Italy - Open science country note

Open science and the national context

While a specific national policy on open science has not yet been developed, the initiatives of the following actors may well impact positively on the spread of open science and open access in Italy:

· Science and Technology Digital Library: This initiative of the Italian Digital Agenda – developed by the Agency for Digital Italy (AgID) and the Italian National Research Council (CNR), following a memorandum of understanding between CNR and the Italian Ministry of Education, Universities and Research – is aimed at providing public access to scientific data and information (http://stdl.cnr.it/it/ [1]).

· The CNR position statement on open access to research outputs in Italy has been signed by 15 other academic and research institutions (www.cnr.it/sitocnr/Iservizi/Biblioteche/PositionAccessoAperto.html [2]).

· The website data.cnr.it is an initiative of the Italian National Research Council that aims to provide public access to the information of the CNR organisation (http://data.cnr.it/site/about [3]).

The Ministry for Foreign Affairs has promoted the project "Open Aid Italy", which makes data on the initiatives of the Italian Development Cooperation available in an open format and accessible through dynamic visualisations (http://openaid.esteri.it/en [4]).

Open science research and innovation actors

The Italian National Research Council (CNR) (www.cnr.it/ [5]) is a national research organisation with research institutes throughout Italy. CNR develops the Science and Technology Digital Library, which provides public access to scientific data (http://stdl.cnr.it/it/ [1]).

In January 2014 the Ministry of Education, Universities and Research (MIUR) (www.istruzione.it/ [6]) promoted and funded the SIR programme (Scientific Independence of young Researchers) supporting young researchers in the early stages of their independent research activity. The programme features an open access clause that makes access to both research publications and research data compulsory (http://attiministeriali.miur.it/anno-2014/gennaio/dd-23012014.aspx/ [7]).

The Ministry of Heritage and Cultural Activities (MiBAC) (www.beniculturali.it/ [8]) facilitated adoption of measures for open access to results of publicly funded research, as defined in the Decree of 8 August 2013, (as modified by the Law of 7 October 2013, n. 112), Urgent Measures for the Protection, Enhancement and Recovery of Property and Cultural Activities and Tourism, Art. 4.2and 4.2-bis (www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto-legge:2013-08-08;91/ [9]).

In 2006 the CRUI (Conference of Italian University Rectors), an association of the state and private universities, created a group on open access. Among its initiatives, the CRUI Open Access group has developed a set of guidelines for defining policies on open access to scientific publications and research data (www [10]. [10]crui [10]. [10]it [10]/ [10]HomePage [10]. [10]aspx [10]? [10]ref [10]=2200 [10]/).

The Interuniversity Consortium CINECA (Consorzio Interuniversitario del Nord est Italiano per il Calcolo Automatico) (www.cineca.it/en [11]) developed PLEIADI, the national platform for centralised access to scientific literature deposited in the Italian open archives (www [12]. [12]cineca [12]. [12]it [12]/ [12]it [12]/ [12]content [12]/ [12]open [12]- [12]access [12]).

CASPUR (the Interuniversities Consortium for Supercomputing Applications for University and Research) (www.caspur.it/ [13]) was the OpenAIRE National open access desk for Italy (www.caspur.it/cosa-facciamo/progetto-europeo-openaire [14]).

Open science and business sector actors

Non-profit initiatives:

- Fondazione Cariplo is a private research funder (www.fondazionecariplo.it/en [15]). Cariplo policy on open access was mentioned in the Mediterranean Open Access Network (MedOANet) Guidelines for Implementing Open Access Policies (www.medoanet.eu/news/medoanet-guidelines-implementing-open-access-policies-available-7-languages [16]).
- Open Knowledge Foundation Italia has recently launched Open Science Italia (http://openscience.it/ [17]), the Italian chapter of the Foundation's working group on open science (http://science.okfn.org/ [18]).
- Telethon (www.telethon.it/en/scientists/open-access/ [19]) enhances open access to raise funds for data as a significant contribution to the community. The goal is to improve the visibility of studies published in the most important international journals, which are subject to peer-review through free online access. The research data become accessible and available not only to the scientific community, but also to the most important stakeholders – the patients and donors. In 2010 Telethon joined up with Europe PubMed Central (PMC) (http://europepmc.org/ [20]), the European version of the international open access archive service for scientific publications in the biomedical field.

