1. Background

Research support staff, such as data stewards, IT support staff, librarians or policy officers, often have different levels of understanding of Research Data Management (RDM). However, they need to collaborate closely to offer state-of-the-art support for researchers wishing to do responsible RDM. The 23 Things: Libraries for Research Data resource that has been developed by the RDA’s Libraries for Research Data Interest Group can act as a shared reference tool that enhances mutual understanding and improves collaboration in the Netherlands. It can also be used for quick reference and as a guideline for training. We propose to update and adjust the 23 Things to the above-mentioned audiences and stimulate nationwide adoption.

Our project is one of 8 projects selected by RDA Europe for funding following its Adoption Open Call.

RDM is part of the rapid developing transition towards Open Science in the Netherlands. The GDPR, FAIR and the Dutch Code for Scientific Conduct lead to a growing need for information, training and support. Adapting and updating the 23 Things is not only relevant for the Dutch community, but also for the international community. Our project results in new, updated and adjusted versions of the 23 Things: Libraries for Research Data to match the Dutch RDM context and recent RDM developments in Europe, and aimed at broader target audiences than just data librarians, who were the main audience for the original 23 Things.

Creating these new versions in consultation with the many different RDM stakeholders in the Netherlands will result in improved cooperation at the national level and a common and mutual understanding of RDM among a very diverse set of RDM practitioners and supporters (e.g. data librarians, data stewards, IT specialists, policy officers, researchers, PhD and Master students). The new versions of the 23 Things will also be used as a basis for RDM training. There isn't a national framework for RDM training in the Netherlands yet. The new versions and the process that will lead to their creation will result in coordinated training efforts and a consensus of what should be included in RDM courses for different audiences.

A series of blogs on the LCRDM and institutional platforms will promote the project, its progress and results. All materials and outputs (written case studies, final reports etc.) will be made publicly available. Therefore, the project will also have impact at the European and international level, particularly if it inspires others to follow in our footsteps. The project and its results will be presented in an RDA webinar and/or at an RDA plenary session, and other relevant conferences. At
least one article will be published in a relevant international journal such as the CODATA Data Journal.

A proposal will be formulated to keep the final results of the projects updated and sustainably accessible for a minimum of 4 years.

2. Alignment

For this project, a new LCRDM task group (RDA project) was created (see section 8. Involved organisations). Various research organisations in the Netherlands will be involved in adopting and testing the proposal (see section 3. Goals). These will be reached via the LCRDM Advisory Board and LCRDM Pool of Experts, currently consisting of over 180 persons from 61 organisations. LCRDM closely cooperates with other national RDM stakeholders, like the UKB Work Group Research Data, Research Data Netherlands, Netherlands eScience Center, Dutch Techcentre for Life Sciences and Data4LifeSciences. Special connections will be made with the national organisation of PhD students PNN and GoFAIR-NL.

3. Goals

Together with the relevant communities and stakeholders we will work towards the following goals:

- The (initial Dutch translation of) 23 Things is updated with resources relevant to the Dutch and European context
- The 23 Things is adapted and translated into versions for various target audiences; this will facilitate practical support and training to these audiences
- Support staff from different backgrounds and with different levels of expertise can reach a common level of understanding of the Dutch RDM landscape
- Due to a nationwide approach, the relevance and implementation will be broad and the expected impact high
- The outcome and the process leading to it will help other European organisations to adopt the 23 Things

The proposed target audiences for the updated 23 Things are:

- Data stewards
- IT support staff and IT specialists
- Data and subject librarians
- Policy officers
- Researchers, PhD candidates and Bachelor/Master students

Communities and stakeholders that we at least propose to involved are:

- Dutch Universities (for Applied Sciences)
- Dutch research organisations
- Dutch data repositories DANS, Dataverse and 4TU.researchdata
- Dutch Data Steward Interest group
- RDA-NL-node, RDA Libraries for Research Data IG, and RDA Education and Training on Handling of Research Data IG
- Dutch National Coordination Point Research Data Management (LCRDM), and its extensive ‘pool of experts’ network
- Dutch UKB (Library) Work Group Research Data
We are going to connect to the proposed target audiences, communities and stakeholders via existing networks and personal contacts. An important medium is the above-mentioned LCRDM Pool of Experts.

4. Objectives and results

Our project consists of the following four phases. The results are formulated in terms of project deliverables.

Phase 1. Creating a nationwide commitment

- The final project proposal will be shared within the LCRDM pool of experts and with other relevant stakeholder groups in the Netherlands, including the RDA Netherlands Node, to prepare a nationwide adoption and implementation plan
- The LCRDM Task Group core team will be extended, aiming at representing the various research organisations and RDM stakeholders in the Netherlands
- Potentially relevant target audiences for the new versions of the 23 Things within the (Dutch) community will be involved at this stage

Deliverable phase 1: adoption and implementation plan (including target audiences and blueprint/preparation steps for phases 2, 3 and 4)

Phase 2. Adjusting the 23 Things content

- The text will be updated according to recent RDM developments, such as the FAIR principles, the GDPR, and Open Science in Europe
- Links and references will be changed to reflect Dutch or European initiatives and resources.
- Different (adjusted) versions of the 23 Things will be produced aimed at different target audiences (such as students, researchers, IT staff and data stewards)

Deliverable(s) phase 2: reviewed version(s) of the 23 Things (adapted to Dutch / European situation and to different target audiences; number depends on the needs; in consultation with RDA/Working Group)

