

GAP ANALYSIS

Application for Acknowledgement of Human Resources in Research

Resubmission - A Coruña, 15th may 2017



1 Contacts Details

Name Organisation under Review:

Universidade da Coruña


Organisation's contact details:

Prof. Salvador Naya Fernández

Vice-rector for Science Policy, Research and Transfer

 vpcit@udc.es

 +34 881 01 1156

 Rúa da Maestranza, 9; 15001 A Coruña - Spain

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2 The Process

2.1 Persons involved in the process

The commitment with the implementation of professional ethics and the code of conduct for researchers in the Universidad de A Coruña (UDC) is led by the Rector and Vice-Rector for Science Policy, Research and Transfer of the UDC.

A working committee was formed to monitor the process and a working group was appointed to implement the process and to manage the relation with external viewers.

Composition of the **Committee** (to monitor the process), 4 people:

- Rector: Prof. Julio E. Abalde Alonso Distinguish Professor in Microbiology (R4)
- Vice-Rector for Science Policy, Research and Transfer: Prof. Salvador Naya Fernandez Professor of Statistics (R3)
- Vice-Rector for Academic affairs and Planning: Prof. Alberto Valderruten Vidal Professor of Computation sciences and Artificial intelligence (R3)
- Vice-Rector for Internationalization and Cooperation: Prof. Pilar García de la Torre Professor of Psychology (R3)

Composition of the **Working Group** (responsible for implementing the process), 19 people:

Management representatives:

A reinforced working group was set up in the second phase:

- Vice-Rector for Science Policy, Research and Transfer: Prof. Salvador Naya Fernandez, Professor of Statistics (R3)
- Vice-rector for Academic affairs and Planning: Prof. Alberto Valderruten Vidal, Professor of Computation sciences and Artificial intelligence (R3)
- Vice-rector for Internationalization and Cooperation: Prof. Pilar García de la Torre Professor of Psychology (R3)
- Vice-rector of Academic offering and educational innovation. Prof Nancy Vázquez Veiga Professor of Linguistics (R3)
- Deputy to Vice-Rector for Science Policy, Research and Transfer: Prof. Horacio Naveira (Research Deputy), Professor of Cellular and Molecular Biology (R3)
- Deputy to Vice-Rector for Science Policy, Research and Transfer: Prof. Fidel Cacheda (Research Deputy) Professor of IT technologies (R3)
- Coordinator at CICA: Jaime Rodríguez González
- Quality Manager at CITIC: Marta Nuñez
- Manager: Ramón del Valle
- Director of the Research Results Transfer Office: Pilar Pintor

Researchers

- Prof. Ricardo Cao (R4)
- Ramón Arteaga Diaz (R3)
- Prof. Susana Ladra (R2)



- María Martínez Pérez (R1)

Administrative staff from the research service:

- M^a Teresa García Arias
- Rosa Varela Andrade
- Ángeles Romero María Gómez

Consultants:

- Lorena Muñoz, Partner at Effectia Consulting.
- Gonzalo Platas, Senior Consultant at Effectia Consulting.

2.2 Calendar of the process

This table resumes in the chronology of the 2016 and 2017 milestones along the process of preparation of the application to HR Award.

Table 1 Calendar

When	What	People involved
May – June 2016	Meetings at Fundación Barrié	Vice Rectors
August 2016	Contract consulting support to address the Gap Analysis and Action Plan.	Vice Rectors
August 2016	Methodology definition: Working Group designation, project planning, etc. Collect UDC faculty profiles and the selection of a representative sample for the survey. Define the profiles for the working group.	Working Group
September – October 2016	Inform the faculty about the C&C implementation process, insisting on the importance of achieving the HR award, informing about the strategy framework, and requesting the collaboration and commitment of the faculty in completing the survey.	VR of Research Communication department
September 2016	Surveying. The C&C online survey was sent to a sample of 203 researchers and the online OTM-R survey was sent to a sample of 50 people from the administrative departments in charge of the recruitment processes.	Working Group
14 th October 2016	Training and Benchmarking. Half day workshop on Human Resources Excellence process, benchmarking and best practices analysis.	Working Group Experts
14 th September 2016	Analysis and interpretation of the surveys by the consultants. 1st Workshop: half day workshop evaluating and discussing part of the survey's responses.	Working Group
14 th October 2016	Personally interview a selection of stakeholders, to gather further information on key topics.	Working Group
17 th October 2016	Analysis and interpretation of the surveys by the consultants. 2nd Workshop: half day workshop evaluating and discussing part of the survey's responses and validating the Gap Analysis.	Working Group
3 rd November 2016	Action plan Validation. 3rd Workshop: half day workshop for final validation of the Gap Analysis and Action Plan drafts..	Working Group



15 th November 2016	Application for EC acknowledgment.	Committee
February 2017	Reception of the HRS4R evaluation	Steering Committee
March 2017	A reinforced Working Group was set up	Steering Committee
March 23 th 2017	New call for all the researchers at the Ferrol Campus to participate in the survey. Re opening of the Survey	Working Group
March 23 th 2017	New call for all the researchers at the A Coruña to participate in the survey. Re opening of the Survey	Working Group
March 21 th – April 20 th 2017	Survey available	Working Group
April 24 th 2017	New Analysis and interpretation of the surveys by the consultants. 4th Workshop: whole day workshop evaluating and discussing part of the survey's responses	Working Group
May 2017	New action plan validation. 5th Working session half day session for final validation of documents.	Working Group and Steering Committee
May 15 th 2017	Resubmission of the EC acknowledgement	Steering Committee

2.3 Sample, gap analysis and action plan

Define sample and Survey

Initially, the C&C online survey was sent to a sample of 203 researchers and 9 administration representatives that work in close contact with researchers. The samples of researchers, chosen for the survey were representatives of the different professional categories (R1, R2, R3 and R4), departmental areas and gender balance of the UDC. 60 people, researchers or administrative staff, answer the survey (51 researchers and 9 administrative) obtaining a 25% rate of response in researchers, (PHASE 1).

After the reception of the evaluation, the gap analysis survey was sent to all the researchers. 186 researchers answered the survey in this second phase. Adding this new participation to the initial 60 survey respondents 238 researchers and 9 administrative have completed the GAP analysis survey, having a final participation of the 16,4% of the researchers of the UDC, (PHASE 2).

The online survey for OTM-R was sent to a sample of 40 people from the administrative departments in charge of the recruitment processes, 11 answered the survey obtaining a 27,5% rate of response.

Further information is shown in ANNEX 1.

Two informative sessions were held at Ferrol and A Coruña Campuses, to aware the researchers about the importance of their participation in the survey, more than 30 people attended to each event; agenda and participants is shown in ANNEX 5.

Gap analysis and improvement actions definition

The survey strategy was equal in the two phases. The C&C UDC voluntary survey, interviews about the degree of implementation of each of the 40 principles provided, and requests to explain why a principle is not implemented. Additionally, the survey asked the participants to evaluate the importance of each of the 40 principles. The survey was translated to Galician and an online platform was used both for the C&C and OTM-R surveys:

- C&C: <http://effectia.surveymonster.com/f/6b0540da48>
- OTR-M: <http://effectia.surveymonster.com/f/8feb0c4eb1>

The answers to the different questions were analysed, and the opinions expressed in the survey were taken by the working group as the starting point of discussion concerning the implementation of each of the 40 principles, and for the definition of the action plan. Again, after the second phase was completed, a re-evaluation of the conclusions of the first phase was performed in the 4th workshop.

Average score has been calculated for each of the principles (how much the researchers consider the principles are implemented and their importance). Additionally, that information was also applied in personal interviews with stakeholders to attain a more comprehensive perspective of the implementation of these principles at the UDC. Results are shown in ANNEX 3.

Personal interviews were held with:

- Fidel Cacheda, Transfer Deputy. 1 hour interview focused in technology transfer issues.
- Rosa Varela Andrade, Head of the recruitment service. 2 hours interview focused mainly in recruiting procedures and regulation and OTM-R
- Susana Ladra, R2 researcher. 1 hour interview focused in R1 and R2 views, circumstances and complaints.

For the GAP analysis UDC revised all the documents available in the Euraxess portal. In addition, to identify best practices, UDC performed a benchmark with national Universities and research centres that had previously implemented the process.

Action Plan

In the first phase, to diagnose the implementation of the 40 C&C principles in UDC, and to identify the main actions to revert this situation, two whole-day workshops were held.

During the first day, the diagnosis was presented, and actions were debated.

In the second workshop, the actions were defined and valorized more concisely, prioritizing those more appropriate and achievable for the UDC.

The survey was re-opened March 21st 2017, and was closed on April 20th 2017. In the second phase, one day workshop was performed to analyze the new answers of the survey and to include the new insights in the diagnosis of the gap analysis and the action planning.

A detailed description of the meetings, agenda and participants is shown in ANNEX 4.

3 Results

This effort provided a GAP analysis in which 15 principles were considered implemented at the UDC, Annex 4.6 shows the analysis of the National, Autonomic and Institutional legal framework performed to identify those laws, decrees or regulations that may limit the implementation of any of the 40 C&C principles. After revising almost 40 regulations, our conclusion is that in general sense, the National, Autonomic or Institutional legal frameworks are compatible with the integration of the C&C principles to the HHRR strategy of the UDC. Nevertheless, full application of the recruiting principles at the UDC, is highly limited by some national laws:

- Royal Decree 14/2012 (modified text of the Organic Act for Universities, LOMLOU, reduces the call for new permanent University positions to the replenishment of vacant posts.
- Directorate General for Labour November 3 2009 unique national collective agreement for the entire General State Administration.
- Royal decree 5/2015 Consolidated for public employee statute.

Down below, the GAP analysis of the 40 C&C and the 23 OTM-R principles are presented.

3.1 GAP analysis: C&C

Table 2 Gap analysis overview

European Charter for Researchers and Code of Conduct for the Recruitment of Researchers: GAP analysis overview				
ETHICAL AND PROFESSIONAL ASPECTS				
	Status of implem entation	Actual “gap” between the principle and the current practice in UDC.	Initiatives already undertaken and/or suggestions for improvement	Actions suggested for improvement
1. Research freedom	Fully implem ented	<ul style="list-style-type: none"> No Gap 	<ul style="list-style-type: none"> There is an Ethical committee at UDC It supervised the biomedical data protection and animal testing assays https://www.udc.es/export/sites/udc/_galeria_down/investigacion/etica/regulamento.pdf. UDC guarantees research freedom under the limits described in principle 1. 	<ul style="list-style-type: none"> no actions.
2. Ethical principles	Almost but not fully implem ented	<ul style="list-style-type: none"> There is no regulation, or recommendations in the UDC, concerning good research practices. 	<ul style="list-style-type: none"> The ethical committee evaluates if the design of research projects using biomedical clinical data or animal testing, comply the regulation. https://www.udc.es/export/sites/udc/_galeria_down/investigacion/etica/regulamento.pdf. The ethical compromise of researchers is tacitly assumed 	<ul style="list-style-type: none"> Write and disseminate the “UDC Ethical code of research”.
3. Professional responsibility	Almost but not fully implem ented	<ul style="list-style-type: none"> To avoid duplication of the research, the UDC trusts in the knowledge, good will and scientific criteria of the researchers. Presently no antiplagiarism software is installed at the UDC. 	<ul style="list-style-type: none"> Additionally, when a scientific contribution is submitted for publication, external referees will refuse the publication of a paper if the data has already been published. An antiplagiarism software will be installed in the UDC at middle term. There is a public commitment to purchase that software:http://www.lavozdegalicia.es/noticia/educacion/2016/03/06/universidades-compraran-software-cazar-trabajos-plagiados/0003_201603G6P4991.htm 	<ul style="list-style-type: none"> Design of new courses for awareness of various principles and reinforce courses to improve training.

