"No limits on participation". This is one of the definitions in my dictionary for the adjective 'open'. And that is the perfect definition for the O that stands for 'open' right in the middle of the UOC's name.

Since I started at the UOC, my mission as vice president has been to drive the university towards being both more global and more social. The idea of being open is one that has always formed part of this drive. But not as an abstract idea, nor as a new idea; indeed, many different projects along these lines have been rolled out over the past decade or so. One highlight would be the 2010 regulation on open access to publications produced at the UOC. But what was missing was a comprehensive approach, tying together our works in progress, sparking useful initiatives, and answering the question what sort of university do we want?

Likewise, the context we find ourselves in has changed radically since 2010, and the international academic community has looked for ways to open itself up. For example, in 2016 the European Commission drove change in the open-access movement, a movement which had begun in the early 2000s, by making a commitment to "Open Science, Open Innovation, Open to the World".

This idea of opening up forms the basis of the Open Knowledge Plan you have before you. It is a transformational action plan that forms a necessary part of our Strategic Plan 2017-2020. It is an ambitious action plan that goes beyond just looking for open science and open innovation, as might be the case at other academic institutions, and covers the University's other key activity: teaching. It is an action plan that looks to open knowledge because we need knowledge to be able to face up to major global challenges - challenges set out in the UN's 2030 Agenda for Sustainable Development. It is an open knowledge plan that aims to respond to the words of UOC President Josep A. Planell, who called on universities to play a vital role as nodes for knowledge, nodes that connect academic knowledge within and beyond the institution.

This is what underlies our open knowledge plan, and it is the result of the work of many people here at the UOC, people who have been committed to making it a reality right from the start. My sincere thanks to all of them. Developing this plan had to be a cooperative project. There was no other way to go about it. And its roll-out has to involve everyone too. With no limits on participation!

Pastora Martínez Samper

Vice President for Globalization and Cooperation

Universities as knowledge hubs





We are faced with global challenges of new dimensions, most of which are interrelated. The majority are included in the United Nations <u>2030 Agenda</u> <u>for Sustainable Development</u>. The 2030 Agenda defined <u>17 sustainable</u> <u>development goals (SDG) and 169 specific targets</u> that countries must take as a reference to achieve a sustainable world by 2030 (General Assembly of the United Nations, 2015).

Knowledge is one of the key elements for achieving the 2030 Agenda. Knowledge generated through thinking and research. Knowledge that helps people grow through learning. Knowledge that is transferred to communities and entities. Knowledge with which every person, through individual and collective action, contributes to a more sustainable future.

Universities, as spaces for the generation, transformation, development and knowledge transfer, through **research and innovation** and through **education**, play a vital role in contributing to sustainable development. In fact, for the first time in an international political agenda, it is recognized and required that higher education institutions contribute to progress on the path to global sustainability. Furthermore, universities are uniquely privileged in terms of the leverage they have in **advancing knowledge** and helping our societies progress.

However, we are currently faced with **obstacles** that prevent us from adding and sharing our knowledge efficiently and effectively. One of the main obstacles is the difficulty in accessing much of knowledge, as in one way or another it is "closed" and does not circulate freely. This has a considerable impact on the **quality** and **efficiency** of knowledge production and transfer, as the more open the creation and transfer of knowledge, the more opportunities are generated to enrich and consolidate it.

In addition, **knowledge is all around**, in individuals, groups and non-academic institutions, but there are few mechanisms available for gathering and connecting this knowledge.

There is an increasing amount of evidence that supports the growing **need** to renew the system of knowledge generation and transfer to give it more **legitimacy** and transform it into a more **porous, participative system** (David, 2008; Dijstelbloem et al. 2013; Editorial Board of the New York Times, 2015; Goddard et al., 2016; Hick et al., 2015; Preece, 2016; San Francisco Declaration on Research Assessment; The Economist, 2013; Wilsdon et al., 2015).

Universities as knowledge hubs





In this context, universities must change and reconsider their role in society. At the UOC, we are committed to transformation through becoming a **knowledge hub.** This involves opening up the University in all ways and making it into a more porous institution, with two-way connections to various stakeholders and groups in society. Universities must become spaces that facilitate discussion and the collaborative, transparent creation of knowledge and that can incorporate approaches and ideas, whatever their origin. Universities must also ensure that the knowledge they generate is open, that is, available and accessible, under conditions that enable its reuse, redistribution and reproduction.