Policy design - Open data

The Italian legal framework on open data consists mainly of:

- Legislative Decree of 24 January 2006 No. 36 (as amended by the Law of 4 June 2010, No. 96, Art. 44), which implemented the European Directive 2003/98/CE on Public Sector Information (PSI) in Italy. In particular, see Articles 3 and 8 on intellectual property rights and licensing: www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2006:36/ [21].
- The Code for Digital Administration (CAD) (as recently reformed by Legislative Decree of 18 October 2012 No. 179, Articles 9 and 9-bis) defines the general framework for electronic access to and reuse of public administrations data, introducing an "open data by default" principle concerning PSI. In particular, see Articles 52 and 68.3: www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2005-03-07:82!vig=/ [22].
- Legislative Decree of 14 March 2013, No. 33 on Publicity, Transparency and Dissemination of information from the Public Administration (PA) – In addition to restating various principles in a unique "code", the Decree introduces a "civic access" procedure (a sort of FOI request concerning information that should have been published proactively by the PA). In particular, see Articles 1, 5, and 7: www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2013-03-14;33/ [23].
- Art. 4, Law of 7 October 2013, No. 112, envisages that public institutions responsible for the provision of funding for scientific research shall take the necessary measures to promote open access to research data that is publicly funded in an amount equal to or greater than 50% subject to certain conditions (www.gazzettaufficiale.it/eli/id/2013/10/08/13G00158/sg%20/ [24]).
- The legal framework described above applies to the public administration, including the state, regional or local authorities and bodies governed by public law. (See Law Decree of

24 January 2006 No. 36; Articles 2.1, 2.2 of CAD; and Art. 11 of Law Decree of 14 March 2013, No. 33.)

- The dati.gov.it portal (www.dati.gov.it/ [25]) provides surveys and infographics that help monitor the state of open data in Italy. (See www.dati.gov.it/content/infografica/ [26].)
- Different actors help monitor and assist in enforcing the national legal and policy framework on open data:
- The Agency for Digital Italy (AgID) (www.agid.gov.it/ [27]) co-ordinates implementation of ICT plans in public administration, and ensures the achievement of objectives defined in the Italian Digital Agenda (www.agid.gov.it/ [27]).
- Formez (www.formez.it/ [28]) supports ongoing reforms with tools and training activities.
- Italian participation in the Open Government Partnership (www.opengovpartnership.org/country/italy/ [29]) provides a benchmark and additional political commitments; various NGOs are monitoring OGP-related efforts, e.g. the association "Diritto di Sapere" (www.dirittodisapere.it/ [30]).

Policy design - Open/increasing access to scientific publications

In July 2014 the National Research Council (CNR), the Luigi Sturzo Institute and the Gramsci Foundation signed an agreement on digitalisation activities under the "Science and Technology Digital library" project. The agreement on technical and scientific co-operation includes the digitalisation of a portion of the archives of historical and cultural interest stored by the Luigi Sturzo Institute and Gramsci Foundation Institute.

In January 2014 the Ministry of Education, Universities and Research (MIUR) (www.istruzione.it/ [6]) promoted and funded the SIR Programme (Scientific Independence of young Researchers). The programme was designed to support young researchers in the early stages of their independent research activity. It contains a clause on open access (Art. 9) that makes access to both research publications and research data compulsory. Either a published version or a copy of the final version as accepted for publication (following peer review) is accepted. Open access to portions of the research data can be exempted where the publication could compromise achieving the main objective of the research. No specific open licence requirements have been defined.

