



Open Science programme 2021-2023

1 Programme definition

1.1 Programme background

Open Science is a global movement that aims to make scientific research, data and dissemination accessible to all levels of an inquiring society. Open Science practices span all educational materials and the entire research process, creating new opportunities for interaction, collaboration and engagement with academic colleagues and societal partners, which will improve the societal impact of the work done at the University of Groningen (UG).

Recently, there have been a number of important developments with regard to Open Science, such as:

- **Open Science part of Strategy Evaluation Protocol (SEP) by VSNU, KNAW, NWO 2021–2027**
In addition to the main SEP assessment criteria (quality, societal relevance and viability), the research units should address Open Science in concert with the three main assessment criteria.
- **Horizon Europe call 2021-2027**
Horizon Europe launched the new EU Framework Programme for Research and Innovation, which states that Open Science is the new ‘modus operandi’.
- **New requirements NWO funding: Open Access & FAIR**
NWO strives to ensure that all publications are openly available (i.e. Open Access) and that data collected with NWO funding is as open and Findable Accessible Interoperable and Reusable (FAIR) as possible.
- **NWO has joined cOAlition S**
The Dutch Research Council (NWO), including ZonMw, has joined cOAlition S and will implement Plan S (i.e. all state-funded research must be Open Access) from 2021 onwards.
- **Umbrella organizations will start the National Programme Open Science (NPOS)**
NPOS is a collaboration of Dutch Research-Intensive Universities who are intent on realizing Open Science, including the umbrella organization of Dutch universities (VSNU), the Nederlandse Federatie van Universitair Medische Centra (NFU), the Royal Netherlands Academy of Arts and Sciences (KNAW), the Netherlands Organisation for Scientific Research (NWO) and the National Library of the Netherlands (KB).
- **Open Science is the ‘new normal’ according to international networks of research-led universities**
While the League of European Research Universities defines Open Science as part of the ‘new normal’, the Guild of European Research-Intensive Universities, of which the UG is a part, has recently installed an Open Science working group to help implement Open Science at university level.

In its Strategic Plan 2021-2026 (p. 12), the UG Executive Board of the University expressed its vision of the UG being committed to actively stimulating and facilitating a transparent research and educational environment by implementing and practising the Open Science principles in our academic community. However, UG researchers are embedded in social and cultural structures and facilities that shape behaviour by communicating norms (i.e. what researchers do, or should do), providing incentives (i.e. what researchers are rewarded for doing) and changing policies (i.e. what researchers have to do to be part of the system). Thus, in order for the UG researchers to practise Open Science principles, a culture change is required.

To kick-start this culture change, the UG Open Science steering group proposes to set up a UG-wide Open Science programme, with an awareness of disciplinary differences and avoiding ‘one size fits all’ solutions. The programme leader is Vera Heininga (<https://www.rug.nl/staff/v.e.heininga/research>) and the assistant programme leader is Marjan van Ittersum (<https://www.rug.nl/staff/a.g.t.van.ittersum-leege>).

1.2 Programme objectives

1.2.1 Long-term ambition (2021-2026)

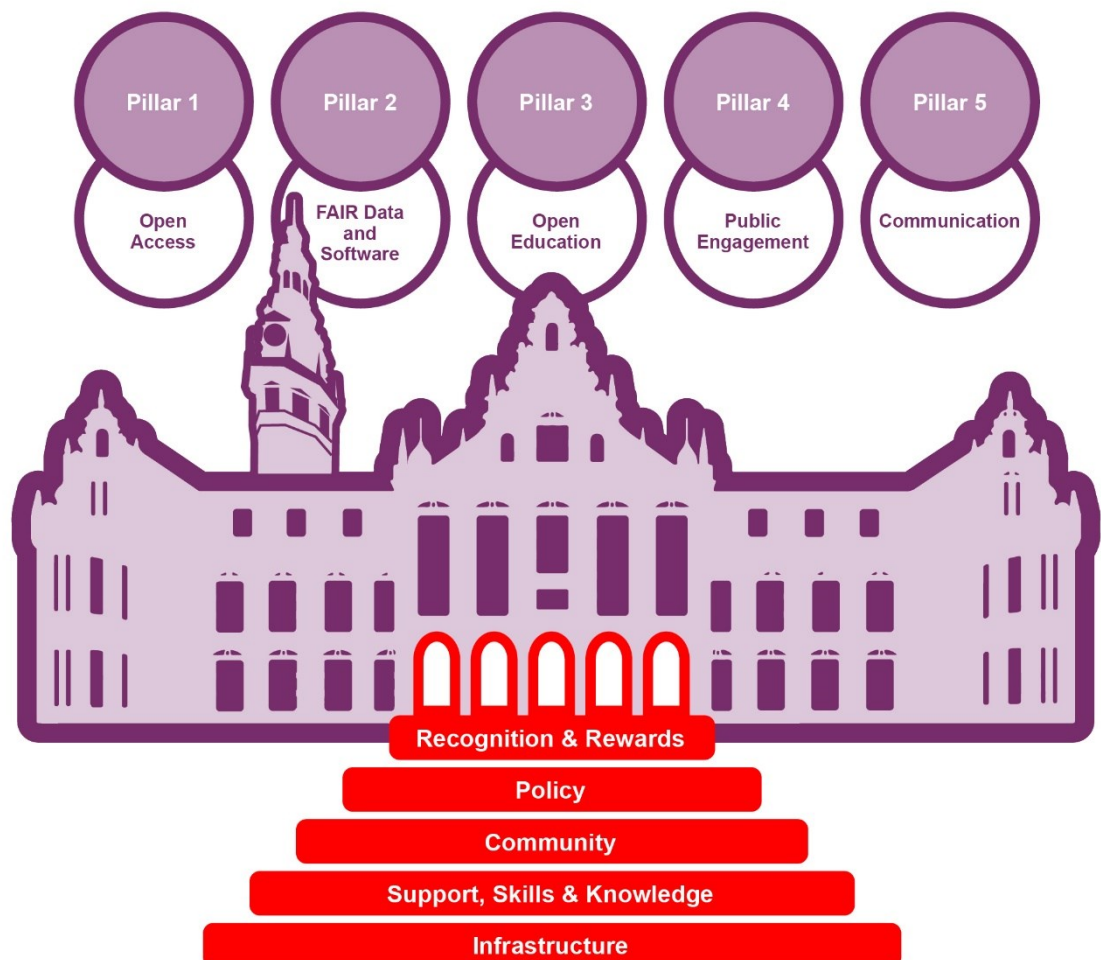
To realize a culture change such that Open Science is an integral part of the UG’s Research, Education, Talent Development and Societal Impact.