1.1. The UOC as an open, global knowledge hub

At the UOC, we are committed to exactly this vision. We want to make the UOC a **knowledge hub** that is **open** and connected to the local and global environment and contributes to forming relationships and connections between people, communities, ideas and methodologies to strengthen, enrich and promote excellence in the training, research and innovation we undertake and to ensure that the knowledge generated at the UOC reaches as many people as possible with great social impact. At the same time, we wish to convert the UOC into a **global knowledge hub** that can project the knowledge generated at the UOC outward and enrich it with external contributions.

Only if we can become points of connection that are permeable and interconnected can we make the UOC into a university **that contributes to overcoming global challenges**, that is, an institution that is truly **global and social**.

The second phase of the <u>UOC Strategic Plan</u>, which covers 2017 to 2020, includes precisely this proposal to open up the University and treats it as a cross-cutting issue: three of the four plans within the Strategic Plan refer expressly to the need to progress towards a more open university. In addition to the **Global UOC** plan, the **Next UOC** and **UOC R&I** plans also focus on opening up the University.¹

¹ Global UOC – 0303. Knowledge open to everyone and for everyone; Next UOC - 0203. Cross-disciplinary approach to teaching – reference to open-access teaching material policy; UOC R&I – 0401. Research with scientific impact and 0404. Valorization of knowledge.

Universities as knowledge hubs





Systematically opening up UOC knowledge is a **commitment to the future**. It will help our university to become more visible in the international arena, as all knowledge that is published in open access and online is inevitably global. It will make the excellence of the UOC's research and training contents more visible, and thus increase the University's attractiveness to Catalan and international students and to the research community and beyond.

As we have the 'o' for open right in the middle of our name, we have decided to use it as the basic concept of the Open Knowledge Action Plan. The Action Plan serves to reinforce and reconnect with this 'o' for open and apply it to the entire knowledge production and transfer process.





The current Open Knowledge Action Plan is based on the idea of open science. It is also associated with the concept of responsible research and innovation (RRI) and open educational resources (OER). For this reason, below we summarize the development of these concepts in Europe, Spain and Catalonia.

However, given that these concepts are continuously evolving, the Open Knowledge Action Plan is not limited to one concept specifically. It is much broader than that, and is focused on the general idea of opening up the University, co-creating and sharing knowledge. The strength of the present Action Plan lies precisely in expanding the concept of open science to all academic activity and making it a cross-cutting strategy.

2.1. Open science and responsible research and innovation

The **open science** movement states that researchers, their results and the methodologies that are used should be freely available to all society.² The movement seeks to contribute to the dissemination and reuse of resources relating to research that have a positive social impact (Amsterdam Call for Action on Open Science, 2016; European Commission, 2016 and 2017). The **RRI** promoted by the European Commission (EC) is defined as a "transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability. sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society)" (Von Schomberg, 2011).

In recent years, numerous stakeholders from the academic community have introduced specific actions to implement open science and RRI practices in their daily activities. Many European higher education institutions are involved in projects to develop open science and RRI through consortiums and associations such as the League of European Research Universities (LERU), the Young European Research Universities (YERUN) or the European Universities Association (EUA) and individually (Ayris et al., 2018; European University Association [EUA], 2018; Utrecht University, 2019).

² At least in cases in which the research has been financed with public funds.





For its part, the European Commission has clearly expressed the importance of open science. It has created an expert group for assessing policy in this area and has published analyses and recommendations on the subject. At the end of September 2018, the EC supported cOAlition S, comprised of eleven European research funding organizations, and the Plan S in which a commitment was made to ensure that from January 2020 "scientific publications on the results from research funded by public grants provided by national and European research councils and funding bodies, must be published in compliant Open Access Journals or on compliant Open Access Platforms" (Plan S, 2019).

In addition, the European Union is investing considerable resources in open science and RRI (and in concepts relating to citizen science) not only to promote open publications and data, but also to generate FAIR3 data and create the European Open Science Cloud (EOSC) to stimulate open collaborations and the interoperability of data. In addition, at the heart of the European research programme Horizon 2020, the EC has prepared a specific programme called Science with and for Society (Swafs) through which it promotes the implementation and development of responsible research and innovation. In parallel, organizations such as LERU, the Ligue des Bibliothèques Européennes de Recherche (LIBER), SparcEurope and the EUA with its **expert group Science 2.0** / **Open Science** are lobbying at European scale for recognition and real implementation of open science.

