

Pitch proposal: Pitch for two task groups for the NPOS project 'professionalizing education and training on open science and data stewardship' (September 2019-September 2020)

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1. Goal (problem definition, solution-oriented approach) and delimitation of the subject

In the past years, it has become clear that there is a large need for and shortage in individuals with open science and data stewardship expertise available within research organizations. This is felt in all research domains and also transcends the institute and even the national level. In order to prevent that open science initiatives hamper and to accelerate the implementation of open science and data stewardship, researchers, research assistants, data professionals and policy staff must be familiar with its content, and need to take up their responsibilities and tasks. This asks for competent staff.

The current project focuses on national coordination on the competences and learning outcomes ('eindtermen') for data professionals, as well as on training in data stewardship in the context of open science. We build upon the widely supported outcomes and recommendations of two previous projects and their final reports that were published in 2019, i.e. the [ZonMw data stewardship project](#) and the [LCRDM data stewardship project](#). Building on the community-endorsed competencies and skills for data stewardship of the [ZonMw data stewardship project](#), we will now work towards formal recognition and implementing these competencies and skills in Dutch organisations.

The project will integrate the challenges, efforts and output of various national initiatives and organisations into a national plan on professionalizing data stewardship in the Netherlands, thus preventing duplication and reinventing the wheel. Stakeholders such as Promovendi Netwerk Nederland (PNN), Vereniging van Universiteiten (VSNU), Vereniging van Hogescholen (VH) and SURF will provide significant in-kind contributions to the project.

2. Why is this issue institute-transcending?

The project aims to result in obtaining formal agreement on competences and learning outcomes for data professionals by relevant Dutch national stakeholders, including the willingness to actively incorporate them in their policy (implementation). Such agreement is needed to enable developers of educational programs to develop (modules for) curricula for future data professionals, researchers and policymakers. National coordination will result in coherent education, training and HR policy. It is a precondition for efficiency in manpower needed to implement open science and data stewardship, that by definition will then also have a high degree of reusability of products and output.

3. Deliverable, output, what is the expected yield? (the "product" + rough outline)

Aim 1. National coordination on the competences and learning outcomes ('eindtermen') for data professionals supporting researchers in activities related to data stewardship in the context of open science.

The competences and learning outcomes drafted out by the previous [ZonMw data stewardship project](#) have been widely endorsed already. In this project, however, we aim to take the next step, i.e. obtaining formal agreement on those competences and learning outcomes by relevant Dutch national stakeholders.

Deliverable 1 (= task group 1). An **overview of competences and learning outcomes** for data professionals supporting researchers in activities related to data stewardship in the context of open science that is **endorsed by the national stakeholders**.

For aim 1 the target audience of the deliverable includes (a) policy makers at universities (WO) and universities for applied sciences (HBO), and their umbrella organizations ('koepels'), e.g. VSNU, VH and NFU, that are specialized in educational programs, and (b) developers of educational programs.

Aim 2. A well-annotated and searchable overview of training in open science and data stewardship for the scientific community.

Deliverable 2 (= task group 2).

A. **An inventory of existing training related resources** (websites, blogs, articles, existing course materials) for data professionals.

B. **A strategy and design for an interactive tool** that explores the knowledge, skills and abilities (KSAs) and learning objectives (LOs) for data professionals. This includes (self-)assessment, identifying gaps and reference to existing resources (identified under A) to bridge these gaps. This effort includes exploring potential developers/maintainers of such a tool.

For aim 2 the target audience of the deliverable includes staff members of universities (WO) and universities for applied sciences (HBO), who decide about the portfolio for training for data professionals, researchers, and policymakers.

Stakeholders such as Promovendi Netwerk Nederland (PNN), Vereniging van Universiteiten (VSNU), Vereniging van Hogescholen (VH) and SURF will provide significant in-kind contributions to the project.

4. What kind of expertise or competencies are necessary to set up a task group? And how much funding is needed?

For the execution of the project deliverables, task groups are created, coordinated by project members Mijke Jetten, Celia van Gelder and Salome Scholtens. The task groups **consist of people active in the field of research data management, data stewardship and open science, representing the broad fields of (competences of and training for) data professionals**. Experts from all scientific domains are needed.

We specifically want to involve **end users (teaching and/or needing training)** as well, i.e. data professionals, researchers, and policymakers in the field of open science and data stewardship. Experience with **competence development and/or developing training** is appreciated, as is the involvement of **researchers**.

With the deliverables, the responsible parties in the context of the universities (WO) and universities for applied sciences (HBO) in the Netherlands can further develop their range of education and training for data professionals, including working towards quality requirements and formal certification/accreditation. Potential first steps could be defining stakeholders for educational programs and their target group, as well as converting the strategy and design for the interactive tool into building the actual tool itself.

5. Estimated duration (max 2 months, if reasonable) and preferred planning (desired starting date, date of completion)

December 2019 – September 2020. Actual hours to be decided in/by the task group, but as each of the task groups as a team produces the project deliverables, active contribution is essential.

6. What is currently known or has already been undertaken and why is this information insufficient?

This project is one of the projects of the National Platform Open Science (NPOS) (project F), in cooperation with the National Coordination Point RDM (LCRDM), ZonMw and Open Science and RDM-focused stakeholders in Dutch society.

For this project, we build upon the widely supported outcomes and recommendations of two previous projects and their final reports that were published in 2019, i.e. the [ZonMw data stewardship project](#) and the [LCRDM data stewardship project](#).

This project takes on the recommendations of the [ZonMw data stewardship project](#):

1. It will depart from the ZonMw function description and competence definition for three types of data stewards. Relevant next steps could be differing in prior educational level (bachelor/master/PhD) and function level (junior/senior) as well making efforts to embed data stewardship in the formal function profile structure of data professionals (VSNU, UFO and FUWAVAZ).
2. Use this function description and competence definition for three types of data stewards as a basis for a (self-)assessment tool for data stewardship, including available training and learning materials. A next step could be exploring how such a tool could aid universities (WO) and universities for applied sciences (HBO) in assessing the maturity of data stewardship in their organization.

Additionally, the project will link with/continues the work done by the National Coordination Point RDM (LCRDM), among others the report of the [LCRDM data stewardship project](#) and the current activities of the [RDA adoption grant/23 things project](#). It will also seek cooperation with relevant stakeholders at the national level, such as the Dutch organisations for higher education, NLQF, DTL data steward interest group, the Health-RI community, the NFU data management group, and the international communities of RDA, EOSC and FAIRsFAIR, as well as GO FAIR, GO TRAIN and the ELIXIR training program among others. We will explore certification of trainings and professional roles, and among others with the Go FAIR Foundation first contacts are already established.

In the NPOS context, we will collaborate and align where appropriate with the other projects, most notably with projects H and E. The goal of the overall NPOS project is the proper securing of open science and data stewardship in Dutch research institutions and other science organizations. This will be reached via a coordinated structural offer of up-to-date basic knowledge and information about open science and data stewardship, open science and data stewardship training, training programs for lifelong learning, and a clear valuation system of open science professionals, including career prospects.