Developing an Open Science Policy in Cyprus

CASE STUDY, AUGUST 2018

SPARC
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1.   Introduction

During preparation of the DCC/SPARC Europe reports [A Snapshot of Open Data and Open Science Policies in Europe](#) and [An Analysis of Open Data and Open Science Policies in Europe](#), a great deal of very valuable, contextual information, outside the intended scope of the reports, was gathered from in country contacts; many of whom have been involved in infrastructure projects such as [FOSTER](#) and [OpenAIRE](#). The purpose of this report is to zoom in on one country of focus, Cyprus, and to provide a single case study, incorporating this contextual detail, illustrating the process involved in developing the Cyprus Open Data policy. The local OpenAIRE NOAD, Vasiliki (Sylvia) Koukounidou from the University of Cyprus Library, provided much of the information that serves as the foundation for this report.
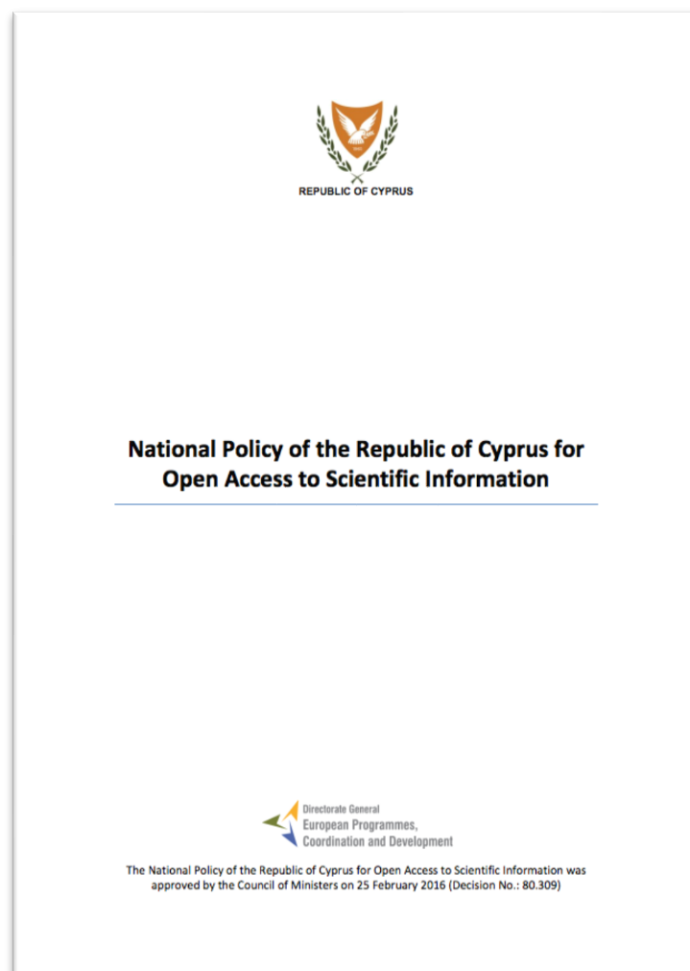
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National Policy of the Republic of Cyprus for Open Access to Scientific Information
(English version)

Particularly noteworthy is the collaborative way in which the policy was produced, with a genuinely collegial, outcome-focused approach involving stakeholders from government, research funders and national universities.

Additionally, the policy's approach of tackling multiple types of research outputs – in this case Open Access publications and research data – appeared to be indicative of a growing movement towards more holistic approaches to (digital) research policy and support. This is perhaps best exemplified by the Wellcome Trust's recent move to a single research outputs management policy, which replaced the previously separate Open Access and Open Data policies.[1]

This case study represents a closer reading of the policy than was conducted in the previous analysis; this deeper examination gave rise to multiple new lines of inquiry which we addressed by engaging with contacts made during the preparation of the two prior reports. We are thankful to Sylvia for again helping to improve our understanding of these issues, and for the English translation of the policy.

2. The Cypriot context

The Republic of Cyprus is a Mediterranean island country and has been a member state of the European Union since May 2004, when it acceded alongside the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.[2] With a population of 1.17 million, Cyprus is the third smallest of the 28 current member states by population and area alike, ahead of Luxembourg and Malta on both measurements.[3] Official languages are Greek and Turkish, although proficiency in English is also high with approximately three quarters of Cypriots able to speak it.