In addition, in Spain and Catalunya, universities are working together to draw up a road map that will enable them to implement open science in the science, innovation and teaching system. There are no clear formulae for achieving this, and various methodologies, options and models need to be tested to continue to learn together. The creation of an open science expert group in CRUE or a working group with the same name in CSUC, and the organization of forums and conferences on open science in Barcelona and other cities in Spain, many involving the active participation of the UOC, enable us to join forces to progress in local and Spanish policies for open science. Spanish researchers are also participating actively in projects in the area of RRI. Some relevant examples are PERFORM and GenPORT, led by UOC academic staff, and RRI Tools, HEIRRI, INPERRI, NERRI, EnRRICH and InSPIRES.

³ The FAIR principles – findable, accessible, interoperable and reusable – refer to the fact that data can be found easily through metadata, which are accessible through standardized, interoperable and reusable protocols.





2.2. From open educational resources to open education

In 2012, with the UNESCO declaration, open educational resources (OER) were defined as resources that can be used for learning and are available and accessible in the public domain or under open licence (UNESCO, 2012). After 15 years, the OER movement has expanded notably and has reached maturity. Recently, OER has become a 'global' issue, of interest to governmental organizations and university institutions that are now reconsidering their policies and considering how to innovate in educational practices in higher education (Santos-Hermosa, 2018).

The current trend is to integrate OERs into education so that it becomes open education, which brings about a change in mentality and enables implementation of educational practices focused on openness and co-creation of knowledge (Inamorato dos Santos, 2017). In Europe, there has been considerable involvement in this area, since the EC determined that open education was a potential solution to some of the challenges identified in the education systems of its member states. One of the biggest challenges is to integrate ICT in European training and education to modernize it and increase efficiency, equality and transparency in these areas (European Commission, 2013). Consequently, a general framework has been established that defines the basic dimensions of open education for university institutions. Recommendations and policies have been drawn up in this area (Inamorato dos Santos 2017; Inamorato dos Santos et al., 2017; Inamorato dos Santos, Punie, & Castaño-Muñoz, 2016).

Recently, the relevance of open education has been further reinforced by its inclusion within the strategy for European cooperation in education and training (European Commission, n.d.). In addition, the world meeting OE Global Conference 2018 (September 2017) showed that OERs and open education are not just a bureaucratic issue. They also inspire an active discussion between political leaders, university management teams, teaching and research staff and other related professional groups.

A current analysis of the situation shows how open education initiatives are advancing at varying rates in each of the 28 EU member states. For example, the universities of the Netherlands integrate the generation and publication of OERs in their open science institutional strategies (Annema, 2018).





In Spain and Catalonia, actions have been implemented to boost open education, such as the government policy Digital Culture at School Plan (aimed at primary and secondary education) or specific projects of university institutions, such as the development of OER collections within institutional repositories of Spanish universities (Repositories Working Group of the Spanish University Libraries Network, REBIUN) (CRUE, 2019; Santos-Hermosa, Ferran-Ferrer, & Abadal, 2012), participation in international networks OCW Universia and the OER Librarian Network of SPARC Europe, collaboration in specific projects (including OpenMed: Opening up Education in South-Mediterranean countries, Open Education Factory#metaOER, OportUnidad and OERTest).

The open UOC: background





The Open Knowledge Action Plan does not have to start from scratch. The UOC is the pioneer of a unique educational model with various elements of co-creation and open learning. The creation of learning resources involves various stakeholders from within and outside the University. In addition. knowledge is transmitted through several channels and is enriched every semester. If knowledge is accumulated in learning resources, it makes it easier to pass it along and disseminate it outside of the classroom.

A notable example of open UOC educational resources are the materials for the Master's Degree in Free and Open-Source Software. These are disseminated in a highly varied way, which enhances the visibility and strengths of UOC students. Another important factor is the offering of UOC Massive Open Online Courses (MOOCs) through which free, open knowledge and training are offered on subjects as diverse as gamification and creativity. By 2018, over 100,000 students had registered to take a MOOC at the UOC, 39% of whom had no previous knowledge of the University.

