National Coordination Point
Research Data Management

Implementation plan LCRDM 2018 and beyond

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1. Introduction

This *Implementation Plan LCRDM 2018 (and beyond)* describes a new way of working adopted by the National Coordination Point Research Data Management (LCRDM) in 2018. It is a result of the evaluation of LCRDM's first phase. The new method ensures that the strength of the existing LCRDM network will be optimally used, strengthened and enhanced. It greatly facilitates cross-thematic cooperation.. At the same time, it allows the network of experts more flexibly and efficiently. Both the themes and the network itself can be easily expanded, where necessary or desirable.
The *Implementation Plan* was drafted after extensive deliberation between current LCRDM workgroup members[1] and also contains a summary of the evaluation process.

2018 is seen as an experimental year and serves as preparation for the second phase of the LCRDM (2019-2022). This corresponds with SURF's strategic plan cycle.[2]
At the end of 2018, we will evaluate experiments with the new work form and a new Roadmap will be drawn up for the period 2019-2022. This occurs on the basis of a plan with prioritized activities to be incorporated in a national approach to RDM. A draft proposal will also be included that outlines suitable governmental embedding with regard to LCRDM.

2. Evaluation LCRDM 2015-2017

2.1 Approach

The first phase of the LCRDM ran from 2015-2017.[3] At the end of this period an internal evaluation took place on the basis of a SWOT analysis.[4] For this seven LCRDM-related sources were asked to give input and feedback. [5]
The SWOT is applied to three components: the LCRDM concept, LCRDM workgroups and LCRDM output. See Appendix I for a full elaboration of how SWOT relates to the various components.

2.2 Results SWOT analysis

The mission of the LCRDM is to prepare, facilitate and monitor the development and implementation of a Research Data Management policy for scientific research in the Netherlands, in close consultation with the professional field. Simultaneously it seeks to help the exchange and sharing of knowledge at a national level, thereby promoting the realization of efficient and effective Research Data Management among the Dutch research community.

The vision of the National Coordination Point is as follows: In 2020, research data management will be a natural integrated part of the way we perform research and provide education in Dutch universities and research institutions. It will be implemented in such a way that:

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[1] Earlier versions of this Implementation Plan were discussed in the LCRDM Trekkers Consultation on 14 March 2018, the Brainstorming session on 27 March 2018 (30+ participants), follow-up meetings on 11 April 2018 and 26 April 2018 and with the programme manager of the SURF Open Science innovation programme on 17 May 2018. The LCRDM Advisory Group advised on 26 June 2018 to approve the underlying version.

[2] The LCRDM is a project financed by the SURF innovation program Open Science, formerly entitled Sustainable Data, which runs from 2015-2018. In the new SURF policy strategy for 2019-2022, funding is being sought for (continuation of) the LCRDM as part of community management open science within the SURF organization. See also §4.3 of this plan.

[3] The activities of the first phase of the LCRDM are based on a Roadmap for the period 2015-2017: https://www.lcrdm.nl/binaries/content/assets/surf/nl/2016/roadmap-landelijk-coordinatiepunt-research -data-management_revised-version-November-2015_-final.pdf

[4] The evaluation took place in a number of meetings and SKYPE conferences , on 14/12/2017; 17/1/2018 (2x); 1/2/2018 and 5/2/2018. Some 35 working group members participated (= about half of the LCRDM community).

[5] (1) SURF Mid Term Review Innovation Programs (April 2017); (2) RDM monitor LCRDM Workgroup chairpersons (4) (May 2017); (3) Input Mentimeter Network Day (June 2017); (4) Discussion LCRDM Working Groups (4) (Sep-Nov 2017); (5) Discussion of Trekkers Consultation (June / September 2017); (6) Discussion of the UKB Research Data Working Group (October 2017); (7) SURF Controlling Documents (2015, 2016,2017);

- synergy between policy, ICT and research support allows researchers to employ sound research data management;
- connections are forged between (experts from) research organizations , general and technical service organizations and research funding bodies;
- Research Data Management Policy is embedded as part of administrative procedure.

This vision foresees the LCRDM successfully facilitating and supporting this process, in close consultation with the professional field, thereby setting an example to the international sector for a national approach to this issue.
Both mission and vision remain unchanged for 2018 but may be revised for the period 2019-2022.

Phase 1 of the LCRDM received much praise for the creation of a network of RDM experts and the results achieved by the working groups.
Given the LCRDM's mission and vision and what has been achieved thus far, continuation of the LCRDM seems evident. This is underpinned by the following considerations:

- RDM is an indispensable condition for re-use of data within the broader framework of open science and therefore its topicality remains undiminished.
- A number of LCRDM activities have not yet been completed; several LCRDM products require further development and / or maintenance; new aspects of RDM have emerged that call for a national approach / elaboration. Using the existing network would be beneficial to realizing these objectives.
- There is an undiminished demand for knowledge exchange as evidenced by the attendance rate of various meetings organized by the LCRDM.
- The growing national reputation of the LCRDM has generated constant requests from various stakeholder groups to establish working tie.