4. Professional attitude	Fully implemented	<ul style="list-style-type: none"> No Gap 	<ul style="list-style-type: none"> Most of the UDC financing is provided by competitive funding projects. The rules and regulations that must be complied to attain the funds and its accountability, is detailed in the basis of each call. UDC facilitates researchers with the fulfilment of administrative tasks providing updated information about the deadlines for the progress reports of the ongoing projects. 	<ul style="list-style-type: none"> no actions.
5. Contractual and legal obligations	Almost but not fully implemented	<ul style="list-style-type: none"> The survey suggests a general lack of knowledge about IP and its regulations and regulation. 	<ul style="list-style-type: none"> UDC have implemented an IP regulation. https://www.udc.es/export/sites/udc/biblioteca/_galeria_down/normativa/Reglamento_Prop_Intelectural_UDC.pdf 	<ul style="list-style-type: none"> Write and disseminate the “UDC Guidelines and Procedures for Good Research Practice”. IP and Technology transfer topics will also be covered in the curses provided by CUFIE (University Center of Educational Training and Innovation), that depends on the UDC.
6. Accountability	Fully implemented	<ul style="list-style-type: none"> No gap 	<ul style="list-style-type: none"> The Project accountability requirements were defined based on the different calls, and is endorsed by both internal and external audits. 	<ul style="list-style-type: none"> no actions.
7. Good practice in research	Partially implemented	<ul style="list-style-type: none"> UDC have not implemented a specific measure to safeguard sensitive biometric data 	<ul style="list-style-type: none"> UDC have an occupational risk prevention unit, whose main roles are: the writing of the documentation, surveillance, inspection, and dissemination of good labor practices. https://www.udc.es/prl/index.html?language=en IT security protocols were implemented for administrative personal. IT security is a complex item for researchers, because each Department has their own IT system and security measures. 	<ul style="list-style-type: none"> Write and disseminate the “UDC Guidelines and Procedures for Good Research Practice”. Training events in data security, will be offered.

				<ul style="list-style-type: none"> Design and implement a corporate strategy for IT data security.
8. Dissemination, exploitation of results	Almost but not fully implemented	<ul style="list-style-type: none"> The survey shows a general lack of knowledge about IP and TT 	<ul style="list-style-type: none"> In the medium term the UDC's Tech Transfer Office http://www.udc.es/otri/ will be reinforced with 3 additional staff members. Technology transfer and IP activities are included in the evaluation for "sexenios" (evaluation of merits obtained each six years), of the professional teaching staff. The IP regulation of the UDC, is economically very favorable to the researchers. Some courses concerning IP rights were imparted at the UDC. Although this initiative is no longer available. 	<ul style="list-style-type: none"> Design of new courses for awareness of various principles and reinforce courses to improve training.
9. Public engagement	Partially implemented	<ul style="list-style-type: none"> Researchers rarely perform Scientific Outreach, moreover, these activities are not included as a positive criterion for their evaluation. There is no institutional support to researchers for outreach activities The researchers do not consider scientific outreach within their priorities. 	<ul style="list-style-type: none"> Outreach is not a positive criterion for evaluation neither for UDC, nor CNEAI. http://www.idi.mineco.gob.es/portal/site/MICINN/menuitem.26172fcf4eb029fa6ec7da6901432ea0/?vgnextoid=3d5167b99490f310VgnVCM1000001d04140aRCRD. The Scientific Outreach Unit, coordinates the outreach activities: https://www.udc.es/cultura/unidade_divulgacion_cientifica A program of scientific presentations to the open public "Ciencia Express" is performed by University professors about scientific themes. https://www.udc.es/actualidade/eventos/2016/05/cienciaexpress.htm During the last year, VTV has recorded short videos at the University Research Departments, in which researchers describe their work. Presently a Department of Scientific Outreach is being defined at the UDC There are communication responsables at the UDC's associated research centers CICA and CITIC that perform outreach activities. 	<ul style="list-style-type: none"> Boost the UDC's Chair of scientific outreach, by coordinating the outreach, dissemination and communication activities with the associated research centers, and providing additional measures to implement the Outreach & Communication department.

10. Non discrimination	Fully implem ented	<ul style="list-style-type: none"> No gap 	<ul style="list-style-type: none"> There is a gender office https://www.udc.es/oficinaigualdade/ and a gender plan, https://www.udc.es/oficinaigualdade/plan/. UDC has a Centre for Gender issues, http://www.udc.es/sociedade/igualdade/estudiosxenero.html and the Centre for the attention to Diversity http://www.udc.gal/cufie/ADI/ Gender equality programs were also provided in “UDC Saludable” program https://www.udc.es/goberno/equipo_reitoral/vcfrs/CampusUDCU_niversidadSaludable/index.html?language=es To avoid any discrimination, specific training in transversal competences will be added to the University Curricula. 	<ul style="list-style-type: none"> no actions.
11. Evaluation/ appraisal systems	Partially implem ented	<ul style="list-style-type: none"> Evaluation is not homogeneous in all the research groups, 	<ul style="list-style-type: none"> Research groups could request to be evaluated by the ANEP, but this evaluation is not compulsory. Although it is necessary to access to UDC proper founding’s. On the other hand, the research groups that belong to the UDC associated research centers CICA (Centro de Investigaciones Científicas Avanzadas) and CITIC (Centro de Investigación en Tecnologías de Información y Comunicación) have an additional and external evaluation; due to their designation by the regional government, as “Singular Research Centers” and “Strategic Clusters”. INTALENT grants also require internal and external evaluations. INTALENT (www.intalent.udc.es) in a specific collaborative program between UDC and INDITEX for the recruitment of post cod researchers with projection and extensive international experience under the sole criterion of excellence. 	<ul style="list-style-type: none"> Performing periodic evaluations of the research groups. A revision of the UDC evaluation system will be done, inspired in the CICA and CITIC evaluation criteria.

RECRUITMENT AND SELECTION.				
	Status of implem entation	Actual “gap” between the principle and the current practice in UDC.	Initiatives already undertaken and/or suggestions for improvement	Actions suggested for improvement
12. Recruitment	partially implem ented	<ul style="list-style-type: none"> The regulation providing the legal framework for the recruitment of research staff financed through R+D projects or activities does not reflect the present situation, and should be reformed. http://www.udc.gal/export/sites/udc/normativa/_galeria_down/i nvestigacion/TACONTLAB.pdf There is no Code of conduct for the recruitment of researchers 	<ul style="list-style-type: none"> Hub of legislation concerning the recruitment of the different scientific professional levels http://www.udc.gal/normativa/profesorado/ http://www.udc.es/export/sites/udc/normativa/_galeria_down/i nvestigacion/AcordoCapVI.pdf http://www.udc.gal/export/sites/udc/normativa/_galeria_down/i nvestigacion/TACONTLAB.pdf Regarding the recruitment of disadvantaged groups, there is an agreement between the syndicates and UDC, for the recruitment of unemployed people. https://www.udc.es/export/sites/udc/normativa/_galeria_down/i nvestigacion/acordo230508.pdf The regulation proposes very favorable conditions for researchers for the IP and Tech transfer activities. http://www.udc.gal/normativa/investigacion/ The royal decree 14/2012 reduces the call for new permanent University positions to the replenishment of vacant posts. The recruitment of research staff financed through R+D projects or activities were announced at the UDC web, additionally this announcement could be also performed by the PI researchers. The “Inmigration Secretariat” from the regional government facilitates administrative formalities to foreign students of the UDC, with Gallaecian origin, providing lodging and studentship grants. 	<ul style="list-style-type: none"> Update the regulation of extra budgetary researchers recruiting. Write the “UDC Code of conduct for the recruiting of researchers” and advertise all researcher vacancies on Euraxess.

13. Recruitment (Code)	Partially implemented	<ul style="list-style-type: none"> None of the conditions described in the criterion's statement were indicated for the recruitment of research staff financed through R+D projects or activities announcements, although these conditions could have been published elsewhere on the UDC web page. Only a limited number of Departments define the rating scale of the CV merits prior to the announcement of the call 	<ul style="list-style-type: none"> Hub of legislation concerning the recruitment of the different scientific professional levels http://www.udc.gal/normativa/profesorado/ http://www.udc.es/export/sites/udc/normativa/_galeria_down/investigacion/AcordoCapVI.pdf http://www.udc.gal/export/sites/udc/normativa/_galeria_down/investigacion/TACONTLAB.pdf The research staff financed through R+D projects or activities contracts were announced at the UDC web. The format of the call depends on its bases. 	<ul style="list-style-type: none"> Write the "UDC Code of conduct for the recruiting of researchers" and advertise all researcher vacancies on Euraxess Revise the Doctorate school regulation, to broaden the enrolment period, to avoid bureaucratic hurdles to newly hired R1 researchers.
14. Selection (Code)	Partially implemented	<ul style="list-style-type: none"> There is a general absence of regulation to this respect. No training is provided to the members of the selection committee 	<ul style="list-style-type: none"> The composition of the committee for the selection of permanent staff (civil servant status) (R3 and R4) is regulated at national level. For the selection of R1 and R2 positions, the composition of the evaluation committee depends upon the Department's regulation. There is no regulation of general application, but the committee should be composed by an odd number (normally three), and will include the PI. The resolution of the call is published on the web page and should be signed by 3 researchers The FUAC, Fundación de la Universidad de A Coruña, oversees formalizing the contracts of the R1 and R2 of research staff financed through R+D projects or activities. INTALENT CALLS have improved the selection process of UDC, considered as good practice to be spread in other recruitment processes. 	<ul style="list-style-type: none"> Design of new courses for awareness of various principles and reinforce courses to improve training. Write the "UDC Code of conduct for the recruiting of researchers" and advertise all researcher vacancies on Euraxess. INTALENT Good practices will be also adopted by the recruitment of researchers with projects founded by companies.