1.2.2 Pillars of the UG Open Science programme (2021-2023)

The short-term priorities for the first two years of this programme are (see Figure 1):

1. Further implementation of **Open Access** publishing
2. Stimulating **FAIR Data** and providing more information on Open Data
3. Stimulating the use of **Open Educational Resources**
4. Achieve maximum impact of science on society by **Public Engagement**
5. Develop an Open Science **Communication** approach to raise awareness

Figure 1: The five pillars of the UG Open Science programme, and the five levels of change required to ensure a culture change





1.3 Stakeholders

The programme affects the entire UG/UMCG research and education community, including:

- Researchers and teachers, incl. PhD students
- HR departments and communication staff (central, faculties and services)
- Faculty Boards, directors of UG service departments, the Executive Board of the University (UG) and the Board of Directors (UMCG)
- Research Directors and Research Policy Officers
- Research and education support staff from the University Library (UB), the Central Medical Library (CMB), the Strategy Department of Education and Research (SER), the Centre for Information Technology (CIT) and research institutes
- Open Science Community Groningen (OSCG), Young Academy Groningen (YAG), Teachers Academy Groningen (TAG)
- Funding officers (SER)

1.4 Related projects and services

- Groningen Digital Competence Centre (GDCC; UG/UMCG)
- Reward & Recognition Committee UG (HR, SER)
- Ruggesteun (SER, ESI, HR, faculties)
- Open Access Services (OAS; UB)
- Pure Team (UB)
- Research Impact Services (RISe; UB/SER)
- Research Analytics Core Team (SER, UB, CMB and Research Support Office UMCG)
- Open Educational Resources Support Services (UB)
- University of Groningen Press (UGP/UB)
- Research Data Management Systems (RDMS/CIT)
- Virtual Research Environment (VRE/CIT)
- University Teaching Qualification (UTQ) Certification Services (ESI/CIT)
- Impact organization (Dean Industrial relations, Northern Knowledge, University of the North, SER)
- Graduate Schools
- Ethics Committees
- The Centre for Public Engagement (CPE; i.e. Studium Generale; Pre-University Academy; USVA; University Museum)
- Science LinX, Science Centre of the Faculty Science & Engineering
- Science Shops (faculties)
- Outreach and Societal Impact (OASIS; UMCG)

1.5 Levels of change

To transition towards Open Science, change is needed on the following five levels (see steps in Figure 1):

1. Infrastructure → makes Open Science practices possible
2. Support, skill & knowledge → makes it easier for staff to apply Open Science practices
3. Community → gives guidance and provides examples of good practice
4. Policy → makes Open Science practices more normative
5. Recognition & reward → makes Open Science part of the formal reward system of the UG

To monitor and initiate change on these five levels, the UG SER senior policy officer and the programme leader of Open Science will inform each other about developments at these various levels during monthly bilateral meetings. The collaborative update on the levels of change will,



in turn, be communicated to the steering group during its meetings, which will occur approximately every two months.

1.6 Responsibility

Propelled by the UG's Strategic Plan, the steering group proposes to stimulate and facilitate a transparent research and educational environment by implementing a UG Open Science programme that will help UG researchers and teachers to practise the Open Science principles in the UG academic community. After approval by the Board of Deans and the Executive Board of the University, the UB, the SER and the CIT will be made jointly responsible for the University-wide embedding of Open Science in the short and long terms.

1.7 Management

The project goals as described in Section 3 (i.e. deliverables) will be executed in teams for each pillar. For each of the teams, a pillar leader will take responsibility for the execution of the deliverables. On a fortnightly basis, the pillar leaders will discuss progress and potential problems in the execution of the deliverables with the Open Science programme leader. The Open Science programme leader, in turn, will communicate the progress and problems (if any) to the steering group during its meetings (approximately five meetings per year).



2 Business case

Research and innovation are changing rapidly. Digital technologies are making science and innovation more collaborative, international and open to citizens. By providing unlimited, barrier free, open access to research outputs, Open Science makes scientific processes more efficient, transparent and responsive to societal challenges. It offers new tools for scientific collaboration, experiments and analysis and makes scientific knowledge more readily accessible. Many European research funding bodies (including the Dutch NWO) have underlined the importance of Open Science and strive to ensure that all publications are openly available. For example, data collected with NWO funding must be as open and FAIR as possible. If the UG has no Open Science facilities, it will be more difficult for researchers to obtain grants or publish their work. On an institutional level, the UG's performance in evaluations and rankings will fall without Open Science facilities.

2.1. Risk analysis

Risks associated with the programme and recommended remedies are described in the table below.

	Description of risk	Risk level	Impact	Remedy
1	OS practices are not sufficiently acknowledged and encouraged by the reward and recognition system, hindering widespread adoption by researchers/teachers	High	High	Close collaboration with UG's Reward and Recognition Committee on this aspect
2	Human resources shortage	Medium	High	Prioritize deliverables, extend project duration, or increase project's budget
3	Changes in the environment: staff require more support than we can offer in two years	Medium	High	Accelerate the pace of OS implementation; broaden the scope and adapt goals and deliverables; extend project teams
4	Cultural resistance	Medium	High	Show researchers positive examples and demonstrate its added value and the opportunities for innovation and impact; integrate Open Science into HR and career frameworks as an explicit element in recruitment, performance evaluation and career advancement policies
5	Open Science practices are not sufficiently facilitated by infrastructure	Medium	High	Close collaboration with people who develop and maintain the organizational infrastructure, as



				well as infrastructural parties such as GDCC, PURE, UGP and developers of RDMS on this aspect
6	Open Science is not sufficiently integrated into relevant policies, hindering implementation and undermining its effectiveness	Medium	High	Close collaboration with SER on this aspect, and participation in national networks (e.g. LCRDM, DCC implementatienetwerk, SURF)
7	Changes in the environment: government support crumbles	Low	High	Greater focus on building a strong community
8	Risk of lawsuits resulting from Pillar 1 (Taverne large-scale implementation)	Low	Medium	In the event of a local legal claim, this is immediately passed on to the Legal Office (ABJZ), which scales it up to the national level and appeals to: 1) the national project management Taverne (UKBsis) and 2) the VSNU agreements on jointly bearing legal, including financial, risks in this matter



3 Five pillars of the UG Open Science programme

The goals and deliverables are described below for each pillar. For a more detailed description of the deliverables for each pillar, see Annex 1.