SWOT

Strength:	Weakness:
• human netwerk of experts • Delivered products (bottom up approach) • engagement-activitities (bottom up approach) • Increasing awareness for RDM in the institutions • Increasing interest in cooperation in RDM through the LCRDM	• Governing board level support and importance • Project status • Unequal spread stakeholder groups in working groups • Work fatigue working group members (shift to new priorities) • Cross over connection between working groups • Connection between delivered products • Use of the platform
Opportunity: (continue with)	**Risk (also called: Issues that need attention)**
• cooperation & • Knowledge sharing & • Develop concrete products for general use • Broaden network • Connect with NPOS	• Organisational embedding • Maintenance and continuous development products • Involvement researchers, research communities, governing bodies.

2.3 Working method and results 2015-2017
During LCRDM's first phase, activities were undertaken with a more or less fixed working group focusing on a certain RDM theme. The working groups were composed in such a way that most of SURF's stakeholder groups were represented in one group. [6]The aim is to have representatives of

[6] The workgroup members are RDM experts with regard to their own particular profession. They are aware of developments in the workplace and are well-connected with administrators in their institution. The working groups were composed of experts from universities, UMCs, KNAW research institutes,NWOs and HBOs. Work groups were composed of between 10-17 members to maximize their efficiency. During the course of the project, delegates from senior

people working in ICT, policy (including legal issues) and research support in every work group. LCRDM embraces life cycle thinking: to implement open science in the Netherlands, it's crucial to offer support and 'unburden' the researcher by employing proper RDM policy throughout the research cycle. The best way to achieve this is collaboration between ICT, policy and research support within research institutions and at a national level by promoting cooperation between various stakeholders in open science.

The five thematic working groups each drew up a work agenda based on the *Roadmap* and subsequently elaborated on a number of subjects from this agenda.[7] The working groups usually met for a full day; on average 8 times in 2016-2017. Theme-transcending topics were noted down and further discussed during the chairmen's meetings (Trekkersoverleg).[8]

Some 40 projects were submitted , ranging from policy advice, reports, inventories, reference maps, decision trees, architectural models and a PoC of a service catalogue. A number of projects were completed and need to be kept up-to-date; some projects require further elaboration and long term monitoring.[9]

During the first three years of LCRDM, five national conferences and network meetings were organized, built up around specific RDM themes that focused on different target groups[10]. A project website was set up that includes a platform / wiki, which functions not only as a 'sandbox' for workgroup members, but also as a site for sharing knowledge with anyone working in RDM.[11] More than 20 presentations were held on the subject of RDM and the LCRDM, both nationally and internationally.[12] The LCRDM received extensive press coverage in magazines and online media.[13]

The LCRDM has contributed to establishing of the National Plan Open Science (NPOS), particularly with regard to the embedding of RDM as important condition. The LCRDM acts as a support organization for the NPOS platform. It contributes to three NPOS themes with inclusion of their underlying objectives: optimization of research data for re-use; promotion of open science and support of the researcher; recognition and reward.

The added value of the LCRDM for NPOS can be found in:

- The network of RDM experts seconded by the LCRDM;
- LCRDM knowledge sharing and the facilitation of collaboration with regard to various data-related aspects of open science;
- support by the LCRDM for coordinated policy development and implementation of RDM;

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management often withdrew because of other duties but the institutions in question acknowledged the importance of LCRDM and sought replacements who often had a more practical background. Given the direct relationship with the VSNU (the VSNU requested SURF to initiate the organization of the LCRDM), universities were well-represented. Reconnecting workgroup members from KNAW and NWO research institutes was difficult. The HBOsector had little interest in participating in the LCRDM at the time work groups were being formed. . Later on, the workgroups had already established their agendas and were in full swing - mostly in subgroups - so that expanding existing workgroups through the nomination of new members was not feasible.

7 Work agendas: https://www.edugroep.nl/sites/RDM_platform/LCRDM/_layouts/15/start.aspx#/Wikipages/Werkagenda.aspx

8 Meeting reports: https://www.edugroep.nl/sites/RDM_platform/LCRDM/_layouts/15/start.aspx#/Wikipages/Werkgroepverslagen.aspx

9 Product overview: https://www.edugroep.nl/sites/RDM_platform/Bewustwording/Productenoverzicht.aspx

10 National conferences and meetings: https://www.edugroep.nl/sites/RDM_platform/SitePages/Bijspraken.aspx

11 Website: www.lcrdm.nl; platform: https://www.edugroep.nl/sites/RDM_platform/SitePages/Home.aspx

12 Presentations: https://www.edugroep.nl/sites/RDM_platform/LCRDM/Wikipages/Presentaties.aspx

13 In the Press: https://www.edugroepen.nl/sites/RDM_platform/LCRDM/Wikipages/In%20de%20pers.aspx

- efforts by LCRDM to stimulate the debate on the financial implications of data-related aspects of open science;
- an open online platform which offers a full range of LCRDM products and the opportunity to share RDM know-how.

