Utrecht University
Open Science Programme 2018-2020

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Draft version, revised from version 0.5 based on feedback from the consultations and with additional textual revisions.

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1. Introduction

In her [Strategic Plan 2016-2020](#), Utrecht University expresses her vision of the importance of interdisciplinary research hubs and knowledge sharing for knowledge ecosystems. In these ecosystems, research output is shared broadly among researchers, societal partners and with a broader audience. It is within this context, that "Utrecht University aims to operate at the forefront of Open Science. The university is convinced that scientific research can contribute to better solutions to complex problems if knowledge is shared as widely and as quickly as possible". This ambition clearly resonates in the strategic goals for 2020 regarding research data sharing, open access for publications and public engagement.

In the spring of 2017 the Rector of the university called for a task force to explore the ways the university could turn its open science ambition into reality. The task force consisted of a group of seven people: 4 researchers and representatives from ResearchIT, University Library and Academic Affairs Office. The task force was supported by a library working group.

In this document, we propose to create a **UU Open Science Programme** to implement the UU vision on open science. A [draft version](#) of this programme was discussed by members of the task force and the open science working group in 45 meetings (often 1:1, sometimes in groups) with researchers ranging from PhD's to full professors, policy/management and research support people. The consultation round included representatives from all faculties, Information and Technology Services (ITS) and the Centre for Science Communication and Culture (CWC). In addition, we also received feedback online and by email. All feedback has been assembled, summarized, discussed and as much as possible incorporated in this version of the programme.

Towards Open Science
The scope of open science is broad and represents a new approach to all stages of the research process: from open access to publications, sharing of research data sets, developing research evaluation systems, to public engagement and citizen science. In essence, the development of open science practices entails a cultural shift in academic research (and teaching).

The road towards open science is characterised by changes in many practices and activities throughout the research workflow, including the necessary changes in the way we reward research and incentivize research behaviours. It is essential to appreciate disciplinary differences and thus allow for different paces and priorities, while remaining adamant on the direction of change. The changes affect many aspects of research and involve all stakeholders. For example in collaborations with commercial and other partners, especially around the exploitation of research results. The changes towards open science are partly organic and partly driven by technology, funder policies, publisher policies, university codes of conduct, and last but not least, driven by needs many researchers themselves recognize.

In recent years, many stakeholders within the global research community have initiated concrete actions to develop open science. Higher education institutions across Europe, through [LERU](#) and [YERUN](#) but also individually, take part in many projects to further

implement open science practices. Almost all universities are hiring and training staff to assist with research data management. ScienceEurope, the association of European research funders (including NWO) and the European Commission have underlined the importance of open science. Open access publishing is nowadays required by most research funders. The EU specifically is heavily investing in open science, not only by requiring open access and open data, but also by investing billions in making data 'FAIR' and creating the European Open Science Cloud (EOSC) to stimulate open collaboration and interoperability. Finally, organisations such as LERU, LIBER and SparcEurope are actively lobbying for open science at the European level (eg. for the legal right on text- and data mining).

In the Netherlands, all stakeholders in higher education and research have expressed their active support for open science through the National Plan Open Science (NPOS). Thus, although the scope of open science is potentially broad and the landscape complex, virtually all organisational stakeholders have embraced the tenets of open science. Collaboration among the different (inter)national stakeholders and differences among research disciplines is a given.

Within our university, open science practices are already being developed. First of all, new practices have been adopted by researchers themselves in a variety of ways within several disciplines. Inspiring examples within the larger, interdisciplinary research programmes, are available. Support services have been (or are being) developed to accommodate these changes, including an open access repository for publications, an e-infrastructure and support services for research data through the Research IT programme, and a research data policy framework.

A UU Open Science Programme
As said, the scope of the topic is potentially very broad. The UU Open Science Programme however, needs focus. Its activities and results will add to existing open science initiatives on a national and international level. The current UU strategy aligns well with NPOS. Therefore, the UU Open Science Programme also connects closely with this national plan: both address *open access publications*, *FAIR & open research data*, and *rewards and incentives*.

To these themes we add *sharing of code and software*, in order to facilitate collaborative work and also to speed up research and involve more researchers. Another aspect that needs separate attention is *outreach and public engagement* to make sure we connect to communities that support, contribute to, use, and apply our research.

These choices mean that some aspects of open science are not part of this programme. This holds among others for *open educational resources* and *citizen science*, which can be further developed in collaboration with already existing programs such as Educate-it, Research IT, Public Engagement programme of the Centre for Science Communication and Culture. The themes also require involvement of the different domains (HR, finance) and university departments.