3.1 Open Access (UB, CMB; lead: UB)

Unrestricted immediate access to research publications is a prerequisite for reusing the latest research insights and fostering the circulation of ideas and findings. Immediate Open Access (OA) publishing is required by all major research funders (European Commission, NWO, etc.). In addition, reaching 100% OA is a national priority in the Netherlands, and the VSNU is working on a plan to achieve this goal. Pillar 1 on Open Access will take further steps towards making all UG research outputs openly accessible, while also paying special attention to supporting new sustainable models for OA publishing.

Key deliverables (for more details, see Annex 1)

1. Reviewing the UG's OA policy
2. Improve support to comply with OA requirements of funding bodies
3. Pilot incentive fund for Open Access books
4. Establish a support fund for Diamond Open Access initiatives
5. Financial investigation of OA costs borne by faculties outside VSNU deals
6. Large-scale implementation of the Taverne Amendment

3.2 FAIR Data and Software (lead: GDCC)

Creating FAIR (Findable, Accessible, Interoperable, Reusable) research data is a guiding principle of modern scientific practice, which increasingly relies on digital systems and data infrastructures. Sharing research data and underlying materials ('open where possible and protected where necessary') makes science more reproducible, efficient and trustworthy. The recently established Digital Competence Center of the University of Groningen (GDCC) provides information and services that help researchers apply FAIR principles throughout the entire research (data) lifecycle – from grant proposal to data publication and archiving. This includes support concerning research data management plans and consent forms, guidance on which platforms to use to share data and code (e.g. DataverseNL, 4TU, DansEasy, Zenodo, Dryad) and recommended subject-specific repositories, and where to pre-register hypotheses. In addition, it will also offer guidance on research IT and choosing the digital tools that best suit the research project. The GDCC will take the lead and responsibility for execution of the deliverables mentioned below.

Key deliverables (for more details, see Annex 1)

1. Guides on FAIRification of research data and software
2. Development of terms for reuse of datasets
3. Showcase UG open datasets and software
4. Identifying Open Access options for Research Data Management Plans (RDMPs)
5. Exploring the possibilities for a University-wide course on FAIR data and Open Science practices and tools for researchers
6. Practical guide on pseudonymization of research data

3.3 Open Education (lead: UB/ESI/SER)

Pillar 3 is a collaboration between the UB, Educational Support and Innovation at the CIT (ESI), the SER and project Ruggesteun, and aims to encourage and support teachers in adopting and adapting open educational resources (OER) and reviewing existing teaching practices. Support includes training, advice, community building, tools and infrastructure with which teachers can



share and reuse quality open materials. Open Education encompasses openly licensed (i.e. freely accessible) educational materials, tools and practices, and represents a paradigm shift compared to traditional methods of education. For several years, OER have been recognized by the [EDUCAUSE Horizon Report](#) as one of the key strategic technologies and practices that will have a significant impact on higher education teaching and learning. In line with Open Science principles, OER permit no-cost access, use, adaptation and redistribution by others, with limited or no restrictions. Open Education also enables educators to reuse and create innovative and learner-centred materials, supports lifelong learning and teacher/student co-creation, and helps to keep education accessible and affordable for students. Pillar 3 is in line with the [Ministry of Education's mission & vision](#) to make teaching/learning materials as open as possible over the coming five years, the 'Versnellingsplan Onderwijsinnovatie met ICT' (specifically the Zone 'Towards digital (open) educational resources'), the UNESCO Recommendation on OER and the UNESCO guidelines for open skills/competences.

Key deliverables (for more details, see Annex 1)

1. Explore ways to incentivize the use of OER
2. Promote and explain the value of Open Education & OER
3. Develop support services for Open Education
4. Implement technical infrastructure for hosting, sharing and creating OER
5. Encourage and institutionalize open textbook publishing

3.4 Public Engagement (Science shops, Science LinX, UB, UMCG; lead: Centre for Public Engagement)

One of the goals of Open Science is to achieve maximum societal impact. Transparency of research and educational materials creates new opportunities for engaging with societal partners, fellow researchers/teachers, companies (public-private partnerships), non-commercial partners and the general public (e.g. citizen science). In close collaboration with the Centre for Public Engagement (CPE) of the University, Pillar 4 aims to create and maintain connections to society from the perspective of Open Science.

Key deliverables (for more details, see Annex 1)

1. Update and publish a UG vision on Public Engagement
2. Set up a Public Engagement community for information exchange between UG initiatives
3. Develop training for the University-wide secretaries and funding officers (who answer emails and telephones)
4. Set up a network and pilot 20 academic training sessions to support and professionalize staff in their public engagement activities (e.g. citizen science)
5. Plan and pilot a call for seed funding

3.5 Communication (Office of the University, CIT, UB, CMB; lead: UB)

Pillar 5 will develop a communications approach to generate and raise awareness about Open Science at the UG. To this end, it will apply already existing well-working communication channels and initiatives (e.g. Open Science Newsletter, Open Science Blog, Open Access Publication in the Spotlight, Open Access ambassadors at faculties) and will establish new instruments. This pillar will closely collaborate with other pillars that address OS infrastructure or support, such as Open Access, Open Educational Resources or FAIR data and software. Pillar 5 will closely collaborate with the GDCC to align both of the data-related communications approaches.

Key deliverables (for more details, see Annex 1)

1. Stocktaking of interdisciplinary differences across UG faculties on role of Open Science
2. Develop tailor-made information campaign and events for academic staff



3. Create information material and branding for Open Science-related activities
4. Annual organization of the Open Research Award

3.6 Involvement in faculties

Faculties will mainly be involved via the steering committee (which partly consists of the deans), the Open Science Community Groningen (OSCG; www.openscience-groningen.nl), data stewards and the Open Science ambassadors (see an overview per faculty [here](#)). The OSCG and the ambassadors have proven to be important sparring partners for Open Access Services and we will continue to consult them for advice throughout the OS programme. For example, the Open Science ambassadors and OSCG will be approached for advice when developing the questionnaires for stocktaking. Based on the outcomes of the stocktaking survey, the team members of the communication pillar will develop a tailor-made communication campaign for each faculty in collaboration with the faculties and, ideally, their OA/OS ambassadors. Furthermore, the team members of the open education pillar will develop faculty-specific workshops.