15. Transparency (Code)	Partially implemented	<ul style="list-style-type: none"> There is no common general regulation concerning the transparency of recruitment calls The procedures followed depend upon each Department and in general bases, there is no information about career development or a clear scale of merit for evaluation. The candidates are not informed after the selection process about the strengths and weaknesses of their applications. 	<ul style="list-style-type: none"> The acceptance or rejection of candidates is published at the announcement platforms of the Departments. 	<ul style="list-style-type: none"> Write the “UDC Code of conduct for the recruiting of researchers” and advertise all researcher vacancies on Euraxess. INTALENT Good practices will be adopted by the recruitment of researchers funded by competitive projects Publish the resolution of the calls at the webpage, considering the Personal data protection law.
16. Judging merit (Code)	Partially implemented	<ul style="list-style-type: none"> The criteria of selection followed are quantitative instead of qualitative, and very rarely personal interviews were performed 	<ul style="list-style-type: none"> The Regulation for the recruitment of permanent staff (civil servant status), value tech transfer, start-up creation of and Postdoc mobility https://www.udc.es/export/sites/udc/normativa/_galeria_down/profesorado/seleccioninterinolabcont.pdf 	<ul style="list-style-type: none"> Write the “UDC Code of conduct for the recruiting of researchers” and advertise all researcher vacancies on Euraxess, adding clear merit evaluation criteria.
17. Variations in the chronological order of CVs	Partially implemented	<ul style="list-style-type: none"> Stop the clock policies for maternity were considered in the evaluation but this policy could be improved. 	<ul style="list-style-type: none"> The general concern, is that if a scientist develops an extra academic activity for a period, he/she is penalized both at an academic level and at subsequent evaluations. There are special contracts that could be used to retain interesting scientific profiles, for example, Associate researcher. 	<ul style="list-style-type: none"> Write the “UDC Code of conduct for the recruiting of researchers” and advertise all researcher vacancies on Euraxess.

18. Recognition of mobility experience (Code)	Partially implemented	<ul style="list-style-type: none"> Access to sabbatical leaves are difficult due to the additional expenses derived from the recruitment of a teacher to substitute the academic duties. Changes in discipline are not well considered in the evaluation of a research career 	<ul style="list-style-type: none"> There are UDC mobility calls for academics. http://www.udc.es/ori/infprofesores/mobilidade_erasmus/STA/oferta_prazas.html?language=es. There are grants for mobility, and the international mobility is valued in the evaluations. UDC have improved the funding for Mobility in the current university 2017 budget. 	<ul style="list-style-type: none"> Write the “UDC Code of conduct for the recruiting of researchers” and advertise all researcher vacancies on Euraxess. Professional careers: Elaborate a map for “Alternative professional careers for UDC researchers” and review the mobility grants for researchers.
19. Recognition of qualifications (Code)	Partially implemented	<ul style="list-style-type: none"> No UDC’s regulation is devoted to the recognition of non-formal qualifications, or qualifications not authorized by the education ministry. 	<ul style="list-style-type: none"> The Regulation for the recruitment of positions for R2 academic researchers, value mobility in a scale of 5 to 55 points depending in the professional status of the researcher. https://www.udc.es/export/sites/udc/normativa/_galeria_down/pr ofesorado/seleccioninterinolabcont.pdf 	<ul style="list-style-type: none"> Write the “UDC Code of conduct for the recruiting of researchers” and advertise all researcher vacancies on Euraxess
20. Seniority (Code)	Fully implemented	<ul style="list-style-type: none"> No gap 	<ul style="list-style-type: none"> This criterion does not apply for UDC 	<ul style="list-style-type: none"> no actions.
21. Postdoctoral appointments (Code)	Fully implemented	<ul style="list-style-type: none"> No gap 	<ul style="list-style-type: none"> UDC do not have proper financing calls for the recruitment of R2 with no teaching responsibilities, it depends in competitive calls. These contracts should be done for a period shorter than 3 years Recruiting regulation. http://www.udc.gal/export/sites/udc/normativa/_galeria_down/investigacion/TACONTLAB.pdf The calls for post-doctoral positions are announced by the Office of Research. In these calls, and in the recruitment of research staff financed through R+D projects or activities, clear rules and explicit guidelines are provided. 	<ul style="list-style-type: none"> no actions.

WORKING CONDITIONS AND SOCIAL SECURITY				
	Status of implem entation	Actual “gap” between the principle and the current practice in UDC.	Initiatives already undertaken and/or suggestions for improvement	Actions suggested for improvement
22. Recognition of the profession	Fully implem ented	<ul style="list-style-type: none"> No Gap 	<ul style="list-style-type: none"> There are agreements concerning the professional classification of the extra budgetary projects staff, http://www.udc.gal/export/sites/udc/normativa/_galeria_down/in_vestigacion/Acuerdo_clasificacion_profesional_persoal_PCVI.pdf. The recognition of the profession is implemented and follows the guiding principles of the Law 14/2011, of 1 June, of the Science, Technology and Innovation. 	<ul style="list-style-type: none"> no actions.
23. Research environment	Almost but not fully implem ented	<ul style="list-style-type: none"> •UDC do not have a proper funding program for the purchase of equipment • A catalogue of the different equipment’s available at the UDC and its location, is available, but it is not at all user friendly • The participation of researchers in scientific nets is encouraged, but a regulation limits the number of nets (de a xunta) to 2 that a scientist can belong to. 	<ul style="list-style-type: none"> Prevention of risks at work department https://www.udc.es/prl/index.html?language=es UDC security and health unit regulation. http://www.udc.es/normativa/xeral/normas_funcionamiento_com_ite_seguranza.html UDC healthy life program http://www.udc.es/gobierno/equipo_reitoral/vcfrs/CampusUDCUniversidadSaludable/ 	<ul style="list-style-type: none"> Elaborate the “Map of access to the UDC infrastructures” including a “Catalog of outstanding scientific and technical nets of interest for the UDC”

24. Working conditions	Fully implemented	<ul style="list-style-type: none"> No Gap 	<ul style="list-style-type: none"> UDC do not have a clear regulation for work-life balance, although allows flexibility to achieve this balance. The post doc contracts allow an extraordinary length in case of maternity. Applying stop the clock policies. In cases of disability, the research staff financed through R+D projects or activities contracts have an extra duration (2 years). The work schedule for the research staff financed through R+D projects or activities contracts is regulated by this agreement. https://www.udc.es/export/sites/udc/normativa/_galeria_down/investigacion/AcordoCapVI.pdf 	<ul style="list-style-type: none"> no actions.
25. Stability and permanence of employment	Partially implemented	<ul style="list-style-type: none"> Due to the law 24/2012 the UDC must fulfil the current measures of budget constraint, and could not address specific measures for the stabilization of researchers contracts. UDC could provide information to R1 and R2 researchers about other possibilities of professional careers outside academia 	<ul style="list-style-type: none"> The recruitment of permanent staff (civil servant status) is limited at the UDC due to the application of the 14/2012 decree There is no proper orientation program for the R1 and R2, but there were initiatives participated in by the UDC in which it could be feasible to provide orientation towards alternative professional careers: o Laboralia project, (technology transfer and soft skills) http://consellosocial.udc.es/index.php?fwl=2, o FEUGA industrial scholarships, http://www.feuga.es/en/becas.html And o BERCE that helps in the elaboration of RyC or ERC grants. 	<ul style="list-style-type: none"> Professional careers: Elaborate a map for “Alternative professional careers for UDC researchers” and review the mobility grants for researchers

26. Funding and salaries	Partially implemented	<ul style="list-style-type: none"> UDC hasn't a budget for hiring researchers or improve the salaries of the researchers recruited by the University. 	<ul style="list-style-type: none"> Agreement concerning the professional classification of the research staff financed through R+D projects or activities, http://www.udc.gal/export/sites/udc/normativa/_galeria_down/investigacion/Acordo_clasificacion_profesional_persoal_PCVI.pdf Working conditions for permanent staff (civil servant status) is ruled by national laws For the non- permanent staff (civil servant status), an agreement defining the minimal recruitment conditions for full time and part time work has been signed with syndicates including a basal salary for each professional category. https://www.udc.es/export/sites/udc/normativa/_galeria_down/investigacion/AcordoCapVI.pdf The basal salary, the working time and the professional classification of the research staff financed through R+D projects or activities are included in an agreement signed between UDC and syndicates. https://www.udc.es/export/sites/udc/normativa/_galeria_down/investigacion/Acordo_clasificacion_profesional_persoal_PCVI.pdf UDC has recently established the Intalent program www.intalent.udc.es, for recruiting high potential young Doctors, offering competitive salaries and an initial funding for their research. The program has been successful, although it will only consider its application in a small set of researchers. For "young people first contracts" in the UDC were co-financed by the Autonomic Community or the State. 	<ul style="list-style-type: none"> Implement as much as possible INTALENT program for attracting talented researchers.
27. Gender balance	Almost but not fully implemented	<ul style="list-style-type: none"> The respondents do not consider this criterion implemented 	<ul style="list-style-type: none"> UDC has a Gender Office https://www.udc.es/oficinaigualdade/ and a Gender Plan, https://www.udc.es/oficinaigualdade/plan/. In the committees for the selection of the permanent staff (civil servant status) there is gender balance. https://www.udc.es/export/sites/udc/normativa/_galeria_down/pr_ofesorado/seleccioninterinolabcont.pdf. 	<ul style="list-style-type: none"> Design of new courses for awareness of various principles and reinforce courses to improve training. Write the "UDC Researcher Welcome manual"

28. Career development	Partially implemented	<ul style="list-style-type: none"> The UDC doesn't have a regulation regarding professional development. Mentorship is not institutionalized at the UDC, In the case of R1, the mentor is the PhD director or Tutor. 	<ul style="list-style-type: none"> The UDC doesn't have a regulation regarding professional development, but support initiatives like the training and counselling unit UFA https://www.udc.es/cufie/UFA/. Among its current projects, there is one directed to Post docs and researchers, to attain a better knowledge of the European Space for Research calls https://www.udc.es/cufie/UFA/PAI/. There are other initiatives, provided by private foundations (Fundación Barrie http://www.fundacionbarrie.org/gradschool) that teach courses for researchers like "Grad School" Presently Fundación Barrie, is providing courses for senior researchers in mentoring (www.fundacionbarrie.es), increase the number of senior researcher of the UDC that attend to this course. 	<ul style="list-style-type: none"> Design of new courses for awareness of various principles and reinforce courses to improve training. Professional careers: Elaborate a map for "Alternative professional careers for UDC researchers" and review the mobility grants for researchers. Write the "UDC Researcher Welcome manual".
29. Value of mobility	Fully implemented	<ul style="list-style-type: none"> No Gap. Mobility is considered as a positive evaluation criterium. 	<ul style="list-style-type: none"> There is a UDC regulation over international mobility for students. http://www.udc.es/export/sites/udc/normativa/_galeria_down/academica/Regulamento_sobre_mobilidade_internacional_de_estudantes.pdf. Some procedures that enable the mobility were available at the UDC, although they were more or less bureaucratic depending on the researchers type of contract. Mobility experiences were recognized in the evaluation processes https://www.udc.es/export/sites/udc/normativa/_galeria_down/profesorado/seleccioninterinolabcont.pdf The Vice-Rectorate for International Relations and Cooperation for Internationalization and the Vice Rectorate of Research, provide several initiatives of granting, foreign language improvements, international trips, or short term stays for teaching or training. 	<ul style="list-style-type: none"> Although this criterium is implemented, it could be advisable to mention this topic at the "UDC Researcher Welcome manual", and included in the on line video course.