The programme aims to take away obstacles to practice open science; it is expected that researchers and research groups will gradually adopt open science practices by their own accord (as many already do), especially when they will receive appropriate rewards and recognition for doing so. Thus it is anticipated that most of the changes will eventually be realized within existing budgets.

The programme is centered around 5 topics. The first three focus on research outputs and resources: open access, FAIR & open data and open software. The fourth is on outreach and public engagement, focussing on connections with the wider world. The last one is rewards and incentives that focuses on the way research and researchers are evaluated. It arguably is a sine qua non in achieving substantial adoption rates of open science practices.

2. Open Access Publications

Unrestricted immediate access to research publications is a prerequisite for using the latest insights, avoiding double work, and fostering implementation of ideas. Although the idea of open access (OA) and early sharing of publications goes back to the early nineties and although we have signed open access declarations (e.g. Berlin Declaration, 2003), overall levels of open access publications are still below 50%, counting both publisher provided (gold) and author provided (green) open access. In addition, sharing preprints, posters and presentations, though growing, is still in its infancy in most disciplines. Reaching the nationally agreed 100% open access to articles and book publications by 2020, as stated in NPOS, requires full attention and additional efforts on top of what we are doing already. This component of open science is difficult, because it is met by resistance coming from the publishing industry. Secondly, it is interwoven with rewardings (also see section 6) based on publishing in journals with (high) impact factors and with publishers that are sometimes slow to make the transition to open access.

Utrecht University's open access ambitions fully align with the goals in the NPOS. Issues we need to address specifically are funding for open access publishing, the role of the Utrecht University Repository, open access to books and book chapters (crucial for getting humanities and social science publications openly available). Another development that merits attention are preprints, which create an alternative way to share research outputs in an early stage, also contributing to speeding up the dissemination of insights.

In 2017, Utrecht University:
- Maintains an [Institutional Repository](#) (IR) to enable Green open access and stimulates the deposit of various types of publications in the IR for use and reuse (e.g. preprint, postprint, version of record).
- Contributes to the [OA big deals negotiated by the VSNU](#).
- Runs an [open access incentive fund](#) to enable Gold open access for UU researchers.
- Has an [expertise centre for open access journal publishing](#) (including an Incubator service model).

Goal 2020:
- Have all scholarly publications (articles, books or parts of books, reports) which are publicly funded immediately and openly accessible to anyone from anywhere in the world and available to them to consult and reuse, in alignment with the National Plan Open Science.

By 2020, Utrecht University will:
- Systematically monitor yearly UU open access output based on the [VSNU open access framework](#), and also yearly monitor UU open access costs, e.g. article/book processing charges (APCs/BPCs) levied by publishers.
- Optimize the administrative workflows for the payment of open access costs and save costs through memberships and discounts.
- Develop an open access deposit mandate (or alternative policy measures) including requirements for accessibility, including text and data mining (TDM), reuse and (employer) copyright, the doctoral degree regulations and stimulation of sharing preprints in all disciplines. In this context the UU will reconsider the role of the University Repository.
- Create more awareness among researchers about open access publishing options (e.g. understand different types of OA, OA deals and OA book publishing options) and offer support programs for researchers on scholarly publishing in an open science environment.
- Contribute to the development of open access for monographs and edited volumes, supporting promising initiatives and performing research into sustainable open access for books.

3. FAIR & Open Research Data

Reuse and verifiability are the main purposes of having research data available. Access to research data (which includes textual data) and accompanying documentation makes science more efficient and more trustworthy. How research data is being managed and shared, depends a lot on the kind of data (observational, experimental, simulation, derived etc.) and the culture within different disciplines and domains. Stable 10-year archiving is already mandatory at Utrecht University, but making relevant data fully [FAIR](#) (Findable, Accessible, Interoperable and Reusable) and also open wherever viable (duly respecting constraints of privacy, sensitivity and intellectual property rights) has many additional advantages and is also required by some funders and journals. The adage "as open as possible, as closed as necessary" is valid here.

In order to open up research data, it is important to prepare for proper sharing and reuse with good research data management (RDM). Though openness and public availability of data is not a strict requirement for FAIR data, not having to ask, draw up a contract etc. does foster reuse, verifiability and experimentation. In this way, deciding to share data openly increases the chances for early reuse and collaborations.