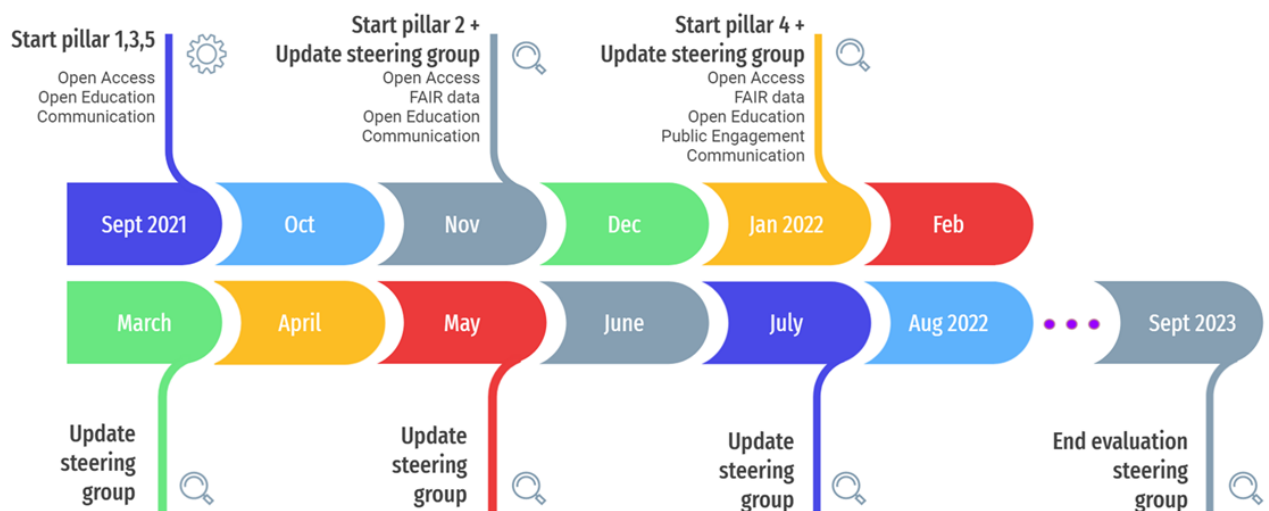
3.7 Timeline

3.7.1 Implementation phases

The Open Science programme will be implemented as a project with a duration of two years, from Sept 2021 to Sept 2023, to allow a mid-term review of Open Science progress within the UG (i.e. in the middle of the Strategic Plan 2021-2026) period. The implementation process consists of three phases:

1. Deliberation by steering group (end of 2020 – April 2021)
2. Community dialogue and brainstorming phase (Feb 2021 – July 2021)
3. Implementation phase (Sept 2021 – Sept 2023)¹

3.7.2 Visual timeline implementation

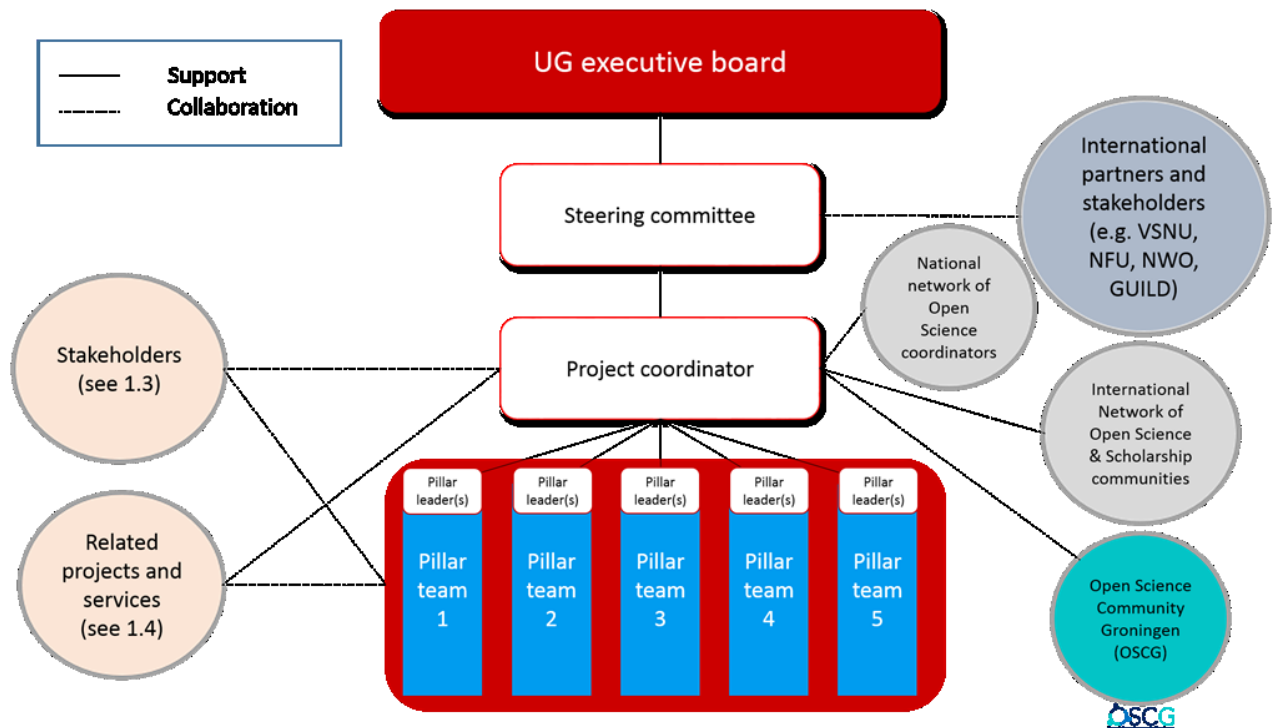


¹ Start of Public Engagement pillar was slightly delayed.

4 Finances

4.1 Governance

The governance structure was decided on by the Executive Board of the University (UG) in January 2021 (see schematic figure below).