At the beginning of 2018, achievements of the LCRDM work groups were presented to a wider audience during a a national conference on RDM. This was a way to celebrate the good results and the strong collaborative network we have set up and to conclude the first phase of national collaboration on RDM.[14]

3. New approach 2018

3.1. Why a new approach?

2018 can be seen as an intermediate year between two phases of the LCRDM and offers opportunity for experimentation and innovation as a prelude to a new four-year period.

The LCRDM has set up a national network of RDM experts whose continued activity is to everyone's advantage - not only for SURF, but also with a view to the current rapid developments in open science, both in the Netherlands (NPOS) and internationally (EOSC).

The tenure of current workgroup members and chairpersons has expired.[15] Moreover, the five workgroups were somewhat "overworked " after two years of active involvement. All the more reason for new blood.

A SWOT analysis and evaluation puts forward three points for improvement. To optimize the existing LCRDM, it proposes a new work form that helps to facilitate cross-thematic collaboration between experts and provides a sound basis for more effective and efficient implementation of current activities at a national level. It will also help to expand the current group of experts and work themes.

A limited quick scan was also carried out to map relevant topics and themes. There is still a need of national coordination regarding current issues. Some work still needs to be done and new topics and themes continue to present themselves. A good basis has been established for, for example, a national RDM "desk", but better synergy is called for. For the results of the quick scan and an overview of recommendations made, see appendices II and III.

3.2. New working model 2018

In 2018 the LCRDM will abandon the old work group model and begin using a new model, inspired by *Knowledge Exchange* (KE) .[16]The KE model that consists of a strategy group, expert groups and task-and-finish groups has been adapted for the LCRDM as follows:

1. Pool of experts
2. Advisory group
3. Task groups
4. Coordinating bureau
5. [Steering Committee]

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[14] National conference on RDM (8 February 2018): https://www.edugroepen.nl/sites/RDM_platform/SitePages/National%20Cooperation%20in%20RDM%20Conference%20-%20terugblik.aspx

[15] In 2016 the workgroup members (2015-2017) were asked to commit to the work groups for a period of one year or as long as the work agenda dictated. The work group chairpersons were also asked to commit to a one year tenure, with the possibility of an extension after the 12-month evaluation.

[16] Knowledge exchange: http://knwoledge-exchange.info/about-us

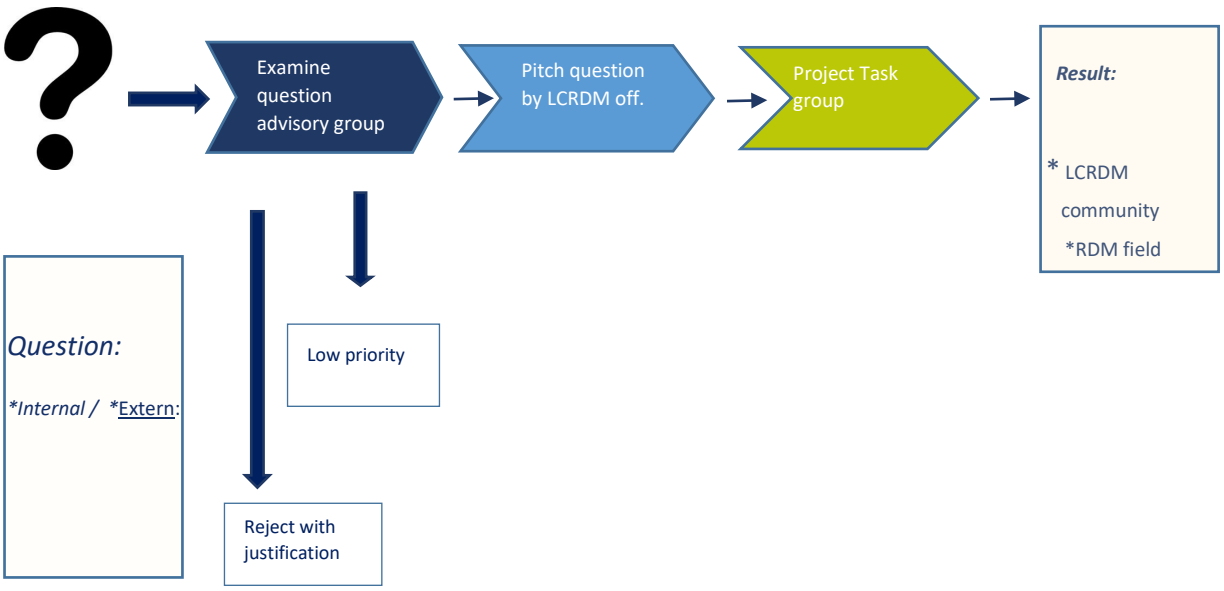
This model foresees in the forming of one large group of experts (Pool of Experts). These experts who share knowledge and experience in the field of RDM will be available to give advice and to participate in short-term task groups.
These task groups will either develop recommendations regarding a specific theme or making preparations for a national meeting. When necessary, task groups will be supported by a scrum master / process supervisor / consultant, who will be hired by the LCRDM coordinating office.
Financial support for a limited number of task groups will be made available in 2018.
Before a task group is set up a pitch will be held. The pitch may be submitted by the advisory group, the pool of experts or an external party.