In 2017, Utrecht University:
- Has a collaboration of different experts (University Library, ITS, legal, data managers, etc.) working on infrastructure, services and support for research data management, coordinated by [RDM Support](#) (as part of the Research IT program), and fosters awareness of available (discipline-specific) tools and repositories for providing optimal access to research data.
- Facilitates researchers in their responsibility to draw up a Data Management Plan (DMP) at the start of the research project and to follow up on the agreements made in this plan to make subsequent sharing and reuse of research as easy as possible.
- Discusses implementation of the university policy framework on research data (including those in textual format) within the faculties including the condition that research data are to be made available for access and reuse at and outside Utrecht University as much is reasonably possible.
- Developed a training programme for data management skills.

Goal 2020:
- Utrecht University researchers will make the research data of their research available for access and reuse as FAIR as possible, and open wherever viable.
- Utrecht University's researchers will be part of interdisciplinary communities that share and reuse research data.

By 2020 Utrecht University will:
- Have clear policy and guidelines within all faculties on which research data to make optimally available for reuse and how to do that, including guidelines and protocols for handling (privacy-)sensitive data, intellectual property rights and licenses for sharing research data.
- Have researchers who are aware of why, how and where to share what research data, written down in a DMP for each research project.
- Optimize the findability of Utrecht University's reusable research data.
- Have next level infrastructure for managing, storing, archiving and access to research data in place, in addition to services and support to make valuable research data FAIR (findable, accessible, interoperable and reusable) and open.
- Have explicit career tracks for data and software specialists (data stewards, data managers, data engineers, data librarians, data scientists).

4. Sharing code and software

The idea to share code and software openly is older than the promotion of open access and much older than the more comprehensive notion of open science. Free and open source software fosters widespread adoption, user contributions, and ease of collaboration. This manifests itself in two practices, the use of open source software and the open development and sharing of software/code. Complex and sensitive systems run on open source software. Developing software collaboratively using open platforms with version control systems like Git is standard routine for many programmers and has sparked many innovations and speeded up development. In many ways programmers and software engineers are ahead in collaborative, open and transparent ways of working.
Sharing code used in data wrangling and analysis is not only an important element in making research verifiable but also to make it easy for others (including commercial entities) to reuse it and improve on it, both of which amount to considerable time gains for the science community as a whole.

In 2017 Utrecht University:
- Made the [GitLab repository](#) in use at the Science faculty open to all Utrecht University users.

Goals 2020:
- Free and open source software is used for research whenever that is comparable in functionality, costs, security and reliability to closed, paid options.
- Code and software created by Utrecht University researchers will be shared with an [open software license](#).

By 2020, Utrecht University will:
- Have platforms for collaborative programming (e.g. through Git repositories) in use at all faculties.
- Have courses for teaching staff and students on how to use open platforms with version control systems to develop code and software, in order to facilitate collaboration, reuse and contribute to verifiability.
- In principle have code created as part of research projects shared openly (either from the start or afterwards).
- Develop and share knowledge about software licensing and support using those licenses
- Invest in knowledge on software sustainability to ensure software remains functional and usable for the long term.

5. Outreach and public engagement

In order for society to reap all the potential benefits of research it is necessary not only to make results available and disseminate and reuse them, but also to try to engage with potential users, funders and contributors to the research, also in order to stimulate that reuse. That engagement and outreach pertains to all stages of the research cycle (but of course not in the same way in all research projects). It implies basics such as ensuring that research profiles are up to date and well-connected so as to make researchers more visible. Perhaps more importantly it asks for more dedicated actions to raise interest in the research, include others (e.g. patient groups and other communities) in the process of setting research priorities, engage in citizen science, help 'translate' outcomes for a non-scholarly public and participate in public debate. Really engaging the public and interest groups (companies, government, NGOs) implies two-way communication that also demands that we seriously listen to what people outside our own community and outside academia have to say.

Many researchers engaging in public engagement activities find it time consuming but also important, enriching and fun. Increasing public engagement helps to make sure that science and scholarship are more closely related to societal issues and to questions people have. Also it makes sure that research profits from inputs and ideas from outside academia. Ultimately, outreach and public engagement should also enhance the support for and trust in scholarly research.
Some of these practices hold for all researchers, others can also be organised in teams and with help from trained communication specialists working in the faculties, at the Centre for Science Communication and Culture (CWC) or the University Library. As the CWC strongly focuses on the general public, the Open Science programme can complement that with a focus on societal partners.

Public engagement explicitly includes thinking about and working on applicability of research outcomes, often together with external partners, including commercial ones. The discussion on how to best create societal impact for academia extends to how we deal with intellectual property, i.e. what to patent and how to patent. In the context of open science it is good to at least reconsider how we do this, also looking at steps taken and experiences elsewhere (e.g. at MNI Montreal, Aarhus University and Oncode in the Netherlands). The discussion could also explore the separation the actual patenting from the commercial exploitation of patents.