4.2 GDCC

The Groningen Digital Competence Center (GDCC) is the first-line expertise centre for support regarding the use of research data. It offers support for IT infrastructure in the field of RDM, data science, software and Open Science. It also maintains the network of decentralized or local data stewards at the faculties and supports them with knowledge and information. The GDCC was started in 2020 as a continuation and extension of the Research Data Office and the Data Federation Hub, and it is the result of collaboration between the CIT and the UB. Both the CIT and UB have ample experience in supporting FAIR data. The GDCC receives funding from all faculties, the Executive Board of the University and a grant by the NWO. Therefore, there are no additional finances slated for the GDCC in the Open Science programme budget proposal (see 4.4).

4.3 Budget

Based on the Strategic Plan of the UG 2021-2026, an indicative budget for the four-year lifespan of the plan was mentioned, with an overall estimation of K€620 personnel costs + K€704 material costs. According to Corporate Control and the director of the CIT, this budget is available through the University Strategic Fund and IT innovation fund.

The proposed UG Open Science programme aims to remove obstacles to the adoption of Open Science by developing support services, policies, infrastructure, etc. However, it will not be able



to provide all the facilities and budget needed. Most of the change will ultimately have to be realized within existing budgets.

4.3.1 FTEs first two years

The full-time equivalent (FTE) resources for this project will be provided by CIT/ESI, the Office of the University (SER/CPE/Communication Corporate), the UB, CMB (UMCG) and Open Science Community Groningen (OSCG). Because all pillar leaders have additional tasks and responsibilities beyond the execution of the deliverables, they are compensated 0.4 FTE per pillar (with the exception of Pillar 2: FAIR data and software). In principle, all project members from the UB, CIT, SER, CPE, science shops services, etc. will work in-kind, their FTEs will be within the existing organization. However, some pillar leaders have expressed a need for additional FTEs to be able to carry out the deliverables. Therefore, in addition to the 0.4 FTE, the pillars of Open Education, Public Engagement and Communication will receive 0.5 FTE, 0.2 FTE and 0.2 FTE, respectively, as additional impulse financing for the first two years.

4.3.2 Programme management

Programme management costs are those for managing the programme, and they include elements such as programme roles, communication activities and a contingency budget for dealing with risk and change. Costs that are typically associated with realizing the change in the existing organization (staff or infrastructure in the faculties and university services) are not part of the budget and will remain implicit.

The following pages contain an overview of all activities foreseen and a detailed budget proposal. This proposal is based on the rough planning of activities. A more detailed annual plan, including a reporting structure, will be produced in the next step based on the priorities that the Open Science steering group will set.

4.4 Budget overview first two years

Impulse financing of the Open Science programme first two years

	Amount	K€ per year
University Strategic Fund 2 years	662	331
IT Innovation Fund 2 years	662	331

Total	1324	-----

4.5 Budget overview after impulse financing

In its Strategic Plan 2021-2026, the Executive Board of the University expresses its vision of the UG as committed to actively stimulating and facilitating UG researchers to practise Open Science principles (p. 12). This means a culture change is required, and we expect this to take some time, probably as much as the turnaround time of the Strategic Plan (2021-2026).

In spring 2023, the Open Science programme leader will organize a midterm review, and the steering group, in alignment with the Deans and the Executive Board of the University, will decide on how to continue the programme.



After the project ends

After the impulse financing, members and pillar leaders from the UB, CIT, SER, CPE, science shops services, etc. will keep on working in-kind, as their FTEs will be fully within the existing organization.

The FTEs for a community manager (0.5 FTE) will be reduced after impulse financing. The programme leader will most likely be needed to coordinate on the same level as the first two years: 1 FTE. The structural costs will be approximately K€105 for personnel and approximately K€15 for material costs. Faculties and the UMCG have expressed their willingness to finance the structural costs. For confirmation by the Board of Directors, please see letter no. 21/06670 ('Start en afspraken financiering programma Open Science').

Final budget remarks:

1. The contingency budget is not to be continued
2. Incentive fund Open Access books → to be decided in 2023 by the deans, after pilot (see Section 4.5)
3. Diamond Open Access → to be decided in 2023 by the deans, after the pilot.
4. Edusources licence fees (K€19; see Annex 3) → Software fund of the UG (managerial CIT)
5. Open textbook platform Pressbooks (K€10) → General Literature Budget (managerial UB)



ANNEX 1 of 4: Detailed description of deliverables

No.	Key deliverable	More detailed explanation
1	Open Access	
1.1	Reviewing the UG's OA policy	Update the green OA policy that was written in 2017. Make the new OA policy more stringent using the routes that are already available (VSNU agreements, Taverne, green OA).
1.2	Improve support to comply with the OA requirements of funding bodies	<p>Inform and support prospective grant applicants and grant beneficiaries regarding OA funder requirements. More specifically:</p> <ul style="list-style-type: none"> - Support applicants with OA budgeting during the grant application phase. - Support grant beneficiaries in complying with OA mandates during the project phase. <p>To achieve these goals, we will work with funding officers, policy advisors and project managers at faculties and institutes.</p>
1.3	Pilot incentive fund for Open Access books	Establish an incentive fund to support the publication of OA books (see Annex 2).
1.4	Establish a support fund for Diamond Open Access initiatives	Financially support Diamond OA initiatives (i.e. community-driven/non-profit publication venues that do not charge author fees) and open infrastructures (e.g. DOAJ, DOAB, Sherpa/Romeo, etc.).
1.5	Financial investigation of OA costs borne by faculties outside VSNU deals	Perform a faculty-level investigation of APCs paid by UG authors outside our consortia deals (APCs in the wild). Taking stock of how much is currently spent on OA in each faculty will allow us to evaluate: 1) the need for additional deals (e.g. targeted OA deals); 2) the need for an institutional OA fund (including the centralization of APC payments).
1.6	Large-scale implementation of the Taverne Amendment	The publisher's version of all UG/UMCG short publications (articles and chapters) will be made Open Access in Pure six months after initial publication. The UB is responsible for the execution. ABJZ provides legal support.
2	FAIR Data and Software	
2.1	Guides on FAIRification of research data and software	Guides for researchers on how to make their data and software FAIR, including information on curation and recommended repositories.
2.2	Development of terms for reuse of datasets	In cooperation with ABJZ, we will develop standards that researchers can use in cases where a CCO or CC BY licence cannot be applied. We will also focus on the relation with consent forms.