In order to draw up a work agenda for the next four or five years and to form task groups in 2018, it is desirable that a plan be put forward with prioritized activities for national approach to RDM. To this end, an advisory group has been set up with representatives from the various LCRDM stakeholder groups. The advisory group acts as a "quartermaster" and in first instance commits itself for the duration of 2018. Experts are invited to provide the advisory group with input and submit questions.

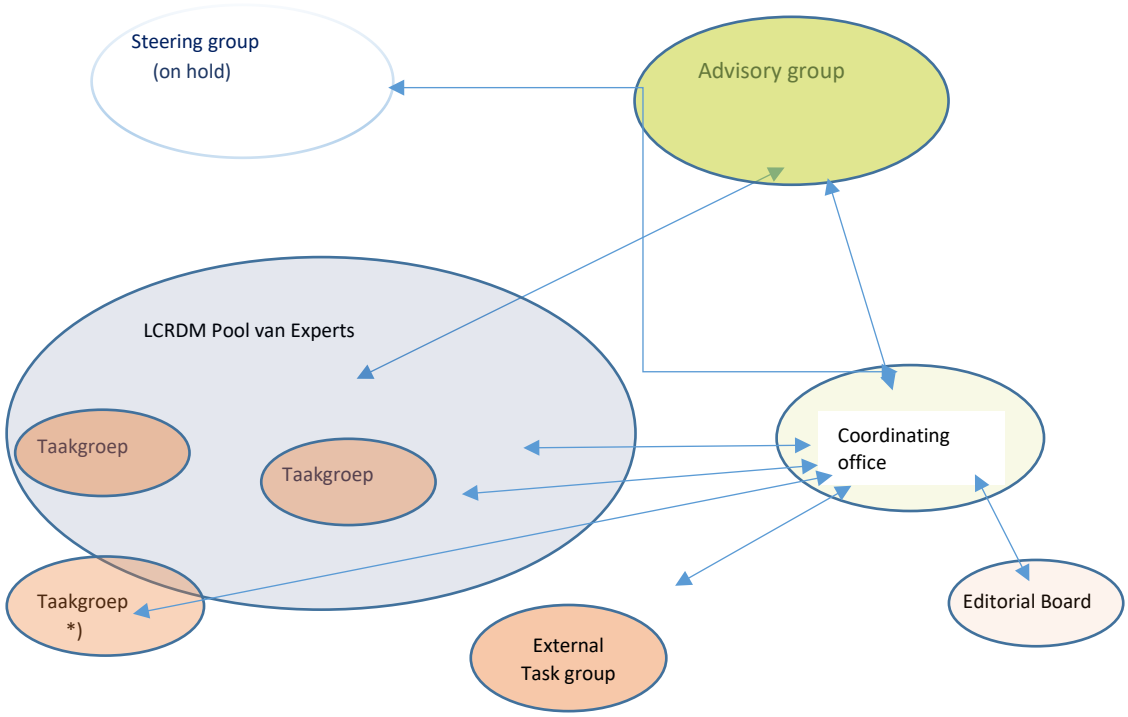
At the end of 2018 an evaluation of the new LCRDM work model will take place and a new roadmap will be drawn up on the basis of a prioritization plan for the next phase of the LCRDM (2019-2022). A proposal will also be made for further embedding of the LCRDM (and the implementation of a steering committee).

3.3. Visual draft

Flow



Structure



*) possibility for an additional consultant

3.4. Overview of criteria for composition, profile and activities per group

3.4.1: Pool of Experts

Composition:

- All current work group members (2015-2017) participate in the pool of experts - unless they have indicated that they no longer wish to participate in the LCRDM. The coordinator sends out invitations. Suggestions for new experts are welcome
- People who have indicated their interest for participating in the LCRDM also join the pool of experts. We expect to appeal more to people working in Schools of Applied Sciences, Biomedical Information Specialists etc. (registration via coordinator)

Profile:

• Experts who want to join the LCRDM Pool of Experts regularly deal with RDM in their own institution and are prepared to combine their local focus with a national perspective , and to advocate (the importance of) national cooperation.

Activities:

- Experts provide input for the (first) meeting of the advisory group by listing possible themes and activities
- Experts broach new subjects from their own daily practice / institution to tackle at a national level
- Experts are available for six months to participate in the ad hoc task groups (see below)
- The pool members are invited to propose experts from outside the pool, to join the task groups (via LCRDM coordinator)
- The experts promote the work of the task groups in their own institution, as well stressing the need for national cooperation
- To boost knowledge sharing, experts attend the quarterly LCRDM expert network meetings whenever possible. (half-day - format to be determined)

3.5.2: Advisory Group

Composition:

- The advisory group is drawn from the current group of LCRDM work group members, supplemented by external experts where necessary. The coordinating agency invites advisory group members.
- There must be a link with NPOS theme group data. The members of the advisory group represent various RDM stakeholders and different professional sectors (ICT, policy, research support). If possible, members are also selected on the basis of their familiarity with scientific disciplines.
- In terms of size, the advisory group must be action oriented and therefore not be too large. Ideal is 8 to 15 members.