In 2017 Utrecht University:
- Started the Public Engagement Program, coordinated by the [Centre for Science Communication and Culture](#).

Goals 2020:
- Utrecht University has taken demonstrable actions to further increase societal participation in and application of research across all disciplines.
- Utrecht University will promote career diversity and will therefore recognise public engagement activities, activities aimed at societal impact and entrepreneurship initiatives in its promotion and tenure criteria.

By 2020 Utrecht University will:
- Have considered how refraining from patenting could contribute to public availability of research results developed at the UU. This could contribute to increasing the societal impact of research (see examples in the appendix).
- Assist researchers in communicating their research in plain language and engaging the public in their research, e.g. through the Utrecht University Centre for Science Communication and Culture.
- Ensure that data on scholarly and societal impact of UU research are publicly available.

6. Rewards and incentives

The system of rewarding and the incentives available is seen by researchers and policy makers alike as the most important in effecting the change towards open science. Transforming the way research and researchers are evaluated and incentivized has proven to be difficult because the evaluation criteria and customs are often engrained in academic cultures. In the current system, researchers and their research are judged by journal impact factors, publisher brands and H-indices, and not by actual quality, real use, real impact and openness characteristics. Under those circumstances, at best open science practices are seen as posing an additional burden without rewards. At worst, they are seen as actively damaging chances of future funding and promotion & tenure. Early career researchers are perhaps the most dependent on traditional evaluation culture for career progression, a culture held in place by established researchers, as well as by institutional, national and international policies, including funder mandates.

While Utrecht University needs to take into account the national and international context researchers find themselves in, it can at the forefront of developments towards open science. Funders (e.g. Wellcome Trust, Research Councils UK and EU) and other organizations (e.g. VSNU with the Standard Evaluation Protocol) have changed assessment criteria, moving away from simple counting, now requiring narratives and indications of societal impact. Funders are also starting to change their criteria, rewarding not only new research lines but also allocating money for replication studies (e.g. NWO). A few institutions have already changed their promotion and tenure systems (e.g. UMCU). Other universities changed their code of conduct to include open science practices (e.g. TU/e, see appendix). Another important example is the [San Francisco Declaration on Research Assessment](#) (DORA), signed by VSNU and thousands others, that makes researchers and stakeholders commit to moving away from journal based evaluations, consider all types of output and use various forms of metrics and narrative assessment in parallel. The [Leiden Manifesto](#) provides guidance on how to use metrics responsibly. Finally, funders (eg. ERC and NWO) requiring open access publishing and journals requiring data sharing, also contribute to the uptake of open science practices by researchers.

In line with these developments Utrecht University could prioritise and implement evaluation criteria that value open science practices, making them part of conditions for grants and hiring, tenure & promotion policies, and allocating resources accordingly. This can include open science practices in education. As the argument can be made that not every researcher should be expected to be good at everything (e.g. outreach activities),

open science could also be evaluated at the level of research groups, not (only) individual researchers.

An effective way to promote open science is also making its direct incentives to researchers more visible. Ways for Utrecht University to do this include providing support in the discovery and use of available open resources (e.g. for text and data-mining), specific university-funded research activities (e.g. mini-grants for open science activities) and demonstration of broader impact of research through (e.g. through next generation metrics / altmetrics). Moreover, it is important to acknowledge individual researchers and research groups already engaging in open science.

In developing reward and incentive structures for open science, Utrecht University needs to make sure it puts research and researchers first. In the end, open science should not be regarded as something 'extra', but as integral part of doing research, and the evaluation system should reflect this.

In 2017 Utrecht University:
- Signed individually and advocated the support of [San Francisco Declaration on Research Assessment](#) (DORA) by initiating discussions on reducing the reliance on journal brands and publisher names as impact indicator.
- Started a trial of altmetrics data to assess their quality and value for assessing research and to compare the offerings of the various suppliers.
- Started an exploration if (non-traditional) research outputs such as code, software, designs, annotated editions, pre registrations, peer review activities and outreach activities can be included into the university campus-wide research information system (PURE).

Goal 2020:
- The way Utrecht University evaluates research and researchers is geared to foster high quality research with a maximum value for society, by including openness characteristics (participation, sharing of outcomes, and public engagement) and by considering all types of output/activities when evaluating research and researchers.

