Stories of implementation from Norway

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RCN Open Science policy - 2020

…make a policy that embraces the different aspects of open science and the RCN's ongoing activites

… encourages the Norwegian researchers and institutions to increase the degree of open science

…propose measures to strengthen open science and innovation

…define and clarify the roles between the Research Council and the research institutions

Measures in the RCN policy

- Training and competence

- Testing open science and innovation

- Access to and reuse of research findings

- Measures to evaluate and merit researchers and research

- Data infrastructure

- Socially responsible research and innovation

- Stimulate increased openness in inovation processes

- User interaction

- Citizen science

- Communication and exploitation of research results

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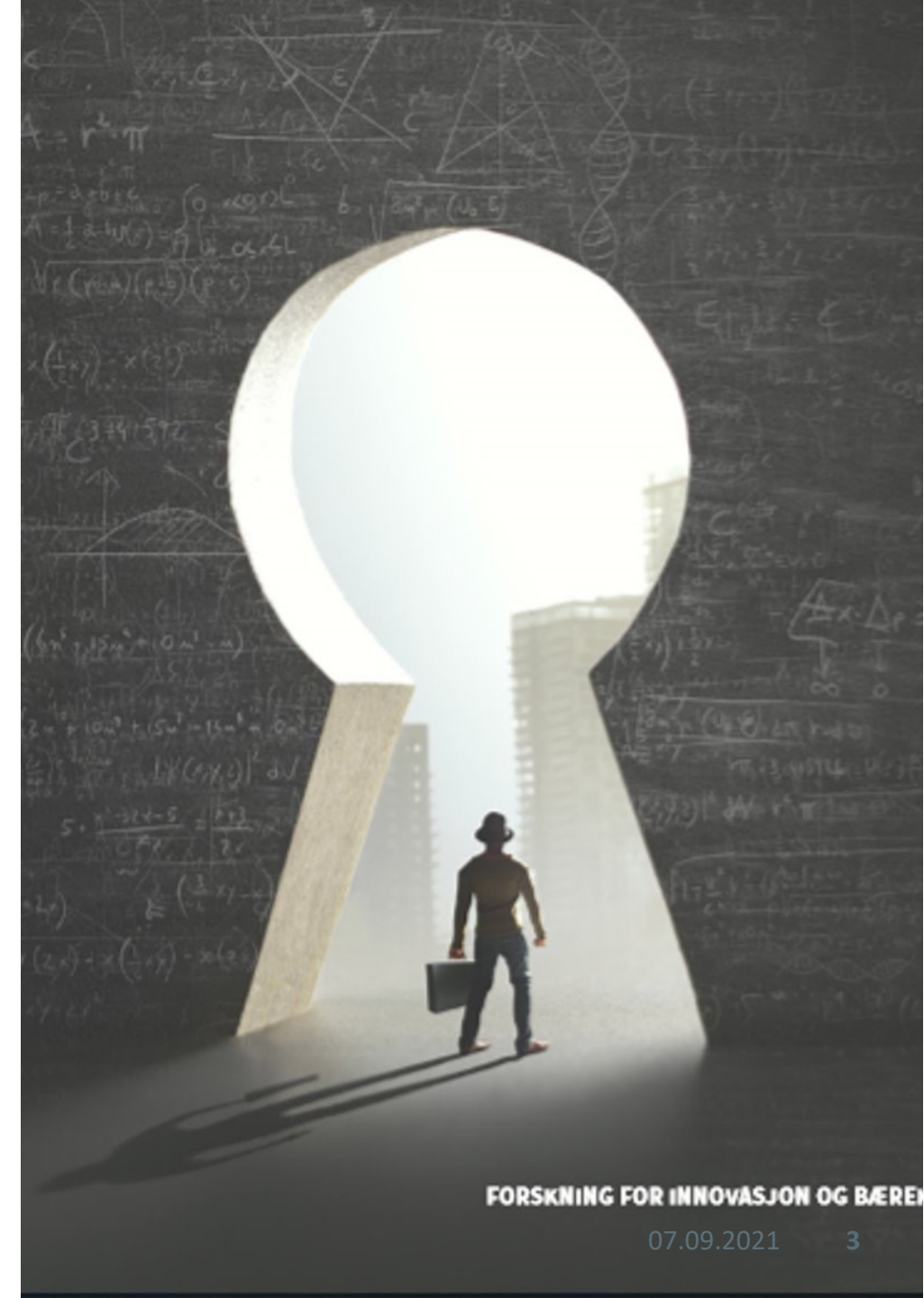
Stories of implementation: Open access publishing