The highest-level body responsible for research and innovation (R&I) strategy in Cyprus is the National Council for Research and Innovation (NCRI), which is composed of the ministers of Finance, Energy-Commerce-Industry and Tourism, Education and Culture, Transport, Communications and Works, Agriculture, Rural Development and Environment and Health. NCRI is advised on RTDI [research, technology, development and innovation] strategy and policy by the Cyprus Scientific Council (CSC), an advisory board composed of eminent scientists, while the concrete design and implementation of R&I policy is carried out by the Research Promotion Foundation (the National Funder) and the Directorate General for European Programmes, Coordination and Development (DG EPCD), which is an independent governmental body.

Higher Education is overseen by the Ministry of Education and Culture and is

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[1] Wellcome Trust, "Policy on data, software and materials management and sharing" https://wellcome.ac.uk/funding/managing-grant/policy-data-software-materials-management-and-sharing
[2] https://en.wikipedia.org/wiki/2004_enlargement_of_the_European_Union
[3] https://en.wikipedia.org/wiki/Member_state_of_the_European_Union

provided by a mixture of public and private universities, colleges and institutions. There are three Public Universities (University of Cyprus, Open University of Cyprus, Cyprus University of Technology), four Private Universities (European University Cyprus, Frederick University, Neapolis University, University of Nicosia), and numerous Private Institutions of Higher Education.[4] The three state universities follow an RTDI policy which aligns to an extent with national policy priorities, as well as pursuing their own individual research agendas.[5]

	Χώρα	Αριθμός Συνεργασιών
1	Ηνωμένο Βασίλειο	189
2	Ισπανία	172
3	Ιταλία	170
4	Γερμανία	151
5	Ελλάδα	143
6	Γαλλία	113
7	Ολλανδία	86
8	Βέλγιο	75
9	Πορτογαλία	62
10	Αυστρία	50

	Country	Number of Partnerships
1	United Kingdom	189
2	Spain	172
3	Italy	170
4	Germany	151
5	Greece	143
6	France	113
7	Netherlands	86
8	Belgium	75
9	Portugal	62
10	Austria	50

Original table taken from the Report: "Αποτελέσματα κυπριακής συμμετοχής στο Πρόγραμμα Ορίζοντας 2020 Μάιος 2016" ("Results on the Participation of Cyprus in the program HORIZON 2020, the Framework Program for Research and Innovation of the European Union, 2014 - 2020")

The Research Promotion Foundation (RPF) is the main public funding agency and is responsible for the co-ordination, support and funding of research activities, as well as organising Cypriot participation in major European Research Programmes. Cyprus has a strong track record of winning EU research funds for research and has the highest amount of Horizon 2020 funding per capita across all member states, having acquired (as of early 2018) €90 million across 245 research projects undertaken by academic and research centres and within industry.[6] Cypriot participation in H2020 projects is most frequently carried out in partnership with organisations from the UK, followed by Spain and Italy (per the tables above.)

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[4] http://www.highereducation.ac.cy/en/educational-system.html
[5] RIO Country Report 2016: Cyprus, Research and Innovation Observatory country reports series, Theocharous, A Gampfer, R Robledo Böttcher, N (2017), URL: https://www.ucy.ac.cy/research/documents/Announcements/RIO_CR_CY2016_en.pdf
[6] http://cyprus-mail.com/2018/01/16/cyprus-ranks-first-absorption-eu-horizon-2020-funds/

3.   Policy Development in Cyprus

Policy development process and roles
The idea of developing a national policy first emerged from discussions between the PASTEUR4OA coordinators (Dr Victoria Tsoukala and Dr Marina Angelaki) and the OpenAIRE NOAD, who in 2015 was also acting as a PASTEUR4OA Key Node. The first step was to discuss the idea with the local Open Access National Points of Reference (NPRs); next, relevant stakeholders were invited into the discussion where the need and tasks required to develop the policy document were explored.

In April 2015 the first meeting of the Working Group for Open Access was held at the University of Cyprus, in Nicosia, organized by the OpenAIRE NOAD (and PASTEUR4OA Key Node). (Organisations represented in the Working Group are listed, together with their roles, in the table below.) The local NPRs, the main funding institutions for research in Cyprus, and representatives from almost all the academic institutions of Cyprus, were in attendance. Pasteur4OA was also represented by Dr Angelaki, who gave a presentation on issues that should be the focus of the Working Group.