2.3	Placing the spotlight on datasets and software from the UG research portal	Exploration of ways to highlight positive examples (best practices) in a feasible way, for example by instigating a data-related award.
2.4	Identifying Open Access options for Research Data Management Plans (RDMPs)	We will write an advisory note for faculties on making RDMPs available Open Access as a way of preregistering research plans, in line with the UG research data policy (2021).
2.5	Exploring the possibilities for a university-wide course on FAIR research data management and Open Science practices and tools for researchers	With the objective of incorporating FAIR data principles in curricula, in line with the UG research data policy.
2.6	Practical guide on pseudonymization of research data	This will contain practical tips and tricks for researchers on pseudonymization of research data and will be developed in cooperation with researchers. We will also focus on the relation with consent forms.
3	Open Education	
3.1	Explore ways to incentivize the use of OER	<ul style="list-style-type: none"> - Explore the possibility of including the creation of OER in academic recognition and rewards - Develop an incentive programme with prospective funding (small grants) for creating OER (e.g. for buying time off or granting time off at the faculty level)
3.2	Promote and explain the value of Open Education & OER	<ul style="list-style-type: none"> - Develop and conduct general training sessions for teachers on OER and more specific thematic sessions on creating and sharing OER, engaging with Open Pedagogy, faculty-tailored workshops, etc. - General OER awareness-raising sessions for education specialists and teaching support staff - Create promotional materials to raise awareness about OER and OE practices, highlight the added value of OER, communicate about the support available at the UG - Create web-content and further develop OER Library Guide - Make use of existing, and explore new, communication channels
3.3	Develop support services for Open Education	<ul style="list-style-type: none"> - Develop and institutionalize support services for OE: determine the service level, staff to provide support and consultations via existing OER email address, build internal knowledge base - Develop support tools and guidelines to lower the barriers to and assist teachers with the use and creation of OER - Connect OE support services with copyright support services at the UB - Establish cooperation with other education support initiatives at the UG
3.4	Implement technical infrastructure for hosting, sharing and creating OER	<p>Implement the following platforms/tools:</p> <ul style="list-style-type: none"> - Repository for hosting OER (SURFsharekit/Edusources) - Open textbook authoring platform (Pressbooks) - Sustainability tool for permanent links (Perma CC)



3.5	Encourage and institutionalize open textbook publishing	<ul style="list-style-type: none"> - Complete the open textbook pilot - Determine the service level - Set up a workflow for the open textbook publishing services at the UG
4	Public Engagement	
4.1	Update and publish a UG vision on Public Engagement	We will write a UG vision, based on that found in the project plan for public engagement in 2018 by the head of the University museum as a starting point. This text will be published on the website.
4.2	Set up Public Engagement community for information exchange between UG initiatives	Organize a regular meeting with different parties, such as Centraal Voorlichting en Aansluiting Overleg, Co-UG, alumni relations, Aletta School of Public Health.
4.3	Develop training for the University-wide secretaries (who answer emails and telephones) and funding officers	The University-wide secretaries are the gate keepers of our University. By properly training them in Open Science and Public Engagement, as well as our funding officers, we will improve their efficiency.
4.4	Set up a network and pilot 20 academic training sessions to support and professionalize staff in their public engagement activities (e.g. citizen science)	We aim to bring together UG staff who can learn from each other and offer them Open Science academic training sessions on Public Engagement and/or citizen science activities
4.5	Plan and pilot a call for seed funding	Similar to the NWA agenda, we will plan and pilot a call for seed funding in which we will ask the general public to send in questions. Subsequently, we will ask teams of UG scientists to send in solutions to these questions. The best proposal will receive seed funding. We will collaborate with the Science Shops and other parties (e.g. Aletta School of Public Health).
5	Communication	
5.1	Stocktaking of interdisciplinary differences across UG faculties on role of Open Science	Investigate disciplinary differences on: <ul style="list-style-type: none"> - pre-existing knowledge about OS - OS research practices that may already be in place - the role OS plays in general on a faculty level
5.2	Develop tailor-made information campaign and events for academic staff	Based on the outcomes of the stocktaking survey, develop a tailor-made communication campaign for each faculty, with the faculties and ideally their OA/OS ambassador.
5.3	Create information material and branding for Open Science-related activities	Set up a general landing page, create information material (print and digital) and branding of UG Open Science
5.4	Annual organization of the Open Research Award	Organize the second edition of the Open Research Award with the OSCG in October 2021.



ANNEX 2 of 4: Additional rationale Open Access a-c

a. OA book fund rationale

The rationale behind the OA book fund is to give additional support, first and foremost, to the humanities and the social sciences, where books (both monographs and edited volumes) remain an important publication channel. Although the field of OA books is still in its early stages, this publication model is picking up and an increasing number of researchers wish to publish OA books, as exemplified by the increasing number of inquiries the UB receives via our OA inbox.

We currently spend millions on Open Access deals that only concern journal articles. What is more, the majority of the journals covered by our OA deals belong to STEM disciplines, which puts the humanities and social sciences even more at a disadvantage. Although researchers in the humanities and social sciences certainly benefit from the deals, at the moment the UG is not doing anything to finance the publication of books. Another important reason to be more proactive in the field of OA books is that they do not fall under the scope of the Taverne Amendment.

When State Secretary Sander Dekker formulated the Dutch government's OA policy in 2013 and plotted the road to a 100% OA ambition for 2020, this was not limited to OA articles in OA journals, as he also mentioned books. In EU funding requirements, OA mandates are also not limited to articles alone, but include books (e.g. Horizon Europe and NWO/ZonMw). Our OA book fund would be in line with other national developments aimed at stimulating the transition to Open Access for books, e.g. the [NWO OA book fund](#).

Increasing support for OA books is also one of the recommendations of the NPOS in its [report](#) 'Notitie - Naar een open access beleid voor wetenschappelijke boeken in Nederland'.

b. Diamond OA support rationale

What is Diamond Open Access?

The term 'Diamond Open Access' refers to peer-reviewed journals that operate under a different business model than subscription and Gold OA (pay-to-publish) journals. While the quality standards of these journals remain the same as any other peer-reviewed journal, Diamond OA journals do not charge subscription fees to readers (i.e. libraries) or publication fees to authors, so they are entirely free to access/read and free to publish in (no Article Processing Charges, APC). Diamond Open Access Journals are usually scholarly led initiatives run by and for academics.

How does the Diamond Open Access business model work?