Applications can be made for projects in any field within the three research domains determined by the European Research Council (ERC): LS – Life Sciences; PE – Physical Sciences and Engineering; and SH – Social Sciences and Humanities. The programme applies to research teams under the scientific co-ordination of a Principal Investigator (PI), of either Italian or non-Italian nationality, resident in or moving to Italy, who has been awarded their Ph.D. (or medical specialty training) up to six years prior to publication of the call for proposals. The host institution where the PI will carry out their research project must be a university or public research institution monitored by MIUR.

The cost of the projects funded by the call for proposals can amount to a maximum of EUR 1 000 000 for a maximum period of 3 years. The total budget (EUR 47 215 612) is allocated according to the following: LS – Life Sciences: 40%; PE – Physical Sciences & Engineering: 40%; SH – Social Sciences & Humanities: 20%.

Regarding the legal framework for open access, the Decree of 8 August 2013, No. 91 (as modified by the Law of 7 October 2013, No. 112) – Urgent Measures for the Protection, Enhancement and Recovery of Property and Cultural Activities and Tourism – requires research institutions to adopt measures promoting open access to results from research at least 50% publicly funded, when such results are published in (at least biannual) scientific journals. The Decree incorporates both the golden road and green road models; therefore, research institutions must promote open access either through publication in open access journals or through deposit in institutional repositories. Works must be stored in open access archives, no later than 18 months (for scientific, technical and medical disciplines) or 24 months (for the humanities and social sciences) from the first publication. See Articles 4.2 and 4.2-bis: www.normattiva.it/uri- [31]res/N2Ls?urn:nir: stato:decreto-legge:2013-08-08; 91 [31].

In 2012, the National Research Council (CNR) became signatory to the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, which represents the European "charter" governing adherence to the principles of open access to research products funded by public moneys. With this agreement, the CNR commits to ensuring maximum access to national information resulting from research activities carried out.

In 2004, the Messina Declaration was released to support the 2003 Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (http [32]:// [32]cab [32]. [32]unime [32]. [32]it [32]/ [32]decennale [32]/ [32]wp [32]- [32]content [32]/ [32]uploads [32]/2014/03/ [32]Dich [32]_ [32]MessinaENG [32]. [32]pdf [32]).

Skills for open science and open data

The CRUI (Conference of Italian University Rectors) released a set of guidelines for defining policies on open access to scientific publications and research data (www.crui.it/HomePage.aspx?ref=2200 [10]).

Besides ad hoc education and training initiatives (workshop, seminars, formal and informal meetings, etc.) that are developed and promoted by Italian universities primarily to bring awareness of open access to academics, researchers, students and citizens, Italy has participated in the global initiative Open Access Week since 2009 (http://wiki.openarchives.it/index.php/Open_access_Week [33]).

In the field of open data, the Agency for Digital Italy (AgID) has published national guidelines for the exploitation of public information; these provide a set of operative recommendations for publishing open data in a standardised and interoperable way (www.agid.gov.it/notizie/online-le-linee-guida-la-valorizzazione-del-patrimonio-informativo-pubblico-2014 [34]). In addition, AgID released a set of guidelines for semantic interoperability through Linked Open Data to assist public administration in the publication of its dataset (www.agid.gov.it/sites/default/files/documentazione_trasparenza/cdc-spc-gdl6-interoperabilitasemopendata_v2.0_0.pdf [35]).

The EVPSI research project (Extracting Value from Public Sector Information) published a White Book on the Reuse of Public Sector Information. Especially addressed to public sector decision makers, the EVPSI White Book is aimed at explaining, in the simplest possible way, the opportunities and challenges of the of open government data and PSI reuse (www.evpsi.org/librobianco [36]).

Several open data contests and hackathons have been promoted and supported by the government, regional and local administrations, universities, business companies and open data advocates. Regarding training initiatives, BIG DIVE: Hacking Development, Visualization & Science is a five-week training programme – organised by the TOP-IX non-profit consortium – aimed at developing technical skills to make use of and extract value from big data (www.bigdive.eu/ [37]).