In relation to research undertaken in recent years, efforts have begun to be made to shift to open knowledge. At the UOC, various independent, inspiring practices can be found within this open context. Examples include projects such as CUIDAR by the CareNet group or PERFORM by the TURBA Lab group; the organization of forums such as Procomuns by the <u>DIMMONS</u> and CNSC groups; the creation of a specific training course in RRI, RRI for researchers, through the Doctoral School, or open innovation initiatives such as Open eHealth Parkinson through Hubbik together with the Faculty of Health Sciences.

In parallel, infrastructure has been developed, such as the **UOC's institu**tional repository, 02, which already has over 10,000 records and support and consultancy services provided by the Library and OSRT to facilitate and consolidate this change in practices at the University.

Open Knowledge Action Plan





4.1. Why have an Open Knowledge Action Plan?

This Action Plan must help us to **overcome obstacles** that currently impede the transition towards an open university. Getting over these obstacles requires a process of change and profound internal transformation. The changes that we propose are very broad. Consequently, the Plan has a longterm horizon: up to 2030. However, to follow the Strategic Plan, we have established fixed objectives that we want to have achieved by 2020.

There is no single formula or clear solutions on how to progress and achieve this. The Action Plan must also serve in this respect as an internal tool to promote reflection and discussion among the UOC community on how to build this future together.

In the path to open knowledge with and for everyone, it is vital to focus on areas that are priorities for the UOC. The Open Knowledge Action Plan identifies the main areas of work in which we will centre our efforts in the first three years, up to 2020.

The Action Plan also illustrates everything that has been done to date and offers a general framework as well as a narrative in which to encompass all the associated initiatives of our university. This is an instrument to involve teams and people from the UOC community. Finally, it serves to monitor the advances towards a more open university, to review and update the Plan itself, which is considered a living document.

Therefore, the Action Plan represents a crucial step to join forces, plan and **coordinate** from an institutional perspective the activities, commitments and specific objectives that should be met before 2020, by building on bases that have been established in recent years.

This document is only a summary of the Open Knowledge Action Plan that consists of many targets to achieve, specific actions to develop and people and teams involved who will work on it in the coming years and will share it in various spaces of the University.

Open Knowledge Action Plan





4.2. Preparation: collective, cross-cutting work

The preparation of this Action Plan was a collaborative task with the participation of many teams and people from the UOC, either through direct, basic involvement in the formulation and design of the Plan or through involvement in the various activities that it covers. Promoted by the Office of the Vice President for Globalization and Cooperation and led by Globalization and Cooperation, the Plan combines a strong commitment through strategy and university management with an active, growing community of practice that promotes an open university. To achieve this, a significant cultural change is required, which makes it essential to carry out cross-cutting work with the involvement of academia and research centres, as well as almost all other areas of management. The aim is to increase the number of people involved during the implementation of the Action Plan.

Open Knowledge Action Plan





4.3. Main areas of work

The Open Knowledge Action Plan is focused on nine main areas of work: six thematic areas and three cross-cutting areas. The first two areas refer to research, to promote open publications and ensure that research data follow the FAIR principles. The third area of work goes beyond scientific output and refers to open learning. As mentioned previously, the paradigm shift to more open knowledge not only involves accessibility, but also the conception and creation of knowledge itself. In this respect, the fourth and fifth areas of work promote open innovation as well as co-creation of knowledge through participative processes that are closer to reality and social challenges and have a more inclusive focus. They consider groups that have been largely overlooked. To sum up, the aim is to create a university that is open to society. Finally, to motivate and support all these changes, we added a six thematic area of work that promotes reflection on the way in which we value and assess research.

To achieve everything that we propose in this Action Plan, a profound change in organizational culture is required, both internally and in the entire research and innovation system at international scale. Consequently, in addition to the six thematic areas, we will also work in three cross-cutting areas: training, communication and awareness raising, open infrastructures and participation in leading forums.

6 specific areas



Open acces publications

Open FAIR data

Open learning

Open innovation

Open to society

Research evaluation models

3 universal themes



Training, communications, and awareness raising

Open infrastructure

Participation in areas of influence

4.3.1

Open publications





What has been done so far?



Where do we want to get to?



Since 2010, the UOC has had an institutional open access policy. This is the year that the UOC's institutional repository, 02 was launched. Since 2016, we have offered grants to publish in open access through an internal call for applications. Over the years, almost 50% of original articles by UOC researchers have been published in open access journals or an APC has been paid so that they are available in open access.