- 2021: all scientific articles must be made available immediately, **without embargo** and with an **open license that permits reuse** of the publication

- It is the **Project Owners/ Research institutions** which must ensure that the researchers retain the right to make an Author's Accepted Manuscript (AAM) version available of all articles deriving from the funded project

- Publishing costs: The RCN finance publishing indirectly (through overhead) - the institutions handle publishing costs when they arise

Stories of mplementation: FAIR data

- The Project Owner shall ensure that all research- generated data are stored in a secure digital archive for at least 10 years after the conclusion of the contract period

- The R&D-performing institution must develop a data management plan (DMP) for the projects that receive funding

- The DMP must be delivered in connection with the revised grant application

- A final version of the DMP is delivered in connection with the final reporting at the end of the project

- Developing guidelines for how to check DMPs in line with international recommendations

se_rdm_practical_guide_final.pdf (scienceeurope.org)

Citizen science and ethical involvement

- The EU has recently shifted its approach to research and innovation to focus on ambitious missions that will require more involvement of citizens

- PRO-Ethics is a 4 year project funded by the EU H2020 scheme, where the RCN participate.

- Aim is to facilitate more relevant, fair and effective research and innovation activities, including an ethics framework and guidelines for participation

Resource: SVI_policy_brief_2.pdf

Research assessment - NOR-CAM - A framework for recognition and rewards in academic careers

A need for change because:

- Open research is about to become the "new norm"

- Assessing and recognising a greater breadth of competencies

- The need to reduce and modify the reliance on quantitative publication metrics

NOR-CAM_short_English.pdf

Working group's mandate:

- How the use of **bibliometric analyses** and indicators can be included in assessments of researchers and research.

- How **openness** can be assessed at various stages of the research process.

- How published works **other than traditional academic articles**, chapters in anthologies and monographs, as well as datasets, source codes, software and other research output can be included in an assessment.

- What an appropriate **implementation of DORA** could mean in practice.

- **Multilingual dissemination** of research (the Helsinki initiative).

- In manuals for appointments and promotions it will be necessary to assess how the Open Science Career Evaluation Matrix (**OS-CAM**) can be applied in a Norwegian context.'
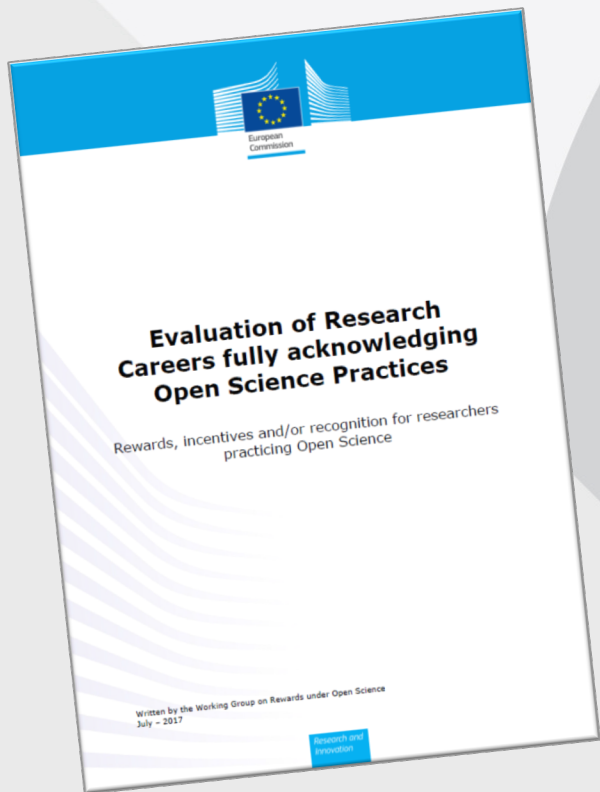
International inspiration