Open science and international co-operation

Italy is or has been involved in the following international co-ordination activities on open access:

· OpenAIRE (Open Access Infrastructure for Research in Europe): www [38]. [38]openaire [38]. [38]eu [38]/ [38]noads [38]/ [38]oa [38]- [38]italy [38]/

· MedOANet (Mediterranean Open Access Network): www.medoanet.eu/ [39]

· PASTEUR4OA (Open Access Policy Alignment Strategies for European Union Research):

www.pasteur4oa.eu/ [40]

·   The Nexa Center for Internet & Society – POLITO/DAUIN (http://nexa.polito.it/ [41]) is partner of the project and acts as the Italian key node organisation, representing national expertise on open access within the project.

·   The project MICHAEL: The Central Institute for the Union Catalogue of Italian Libraries and Bibliographic Information (ICCU) participates in the European project "Michael". The main objective of the project MICHAEL (Multilingual Inventory of Cultural Heritage in Europe) is to make available to a worldwide audience the richness and diversity of European cultural heritage, providing access via the Internet to the digital collections of museums, archives, libraries and other cultural institutions across Europe. The Italian MICHAEL portal is online at URL: www.michael-culture.it [42].

Source URL: https://www.innovationpolicyplatform.org/content/italy-open-science-country-note

Links
[1] http://stdl.cnr.it/it/
[2] http://www.cnr.it/sitocnr/Iservizi/Biblioteche/PositionAccessoAperto.html
[3] http://data.cnr.it/site/about
[4] http://openaid.esteri.it/en
[5] http://www.cnr.it/
[6] http://www.istruzione.it/
[7] http://attiministeriali.miur.it/anno-2014/gennaio/dd-23012014.aspx/
[8] http://www.beniculturali.it/
[9] http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto-legge:2013-08-08;91/
[10] http://www.crui.it/HomePage.aspx?ref=2200
[11] http://www.cineca.it/en
[12] http://www.cineca.it/it/content/open-access
[13] http://www.caspur.it/
[14] http://www.caspur.it/cosa-facciamo/progetto-europeo-openaire
[15] http://www.fondazionecariplo.it/en
[16] http://www.medoanet.eu/news/medoanet-guidelines-implementing-open-access-policies-available-7-languages
[17] http://openscience.it/
[18] http://science.okfn.org/
[19] http://www.telethon.it/en/scientists/open-access/
[20] http://europepmc.org/
[21] http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2006;36/
[22] http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2005-03-07;82!vig=/
[23] http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2013-03-14;33/
[24] http://www.gazzettaufficiale.it/eli/id/2013/10/08/13G00158/sg%20/
[25] http://www.dati.gov.it/
[26] http://www.dati.gov.it/content/infografica/
[27] http://www.agid.gov.it/
[28] http://www.formez.it/
[29] http://www.opengovpartnership.org/country/italy/
[30] http://www.dirittodisapere.it/
[31] http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto-legge:2013-08-08;91
[32] http://cab.unime.it/decennale/wp-content/uploads/2014/03/Dich_MessinaENG.pdf
[33] http://wiki.openarchives.it/index.php/Open_access_Week
[34] http://www.agid.gov.it/notizie/online-le-linee-guida-la-valorizzazione-del-patrimonio-informativo-pubblico-2014
[35] http://www.agid.gov.it/sites/default/files/documentazione_trasparenza/cdc-spc-gdl6-interoperabilitasemopendata_v2.0_0.pdf
[36] http://www.evpsi.org/librobianco

[37] http://www.bigdive.eu/
[38] https://www.openaire.eu/noads/oa-italy
[39] http://www.medoanet.eu/
[40] http://www.pasteur4oa.eu/
[41] http://nexa.polito.it/
[42] http://www.michael-culture.it/