By 2020 Utrecht University will:
- Decide on what criteria to use in an UU open science monitor, in alignment with the indicators used in the National Plan Open Science and the [European Open Science Monitor](#).
- Have conducted research into the incentives and disincentives in various disciplines and academic roles for applying open science practices at the UU.
- Have adapted evaluation as well as tenure and promotion procedure systems to include openness characteristics (e.g. in Assessment & Development Interviews (B&O).
- Have fully implemented DORA and moved away from using and promoting university rankings based on impact factors and other simple publication counts.
- Deploy activities to facilitate (re)use, which in itself is an incentive for sharing, of what has been shared in open science worldwide (e.g. TDM)
- Have a code of conduct in place that includes open science.
- Provide mini-grants (€10K-€50K) to stimulate exemplary open science projects.

7. Overarching themes

In addition to the various components of open science included in this programme (access, data, code, outreach and rewarding) there are some issues that are underlying to the success of the entire programme.

Inclusive and open **internal communication** is crucial for a successful programme. It will heighten awareness of open science, give feedback on the programme, stimulate experimentation and sharing best practices by focussing not only on inspiring examples from large research programs, but also on day to day successes and the many small steps that are already being taken by (teams of) researchers (see appendix). More generally: make open science something *of* researchers, not just *for* researchers. The focus of communicating open science is on what drives researchers in doing good research. The awareness of open science will grow by creating an open science community that supports itself, through the inspiring support of ambassadors and role models and the involvement of critical voices. The discussion should also result in more clarity on how open science relates to academic freedom and author/employer copyright.

In addition, **external communication** about open science ambitions, successes and problems, nationally and internationally, is important in cooperation with universities and organisations (e.g. VSNU, Young Academy, LERU and other stakeholders such as funders, publishers and the general public). Practicing open science will be easier and more rewarding for researchers if goals and practices of institutions and stakeholders are clear and as far as possible aligned.

Overall **monitoring** of open science at Utrecht University is important for internal and external communication, to have thorough discussions with researchers and other stakeholders and to verify that the value of science and scholarship has increased through open science. Monitoring should include both the efforts made and benefits gained in *doing* open science.

Finally, having **support for and training** in applying open science practices is necessary to ensure that conditions are optimised. This includes clear information and budget for technical support and training. For young researchers this training should be an integral part of courses offered by graduate schools and in research masters. It is important to involve researchers already applying open science practices in the training.

In 2017, Utrecht University:
- Raises awareness of open science practices among its support staff concerned with planning, disseminating and promotion of research (Research Support Offices, University Library, Communication, Research Institutes etc.).
- Offers portals and web pages about a.o. publishing in open access, copyright in the academic setting, Research Data Management.
- Became a member of the Dutch ORCID (Open Researcher and Contributor Identifier) consortium and started a campaign to make researchers sign up and make use of their research profiles.

Goals 2020:
- To create full awareness among all UU researchers of the why, what and how of open science.
- To create excellent conditions for implementing open science practices.

By 2020 Utrecht University:

Internal communication
- Stimulates open research by raising awareness and by connecting the expertise network, e.g. by means of an award for best practices, fellowships, and events on open science.
- Provides expertise on copyright issues.
- Supports researcher-led initiatives, e.g. open science community, grass root/innovative projects.

External communication
- Is a partner in open science and an active participant in national and international open science communities.
- Shares its efforts in open science with monitored goals and regular and publicly available reports.

Monitoring
- Has a full monitor in place showing progress in open science, measured at regular intervals, and to that end makes sure that researcher profiles (including ORCID) are optimally populated with research outcomes and integrated with UU research information systems. Monitoring should not create an extra burden for individual researchers.

Support
- Offers a year round training- and workshop programme on open science in master and graduate school courses and for senior researchers.
- Secures program output in the UU-organisation so that expertise, knowledge and services continue after the program ends.
- Avoid redundancy and create efficiënt workflows to reduce workload.

8. Governance

Implementation of open science is a process to further transformation of research practices. It is iterative and based on contin learning. The UU Open Science Programme contributes to this process. The governance of the UU Open Science Programme must therefore reflect the important role of the research community and its (diverse) practices within the different disciplines. At the same time, the programme is closely connected to the institutional strategy and must be explicitly supported by the Executive Board of the University. The Open Science Programme collaborates closely with other UU innovation programmes, such as Research IT, Educate-it and others, to ensure alignment and avoid overlap. Finally, open science is an important development within the (inter)national research and higher education landscape. The UU Open Science Programme will play a leading role while at the same time explicitly seeking (inter)national collaboration.