30. Access to career advice	Partially implemented	<ul style="list-style-type: none"> The UDC doesn't have a regulation regarding professional development. The current private formative initiatives are not known by the respondents 	<ul style="list-style-type: none"> The recruitment of permanent staff (civil servant status) is limited at the UDC due to the application of the 14/2012 decree. There is not a proper orientation program for the R1 and R2, but there were initiatives participated in by the UDC in which it could be feasible to provide orientation towards alternative professional careers Laboralia project, (technology transfer and soft skills) http://consellosocial.udc.es/index.php?fwl=2, FEUGA industrial scholarships, http://www.feuga.es/en/becas.html and BERCE, that helps in the elaboration of RYC or ERC grants. In general terms the PhD directors orientate their students in the search for professional opportunities, including industry. 	<ul style="list-style-type: none"> Write the "UDC Researcher Welcome manual". Including an On line video course.
31. Intellectual Property Rights	Almost but not fully implemented	<ul style="list-style-type: none"> The survey shows a general lack of knowledge about this criterion 	<ul style="list-style-type: none"> UDC has a regulation about IP in which the economic conditions for the exploitation of patents are very beneficial for the researchers. Regulation of Industrial property right UDC https://www.udc.es/export/sites/udc/biblioteca/galeria_down/normativa/Reglamento_Prop_Intelectual_UDC.pdf The present UDC regulation will be revised because of the release of a new national IP law. 	<ul style="list-style-type: none"> Design of new courses for awareness of various principles and reinforce courses to improve training. Write the "UDC Researcher Welcome manual".
32. Co-authorship	Partially implemented	<ul style="list-style-type: none"> There is no regulation concerning co-authorship. There is no competent authority that could decide upon conflict issues. In some calls for grants, co authorship is penalized 	<ul style="list-style-type: none"> In case of conflict the UDC Ombudsman could only mediate in the resolution of the issue, but do not have any legal power for its resolution https://www.udc.es/gobierno/organos_colexiados_e_estatutarios/valedor_universitario/marco.html Usually the PI decides who is included as author in the publication. http://www.udc.es/cufie/UFA/PFI/criterios.html 	<ul style="list-style-type: none"> Write and disseminate the "UDC Guidelines and Procedures for Good Research Practice". Design of new courses for awareness of various principles and reinforce courses to improve training. Benchmark the current European regulation for co authorship to improve the UDC's recommendations.

33. Teaching	Fully implemented	<ul style="list-style-type: none"> No gap 	<ul style="list-style-type: none"> The number of teaching hours that each professional level must lecture, and the number of hours that could be discounted due to the performance of other academic endeavors, is subjected to fix a regulation. http://www.udc.es/export/sites/udc/normativa/galeria_down/pr_ofesorado/iiconvenioPDI.pdf and http://www.udc.es/export/sites/udc/normativa/galeria_down/pr_ofesorado/ANUNCIO_PRORROGA_CONVENIO_COLECTIVO_PDI.pdf There is no verification tool that reports the performance of the teaching hours, but there were no cases of abuse reported in this respect The HR staff, were preferentially offered to be enrolled in teaching courses provided by CUFIE https://www.udc.es/cufie/UFA/PAE/Cronograma.html and http://www.udc.es/cufie/UFA/PFI/criterios.html For the FPI and FPU Calls (pre doc contracts managed by national government), training courses on teaching were mandatory. 	<ul style="list-style-type: none"> no actions.
34. Complains/ appeals	Partially implemented	<ul style="list-style-type: none"> There have been some exceptional cases in which complaints were not fully resolved by the University authorities. 	<ul style="list-style-type: none"> In case of conflict the UDC Ombudsman can only mediate in the resolution of the issue, but do not have any legal power for its resolution. https://www.udc.es/gobierno/organos_colexiados_e_estatutarios/valedor_universitario/marco.html The governing board is the final authority that has the power to decide in the conflict resolution. https://www.udc.es/normativa/xeral/regulamento_interno_consell_o_gobierno.html 	<ul style="list-style-type: none"> Include a reference to the complains procedures in the welcome manual and online curse.

35. Participation in decision-making bodies	Fully implemented	<ul style="list-style-type: none"> No gap 	<ul style="list-style-type: none"> The participation of students and the researchers with different profiles at the governing boards of the University is published at the law and University statutes, The representation of the research staff financed through R+D projects or activities at University boards could be improved, presently is compiled in the general agreement between the University and the syndicates. https://www.udc.es/export/sites/udc/normativa/galeria_down/investigacion/Acordo_clasificacion_profesional_persona_PCVI.pdf 	<ul style="list-style-type: none"> Although the participation is fully improved, an effort will be done to attract newcomers to participate in the academic institutions and decision boards.
36. Relation with supervisors	Fully implemented	<ul style="list-style-type: none"> No gap 	<ul style="list-style-type: none"> For R2 researchers, the delivery of the results and progress reports are written at the bases of each call. For the R1 researchers, the Doctorate commission must elaborate a report justifying the breakthroughs of the research. The fashion in which the research data is stored and shared depends upon the research group. The new Doctorate regulation demands the accomplishment of this criterium, regarding the Working Plan for research to be presented by the PhD student. https://www.udc.es/export/sites/udc/eid/galeria_down/normativa/Regulamento_Doutoramento_CG_26_01_17Anuncio_ES.pdf 	<ul style="list-style-type: none"> no actions.

TRAINING AND DEVELOPMENT				
	Status of implementation	Actual “gap” between the principle and the current practice in UDC.	Initiatives already undertaken and/or suggestions for improvement	Actions suggested for improvement
37. Supervision and managerial duties	Partially implemented	<ul style="list-style-type: none"> There are no recommendations or training for team management 	<ul style="list-style-type: none"> Senior researchers lead their team intuitively, and do not receive specific training in team management. The regulation of the University for becoming a Ph.D. thesis director is very restrictive regarding to the research qualifications needed. https://www.udc.es/export/sites/udc/eid/galeria_down/normativa/Regulamento_Doutoramento_CG_26_01_17Anuncio_ES.pdf Presently Fundación Barrie, is providing courses for senior researchers in mentoring. 	<ul style="list-style-type: none"> Design of new courses for awareness of various principles and reinforce courses to improve training.
38. Continuing Professional Development	Partially implemented	<ul style="list-style-type: none"> The researcher’s training offer can be improved. The international Doctorate school oversees training in soft skill competences, although its labor is not well known. On the other hand, the vast heterogeneity of research profiles present at the UDC, require an extra planning effort to identify the most required soft skills to be trained 	<ul style="list-style-type: none"> The International doctorate school https://www.udc.es/eid/index.html?language=es has a very wide range of course offers. 	<ul style="list-style-type: none"> Design of new courses for awareness of various principles and reinforce courses to improve training, asking for the researchers feedback for prioritizing the most demanded.

39. Access to research training and continuous development	Partially implemented	<ul style="list-style-type: none"> The UDC, does not have a system to check assistance of the researchers at scientific meetings. Assistance to scientific meetings is a criterion of evaluation for the CNEAI. 	<ul style="list-style-type: none"> The UDC, provides funds to permanent staff (civil servant status), for assistance to scientific meetings. The funds for the assistance of R1 and R2 to scientific meetings comes from specific funds devoted to training in each call. 	<ul style="list-style-type: none"> Design of new courses for awareness of various principles and reinforce courses to improve training, asking for the researcher's feedback for prioritizing the most demanded, including transversal skills, project management, entrepreneurship, etc.
40. Supervision	Fully implemented	<ul style="list-style-type: none"> No gap 	<ul style="list-style-type: none"> International doctorate school monitors that R1 students were supervised according to regulations. https://www.udc.es/eid/index.html?language=es The criteria mandated by the doctorate commission to become a thesis supervisor is very stringent. The PI, is responsible of the researcher in the competitive founding projects. 	<ul style="list-style-type: none"> no actions.



3.2 GAP analysis: OTM-R

Tabla 2 Gap analysis of the OTM-R check list

Open, Transparent and Merit-based Recruitment Check-list					
	Open	Trans- parent	Merit- based	IMPLEMENTATION	Suggested indicators (or form of measurement)
OTM-R system					
1. Have we published a version of our OTM-R policy online (in the national language and in English)?				NO	
2. Do we have an internal guide setting out clear OTM-R procedures and practices for all types of positions?				NO	
3. Is everyone involved in the process sufficiently trained in the area of OTM-R?				NO	
4. Do we make (sufficient) use of e-recruitment tools?				NO	
5. Do we have a quality control system for OTM-R in place?				NO	
6. Does our current OTM-R policy encourage external candidates to apply?	x	x	x	-/+ Yes, partially	Trend in the sharing of applicants from outside the organisation
7. Is our current OTM-R policy in line with policies to attract researchers from abroad?	x	x	x	-/+ Yes, partially	Trend in the sharing of applicants from abroad
8. Is our current OTM-R policy in line with policies to attract underrepresented groups?	x	x	x	-/+ Yes, partially	Trend in the sharing of applicants among underrepresented groups (unemployed)

Open, Transparent and Merit-based Recruitment Check-list					
	Open	Trans- parent	Merit- based	IMPLEMENTATION	Suggested indicators (or form of measurement)
9. Is our current OTM-R policy in line with policies to provide attractive working conditions for researchers?	x	x	x	-/+ Yes, partially	The attractiveness of the contract is dependent of the professional level of the researcher. The working conditions, including salary, were not below the market medium.
10. Do we have means to monitor whether the most suitable researchers apply?				NO	
Advertising and application phase					
11. Do we have clear guidelines or templates (e.g., EURAXESS) for advertising positions?	x	x	x	+/-Yes, substantially	% of advertising positions at Euraxess
12. Do we include in the job advertisement references/links to all the elements foreseen in the relevant section of the toolkit? [see Chapter 4.4.1 a) of the OTM-R expert report ¹]	x	x	x	-/+ Yes, partially	Check advertising positions at UDC and Euraxess webpages
13. Do we make full use of EURAXESS to ensure our research vacancies reach a wider audience?				NO	
14. Do we make use of other job advertising tools?				NO	
15. Do we keep the administrative burden to a minimum for the candidate?	x	x	x	-/+ Yes, partially	Trend in the number of hard copy documents
Selection and evaluation phase					
16. Do we have clear rules governing the appointment of selection committees? [see Chapter 4.4.2 a) ⁴⁵]	x	x	x	YES	Statistics on the composition of panels

¹ <http://ec.europa.eu/euraxess/index.cfm/services/researchPolicies>

Open, Transparent and Merit-based Recruitment Check-list					
	Open	Trans- parent	Merit- based	IMPLEMENTATION	Suggested indicators (or form of measurement)
17. Do we have clear rules concerning the composition of selection committees?	x	x	x	-/+ Yes, partially	Written rules only for PDI.
18. Are the committees sufficiently gender-balanced?	x	x	x	+/-Yes, substantially	Written guidelines
19. Do we have clear guidelines for selection committees which help to judge 'merit' in a way that leads to the best candidate being selected?	x	x	x	+/-Yes, substantially	Is published in each call.
Appointment phase					
20. Do we inform all applicants at the end of the selection process?	x	x	x	++ Yes, completely	The list of candidates and their scores are published
21. Do we provide adequate feedback to respondents?	x	x	x	-/+ Yes, partially	The possibility of performing personal interviews should be announced in the call.
22. Do we have an appropriate complaints mechanism in place?	x	x	x	++ Yes, completely	The score is published to facilitate the candidates the possibilities of complaints.
Overall assessment					
23. Do we have a system in place to assess whether OTM-R delivers on its objectives?	x	x	x	NO	

4 ANNEX

4.1 Annex 1: Sample:

The research faculty of the UDC is composed by 1451 researchers, that were distributed in 43 departments covering 9 areas of knowledge. During the first phase, a selection of 203 (13,9%) researchers from all the Knowledge areas was performed, considering a representation of the gender distribution, the professional profiles, and the areas of interest. The C&C survey was sent to this representative sample for its completion. A total of 51 (25,1%) researchers completed and sent the survey. In addition to the researchers, the survey was also sent to 9 administrative staff, whose activity is closely related to research. During the second phase, the survey was sent to all the researchers of the institution. 186 new participations were received, that with the addition of the participation received in the first phase makes a total of 238 researchers, the 16,4% of the whole research community of the UDC.