The meeting's agenda included the EC's policies and practices on Open Access, benefits of Open Access, exceptions according to H2020, the importance of the adoption of a national Open Access policy and the potential creation of a national repository, which would also function as a national harvester for institutional repositories. Participants had the opportunity to ask the Cyprus NOAD and Pasteur4OA representatives questions and discuss possible forms that a national policy could or should have; and next steps for the Working Group were proposed. Amongst these was the creation of a draft policy document with the cooperation of the OpenAIRE NOAD, Pasteur4OA project, the Directorate General for European Programmes, Coordination and Development and the Research Promotion Foundation of Cyprus.

OpenAIRE was instrumental in the policy's production. The OpenAIRE NOAD liaised with the Directorate General for European Programmes, Coordination and Development (part of the national Government), the department which deals with European issues, and also collaborated with the national funder, the Research Promotion Foundation, to create a working group. The national policy was created as a deliverable of this working group.

The second meeting took place a few months later as a part of the OpenAIRE National event (held in cooperation with FOSTER project) which took place in October 2015. The draft document was presented at the event and Working Group members commented on it in detail. The finalised document was circulated for public consultation and subsequently forwarded to the Council of Ministers of the Republic of Cyprus for approval, which was gained in February 2016.

In May 2018 the Working Group (in an expanded form, including representatives from local research institutions not previously involved) held a third meeting to discuss potential revision and expansion of the national policy.

Member organisations of the Cyprus OA Working Group are listed below, with their roles/contributions given in square brackets:

- Directorate General for European Programmes, Coordination and Development (DG EPCD) (OA NPR) [Editor]
- Research Promotion Foundation / National funder (OA NPR) [Editor]
- University of Cyprus Library (OpenAIRE NOAD) [Editor]
- University of Cyprus – Rector of Academic affairs & Research Support Service [Participant]
- National Documentation Centre of Greece (PASTEUR4OA coordinators) [Provision of policy templates and guidance]
- Open University of Cyprus, Representatives of Library, Educational Material and Information Committee [Participant]
- Cyprus University of Technology Library [Participant]
- Cyprus Association of Librarians-Information Scientists [Participant]
- University of Nicosia Library [Participant]

Membership of the Cyprus OA Working Group

Goals

The policy's key goals are immediate and barrier-free access to data and publications, as well as their safeguarding (preservation) for the longer-term. The policy is explicit about the benefits of openness in enhancing channels for international cooperation, and raising the international profile of individual researchers, their institutions, and the country in general.

While the EC's Open Research Data pilot[7] and its subsequent extension were the primary drivers behind the policy's development, established best practice in managing and providing access to suitable research data (such as producing a data management plan at the outset of a research project, and depositing datasets in a repository upon completion) was also cited as an important factor.

Scope and coverage

Initially, the policy solely addressed Open Access publications; its scope later evolved to include an encouragement for researchers to also make their research data open under the single umbrella heading of "scientific information". Research software is

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[7] http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

not currently addressed, but this is informally acknowledged as a possibility for future iterations of the policy.

The policy applies to both publicly and privately funded research organisations and academic institutions in Cyprus, although as it is a soft policy there are no sanctions for failure to comply (beyond perhaps risking future EC eligibility) it is perhaps a moot point as to how influential it might be on private organisations.

Relationship with other policies
The national policy is explicitly aligned with the Horizon 2020 Open Data policy, in keeping with the EC's status as the primary external funder of research, and the major driver behind the development of a national approach in Cyprus.[8] Other policies and mandates informing the development of the policy include UNESCO; additional guidance and advice were also derived from a variety of European infrastructural initiatives such as EUDAT and FOSTER.

Hard or soft?
It is important to note that the Cypriot policy is 'soft' in that it encourages without mandating; the Horizon 2020 Open Data Pilot is currently the only 'hard' mandate governing HE research in Cyprus. Universities are encouraged to adopt and adhere to the national policy, but are also expected to create their own policies that will align with the national approach.