The organization of the Open Science Programme includes the following bodies:

- A UU Open Science Platform, which steers the Open Science Programme. This Platform is chaired by the rector magnificus UU and consists of prominent members of the UU research community and 'forerunners' (practitioners) with relevant expertise representing a variety of disciplines. In addition, members of the Open Science Platform are representatives of the leadership of the UU (eg deans, directors). To ensure connection to the broader open science landscape, it could be considered to invite an external open science expert, partner or stakeholder to join this committee. For practical reasons, a small subgroup could operate as the Executive Committee.
- A Programme Manager and Team (work package leaders), responsible for the execution of the agreed actions within the programme. The Open Science Programme Manager serves as the secretary of the Open Science Platform.

The programme activities will be grouped around themes and lead by Work Package Leaders and Project Teams. The composition of these teams will reflect the needed expertise, key partners and collaborations.

Fig. Governance structure
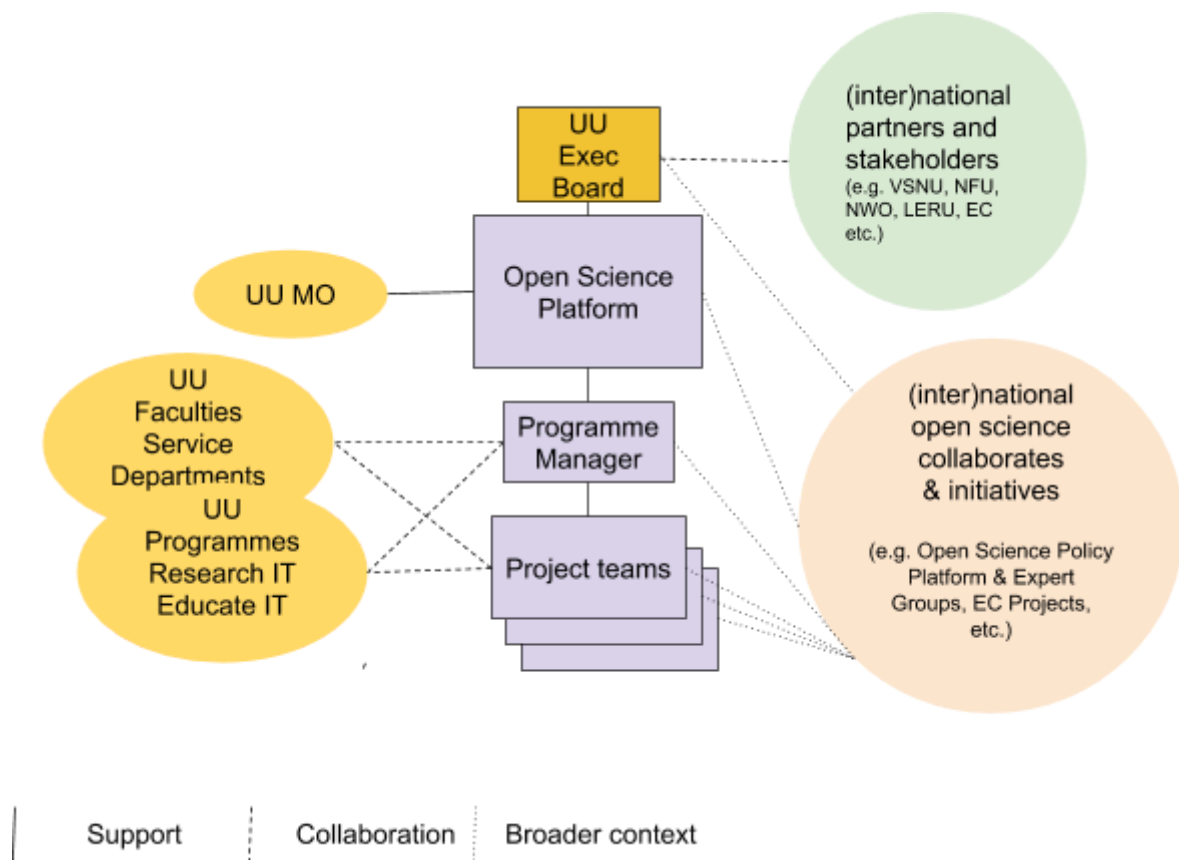
The Open Science Programme can only be successful if it appreciates local practices and bottom up initiatives. The formal programme structure therefore will act as a network organisation in a highly collaborative spirit (this is expressed by the dotted lines between stakeholders in the image above). We also expect the programme to be supported by a

broad variety of roles: e.g. leaders-by-example, discussion leaders, ambassadors. These roles will be created as needed during the programme.
The Open Science Programme contains topics which require collaboration with other activities within the UU with their own existing governance structure (eg. Public Engagement, ResearchIT, EducateIT). Naturally these will continue.

