# Enabling Machine Actionability of Data Management Plans

EOSC Nordic adopts the RDA Common Standard Metadata Application Profile



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## The challenge addressed

Data management plans hold a lot of valuable information that is relevant for planning purposes, or directly useful for service provisioning. Currently, the plans have a structure that makes it difficult to extract information. Being able to extract the information would help to streamline the process of allocating services as the users would not need to supply the same information they provided in the plan. It would also make services, such as those provided by the Norwegian Infrastructure for Research Data (NIRD) more useful to researchers as service providers would be able to see what requests to expect and what the services would be used for. The communities we are working with in EOSC-Nordic are: Biodiversity, Climate and Natural Language processing and all would benefit from a more machine-actionable DMP as they would need to supply less duplicate information when requesting services for their research. Our communities are quite diverse which indicates that the machine actionability would also be relevant for many more communities.

## **RDA** output adopted

The Common Standard Metadata Application Profile which is produced by the DMP Common Standards WG.

# The adoption process

We started by following the RDA group discussions and asking questions to the working group on the application. We then took early versions of the application profile and aligned the data management plan with these early versions of the schema. They revealed some problems that were fed back to the Working Group. Once a first version of the profile was ready We incorporated it into One of our DMP tools (easyDMP developed and operated by UNINETT Sigma2 in Norway).

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The experience in extracting plans aligned to the RDA schema has been fed-back to the RDA working group. On the Norwegian Infrastructure for Research Data (NIRD) and in Sweden we will put into production the current version of the application profile. This allows us to export plans that conform to the application profile. We will then take the exported plans and manually use the information to reserve storage, archive and other services. This will allow us to determine the steps needed to automate the service reservation at the next iteration. We expect to feedback any modifications of the application profile back the working group through the github package for the application profile.

### Benefits of adoption and impact

All DMP tool providers are dedicated to adopting the RDA application profile. This makes it easier for service providers to consume the information since all plans will follow the same schema. It also means that tools developed for administration of the plans (e.g. identifying how many plans are using specified services, how many plans are funded by certain agencies, etc.) will have a wide applicability. Adopting the standard has the benefit of leveraging the combined expertise of many different practitioners and communities, so we are less likely to miss important features.

#### Lessons learned

The lessons we have picked-up from the adoption process is that there is real value in adopting as early as possible the application profile. This helps to identify missing features and to give feedback on the use-case which may or may not be inline with the original intentions. We found great value in taking part in the virtual RDA hackathon in May 2020, which allowed for a focussed discussion on the application profile and its adoption. The event was well organised and very helpful. We are not sure if as many of us would have had the funds to attend a face-2-face meeting. We think that the virtual hackathon worked even better.



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