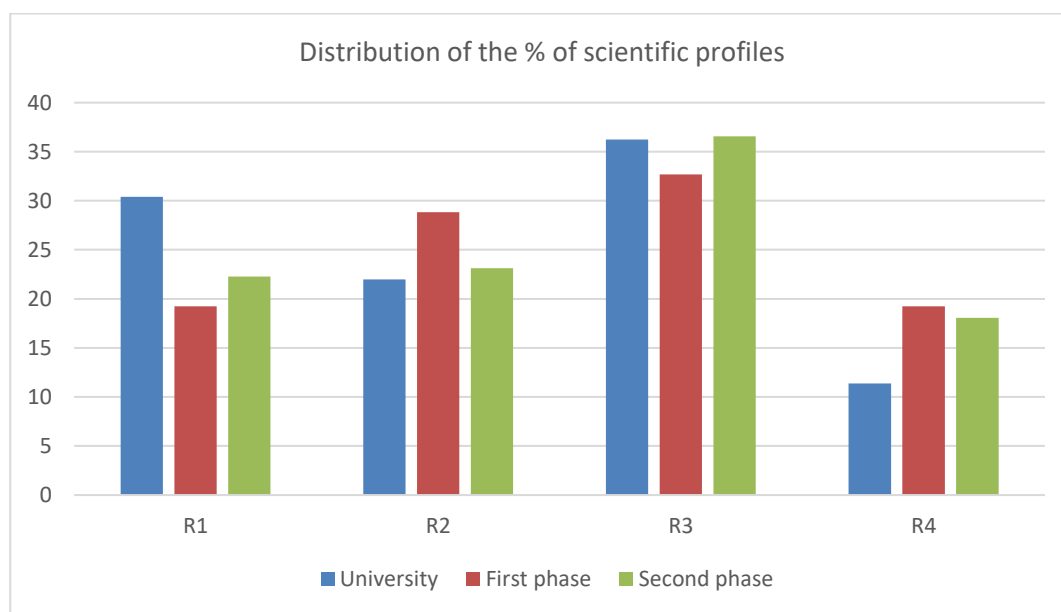


Figure 1. Distribution of the scientific professional profiles (%) in the faculty, selected sample and researchers that answer to the survey.

As shown the percentage of each scientific profile the sample is comparable in the three sample distributions.

Distribution of the three samples by gender.

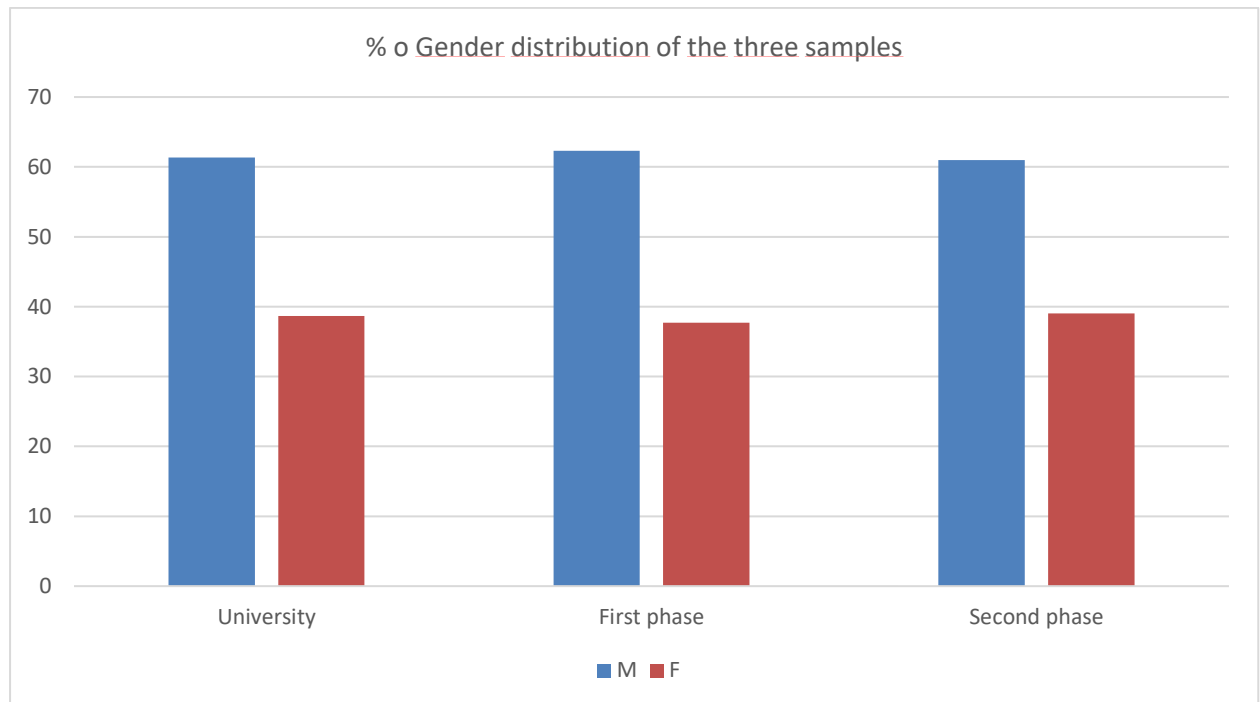


Figure 2 Distribution of the faculty, selected sample and respondents that completed the survey, in terms of the percentage of their gender

As shown in figure 2, the gender balance of the three samples is comparable.

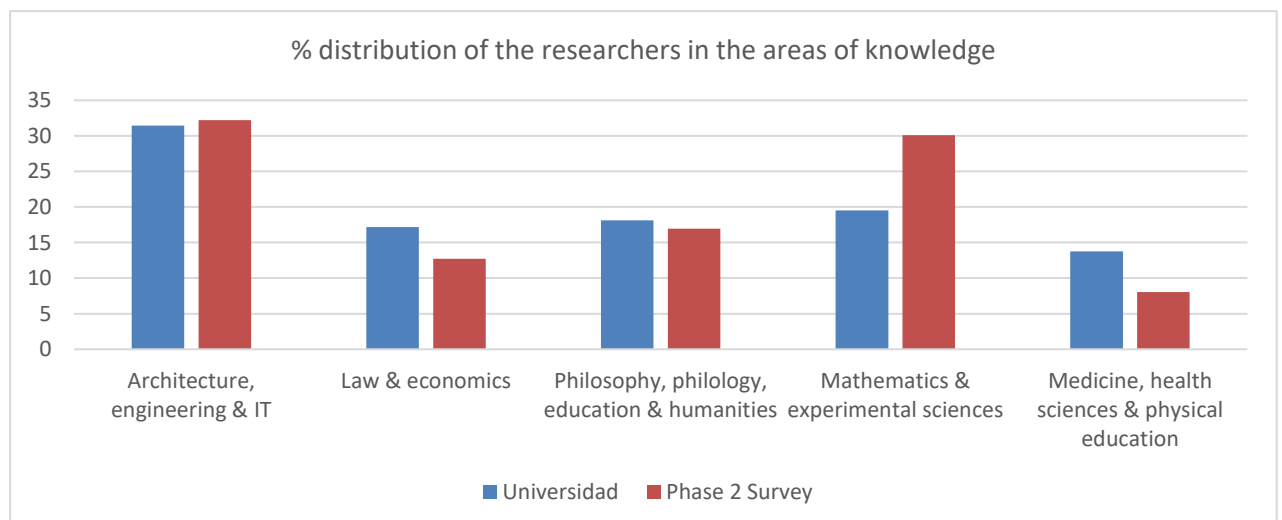


Figure 3 Distribution of the percentage of the research faculty, the survey sample and the respondents that completed the survey in terms of their area of knowledge.



Although the percentage of participation in the survey was higher than expected in the mathematics and experimental sciences area of knowledge.

The analysis of the distribution of the professional profile, gender and areas of knowledge of the three staff samples: research faculty, survey participation in phase 1 and research participation in phase 2, suggests that the replays collected in both phases, reflects the multiple visions that the research staff have concerning to the implementation of the 40 principles of C&C.

4.2 Annex 2: Concordance of the results obtained in phase 1 and phase 2 in the C&C survey

Ricardo Cao, Senior researcher in statistics of the UDC, performed a statistic testing to demonstrate the concordance of the participation results performed in phase 1 and phase 2 of the survey.

Homogeneity statistical tests were performed for the results of the two HRS4R surveys carried out at UDC (November 2016 and April 2017). This was done using a chi-squared discrepancy measure. Its null distribution has been approximated either using the classical χ^2 distribution as well as calibrating the null distribution by means of bootstrap for contingency tables. Tables 1-4 collect the p -values for testing if the results for every question are homogeneous for both surveys on implementation and importance.

Q #	p -value	Q #	p -value	Q #	p -value	Q #	p -value
1	0.6643	11	0.1714	21	0.6944	31	0.1492
2	0.3437	12	0.3242	22	0.7172	32	0.4399
3	0.4045	13	0.6531	23	0.5251	33	0.4514
4	0.7561	14	0.1453	24	0.3330	34	0.8278
5	0.6488	15	0.2217	25	0.0568	35	0.4772
6	0.7116	16	0.8152	26	0.3048	36	0.1097
7	0.4429	17	0.2475	27	0.8859	37	0.8045
8	0.6181	18	0.9783	28	0.1053	38	0.3551
9	0.2981	19	0.0805	29	0.3343	39	0.0292
10	0.6401	20	0.8702	30	0.1445	40	0.6440

Table 1. p -values for survey homogeneity for every question concerning implementation using the chi-square classical test. Those smaller than 0.05 are highlighted in bold.

Q #	<i>p</i> -value	Q #	<i>p</i> -value	Q #	<i>p</i> -value	Q #	<i>p</i> -value
1	0.71995	11	0.15046	21	0.70223	31	0.13793
2	0.34856	12	0.32720	22	0.73985	32	0.46764
3	0.39613	13	0.66063	23	0.53465	33	0.45653
4	0.79165	14	0.14385	24	0.33196	34	0.84099
5	0.67749	15	0.21798	25	0.05602	35	0.48834
6	0.77511	16	0.82195	26	0.30563	36	0.10752
7	0.46235	17	0.24423	27	0.90324	37	0.83439
8	0.65042	18	0.97919	28	0.10494	38	0.35630
9	0.30824	19	0.07783	29	0.33798	39	0.02451
10	0.68158	20	0.89022	30	0.14777	40	0.65800

Table 2. *p*-values for survey homogeneity for every question concerning implementation using the bootstrap. Those smaller than 0.05 are highlighted in bold.