9. Budget

The 0.7 version has been sent to the rector and university board for discussion, including a financial paragraph.

Appendix 1: examples and illustrations

Open Access Publications

Open access to journal articles is already achieved by a lot of researchers. The percentage of journal articles published in 2016 per faculty available in open access was between 35% and 50%. Partially thanks to the OA big deals negotiated by the VSNU and the Utrecht University Open Access Fund.

The Utrecht School of Economics started their Discussion Papers in 2003, presenting and discussing nearly finished projects.
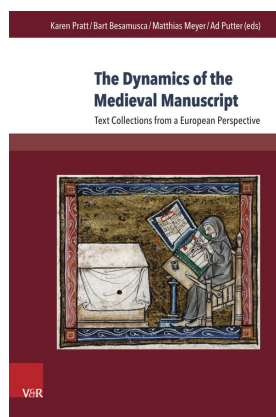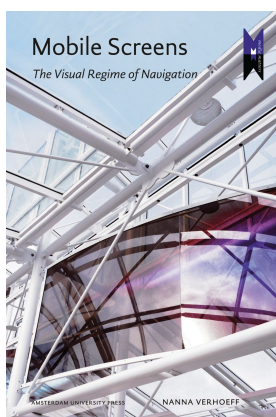
Already some open access books (monographs and edited volumes) have been published by Utrecht researchers, including Mobile Screens and The Dynamics of the Medieval Manuscript.

FAIR & Open Research Data

The Graduate School of Life Sciences offer a Data Management Course, together with RDM support.

The Humanities have a long standing tradition in FAIR data sharing, for instance through the platforms Delpher, EUscreen and the Typological Database System.
Joint efforts in FAIR data are already common in biomedical research. For instance the Ensembl Bacteria containing bacterial and archaeal genomes and the Nucleotide Database containing genome, gene and transcript sequence data.
In Geosciences the EurocarbDB database, containing data on carbohydrate structures, is a nice example.

Sharing code and Software

The PCRaster research and development team (Department of Physical Geography, Faculty of Geosciences) develops software for environmental modelling and shares the code on GitHub.

The PyGaze toolbox for eye-tracking research was developed by UU researchers in experimental psychology and is openly shared and supported. It is their most cited publication.
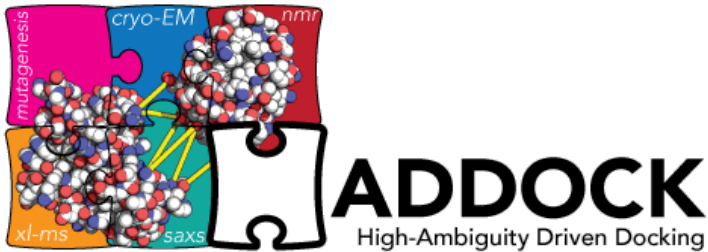
The Computational Structural Biology group at Utrecht University has developed and shared Haddock, a software package for integrative modelling of biomolecular complexes. On November 13th 2017 they celebrated the 10.000th registered user.

Outreach and Public Engagement

Utrecht researchers share their knowledge in public performances, ranging from Beatrice de Graaf on terrorism in De Wereld Draait Door to Stefan van der Stighel on attention seeking at the Nacht van Kunst & Kennis.

Every year professors visit primary schools during Meet the Professor. For instance prof. Marleen van Rijswick on Water Law

The USBO department of REBO developed a Toolkit Loting that is being used on the local democracy (Lokale Democratie) website.

Resilient Youth!

A focus on strengthening Europe's Children and Youth

The strategic theme Dynamics of Youth took initiative to get the topic of resilient youth on the European agenda by writing a position paper, going to Brussels and getting support for the initiative from various organisation in Europe.
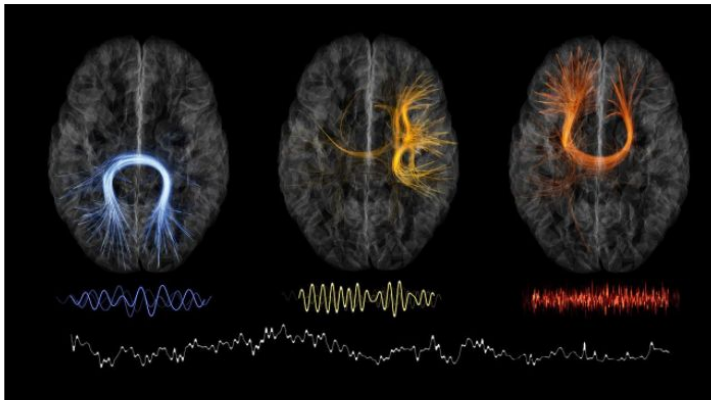
The Montreal Neurological Institute plans to free up its findings, including data that point to connections between brain regions communicating at different neural rhythms.