Profile:

- Advisory group members do not represent stakeholders, but are key figures in their own organizations who have are committed to furthering the goals of the LCRDM
- Advisory group members have a broad view of the development of RDM in the professional field of open science.
- Advisory group members function at a strategic tactical level. A criterion for participating is: "I can advise other people about this"
- Advisory group members act as quartermasters for national cooperation in the RDM field .

Activities:

- The advisory group meets for the first time in June
- The advisory group is set up for a duration of 6 months (= pilot period)
- The advisory group meets every 6 weeks (for half- a- day) = approx. 4 plenary meetings
- The first task of the advisory group is to draw up a plan with prioritized activities for a national approach regarding RDM. The group identifies what issues need to be addressed first and for further detail uses a model of building blocks.
- The advisory group monitors the scope of the national approach (meaning: the inclusion of all relevant aspects of RDM)
- The advisory group determines the priority of the pitches to be held
- The advisory group supervises the coordination of the various ad hoc task groups (in close cooperation with the coordinating office)

- The advisory group members could, where necessary, introduce additional task group members from their own network
- The advisory group evaluates the pilot year and prepares the 2019-2022 Roadmap (in cooperation with the coordinating office)

3.5.3: Task groups

Composition:

- A task group will be composed on the basis of issues raised by pitches.
- A task group is composed of volunteers from the pool of experts, supplemented with colleagues from the institutions of the advisory group members or pool members.
- Task groups are assisted by a scrum master / process supervisor / consultant (to complete the job description) when necessary
- Link with advisory group members (to be further elaborated on)

Profile:

- Task group members are motivated to work on a certain topic, on the basis of needs or questions generated by their own institution or work environment and their own daily work. Incentive: the subject raised in this pitch also touches on similar issues encountered in my own work environment.

Activity :

- Task groups are composed ad hoc and work on small issues that can be solved in a relatively short time (1-6 weeks; max 2 months)
- Task group members are available for intensive, limited brainstorming sessions (pressure cooker model)
- The task groups establish a project plan on the basis of a pitch, which includes: project goal , task group composition , desired result, planning and budget.
- Task groups focus on preparing recommendations for specific objectives or making arrangements for national meetings.

3.5.4: Coordinating office

Composition:

- The coordinating office consists of a national coordinator, secretarial support, a social media / platform support and a process supervisor or scrum master
- The process supervisor prepares the project plans for the task groups and monitors planning and progress. FTE division or job descriptions forthcoming
- SURF is responsible for the coordinating office

3.5.5: [Steering group - on hold]

Composition:

- The composition of a steering group is based on an overall scan of the open science / RDM field in the Netherlands
- Based on this overall scan and an evaluation of the 2018 working method it will be decided if the focus of the steering committee is appropriate, or if it is better to set up a strategy group.

- Is a separate LCRDM steering group desirable or should it be linked to existing administrative initiatives: a) via SURF ; b) nationwide: for example under the auspices of the NPOS Steering Group , UKB consultation or the NDE steering committee (Network Digital Heritage)
- The programme committee set up to assist the NFU project D4LS could serve as a model to encourage researchers to serve in a steering committee.
- A LCRDM steering committee would also need a clear support policy and might include directors, student counselors and librarians
- An effective steering group should have a balanced mix of members representing a range of organizations, who fulfill different roles and are active in various scientific disciplines

Activity :

- The steering committee ensures the administrative and institutional implementation of the LCRDM's recommendations and / or provides financing for larger RDM projects to be worked out in greater detail.

4. Working method

4.1. Focus

The LCRDM focuses on RDM policy. This not only involves joint and coherent development of that policy, but also formulating implementation strategies. The LCRDM connects research supporters, policy makers, IT professionals and research funders. The LCRDM strives to link policy and solution. To work out a solution (services and products that need further elaboration, implementing policy) it connects with other stakeholders, like UKB (support), SURF Tech centers, RDNL partners, Go FAIR (services) and NPOS (policy implementation) etc.

4.2. Prioritization

Researchers are increasingly obliged to comply with government rules and meet the requirements , of research funding institutes, publishers and their own university. This means dealing with privacy-sensitive data, ethical issues, integrity and FAIRification of data before, during and after research. Support is often provided in a fragmented way by supporting parties in and outside the organization. In order to provide researchers with efficient and adequate RDM support, it is important that those providing support are aware that they are part of a chain.

In 2018, the LCRDM will publish a plan with prioritized activities based on chain thinking for nation-wide RDM cooperation. This will form the basis for a 2019-2022 roadmap. Working with the principle of chain thinking means facilitating RDM support for the researcher throughout the entire research cycle. Therefore not only before and after, but also during research. Besides support this means dealing with facilities, administrative authorization , legal technicalities and knowledge sharing. Point of departure will be the discipline-specific support needs of data stewards and data managers.

RDM experts will be asked to provide input for prioritizing themes and subjects towards realizing a national approach to RDM, when they register for the pool of experts.