Q #	<i>p</i> -value	Q #	<i>p</i> -value	Q #	<i>p</i> -value	Q #	<i>p</i> -value
1	0.7354	11	0.5490	21	0.0569	31	0.5642
2	0.8345	12	0.0140	22	0.1202	32	0.0403
3	0.2240	13	0.0512	23	0.2658	33	0.5886
4	0.1029	14	0.5527	24	0.6642	34	0.0616
5	0.5922	15	0.8798	25	0.5514	35	0.2366
6	0.7116	16	0.2194	26	0.8030	36	0.1666
7	0.1208	17	0.2976	27	0.0937	37	0.3488
8	0.8121	18	0.8461	28	0.3788	38	0.3898
9	0.0776	19	0.1503	29	0.2754	39	0.0889
10	0.7432	20	0.0840	30	0.3730	40	0.0540

Table 3. *p*-values for survey homogeneity for every question concerning importance using the chi-square classical test. Those smaller than 0.05 are highlighted in bold.

Q #	<i>p</i> -value	Q #	<i>p</i> -value	Q #	<i>p</i> -value	Q #	<i>p</i> -value
1	0.80675	11	0.56080	21	0.05124	31	0.64437
2	0.93073	12	0.01070	22	0.10360	32	0.03392
3	0.43566	13	0.03552	23	0.24506	33	0.62329
4	0.09831	14	0.56175	24	0.69941	34	0.05540

5	0.62813	15	0.90895	25	0.61350	35	0.22461
6	0.33029	16	0.19727	26	0.90191	36	0.16576
7	0.12190	17	0.30950	27	0.09349	37	1.00000
8	0.91133	18	0.84922	28	0.34000	38	0.36798
9	0.06987	19	0.15090	29	0.27909	39	0.06547
10	1.00000	20	0.08335	30	0.37770	40	0.03771

Table 4. p -values for survey homogeneity for every question concerning importance using the bootstrap. Those smaller than 0.05 are highlighted in bold.

The only p -values in Tables 1-4 that are below $\alpha=0.05$ (typical significance level) are those corresponding to question #39 for implementation and questions #12, #13 and #32 for importance. Thus, these four are the only questions for which homogeneity could be doubtful.

In order to solve this, a multiple test correction has to be considered, since 80 different test are performed (one for each of the 40 questions in each part). A false discovery rate (FDR) approach has been used. All the 80 p -values (either classical or bootstrap) are sorted from smallest to largest: $p_{(1)} = 0.0140 < p_{(2)} = 0.0292 < \dots < p_{(80)} = 0.9783$, for the classical chi-square test, and $p_{(1)} = 0.0107 < p_{(2)} = 0.0245 < \dots < p_{(80)} = 1.0000$, for the bootstrap approach. Now we check if there exist any index $i \in \{1, 2, \dots, 80\}$, such that $p_{(i)} < \alpha / (80 - i + 1)$. Since this is not the case for the classical p -values nor for the bootstrap ones, we conclude that **there are no significant statistical differences between both surveys in any of the 80 questions** (40 corresponding to implementation and 40 corresponding to importance).

Just to illustrate the tendency of the p -values, Figures 1 and 2 show their values, when sorted, as a function of the index. Figure 1 shows classical p -values, while Figure 2 shows bootstrap p -values. The empirical cumulative distribution function of the p -values are depicted in Figures 3 (classical) and 4 (bootstrap). These exhibit a clear pattern for a uniform distribution, which means that all the 80 null hypotheses (all questions have the same distribution for November 2016 survey and for April 2017 survey) can be accepted.

Sorted p-values (chi-square)

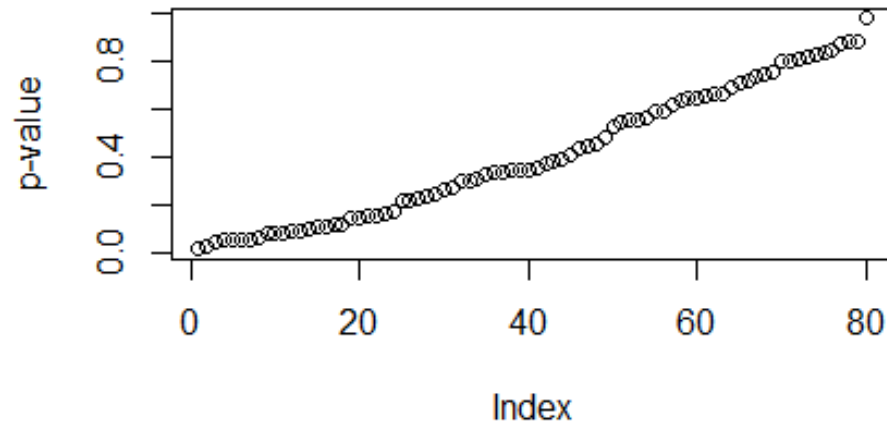


Figure 4. Sorted classical p-values.

Sorted p-values (bootstrap)

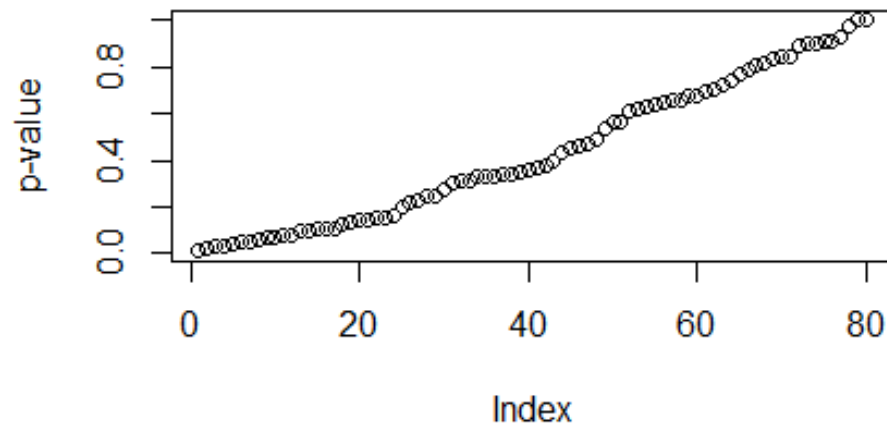


Figure 5. Sorted bootstrap p-values.

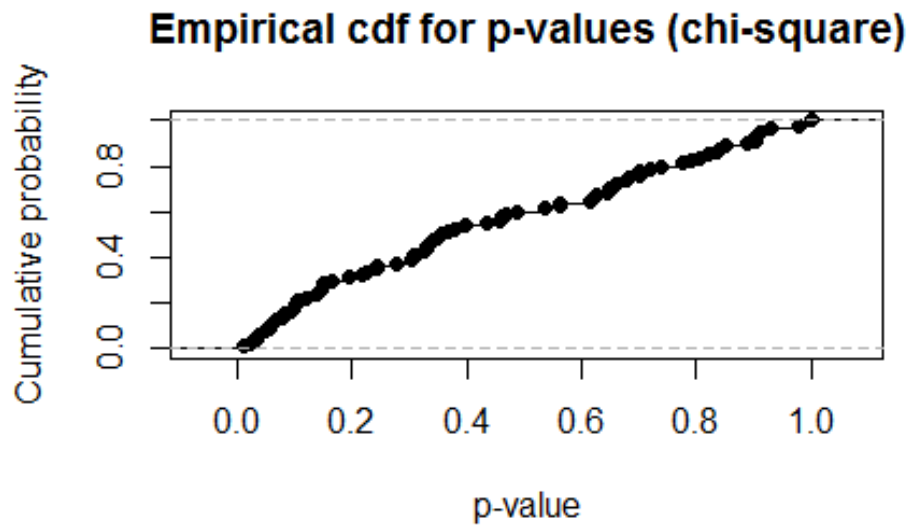


Figure 6. Empirical cumulative distribution function for classical p -values.

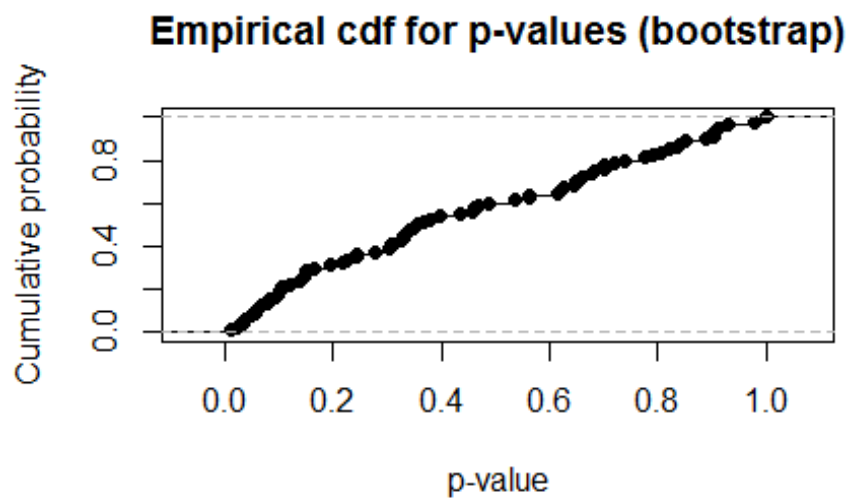


Figure 7. Empirical cumulative distribution function for bootstrap p -values.

4.3 Annex 3: Implementation and importance of the 40 criteria evaluated in the in the C&C survey in phase 2.

To view the perception and importance of the degree of implementation of the C&C obtained in the survey graphically, the qualitative estimations were transformed into quantitative values using the following algorithms

$$\text{Implementation} = \frac{(\# \text{Fully implemented} \times 3) + (\# \text{almost but not fully implemented} \times 2) + (\# \text{partially implemented})}{\# \text{respondents} \times 3} \times 100$$

$$\text{Importance} = \frac{(\# \text{Very important} \times 3) + (\# \text{Quite important} \times 2) + (\# \text{slightly important})}{\# \text{respondents} \times 3} \times 100$$

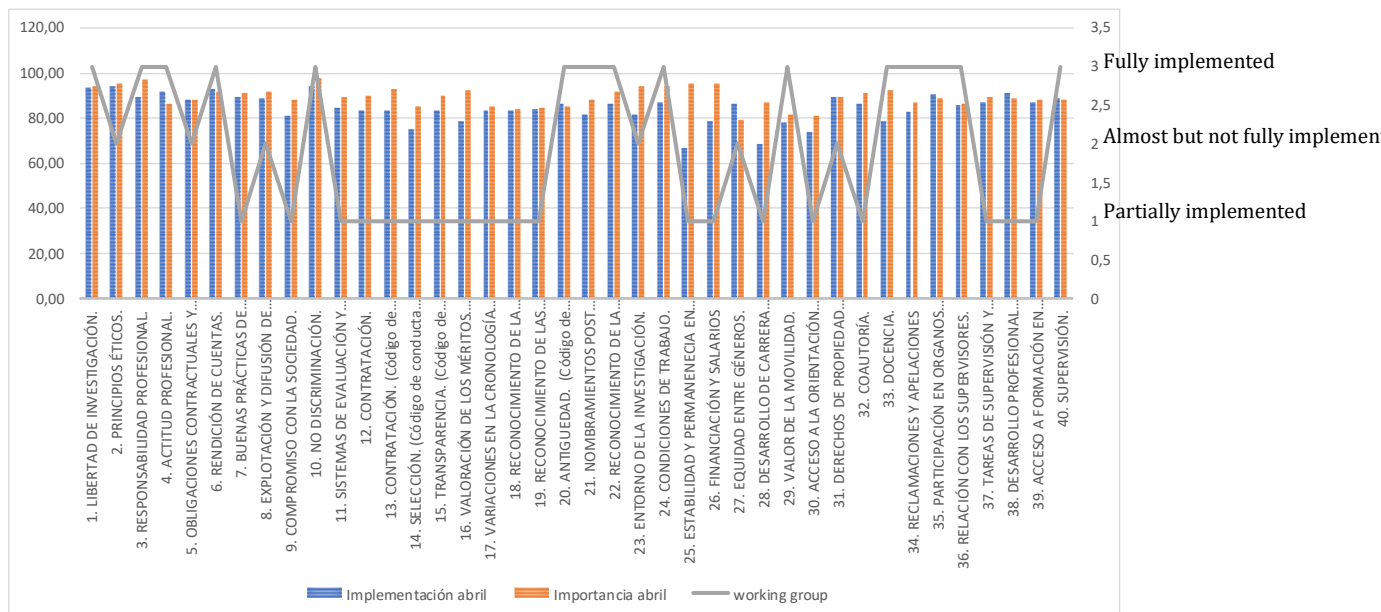


Figure 8 Importance and implementation of the C&C principles after the results of the survey

As shown, the results of the survey suggest that all the principles were mainly implemented from 66,5 to 95,75. After the analysis of the survey, the personal interviews, and the debates of the working group, the final consensus of the degree of implementation of the C&C principles showed that principles 11 to 19, at the recruitment and selection section and 37 to 39 at the training and development section were considered less implemented by the final judge of the working group.

