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# REsearch Data Management for mechanical Engineering Departments (REDm-MED)

(JISC MRD Programme, Phase 2, Strand B)

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McMahon & Liz Lyon

## REDm-MED in a Nutshell

- 1 Nov 2011- 31 May 2012
- To scope, specify, design and implement a *research* data management approach suited especially to the needs of the Department of Mech. Eng. at UoB.
- Will build upon the ERIM Project work,
- and on other recent work by the MRD community.
- Complements Research360.

## The Aim of the Project

- To implement effective and ***practical*** research data management where there is little or none,
- through the provision of:
  - Procedures & Documentation,
  - A Tool Set,
  - Infrastructure,
- including development of the prototype RAIDmap\* tool.

\*Research Activity Information Development Mapping

# Key ERIM Research Findings

1. Poor framework for:
  - pre-project considerations of data management.
  - data management during the research.
  - during-project data management for post-project re-use.
2. Poor knowledge of context in which data were generated:
  - **engineering research data are very diverse.**
  - large number of diverse research data records.
  - Relations between data records complex.
3. Knowing the context is vital for understanding data.

# Ex-ERIM Multi-level ERDMP Best-Practice Guidance

Principles for Engineering Research  
Data Management.

Thematic Analysis of Data Management  
Plan Tools and Exemplars.

1

Engineering Research Data Management  
Plan Requirement Specification

*Being a specification for 2*

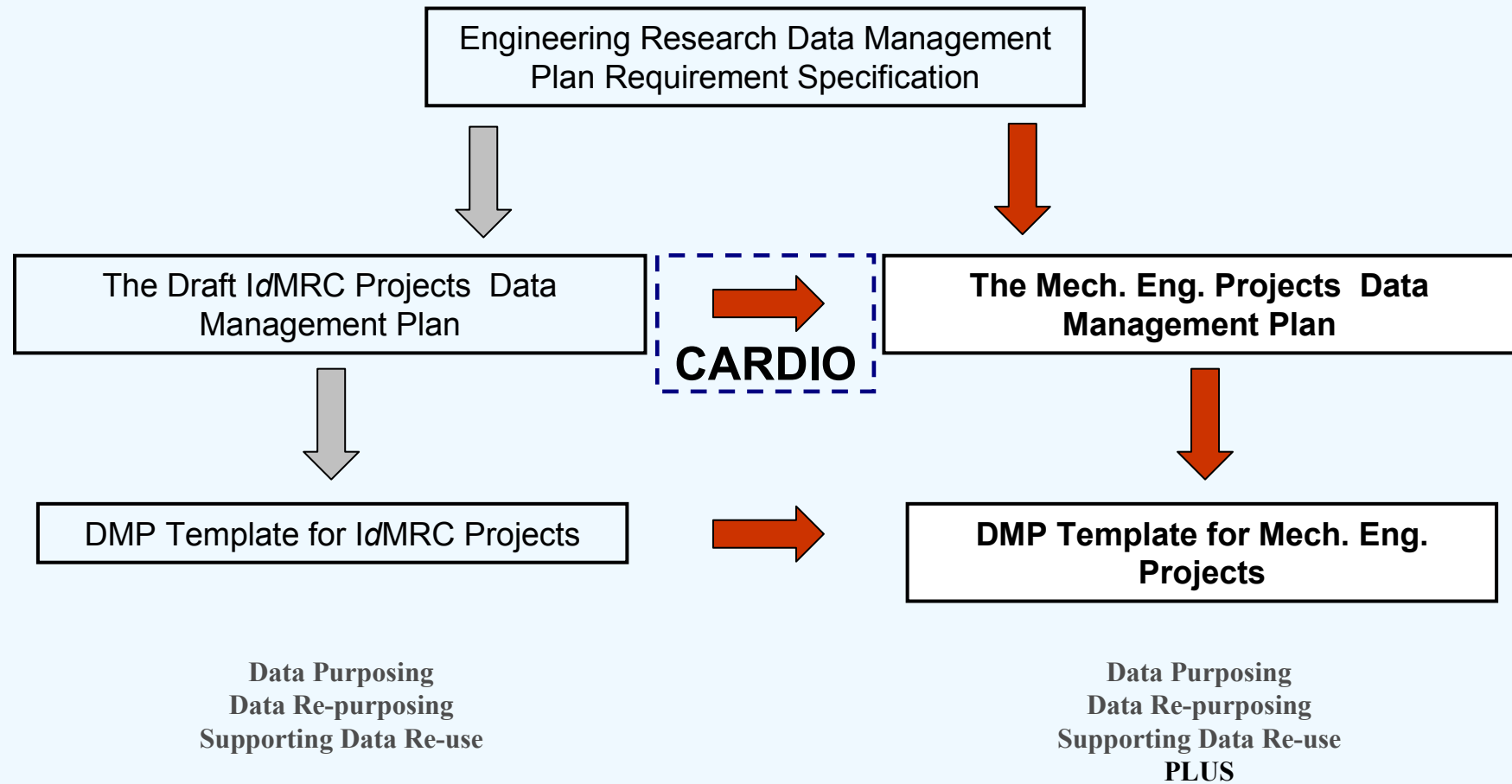
2

The Draft IdMRC Projects Data  
Management Plan

*Being an implementation of 1*

DMP Template for IdMRC Projects

# From ERIM to REDm-MED



# Amenability Criteria & 'Re-usefulness'

'To manage research data such that they are highly amenable to re-use.'