Top down reinforcement and commitment from all stakeholders is the next step for national implementation. The Dutch field of open science, in which RDM is an indispensable component, is complex and in full development. After charting this emerging sector the best options for administrative coordination will be weighed. A proposal for this will also be made by the end of 2018.

4.3. Financing new approach

In 2018 LCRDM activities will be financed via the SURF Open Science innovation programme (formerly the Sustainable Data innovation programme) part of the SURF strategic plan period 2015-2018. This means SURF finances the coordinating agency. All activities of the LCRDM are contributed to in kind by the institutions involved. A broad financing model will be examined for the period 2019-2022.

4.4. Communication

To strengthen the internal and external communication, the monthly update by email will be reinstated , but only in the form of a discussion list for the pool of expert members. Wikipedia-inspired writing afternoons will be organized for updating and expanding the wiki / online platform as a source of information. All products of the platform will be translated into English. An editorial board will be set up for the website and the wiki (cf. openaccess.nl model).

4.4. Themes

A 2017 quickscan 7 has shown that the current LCRDM themes are still relevant. Therefore, we will continue to give prominence to all existing themes dealt with by the advisory group: financial, facilities & data infrastructure, research support & advice, legal aspects and awareness / engagement. In addition, two new topics have been named: data stewardship and RDM governance.

4.5. Practical

- To keep the LCRDM up-to-date, a list of potential issues that necessitate action, will be sent to prospective members of the pool of experts when they register, asking them to indicate their own priority, and to complete a list of priorities they meet in their own daily practice. The list of possible issues is based on the 2017 quick scan.

Based on the priority scores, the advisory group will draft a plan for prioritizing a RDM national approach (2019-2022). The group will identify the most important problem (e.g. How long do we need to store each type of data?) Then a 'building blocks' model will be used to further elaborate advice given: when we solve this issue/pass on advice , we can subsequently tackle issue X, Y, Z.

- Input for the issues (advice, engagement meetings) could be derived from:
    - The national RDM field: concrete questions;
    - The advisory group
    - The pool of experts
    - The NPOS group or other national data groups (RDNL/UKB/D4LS/NDE) etc.
- The advisory group will set the agenda.
- The person who brings up the question will be asked if a) he/she can help with formulating the pitch and – in close cooperation with the LCRDM coordinating office and the advisory group, to participate in a task group b) if not, are any of his/her colleagues willing to participate.
- As soon as a task has been approved and a pitch is launched , experts from the pool can subscribe, specialized outside experts can be approached and consultants/specialists can be hired (when necessary).
- An effective way to communicate pitches still needs to be worked out. Is it possible to establish an email group via the LCRDM coordinating office/RDM discussion list?

- Each task group will be supported by a process officer / scrum master in order to help set up a project plan and realize a project.

4.6 Time frame:

February/May:	brainstorm
May/June:	prioritizing quick scan
June:	start advisory group
December:	evaluation
December/Q1 – 2019:	Roadmap 2019-2022

Appendix I: SWOT analysis per building block

LCRDM Concept

Strenght:	Weakness:
• Prevents individual solutions through facilitating cooperation (5) • Incentive: coordination and exchange (4) • Efficiency and energizing coordination from the office (2) • Creates the possibility to advocate the added value of cooperation by working group members in their institutions (4) • Has brought many people together (4)	• Involvemnet of researchers (1) • Together we've only got started. Much to be done yet (4)
Opportunity:	Risk::
• Creates potentially good connection with researchers trough intermediaries (1) • Is of such a structure that transfromation from temporary initiative to tool for structural attention/scope is possible (4)	• Insufficient commitment of cooperation partners (7 - 2015) • Approach doesn't work because of broad perspective and individualism of working field (7 – 2015)

LCRDM Output

Strength:	Weakness:
• Impressive numbers, given the format in which work has been done (voluntary basis) (1) • Results don't answer all questions but offer incentives, which one can use depending on research questiong (2) • We've developed products that are usefull (4)	• It is an open question what the commitment is of the LCRDM participants to support the use and the maintenance of the products (2) • Products are sometimes very basic and need further developement (5) • It is sometimes not clear who will use the product (legal)) (4)
Opportunity	Risk:
• [Feed into NPOS]	• Portfolio doesn't meet the needs (7 – 2015) • Not enough support through research communities (7-2016; 2017; 2018)

LCRDM Working groups

Strength:

- Foreseen structural cooperation reached; is of more importance than the deliverables (4)
- Provided an agenda setting (5) and identified clear needs per theme (2)
- Structural effort to set up a national agenda (knowledge sharing & products) (5)
- Offers a network to keep informed on the (legal) development at universities, exchange knowledge and disseminate knowledge in a low profile manner (4)
- Are of a composition level that is diverse enough to also tackle new subjects (5)

Weakness:

- Concrete development of identified needs difficult because of lack of time of wg members (2)
- Priorities switch because of priority setting institutions and (growing) diminishing eergy working members (focus elswhere) (2).
- Institutions stress the importance to participate, but for wg members its difficult to find the time to develop or adjust products (esp. Legal products) (4).
- Working group members have not been given time to invest (legal) (4)
- Because of the switch from originally asked wg members towards new wg members with less experience, the connection to governing people fades : less influential power (4)
- Not always aware of each others activities (4)

Opportunity :

- See LCRDM concept – Strength

Risk:

- Communities might organise outside SURF (7 -2015)
- Not enough commitment from the working floor towards the themes: too little progress (7-2016; 2017; 2018)

Appendix II: Wishes and recommendations of the SWOT analysis evaluation 2017

The numbers in () refer to the sources of input - see also note 5. (B) = brainstorming sessions.