A new research assessment framework is based on
Six principles:

1. Measure quality and excellence through a better balance between quantitative and qualitative goals

2. Recognise several competencies as merits but not in all areas at the same time or by each employee

3. Assess all results, activities and competencies in the light of Open Science principles

4. Practice transparency in the assessment and visibility of what should be recognised as merit

5. Promote gender balance and diversity

6. Assist in the concrete practice of job vacancy announcements and assessment processes locally

NOR-CAM - Norwegian Career Assessment Matrix

Column 1:
Six competence areas to be assessed

Column 2:
Examples of results and competences

Column 3:
Documentation

Column 4:
Reflection

1. Area of competence	2. Results and competencies (examples)	3. Documentation	4. Reflection
A. Research output	-Published works -Datasets -Software -Methodologies -Artistic results -Research reports	CRIS systems (e.g. Cristin) and other databases	Reflection on the relevance and quality of the results. Emphasis is placed on open access to published works and other results, as well as whether the data adhere to the FAIR principles.
B. Research process	- Leadership and partici-pation in research groups -Working across disciplines - Research integrity/RRI - Editorial activity - Peer reviews - Building consortia - External funding - Development of re-search infrastructure -Leadership and partici-pation in clinical trials	CRIS systems and other databases. Narrative CV system with links to source data.	Reflection on roles and relevance. How and why various actors within and outside academia have been involved in the research process. Emphasis is placed on transparency in the research process.
C. Pedagogical competence	- Planning, execution, evaluation and devel-opment of lectures and supervision of students - Participation in the development of edu-cational standards in academic communities - Mentoring - Devising and sharing learning materials	CV system with links to source data. Institutional registration of lecturing activity. Pedagogical portfolio.	Reflection on formal and informal compe-tence and experience. Emphasis is placed on open education and the sharing of educa-tional resources.

1. Area of competence	2. Results and competencies (examples)	3. Documentation	4. Reflection
D. Impact and innovation	-Innovation -Entrepreneurship and commerciali-sation -Social innovation -Innovation in the public sector -Citizen science -Textbooks -Publishing activity -Research reports and studies -Application of research in public administration and industry	CRIS systems and other databases. Altmetrics. Narra-tives and impact stories. Patents and licences.	Reflection on the rel-evance and effects of activities for society, as well as external contributions to research. Sharing of research and educational re-sults with the general public and others.
E. Leadership	-Institutional and de-partmental leadership -Leadership in academic networks and projects -Leadership outside academia -Leadership in panels and other committee work	CV system with links to source data, CRIS systems and other databases, narratives.	Formal and informal leadership, reflection on roles, processes and effects. Contribution to strate-gies and policy devel-opment in relation to open science.
F. Other experience	-Experience and competence from sectors outside academia. -Courses and disci-pline-related development work.	CV system with links to source data.	Reflection on how these experiences contribute to the competence in general.

Who does what?

- **The institutions:**
  - ✓ NOR-CAM and the principles behind it should be supported by the institution's management and be incorporated into the institution's career and HR policy.
  - ✓ The institutions should update their guidelines for the announcement of academic positions and for assessment in connection with employment and promotion.
  - ✓ Scientific assessment committees should be followed up to ensure that the new system is implemented in practice.

- **Academic staff:**
  - ✓ Use NOR-CAM to document achievements and competencies with components from the entire range of academic activities.

- **Funders:**
  - ✓ Use NOR-CAM as a basis for assessing applicants and project participants' competencies when assessing research projects.

- **Authorities:**
  - ✓ Ministry of Education and Research: incorporate the principles of NOR-CAM into the new national framework for the evaluation of Norwegian research and higher education.
  - ✓ Directorate for ICT and joint services in higher education and research: Develop a module that makes it easy to import, register and retrieve documentation of results and competence ('automagic CV system'