'What is the nature of these data that makes them more or less amenable to re-use?'

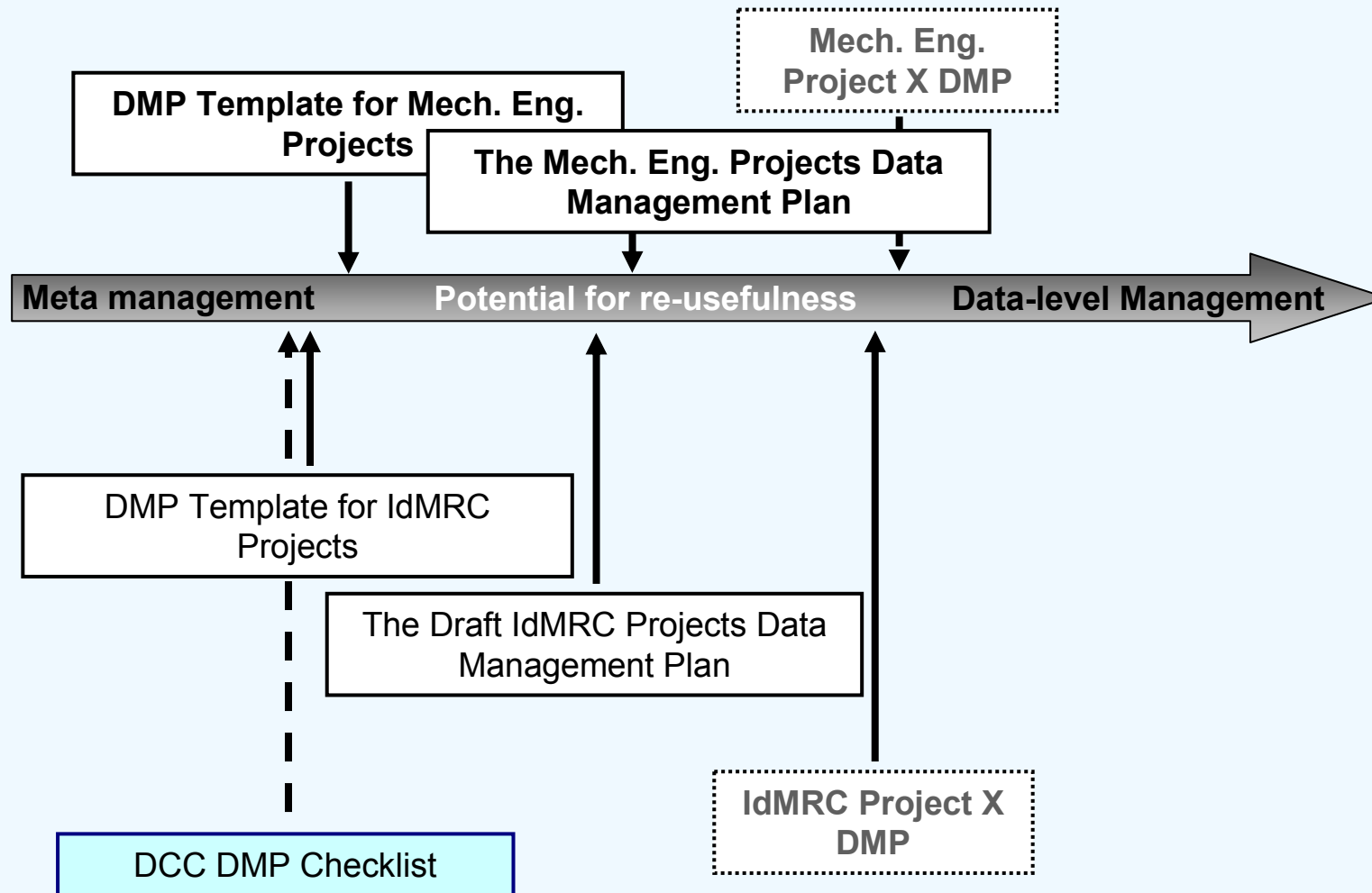
- Findability
- Readability
- Comprehensibility
- Interpretability
- Admissibility
- *Desirability*

Data '**RE-USEFULNESS**'

'Good DM planning provides the *potential* to increase re-usefulness'



# Promoting 'Re-usefulness' Through Plan Execution



# The Two Stages of RDM

- Good DM planning provides the *potential* to increase data re-usefulness.
- The execution of good DM plans promotes data re-usefulness.

*(some data will remain forever re-useless)*

## K.I.S.S.O.F.F.\*

*How will we go about supporting the execution of the plan and turning it into practice?*

***We will aim to provide guidance and tools to aid practical RDM planning which are simple and engaging to use, easy to access and which require least effort on the part of the users.***

\* Keep It Supremely Simple Or Face Failure