General

- Organize plenary WG members meeting for future discussion (4)

LCRDM Concept

- Establish a connection with international initiatives - including RDA (1)
- International: participation in RDA; presentations at international conferences; publications are important (6)
- Continue to promote identity as a connective hub to also collect European and international initiatives and implement Dutch output (4)
- Stronger focus on RDM and data stewardship instead of on RDM and research support (1)
- In addition to open science, also put open support/open education on the agenda (2)
- LCRDM central role: network organization for knowledge exchange between institutions (3)
- Desired role LCRDM is twofold: national advisory group; inspiration space (5)
- Give a new impulse based on existing results (4)
- Use the human network (4)
- Set up a well-defined agenda / needs a survey of the professional field (5)
- Ensure commitment from both the governing board and from the professional field (administrative and financial) (5)
- Organize the asking of questions and leadership from the directorate of institutions (5)
- Seek the commitment of directors in setting up work groups (cf. data stewardship TU Delft) (6)
- Implement the Knowledge Exchange working model for the development of new RDM themes (4)
- Find financial reimbursement for experts to work out issues(4)
- Organize networking meetings every three months to collect, share and - in a few sessions - transform products being developed in institutions into national products (4)
- Organize advisory board groups / themed groups to involve directors and researchers (6)
- Establish co-coordination with the heritage field (Network Digital Heritage) (B)
- Ensure a strong link between RDM and Open Science. Open Science is primarily focused on at an institutional level. (B)

LCRDM Working Groups

- Establish structural substantive cooperation between the Working Groups (2)
- Working groups to continue with other topics / themes (3)
- Better connections between working groups (4)
- Introduce new blood. The network of experts can be greatly broadened (B)
- Involve people who can translate generic products into tailor-made solutions for institutions (B)

LCRDM Products

Existing products:

- Website and platform continue to function (3)

- Organize maintenance & management of delivered products (5)
- Continue work on legal & policy products and comments (4)
- Continue organization of engagement meetings (4)

One desk model

• options:

a) a joint online one-stop shop for discipline-specific questions (or, a one-stop shop for special [often discipline-specific] data formats) where questions are passed on to the right discipline or data format expert.

b) national one-stop shop / expertise network for research support parties is interesting. For researchers, a local central entry point at the institution where they work is a better solution for most subjects. A national information point / network can, of course, bundle information and make what is relevant available to all NL parties. It would be interesting to look at Open Access as example: how does it work, does it reach its target groups, how is collaboration with local 'counters'? In line with this: how does OpenAire, the office at European level, function? (6)

c) The national one- stop shop must be complementary to expertise already available at the institutions (E)

- Provide target group-oriented implementation of RDM products (5)
- Cede further development of architecture; implementation of service catalogue to institutes; harmonization of repository infrastructure for the long term (4)
- Connecting products internationally on the basis of practiced discipline (4)
- Integration of the services catalogue with DMP tooling (4)
- Investigate whether a front office / back office model can have significance for the design of a one-stop shop (B)
- The project that focuses on proposals for updating / maintenance / further development of products, should also include how the researcher can be approached (B)

General approach to new products:

- Pitch new products. Model Zalando (E)
- Ensure the setting up of an administrative agenda to expedite a solution for synergy of architecture and infrastructure between institutions (including software archiving and digital research environments & good infrastructure for privacy handling) (5)
- Follow agenda items 2018 from SURF and NPOS / EOSC (5)
- Address national issues that require attention at agovernmental level (5)
- RDM practice must connect with research communities (5)
- More attention for application at an institutional level: shift from RDM to open science (5)
- Use the existing network to arrange centralized training. (B)

Appendix III: Quick scan of subjects

Consists of topics to be completed in part a) 2015-2017; b) suggestions for addressing issues. Based on this appendix, a list of priorities will be compiled for the pool of experts.

A. Overview of topics to be completed during 2015-2017 / already planned activities for 2018

Meetings:

- April 2018: Round table financing VSNU / LCRDM - and follow-up
- N / A .: Boot camp for lawyers on GDPR / open science Support4Research / LCRDM
- 24 April 2018: Workshop on legal aspects of RDM HBO / NAI and LCRDM (+ 06/11)
- N / A .: SURF academy architecture - services catalogue - glossary
- November 2018 .: Third Data Stewardship Network Day (in combination with RDNL Dutch Data Prize)
- N / A: Seminar services for the AAVG
- N / a .: Train the trainer programme Code of Conduct for Personal Data

To be completed / maintained / developed: (+ translation in project plans)

- Training
- DMP - DMP online implementation?
- FAIR
- Secure Data
- Incentives
- Shades or Open
- Requirements
- Communication model for use case
- Glossary
- Services catalogue
- Reference architecture - HORA project
- AVG guide
- Privacy by Design / PIAs
- Personal code of conduct code + e-module
- Control + associated products: inventory; risk analysis & explanatory documentation; Diner Pensant; model paragraph (consortium agreement); model instruction for collective labour agreement; model license for end-user.