Stakeholders impacted by the policy
Stakeholders impacted by the policy explicitly cited are (in order) citizens, researchers and business. Benefits to the citizenry and commercial sector are also stated explicitly: the policy is "based on the recognition of knowledge as a public good which brings social and economic benefits at national, European and international level."[9]

Infrastructure
The policy is clear about the infrastructure components, both technical and human, required to implement it and monitor its effectiveness, and indeed of the need to provide incentives to researchers beyond the usual carrots of increased citations and increased visibility.

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[8] The EU's financial contribution to Cypriot research via H2020 is more than €107M. For comparison, the Restart 2016-2020 national funding scheme will be worth €99M, €45M of which is expected to be covered by European Regional Development Fund (Source: http://www.research.org.cy/el/restart-2016-2020/basic-information).
[9] "National Policy of the Republic of Cyprus for Open Access to Scientific Information", https://uoe-my.sharepoint.com/personal/mdonnell_ed_ac_uk/Documents/Documents/Archived/The DCC Years (2008 - 2018)/Consultancy/05 SPARC Europe/OS Policy case study - Cyprus/-http://www.dgepcd.gov.cy/dgepcd/dgepcd.nsf/F750D545F4AE3972C2257C7D00483F5F/$file/National Policy of the Republic of Cyprus for Open Access to Scientific Information_en.pdf

European projects such as OpenAIRE, PASTEUR4OA and FOSTER influenced the development of the policy and its implementation. The NOAD has already reported contact from researchers asking for help in meeting the policy expectations: an encouraging sign, although obviously for a larger country such an approach would be unlikely to scale. The EC can see evidence that investment in these pan-European projects has directly led to tangible progress in this member state.

The role of DMPs
Researchers are encouraged to create and maintain data management plans, "throughout the duration of the project, but also after its completion". This suggests that researchers retain an interest in the management of the data they create and/or capture after it is deposited in a long-term archive. This could also be interpreted as suggesting that the long-term stewards might wish to keep the DMPs up to date as part of their curation duties.

Choice of repository
The choice of a long-term data repository is left to the researchers. The policy encourages the use of disciplinary data archives, institutional repositories, or Zenodo. A Zenodo community named CYPRUS has been created, and the DG EPCD has encouraged all universities, researchers and research institutions to make use of it. The creation of a national data archive was discussed at a May 2018 meeting of the national Working Group.

4.   Conclusions

After completing the drafting process, the policy was approved at Government level in February 2016, and was simultaneously adopted by the RPF. Universities and research institutions are now in the process of creating their own institutional policies to align with the national policy, and the Working Group began discussions about a future revision of the policy document in May 2018.

At the time of our initial analysis, we inquired about monitoring and compliance rates. We were told that the policy was too new for formal monitoring, but that when the first batch of projects approached completion, an analysis on uptake etc. would be performed. In June 2018 the RPF signed an "Agreement for Data Exchange between OpenAIRE and research-funding organization" in order to use the OpenAIRE infrastructure to monitor RPF funded projects.

Despite being a soft policy, which recommends rather than requires, gentle encouragement is a natural first step in introducing researchers (and the professional services and networks which support them) to new ways of working. Although formally approved, as with most policies, this one is a work in constant progress, and is expected in time to become firmer as data management becomes increasingly normalised within the national research environment.

The development of the Cyprus policy is a clear example of what can be achieved in smaller European nations where there is a will toward joined up policy development and collaboration among a range of stakeholders.

References:

- The policy "Εθνική Πολιτική Ανοικτής Πρόσβασης στην Επιστημονική Πληροφόρηση στην Κυπριακή Δημοκρατία", in the original Greek;

- The policy, "National Policy of the Republic of Cyprus for Open Access to Scientific Information", in its English translation;

- The Research Promotion Foundation's funding plan, "ΠΡΟΚΗΡΥΞΗ ΠΡΟΓΡΑΜΜΑΤΩΝ RESTART 2016-2020", in Greek.

- Report: "Αποτελέσματα κυπριακής συμμετοχής στο Πρόγραμμα Ορίζοντας 2020 Μάιος 2016" ("Results on the Participation of Cyprus in the program HORIZON 2020, the Framework Program for Research and Innovation of the European Union, 2014 - 2020"), in Greek

- Research Promotion Foundation: Basic Information for "RESTART2016-2020" http://www.research.org.cy/el/restart-2016-2020/basic-information, in Greek.

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