However, only 11.75% of scientific papers that are on the GIR4 (researcher's website) are published in O2.5 Increasing the number of publications deposited in the repository, particularly versions of the document that are permitted by publishing policies, as stated in the UOC open access policy, could boost open access to academic literature and increase the impact of the paper and the visibility of research carried out at the UOC.

Seventy-seven per cent of doctoral theses are deposited in the O2. Around 6,000 final projects for bachelor's and master's degrees are available in 02.

UOC academic journals are all published in open access.

The 2030 objective is for UOC scientific publication to be open access by default, including scientific articles, theses, books and book chapters and other scientific publications.

The 2020 target considers updating the institutional open access policy (2010) and establishing a system for monitoring compliance with the policy. One key objective is to gain the academic community's commitment to deposit all scientific papers in the 02 in the version permitted by the journal's publishing policy (preprint, postprint or published), with the Library's support.

A commitment to open access publication is maintained for scientific journals published by the UOC.

Additionally, the Research and Innovation Committee (CRI) is responsible for decisions on open access publication and annually reviews grants to cover APCs (article processing charges).

⁴The Researcher's Portal, called GIR, is the software tool for research management of UOC's R+D+i personnel.

⁵ Data on 2 July 2018.

4.3.2 **FAIR data**





What has been done so far?



Where do we want to get to?



We are still in an initial phase in the area of data management and data access as the main knowledge output. Since 2015, the UOC has launched various pilot projects in which data management plans are being prepared: (Research Management Plan, RDM). In 2016, a cross-cutting group was created to support data management.

We hope to achieve the target of all research data created at the UOC following FAIR principles by 2030. By 2020, we are committed to creating an institutional framework for research data management (RDM) and introducing institutional incentives that promote recognition of publication of data in open access, according to FAIR criteria. In addition, we will develop cross-cutting services for researchers to support RDM, including a technological solution. Finally, we will contribute to increasing knowledge and awareness about research data publication according to FAIR principles among the **UOC** academic community.

4.3.3

Open learning





What has been done so far?



Where do we want to get to?



Currently, the UOC repository includes around 1,600 educational resources covering entire subjects published in open access. This is a considerable number, although it is only a fraction of the over 15,000 UOC learning resources. Currently, learning resources that are produced at the UOC have copyright protection by default for six semesters. After this period, they can be made available in open access under Creative Commons licences and become open educational resources. Open access can also be requested for learning resources from the outset. In 2018, open access from the outset was only requested for 4% of new learning resources.

Currently, there are almost 7,000 **final** bachelor's degree projects (TFG) and final master's degree projects (TFM) in open access published in the O2.

Another important area associated with open learning are the **MOOCs**. In 2018, the UOC offered four MOOCs, with close to 34,000 students enrolled. According to the institutional strategy associated with MOOCs, the offering will be increased in the coming years.

We want to shift from what is by default a closed model, with exceptions published in open access, to an open **model**, which enables copyright exceptions. We are committed to promoting the use and creation of open educational resources. Hence, we wish to raise appreciation of the UOC model of learning resources according to the path marked by the design of NIUs⁶ and position this model internationally.

We will undertake a comprehensive analysis to identify which part of UOC knowledge best responds to the strategy of transfer from the University to society, to prioritize open access. One of the main objectives is to take advantage of open learning resources to improve collaboration with countries around the world that wish to opt for quality online education. Finally, we promote open knowledge through MOOCs in innovative subjects for people around the world and the use of collaborative instruments for the co-creation of knowledge in teaching and learning.

⁶ NIU - nest (specific aggregator of learning resour-

4.3.4

Open innovation





What has been done so far?



Where do we want to get to?



At the end of 2015, Hubbik, a platform to support entrepreneurship and open innovation, was established at the UOC. Hubbik promotes open innovation to tackle the new challenges that face the knowledge society, e-health and e-learning, by implementing innovative solutions developed in collaboration with members of the UOC community.

We consider open innovation to be the shared use of internal and external knowledge generated by users or experts, to co-create new solutions to challenges in society. In recent years, various open innovation programmes have been developed such as Collaborative Codesign Competition (CO3) for healthy ageing or OPENeHEALTH Parkinson to improve the quality of life of patients with this disease.