Phase 3. Getting the 23 Things adopted

- RDM librarians (target audience of the original 23 Things) will be paired with other relevant target audiences (as listed above), to test the potential adoption of the new versions of the 23 Things in their daily practices
- RDM librarians will be paired with RDM training coordinators, to test the potential adoption of the new versions as a basis for RDM training in the Netherlands
- The usefulness and potential use of the new versions will be tested in consultation with various stakeholder groups in the Netherlands, such as the UKB Working Group Research Data, the Data
Steward Interest Group, the Open Science Communities, the PhD student community, and through existing training efforts (e.g., the RDNL Essentials 4 Data Support training and institutional training for students and researchers)

**Deliverables phase 3**: use cases and recommendations for use of the 23 Things (in daily practice (reference tool), in training and for different stakeholders)

**Phase 4. Dissemination of the final new versions of the 23 Things**
- Create a Zenodo community to broadcast information on the project, and post updates and deliverables, including the final new versions of the 23 Things once tested and proved useful to the Dutch RDM community
- The Zenodo Community will include description of the methods and results for those who may want to adjust and update the 23 Things to their own context
- For broadcasting our Zenodo community, we will use the various existing national and international digital newsletters on RDM and the LCRDM website/platform
- We aim at broadcasting deliverables via for instance reference cards, (poster) presentations, webinars etc. and - if accepted - a use case paper in a data journal.

**Deliverables phase 4**: Zenodo community, guidelines for adopting the 23 Things in other contexts, promotion material, sustainability plan

### 5. Activities and timeline

For practical activities and the project’s timeline to achieve the above-mentioned objectives, as described in the project’s working plan and gantt chart.

### 6. Performance measures

We will measure our performance based on the realisation of the steps drafted in the project’s working plan and gantt chart, including the formulated deliverables. This includes dissemination of the deliverables via a public Zenodo community, to allow the community to follow the project and its progress. Changes and unexpected outcomes (including delays) will be discussed with the project’s consultation committee.

### 7. Resources

The budget consists of:
- Staff efforts of core team project members and involved people from the Dutch RDM community (both requested and as in-kind contribution)
- Travel costs for team meetings and working sessions.
- Costs for organising events (kick-off event, face-to-face meetings, final events; such as location, materials, catering) (both requested and as in-kind contribution)
- Costs for dissemination materials (such as posters, flyers, reference cards (both requested and as in-kind contribution)
- Costs for website and app development (both requested and as in-kind contribution)

For more detailed information, see the project’s budget.
8. Involved organisations

The project is hosted by the National Coordination Point Research Data Management (LCRDM). Set up in 2015, the LCRDM is a Dutch national network of experts in the field of research data management (RDM). It is a joint, bottom-up effort that makes the link between policy and practical solutions. Within LCRDM, experts from various Dutch academic and research organisations and disciplines work on RDM subjects that are too big for one organisation to tackle alone and that need an actively coordinated national plan of action.

To that end, LCRDM brings together, among others, research support staff, policy makers, IT specialists, and managers of various research institutes and research funding organisations. Experts typically work together in short term Task Groups, to deliver, within brief periods of time, products such as advice, inventories, guidelines, handouts, decision trees, and/or to organise national (expert)meetings. The LCRDM products mainly aim at research support staff to enable them to assist and guide PhD and master students and researchers in good data management during the full research life cycle.

In the Netherlands, the LCRDM coordinates and facilitates collaboration between the various RDM stakeholders. The goal of the LCRDM is to make RDM a self-evident part of education and research practice in the Netherlands, within five years from now. RDM is considered an important vehicle to support the transition towards Open Science.

For this project, following the structure of LCRDM task groups, a new task group was established (RDA project), thus creating the core team for the project. This core team has the following members and roles. The core team is responsible for the adequate and timely execution and completion of the project, including reporting back to the funder (RDA) and the consultation committee.

- **Mijke Jetten**, PhD, Radboud University Nijmegen; chair; responsible for phase 4
- **Ingeborg Verheul**, LCRDM; process and budget controller; responsible for phase 1 and 4
- **Fieke Schoots**, PhD, University Leiden; responsible for phase 1
- **Maria Cruz**, PhD, Vrije Universiteit Amsterdam; responsible for phase 2
- **Mateusz Kuzak**, PhD, Dutch Techcentre for Life Sciences; responsible for phase 2
- **Ellen Leenarts**, DANS; responsible for phase 3
- **Carlos Teijeiro Barjas**, PhD, SURFSara: responsible for phase 3
- **Boudewijn van den Berg**, LCRDM; responsible for making notes

Additionally, a consultation committee will be established, consisting of members of the various targeted audiences and relevant stakeholders. The consultation committee allows for an (in)formal communication between the project and its core team and the project’s stakeholders and it is the responsibility of the core team to regularly ask input from the consultation committee.

9. Dissemination

As mentioned before (section 4. Objectives and results), the project will disseminate its outcomes via four types of deliverables:

- **Deliverable phase 1: adoption and implementation plan** (including target audiences and blueprint/preparation steps for phases 2, 3 and 4)
- **Deliverable(s) phase 2**: reviewed version(s) of the 23 Things (adapted to Dutch / European situation and to different target audiences; number depends on the needs; in consultation with RDA/Working Group)
- **Deliverables phase 3**: use cases and recommendations for use of the 23 Things (in daily practice (reference tool), in training and for different stakeholders)
• *Deliverables phase 4: Zenodo community, guidelines for adopting the 23 Things in other contexts, promotion material, sustainability plan*

Deliverables will be disseminated in the following way:
• At the national level, the project will be disseminated via the LCRDM community. This will be particularly important early on to attract potential users
• At the international level, the project will be disseminated via a Zenodo community, which will be set up at the start of the project
• The project and its deliverables will also be disseminated via (poster) presentations, webinars and - if accepted - a use case paper in a data journal
• Any exposure RDA Europe could provide throughout the project’s duration would be helpful, via e.g. its website, mailing lists, and social media channels