Diamond Open Access venues have difficulties securing structural funds to ensure their long-term sustainability; they often rely on the work of volunteers and on external funding to remain operational, with funds mostly coming from university libraries, academic institutions, research funders or government grants. **NB:** Diamond Open Access Journals operate on a much smaller scale than commercial players and are usually non-profit. The operational costs of these journals are a fraction of the costs associated with Gold Open Access. For example, the UB supports SciPost (a scholarly led community-driven Diamond Open Access initiative which publishes several journals in various fields, led by UvA researchers) with an amount of EUR 3,000 per year, which is roughly the average cost of a single APC in a hybrid journal.

Who benefits from Diamond Open Access?

- Unfunded researchers: non-APC journals are an important publication venue for researchers who do not have access to 2nd or 3rd stream funds (research grants).



- Social Sciences and Humanities researchers: a large majority of Diamond Open Access Journals are found in SSH disciplines, which are traditionally underfunded when compared to STEM disciplines.
- Global South researchers: Gold OA venues are prohibitive for researchers in less developed countries. If pay-to-publish journals (Gold OA) are the only available option, researchers in the Global South risk not being able to publish their research in Open Access. The existence of diamond publication venues is therefore important to allow researchers in the Global South to partake in academic debate.

Why should the UG establish a Diamond Open Access fund?

Diamond Open Access is a more sustainable, affordable and fair model for scholarly publishing than commercial/corporate alternatives (e.g. Gold OA and transformative deals). As an academic institution committed to the realization of Open Science, the UG can do its share to ensure valid and trustworthy Diamond Open Access initiatives not only stay afloat, but also thrive and scale-up their operations. A healthy Diamond Open Access landscape is key to the future of scholarly publishing, as it provides an alternative to the domination of legacy publishers in the Open Access field – which is proving to be unsustainable for university budgets (see e.g. the ever-increasing costs of our VSNU deals).

Initiatives such as Diamond Open Access are also being supported by organizations such as VSNU, Max Planck Digital Library, ETH Zürich, Bodleian Libraries, KU Leuven (SciPost), NWO, Ghent University, Ecole Normale Supérieure, University of Göttingen, Imperial College London, University of Cambridge, University of Oxford (Open Library of the Humanities), University of California Libraries, Royal Danish Library, Koninklijke Bibliotheek, George Washington University Libraries (Punctum Books).

The UB began supporting several initiatives (e.g. SciPost, Open Library of the Humanities, Punctum Books, Opening the Future) and infrastructures (e.g. DOAJ) with the Open Access Services project (2018-2020). We would like to expand the number of initiatives we support but also establish a more systematic approach to funding diamond initiatives. To this end, the pilot would allow the project team to: i) determine a set of criteria to identify which Diamond OA initiatives to support; and ii) set up a structural Diamond OA fund comparable to that recently established by the UvA, with the intention of continuing the fund after the end of the project period.

Budget

We estimate a budget of K€50 per year; thus, K€100 for two years. To place this in context, this is half of what the [UvA](#) has allocated for its Diamond OA Fund (K€500 in total for five years; thus, K€100 per year).

Based on the recommendations of a [recent report](#) commissioned by cOAlition S and Science Europe, we expect more concerted initiatives to structurally support Diamond OA initiatives, at both the national and international levels. The allocated budget would allow the UG to contribute to such initiatives.

c. The University Library has an Open Access team consisting of 2.3 FTE. This team will support the pillar leader in-kind within the existing library organization.

d. The estimate of the incentive fund for Open Access books is based on [this report](#) by the Stuurgroep NPOS, which estimates the annual number of academic monographs produced in the Netherlands to be 700. Of this, we expect that around 70-80 (10-11%) will be authored by UG and UMCG scholars. The report estimates the average BPC (book processing charge) to be K€8. BPC is an author-facing fee charged to publish Open Access books. We expect to start by



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funding 30 books in the first year and 40 in the second (as UG authors become aware of the fund, we expect applications to grow).



ANNEX 3 of 4: additional rationale Edusources licence

Having a well-functioning OER repository such as Edusources connected to a search engine and provided with institutional support is essential for the development of Open Education infrastructure at the UG and for the success of all Open Education pillar deliverables. Such a repository enables the hosting and sharing of digital and other open materials produced by UG teachers and provides them with an opportunity to form professional communities both within interdisciplinary groups at the UG and in collaboration with other participating institutions.

There are many ‘repositories’ of Open Educational Resources (e.g. see the [guide to finding and using OER](#) by the Open Professionals Education Network), but only a few are general ones with materials suitable for higher education, while still fewer provide limited hosting/sharing services. Most university teachers will start out looking for OER using free resources and search engines such as Google, [MERLOT](#), [OER Commons](#), [MIT OpenCourseWare](#), [OASIS](#), etc. However, when searching for OER using Google, it is necessary to check for statements giving permission for reuse (e.g. [Creative Commons license](#)). Many materials offered through Google only allow personal use for non-commercial purposes, meaning that teachers can only provide their students with a link to the site rather than reusing, revising and integrating the materials directly into their own courses. In their search for reusable resources, teachers can turn to platforms such as [MIT OpenCourseWare](#), [MERLOT](#) and [OER Commons](#). MIT OpenCourseWare, for example, is a free search tool for online publication of open materials from over 2,500 MIT courses. However, it is an MIT-specific repository, which aims to showcase MIT-developed courses and it does not include the possibility to add third-party materials (in our case, the output of UG teachers). Other large platforms, such as MERLOT, OASIS and OER Commons, are referratories rather than repositories of OER and are used for showcasing OER hosted by other (institutional) repositories, allowing for very limited uploading of teacher output.

[Edusources](#) (formerly developed as SURFsharekit) provides a different type of service, combining a repository and a platform for digital (open) educational resources for Dutch educational institutions. On this platform, instructors, librarians and students can search and share a diverse range of digital educational resources, all in one place. Educational resources are stored and made available within SURF’s safe and reliable platform. Using Edusources, UG staff can thus upload collections of files (books, slides, syllabi, articles, images, videos, courseware, theses, etc.), organize them in hierarchical order (if they are a part of a larger collection/course), and filter them by university or by educational level. For an overview of all functionalities, see this [edusources infographic](#). In order to widen the outreach of our teachers’ materials, the resources submitted to the Edusources repository will be connected to search engines by adding the references to all these materials to larger international referratories such as MERLOT, OER Commons, etc.