SÉBASTIEN DERY, MCCONNELL BRAIN IMAGING CENTRE, MONTREAL NEUROLOGICAL INSTITUTE

Montreal institute going 'open' to accelerate science

By Brian Owens | Jan. 21, 2016 , 2:00 PM

A number of institutions, including Montreal Neurological Institute and Aarhus University, have taken courageous steps in the field of patenting by refraining from it or by having patents permitting all kinds of reuse and sharing those openly in the public domain.

Rewards and incentives

NATURE | COMMENT

Fewer numbers, better science

Rinze Benedictus, Frank Miedema & Mark W. J. Ferguson

26 October 2016

Scientific quality is hard to define, and numbers are easy to look at. But bibliometrics are warping science — encouraging quantity over quality. Leaders at two research institutions describe how they do things differently.

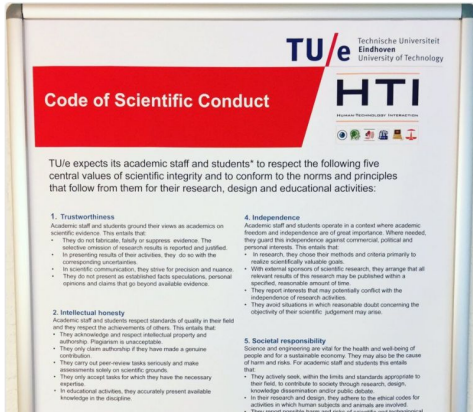PDF   Rights & Permissions

Subject terms: Research management

UMCU is evaluating research programmes in a new way, focusing less on quantity and more on quality. The process towards this evaluation system and the first results were shared in this Nature Comment.
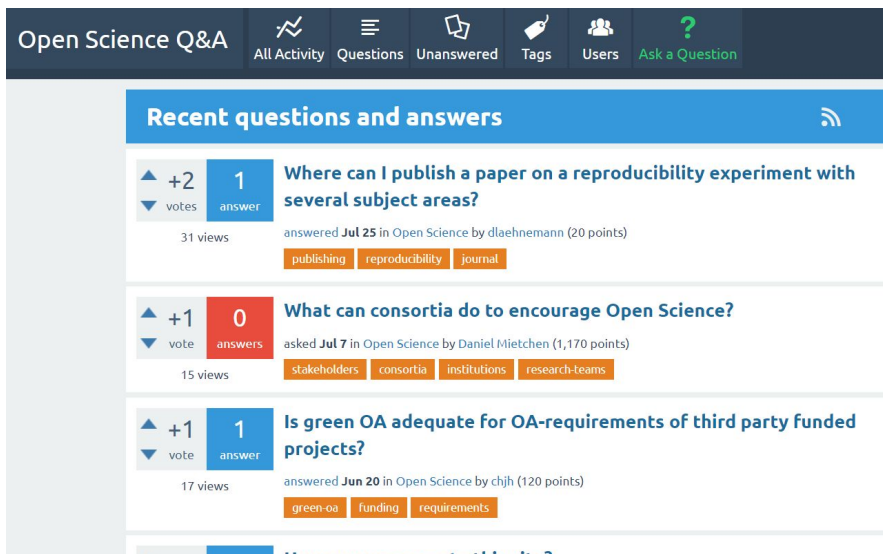
On top of the VSNU code of conduct making openness requirement specific locally can advance openness. The Technical University Eindhoven has gone that route with its own CoC that makes openness explicit and asks researchers to sign it.

Overarching Themes

It is important that sharing information on how to apply open science is made easy and best practices are readily available. A good starter is the international Open Science Q&A.

The Young Academy will launch the interactive platform Living Room of Science to support knowledge on responsible research practices, including Open Science. The first 'Living Room of Science' event took place in the fall of 2017 at Utrecht University during the 18th European Conference on Developmental Psychology.

Two Utrecht researchers, Anita Eerland and Loek Brinkman, are planning to launch an Open Science Community Utrecht in March 2018. Their aim is to facilitate open science practice as a platform to acquire and share knowledge amongst researchers interested in Open Science.