B. Quick scan possible new topics

[italic = already on agenda 2015 -2017; marked = new themes cf. with quick scan 2015-2016]

For input of the conference held on 8 February 2018, see: https://www.edugroepen.nl/sites/RDM_platform/SitePages/LCRDM%20conferentie%20werkcafé-kaartjes.aspx

Facilities & Data infrastructure:

- digital preservation & curation (workflow tools), including sustainable software
- repository advice
- standardize cooperation; national uniformity

- open RDM resources
- use BSN TTP - SIG WG VDK
- global authorization
- text and data mining
- bringing together and optimizing searchability / linkable data from different institutes, through portals such as NLBIF
- de-selection of research data
- reproducible research
- efficient workflows
- orchestration with regard to different layers of architecture
- applicability of tools
- project implementation with Network Digital Heritage on the themes: sustainable, usable, visible
- FAIR assessment, certification and quality of repositories
- tuning services to the question
- harmonization RDM
- domain protocols data management
- service orchestration in a federated distribution environment
- block chain
- sharing economy
- implementation of architecture model in the HORA
- further elaboration and maintenance services catalogue
- extension glossary RDM terms

Legal aspects of RDM:

- sensitive data and privacy issues (shades or open inventory)
- ownership; commercial interests
- licenses; deposit and user licenses for data. Which (user) license best represents the interests of researcher, university and society with regard to the exploitation of research data?
- AVG
- DMP planning, tools and relation with ethics (goes beyond AVG)
- Implementation code of conduct with regard to personal data and integrity code of conduct

RDM funding:

- cost models for RDM
- cost models for RDM infrastructure

Research support:

- RDM roles and new functions; UFO profiles
- FAIR: metadata; metadata synergy
- managing metadata and choice of tooling for this purpose
- disciplinary differences in administrative burdens
- data science
- more focus on data management during research. RDM concentrates mainly on DMPs (for research) and data archiving (after research)

- elaboration advice DMP-tooling
- Also pay attention to the first steps undertaken in data management for institutions still in the introductory phase. Here the value and necessity of cooperation should be emphasized
- Measuring the re-use of data

Engagement:

- RDM portal researchers
- do not know, ask researchers / research funding institutions
- ensuring data quality
- reservation site for research meetings with a reservation calendar or roster
- SURF-academy-like information series that focuses on reference architecture
- Use case studies for every aspect of RDM, also for the new concept of 'data scenarios'
- Organization of network and awareness meetings focusing on different themes, possibly as a road show that visits institutions with the aim of involving more researchers or develop a format for such meetings with a list of speakers
- Incentives, with research into the role of all stakeholders (e.g. libraries: registering)
- input; HRM at institutions: the role of RDM / Open Science in unification consultations; VSNU: SEP etc ...)
- data impact factor
- rewarding the researcher for FAIR data and open data where possible
- data citation
- Attunement ethics - AVG and RDM theme-wide (ethics> privacy cf. ERC / H2020 requirements)
- Ethical implications of OS for researchers (undesirable user data, 'harassment' of researchers, always detailed accountability)
    - Linking international parties such as RDA and others for subject 'awareness'; invite experts to exchange views
    - Marketing products / how can we help the researchers to become familiar with the confusing mass of rules and tools?
    - Where do you stand as an organization and how can you become a real RDM organization? Produce - categorize - feedback about connection
    - What common interests and challenges are there?
- Organization SURFacademy products architecture services catalogue glossary (September 2018)
- Data Stewardship:
- Organization Data stewardship Engagement day - (September / October 2018) in combination with the award of the biennial Data Prize RDNL (November 2018 in collaboration with NPOS)
- shaping the function of data stewardship and how mutual exchange of know-how can strengthen and better define the role it plays in reference architecture.. Developing a tool that explains what this role implies.
- Support curriculum for data stewards: A training plan with 3 to 4 meetings per year: launch pad for networking + in-depth meeting (s) + intervision + FAIR / IT training courses for non-technical data stewards
- The data manager in the data host role:
- ✓ meetings for the data steward from operational activities to tactical planning

- ✓ RDM grants - plans / funding application / legal; how to modify an organization to facilitate optimal use of RDM by researchers?
- Research IT field : tools, knowledge exchange, no service delivery (= expertise center SURF IT). LCRDM ensures awareness of services (service catalogue?). Create awareness in the RDM professional field for pros and cons .
- Eliminate knowledge inconsistencies among institutions and individuals. Bring people together.

Governance of RDM:

- coordination of various national initiatives (brainstorming)