The UOC aims to become an open innovation community that is connected and focused on collaboration to solve social challenges. This means being a university that is connected to its community (students, alumni, course instructors, teaching and research staff and management staff), with the world (global and local) and with all disciplines (cross-disciplinary). We want to have a university community that is sensitive, proactive and involved in social challenges. A community that can face challenges with an innovative attitude: we want our university to be recognized as an institution that forms part of society, that is present in the cloud and is rooted to the region; a source of talent and R&I; and a benchmark in areas of knowledge.

4.3.5 Open to society





What has been done so far?



Where do we want to get to?



Part of the UOC academic community has established under its own initiative inclusive processes that are open and participative and that enable a twoway relationship with society. However, this awareness is individual; it is not due to an environment that promotes this kind of processes. Therefore, knowledge becomes internalized, and even though it is of high quality, it appears fragmented, unsystematic and without institutional backing. In addition, there is a feeling among lecturers and researchers that there is not enough support to develop participative, open initiatives and there is a lack of recognition of such initiatives⁷.

To become an open knowledge hub that is connected to society, we want the UOC to be a more permeable university that is completely integrated into society and can offer forums to generate processes of co-creation of knowledge, based on social needs. Therefore, we are committed to becoming a porous university that is closely linked to society and generates knowledge with a high social impact.

We work to value and increase the visibility of the activities that are being undertaken, to provide spaces for co-creation of knowledge for the common good in a cross-cutting way at the UOC and to establish an internal framework of recognition of these practices. In addition, we will contribute to the coordination of UOC-society relations and create a coordinated, solid framework of education and scientific dissemination activities for the UOC, with and for society with a wider range of proposals.

⁷ Results of a participative process undertaken with the UOC community to analyse the potential creation of a UOC Science Shop from January to June 2017.

4.3.6

Research assessment models





What has been done so far?



Where do we want to get to?



In general, the UOC's external and internal assessment processes are focused on quantitative outputs with a high presence of assessment based on the impact factor of the journals in which research is published and the volume of funding raised. The UOC has a limited opportunity to affect external assessment, but it can make internal changes and move towards a system of assessment and valorization that promotes practices that are consistent with open science principles.

We express the UOC's commitment to transformation in research assessment to a more qualitative evaluation that incorporates constant learning and transformation as an objective. This change refers to all areas of research, including research results and projects, the research career, assessment of research groups, research centres and the entire UOC.

We are committed to reconsidering models of assessment and valorization of UOC research. To achieve this, we must incorporate principles relating to the Open Knowledge Action Plan in the planning and assessment of research, particularly those that could be associated with social impact. At the same time, we promote discussion and training on models to assess the impact of research transfer and the incorporation of topics associated with open science and RRI into strategic research plans.

Open Knowledge Action Plan





4.3.7. Training, communication and awareness raising

Many of the areas addressed here are relatively new and require a considerable change in the vision and culture of our university. We must train and raise the awareness of all members of the UOC community in priority areas of the Action Plan in coming years and thus build knowledge and awareness to advance towards a more open university. A key factor in this area is to make existing UOC experiences more visible so that they can serve as examples to follow. Communication needs to be reviewed, particularly communication associated with research, and it must be made consistent with the commitment and proposals of the current Action Plan.

4.3.8. Open infrastructure

Technological infrastructure is required to implement the various thematic areas. We are committed to ensuring the availability, good functioning and interoperability of technological tools required to implement the Open Knowledge Action Plan. We also promote the use of open platforms as spaces for open knowledge and open management and include the promotion of the use of free software.

4.3.9. Participation in leading forums

We will only progress towards more open science and the creation of open knowledge with and for everyone if we join forces in the international arena and try to make an impact on public higher education, research and innovation policies. At the UOC we are and will be a proactive, committed agent, and through our active participation in local, national and international forums we will try to contribute to promoting the required paradigm shift.

Monitoring and governance





As in the creation of the Plan, its implementation and execution shall be achieved with a multidisciplinary, cross-cutting team.

The Action Plan shall be monitored as follows:

- A bi-annual meeting of those responsible to assess progress in the thematic areas (April and October)
- Periodic reports on compliance with open access policy and other objectives established in the Open Knowledge Action Plan
- Presentation of results and targets achieved twice a year to the Academic Committee (June and December)
- An annual report for the Executive Board and University Council
- The annual publication of results and targets in a way that is open to all the UOC community (January)

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