To identify the principles that were less implemented and more important, the results of the implementation of each principle was plotted against the value of its importance.

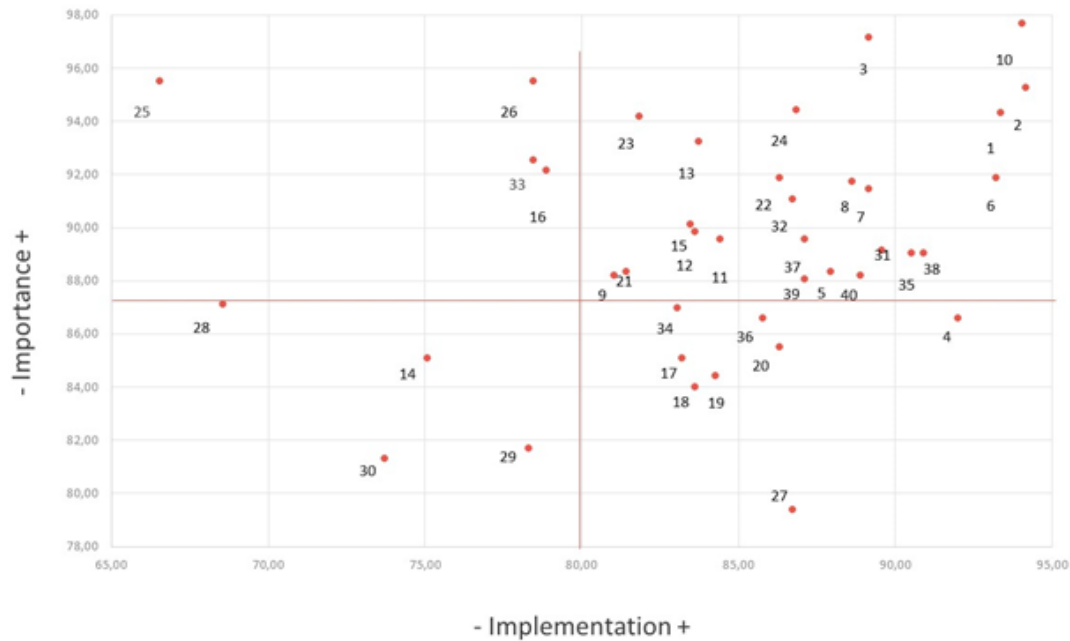


Figure 9. Matrix implementation vs. importance.

In the upper right panel, (more important and more implemented principles), shows that after a careful examination, some of the principles considered implemented in the survey, were not so fully implemented. Most of the principles that were considered more implemented and less important by the survey were finally considered fully implemented. As seen, there are few principles that were considered less implemented (8 from 40), and only 4 were considered important.

The perception of the importance and implementation of each principle given by the survey was used to assess those aspects that needed to be approached. The chronology of the implementation of the actions derived from these principles will be independent of these results, and will obey to the strategy designed by the Steering committee.

To evaluate the answers of the OTM-R survey, an algorithm similar to the one presented above was defined:

$$\text{Implementation} = \frac{(\# \text{Fully implemented} \times 3) + (\# \text{almost but not fully implemented} \times 2) + (\# \text{partially implemented})}{\# \text{respondents} \times 3} \times 100$$

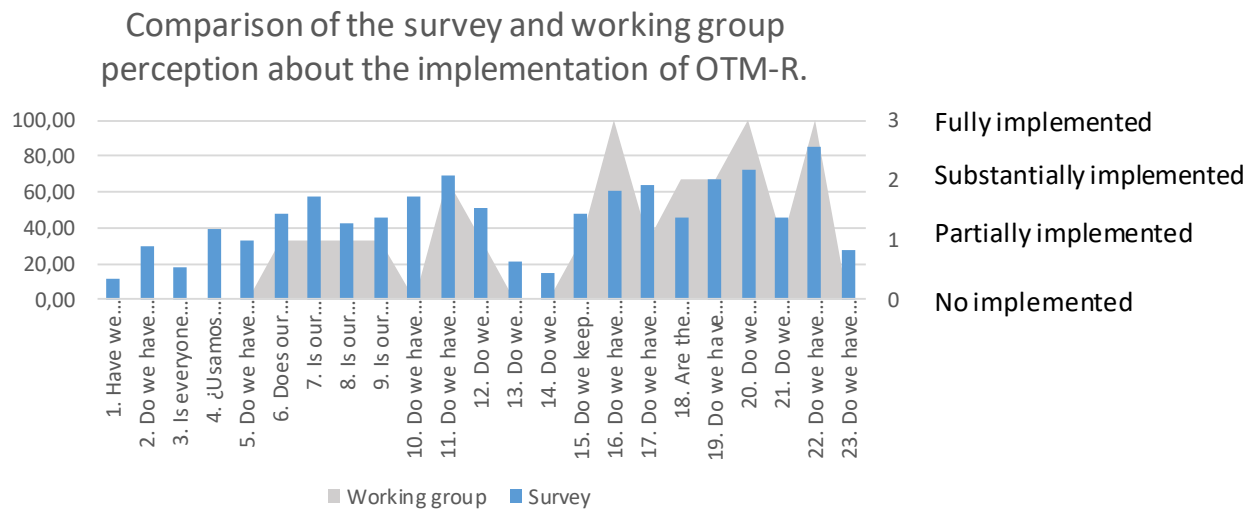


Figure 10 OTM-R Implementation

As seen, the comparison suggests that the visions expressed at the survey is consistent with the final working group perception about the degree of implementation of OTM-R principles.

4.4 Annex 4: Workshops phase 2

4.4.1 1º and 2º communication and awareness meetings RS4R second phase – March 23th 2017

Second phase: Communication and awareness meetings held in Ferrol and A Coruña

A Coruña Campus: March 23th

10.00- 11.00 Short presentation about HRS4R initiative and objectives

11.00- 11.30 Questions and answers

Venue: Paraninfo at the Universidade da Coruña



Figure 11 Awareness meeting at A Coruña

Ferrol Campus: March 23th

16.30- 18.00 Short presentation about HRS4R initiative and objectives

18.00- 18.30 Questions and answers

Venue: Room 1.2 at “Apoio ao estudo” building at Ferrol Campus.



Figure 12 Awareness meeting at Ferrol

4.4.2 1^o Workshop HRS4R second phase – April 24th 2017

Goal: Discuss and validate the initial results of the C&C survey. Validate the new Gap Analysis, propose and validate new actions for the Action Plan.

Methodology: Discussions regarding the design and implementation of actions for the design of the action plan. The meeting was lead by Effectia Consulting team.

Agenda: 9:30 am to 2:30 pm and 4:00 pm to 7:00 pm, at CITIC Building Meeting room, Campus de Elviña, UDC.

9.30 -12:00	Presentation of the results of the C&C survey and debate about Gap Analysis.
12:00 - 12.30	Coffee break.
12:30 – 14:00	Working session: Gap Analysis.
14:30 – 15:30	Lunch.
15:30 – 18:00	Working session: Action Plan.

Participants: Working Group

Management

- Vice-rector for Science Policy, Research and Transfer: Prof. Salvador Naya Fernandez
- Vice – rector for Academic Offer and training Innovation: Prof. Nancy Vázquez Veiga
- Deputy to Vice-rector for Science Policy, Research and Transfer: Prof. Fidel Cacheda
- Deputy to Vice-rector for Science Policy, Research and Transfer: Prof. Horacio Naveira
- Quality responsible at CITIC: María Montero
- Manager: Ramón del Valle
- Director of the Research Results Transfer Office: Pilar Pintor

Researchers

- Prof. Ricardo Cao (R4)
- Prof. Ramón Artiaga Díaz (R3)
- Prof. Susana Ladra (R2)
- Dr. María Martínez Pérez (R1)

Administration:

- Head of the research service: M^a Teresa García Arias
- Head of the recruitment service. Rosa Varela Andrade.

Consultants:

- Lorena Muñoz
- Gonzalo Platas

Workshop description

The text summarizing the diagnosis of each of the 40 C&C principles was debated and a consensus on common positions was reached, considering the qualitative and quantitative assessment shown in the surveys, the results of the personal interviews and the working group member's suggestions.

Debate and discussion of each of the actions and definition of new actions.



Figure 13 Workshop at CITIC



4.4.3 2º Working session HRS4R second phase – May 5th

Goal: Final validation of the new Gap Analysis and new actions for the Action Plan.

Methodology: Presentation and discussions.

Agenda: 9:30 am to 2:30 pm at UDC.

Participants: Working Group

Management

- Vice-rector for Science Policy, Research and Transfer: Prof. Salvador Naya Fernandez
- Deputy to Vice-rector for Science Policy, Research and Transfer: Prof. Fidel Cacheda

Consultants: Lorena Muñoz and Gonzalo Platas

Description

A final review of the general results obtained in the Gap Analysis was made. A final validation of actions, indicators, responsible and calendar was performed.

4.5 Annex 5: Workshops phase 1 and interviews

4.5.1 1º Workshop HRS4R – October 14th 2016

Goal: to provide detailed information about HRS4R initiative. discuss and validate the initial results of the C&C and OTM-R surveys.

Methodology: National HRS4R experts presentations. Discussions regarding the design and implementation of actions for the design of the action plan. The meeting was lead by Effectia Consulting team.

Agenda: 9:30 am to 2:30 pm and 4:00 pm to 7:00 pm, at CICA Building Meeting room, Campus de Elviña, UDC.