Advantages for using [Edusources](#) (formerly SURFsharekit) include:

- SURF offers the repository as a service, among which benefits include: 1) they can assist with data extraction in the search engine if the need arises (i.e. making materials from the UG easier to find), and 2) work on adapting the platform for potential integration into the Learning Management Systems (LMS). Promoting OER/Edusources could be part of the process for teachers who have to transfer their course to the new LMS and probably will do some redesigning of their course as well. Using Edusources for finding new material could work very well if it is easily accessible in the new LMS.
- As a Dutch repository, it includes teaching materials in both Dutch and English. This results in better accessibility and findability of Dutch OER and might stimulate teachers to upload more Dutch materials adapted to the local context and educational requirements.
- UG is one of the pilot institutions involved in the development, testing and improvement of Edusources/SURFsharekit. Most Dutch WOs and HBOs have been



- participating in this development and will be implementing this service (e.g. VU, UU, WUR, UM, EUR, TU Delft, TU Eindhoven, quite a few universities of applied sciences).
- Edusources is provided by SURF as a repository, ‘as a service’ which includes institutional support, an acceleration programme, regular user meetings, a troubleshooting service and experience exchanges between different institutions which share the same issues, allowing the UG to offer more full-service solutions at its end as well.
 - Edusources allows institutional administrators (library specialists) to execute quality control of the materials submitted by checking the copyright status of the resources and by ensuring the metadata provided is correct. This, in turn, ensures better visibility and findability of OER developed by UG teachers.
 - In a global repository, the materials of UG teachers would be lost among materials of varying quality from thousands of institutions. In the SURF repository, the end user can filter the search results by level of education (tailored to the Dutch educational system), but also by institution, which makes it easier for the UG to profile itself and showcase its teachers’ educational output.
 - Having the output condensed in one place also makes it simpler to refer to as a corpus of work and for impact analysis possibilities.
 - Developed by and for Dutch universities, this platform allows teachers to work in cross-institutional and interdisciplinary professional communities and collaborate with their peers. Edusources can also be used for sharing of open and semi-open materials among the participants of the University of North and students involved in co-creation of educational materials.
 - Some UG teachers and staff are already involved in national cross-institutional collaborations/projects and require access to the Edusources repository to share their project input and the educational materials developed (e.g. [PleitVRij](#) and VIP code projects, among others).
 - With Edusources, participating institutions also obtain some quality control over the back-end, which is important to tailor it to UG teachers’ needs and technical skills.
 - Educational resources are stored and made available within SURF’s safe and reliable platform. Other repositories might allow for different copyright provisions and entail privacy/data collection issues.
 - SURF products and services are already compliant with the local [privacy/data collection](#) regulations and have been developed according to NL-specific and regional standards.

Other useful links:

- Link to the search portal: <https://edusources.nl/en/>
- [General information](#) about the platform and its features
- [Infographic](#) on Edusources, what it offers and how it works
- [General information](#) about the repository (SURFsharekit) and its features
- Additional functions for professional [communities](#):
 - Making open and semi-open resources available. Possibility of publishing open and semi-open educational resources of study programmes and resources from collaborations.

Showcasing educational resources by publishing collections. Professional communities have their ‘own’ page on which they highlight their resources and present the various collections.



ANNEX 4 of 4: Goals and resources OSCG per year

		Description	Scope	Categories	Deliverables	Resources
Tasks of the OSCG community manager	Expanding of community	<ol style="list-style-type: none"> (1) Attract new members, in particular from faculties that are as yet underrepresented in OSCG (2) Include members from Hanzehogeschool Groningen and citizen scientists 	UG/UMCG (secondary: Hanzehogeschool Groningen and citizen scientists)	Community building, increasing impact	250+ members	
	Communication	<ol style="list-style-type: none"> (1) Create and distribute monthly newsletter to keep OSCG members informed on OS developments and events (2) Our newsletter is frequently used by others (RDM support, Public Engagement) to reach their target audience 	UG/UMCG (open to others)	Community building, exposure, informing, OS uptake	12 newsletters	
	Expanding and maintaining network of OS stakeholders	<ol style="list-style-type: none"> (1) Informal meet-ups with stakeholders and (inter)national OS organizations and front runners (UG/UMCG, NPOS, VNSO, NWO, OSC-NL, OSF, reproducibilitea.org) (2) Attend OS events (preferably as speaker) 	UG/UMCG National International	Exposure, shaping policies		
	Social media	<ol style="list-style-type: none"> (1) Maintain and upgrade OSCG website (2) Implement Open Science Expertise Hub (member page) (3) Use Twitter account to communicate about OS with Groningen members, and a national and international audience 	UG/UMCG National International	Community building, exposure, informing	Up-to-date website, 650+ followers on Twitter	
	OSCG teaching & support	<ol style="list-style-type: none"> (1) Teaching researchers/teachers about Open Science and help them with practical knowledge (e.g. how and where to pre-register a study) (2) Teach students the principles of Open Science (3) Serve as an Open Science help desk 	UG/UMCG	Support/sharing knowledge		



Tasks of OSCG consultants	workshops	<ul style="list-style-type: none"> (1) Organize 6 workshop per year on OS topics, prioritized by Groningen members (on-demand; see www.openscience-Groningen.com for current schedule) (2) Write and share brief report on the workshops (+materials) (3) On-demand workshops for various UG departments 	UG/UMCG (open to others, also via streaming)	Community building, OS uptake	<ul style="list-style-type: none"> (1+2) 6 OS workshops, 25+ attendees each, materials shared (3) 10 on-demand workshops in various departments 	
	Writing blogs	<ul style="list-style-type: none"> (1) We aim to interview at least 100 OSCG members to make an inventory of bottlenecks in adopting OS practices + getting to know Groningen members (2) Summarize interviews in estafette-blog (3) Writing report on common hurdles/needs in adopting OS practices 	UG/UMCG (open to others)	Community building, exposure, inventorize needs/hurdles	Report on needs/ hurdles, 12 blog posts	
	Facilitate matchmaking	<ul style="list-style-type: none"> (1) Connect members seeking specific OS expertise with members willing to share this expertise in informal meet-ups (2) Write and share brief reports of the meet-ups 	UG/UMCG	Community building, OS uptake	Facilitate 20+ informal meet-ups among OSCG members	
Contingency budget						
	OSCG community manager					0.5 FTE
	Material costs					15k€