9.30 -10:30	Cecilia Cabello, Euraxess member: Title: “HRS4R strategy”.
10:30 – 11:30	Lluís Rovira, HR Award evaluator: Title: “HRS4R Keys for success”.
11:30 – 11:40	Coffee break.
11:40 – 12:00	Presentation of the preliminary results of the C&C y OTM-R surveys.
12:00 – 14:30	Working session with experts.
14:30 – 16:00	Lunch with experts.
16:00 – 19:00	Working session with working group.

Participants: Working Group

Management

- Vice-rector for Science Policy, Research and Transfer: Prof. Salvador Naya Fernandez
- Vice-rector for Academic affairs and Planning: Prof. Alberto Valderruten Vidal
- Vice-rector for Internationalization and Cooperation: Prof. Pilar García de la Torre
- Deputy to Vice-rector for Science Policy, Research and Transfer: Prof. Fidel Cacheda
- Deputy to Vice-rector for Science Policy, Research and Transfer: Prof. Horacio Naveira
- Coordinator at CICA: Jaime Rodríguez González
- Quality Manager at CITIC: Marta Nuñez
- Vice-Manager: Ramón del Valle
- Director of the Research Results Transfer Office: Pilar Pintor

Researchers

- Prof. Ricardo Cao (R4)
- Prof. Susana Ladra (R2)

Administration:

- Head of the research service: M^a Teresa García Arias
- Head of the recruitment service. Rosa Varela Andrade.

- Head of management of research funding programs María Ángeles Romero Gomez.

Consultants: Lorena Muñoz and Gonzalo Platas

Workshop description

Cecilia Cabello's presentation "*ERA Priority 3: Fostering an open common marker for researchers*" based upon her experience as member of the Steering Group for Human Resources and Mobility (SGHRM) and contributing with a general vision of the origin and principal characteristics of HRS4R.



Figure 14: Cecilia Cabello's presentation.

Lluís Rovira presented a lecture entitled "Keys for success" regarding good practices and recommendations for the preparation of the HRS4R proposal promoter or HRS4R logo in the Catalan research centers.



Figure 15: Lluís Rovira's presentation.

Participants exchange views and consulted raised questions with the experts. In the second part of the workshop the Working group discussed the results obtained in the surveys, without the participation of the experts.

4.5.2 2^o workshop – A Coruña – October 17th 2016.

Goal: To review the general results obtained in the C&C and OTM-R surveys, validate, and interpreting the obtained data and ensuring that the survey's answers are aligned with the real situation of UDC.

Methodology: Debate and discussion of each of the 40 C&c principles, interpreting and consensing the answers of the survey with the views and opinions of the members of the working group. This meeting was lead by the consultants.

Agenda: 9.30 am to 2.00 pm, and 3.00 pm to 6.00 pm at CICA Building meeting room, Elviña Campus, UDC.

9.30 -9.45	Presentation of the preliminary results of participation of the C&C surveys by professional profile and Area of knowledge.
9.45 – 10.00	Presentation of the OTM-R presentation: global analysis
10.00 – 10.15	Presentation of the C&C y OTM-R Global results.
10.15 – 12.15	Open discussion of the results of the C&C survey.
12.15 – 12.30	Coffee break
12.30 – 12.45	Open discussion of the results of the OTM-R survey.
12.45 – 2.00	Wrap up and next steps
14.00 – 15.00	Lunch
15.00 – 16.00	General Discussion

Participants: working group

Management

- Vice-rector for Science Policy, Research and Transfer: Prof. Salvador Naya Fernandez.
- Deputy to Vice-rector for Science Policy, Research and Transfer: Prof. Fidel Cacheda
- Deputy to Vice-rector for Science Policy, Research and Transfer: Prof. Horacio Naveira
- Quality Manager at CITIC: Marta Nuñez
- Vice-Manager: Ramón del Valle

Researchers

- Prof. Ricardo Cao (R4)
- Prof. Susana Ladra (R2)

Administration:

- Head of the research service: M^a Teresa García Arias "Mayte"
- Head of the recruitment service. Rosa Varela Andrade.
- Head of management of research funding programs María Ángeles Romero Gomez,

Consultants: Lorena Muñoz and Gonzalo Platas



Figure 16. Diagnosis and working plan working group's debate

The text summarizing the diagnosis of each of the 40 C&C principles was debated and a consensus on common positions was reached, considering the qualitative and quantitative assessment shown in the surveys, the results of the personal interviews and the working group member's suggestions.



4.5.3 3^o workshop – A Coruña – November 3th 2016

Goal: To review the general results obtained in the Action Plan, validate actions, indicators, responsible and calendar.

Methodology: Debate and discussion of each of the actions.

Agenda: 3.00 to 6.00 pm. Vice-rector for Science Policy, Research and Transfer meeting room, Rectorate of the University of A Coruña.

Participants:

- Vice-rector for Science Policy, Research and Transfer: Prof. Salvador Naya Fernandez,
- Deputy to Vice-rector for Science Policy, Research and Transfer: Prof. Fidel Cacheda and
- consultants.
- Consultants: Lorena Muñoz and Gonzalo Platas



4.5.4 Interviews

Goal: To complete and consolidate information concerning the diagnosis and degree of inplantation of the most controversial principles.

Methodology: Personal interviews of 60 to 90 minutes.

Date, people and main subjects of discussion:

- October 14th, Rosa Varela Andrade, Head of the recruitment service. Interview focused mainly on recruiting procedures and regulation and OTM-R
- October 14th, Susana Ladra, R2 researcher Focused on R1 and R2 views, circumstances and complaints.
- October 17th, Fidel Cacheda, Transfer Deputy. Focused on technology transfer issues.

4.6 Annex 6 Legal framework of the C&C principles

Table 5 Legal framework.

National legislation	C&C Principles affected
<ul style="list-style-type: none"> Royal Decree Law 8/2015, General Social Security Law. Consolidated text 	26
<ul style="list-style-type: none"> Royal legislative decree of April 1 1996 approving the revised Intellectual Property Act.) updated November 5 2014 	3
<ul style="list-style-type: none"> Spanish Committee of Research Ethics. Ninth Additional Provision. 	7
<ul style="list-style-type: none"> Article 20.1 CE: They recognize and protect rights: a) to freely express and disseminate thoughts, ideas and opinions through words, writing or any other means of reproduction. b) A production and literary, artistic, scientific and technical. 	1
<ul style="list-style-type: none"> Article 20.4 EC: These freedoms are limited by respect for the rights recognized in this Title Article 149. 15th) EC: The State has exclusive power over the promotion and general coordination of scientific and technical research 	1
<ul style="list-style-type: none"> Article 35.1 EC. 	10
<ul style="list-style-type: none"> Article 9.2 EC. 	10
<ul style="list-style-type: none"> Directive 1999/70/CE regarding Framework agreement of CES, la UNICE y el CEEP about Fixed- Term Work. 	25
<ul style="list-style-type: none"> Directorate General for Labor November 3 2009 unique national collective agreement for the entire General State Administration 	26
<ul style="list-style-type: none"> Law 10/2002, 29 April adapting the Law of Patents to EU Directive related to legal protection of biotechnology inventions 	31
<ul style="list-style-type: none"> Law 11/1986, of 20 March, Research Patent and utility models 	3,5,6,31,32
<ul style="list-style-type: none"> Law 14/2007 of Biomedical Research. 	1, 5, 6, 7, 8, 9, 18, 19, 20, 23, 28, 29
<ul style="list-style-type: none"> Law 14/2011, of June 1, of the Science, Technology and Innovation 	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 33, 38, 39
<ul style="list-style-type: none"> Law 19/2013 (Transparency, Access to Public Information and Governance)) Chapter IV of the Spanish Act 38/2003 (General Subsidies) 	6
<ul style="list-style-type: none"> Law 2/2011, of March 4th, of the Sustainable Economy. Updated, Dec 5 2014 	9
<ul style="list-style-type: none"> Law 31/1995 (Preventing Work Risks) 	7, 23
<ul style="list-style-type: none"> Law 38/2003 (General Subsidies) 	6, 8, 11, 16

<ul style="list-style-type: none"> Order CIN / 2657/2008 of 18 September, establishing the administrative procedure for evaluation of research activity. 	19, 20
<ul style="list-style-type: none"> Organic Act 3/2007 (Effective Equality for Men and Women) 	2, 7, 10, 12, 14, 15, 16, 17, 21, 24, 27, 28, 30
<ul style="list-style-type: none"> Organic Law 15/1999, de December 13, Personal data protection, 	2, 7
<ul style="list-style-type: none"> Organic Law 2/2012, de April 27, Budget stability and financial sustainability, updated July 20 2013 	25
<ul style="list-style-type: none"> Organic Law of Universities 6/2001 and Royal Decree 14/2012 (modified text of the Organic Act for Universities, LOMLOU) 	1, 5, 11, 12, 13, 22, 28, 33, 34, 35
<ul style="list-style-type: none"> Royal Decree 1837/2008, of November 8, which are incorporated into Spanish law the Directive 2005/36/EC of the European Parliament and the Council, of 7 September 2005 and Directive 2006/100/EC, Council of November 20 of 2006, on the recognition of professional qualifications. 	19,20
<ul style="list-style-type: none"> Royal Decree 2/2015 (Workers' Statute, ET) 	5, 10, 11, 12, 13, 14, 15, 18, 22, 24, 25, 26, 27 ,34, 39
<ul style="list-style-type: none"> Royal Decree 3/2011 (revised text of the Act on Public Sector Contracts) 	6
<ul style="list-style-type: none"> Royal Decree 55/2002 of exploitation of inventions by public research institutions 	32
<ul style="list-style-type: none"> Royal Decree 63/2006 Researchers at training stages. 	4, 5, 12, 19, 20, 21, 26
<ul style="list-style-type: none"> Royal Decree 887/2006 of 21 July, approving the regulations of the Law 38/2003 of November 17, General Grant Management. Article 60 1. Evaluation criterion. 	11, 16
<ul style="list-style-type: none"> Royal Decree 99/2011 (Regulation of PhD Studies) 	40
<ul style="list-style-type: none"> Royal Decree Law 1/1996, Intellectual Property Law (Book I. art.7 and art.10). 	31, 32
<ul style="list-style-type: none"> Royal decree 5/2015 Consolidated for public employee statute. 	2, 5, 10, 11, 12, 13, 14, 15, 16, 20, 22, 24, 25, 26, 27, 28, 38, 39
<ul style="list-style-type: none"> Royal Decree law 5/2006 9 june 	25
<ul style="list-style-type: none"> Spanish Constitution 1978 	1, 7, 10, 16, 27
<ul style="list-style-type: none"> UNESCO Deontological codes of conduct 	2
<ul style="list-style-type: none"> Autonomic Legislation 	C&C Principle
<ul style="list-style-type: none"> Law of Subsidies of Galicia BOE-A-2007-13828 	6, 8
<ul style="list-style-type: none"> Law for the promotion of research and innovation in Galicia BOE-A-2013-7478 	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 33, 38, 39



▪ Law of the University System in Galicia BOE-A-2013-7911	1, 5, 11, 12, 13, 22, 28, 33, 34, 35
▪ Law of public employment BOE-A-2015-5677	2, 5, 10, 11, 12, 13, 14, 15, 16, 20, 22, 24, 25, 26, 27, 28, 38, 39
▪ Institutional legislation	Principle
▪ Statute of the University BOE-A-2004-146 page 22173	1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 33, 34, 35, 36, 37, 38, 39, 40