Grey in the R&D Process

Introduction

- The Problem: Tidal wave of publications, products, patents (especially datasets)
- The hypothesis is in 4 parts:
  - (a) that the R&D process itself provides some context for managing the information;
  - (b) that linking the records of the process to the publications provides this context;
  - (c) that questions of curation and provenance are addressed automatically in such an environment;
  - (d) that such an environment integrates grey and white literature and other R&D outputs such as software, data, products and patents.

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The Difficulty and Solution

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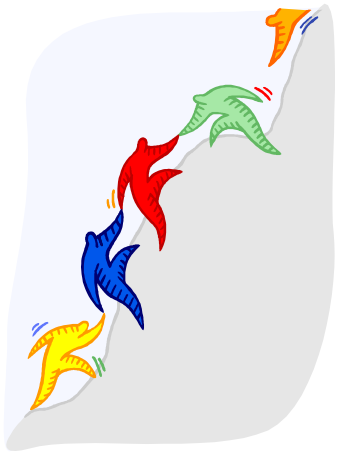
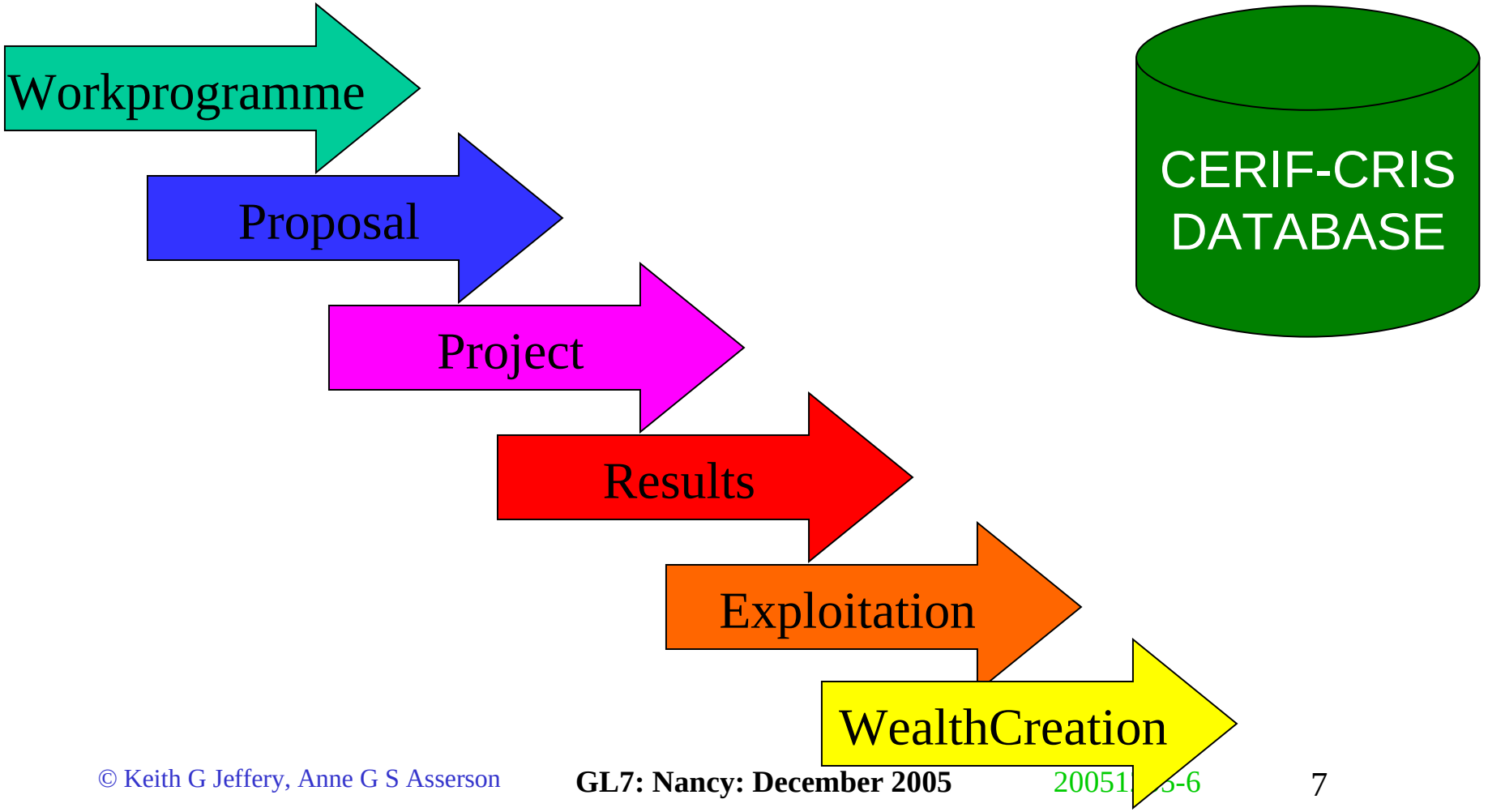
- **Use the Process**
  - **Build progressively the metadata corpus using small incremental data input steps at first instant metadata available**
  - **e.g. as a publication is conceived, submitted, accepted and published.**



The R&D Process: CERIF-CRIS



Research Process: Input Output

PROCESS STEP	SUB-PROCESSES	INPUT	OUTPUT
Workprogramme	Economic, Societal, Technology Foresight	World/Country state, world/country models, technology predictions, solicited advice	ProgrammeName Funding OrgUnit Person responsible Workprogramme document
Proposal	Idea, review previous work, Objectives, Method, Resources and Dependencies	Previous results, previous projects, finance, human resources	Title Abstract Person(s) OrgUnit(s) Proposal Document
Project	Project management	Previous results, previous projects, finance, human resources	Title Abstract Person(s) OrgUnit(s) Funding Project Plan

a= process, a = data, a = white literature, a = grey, a = both

Research Process: Input Output

PROCESS STEP	SUB-PROCESSES	INPUT	OUTPUT
Results	Initial result, internal review, peer review, registration or publication	Previous results	Person(s) OrgUnit(s) Project(s) Product(s) Product Description (e,g, publication reference metadata)
Exploitation	Results, business plan, finance, marketing, production, selling	Marketing information, economic information	Person(s) OrgUnit(s) Business plan Finance Data Marketing Data Production Data Sales Data
Wealth Creation	Marketing, employment, production	Marketing information, economic information	Person(s) OrgUnit(s) Annual Reports/Accounts Employment Records Dividends Records

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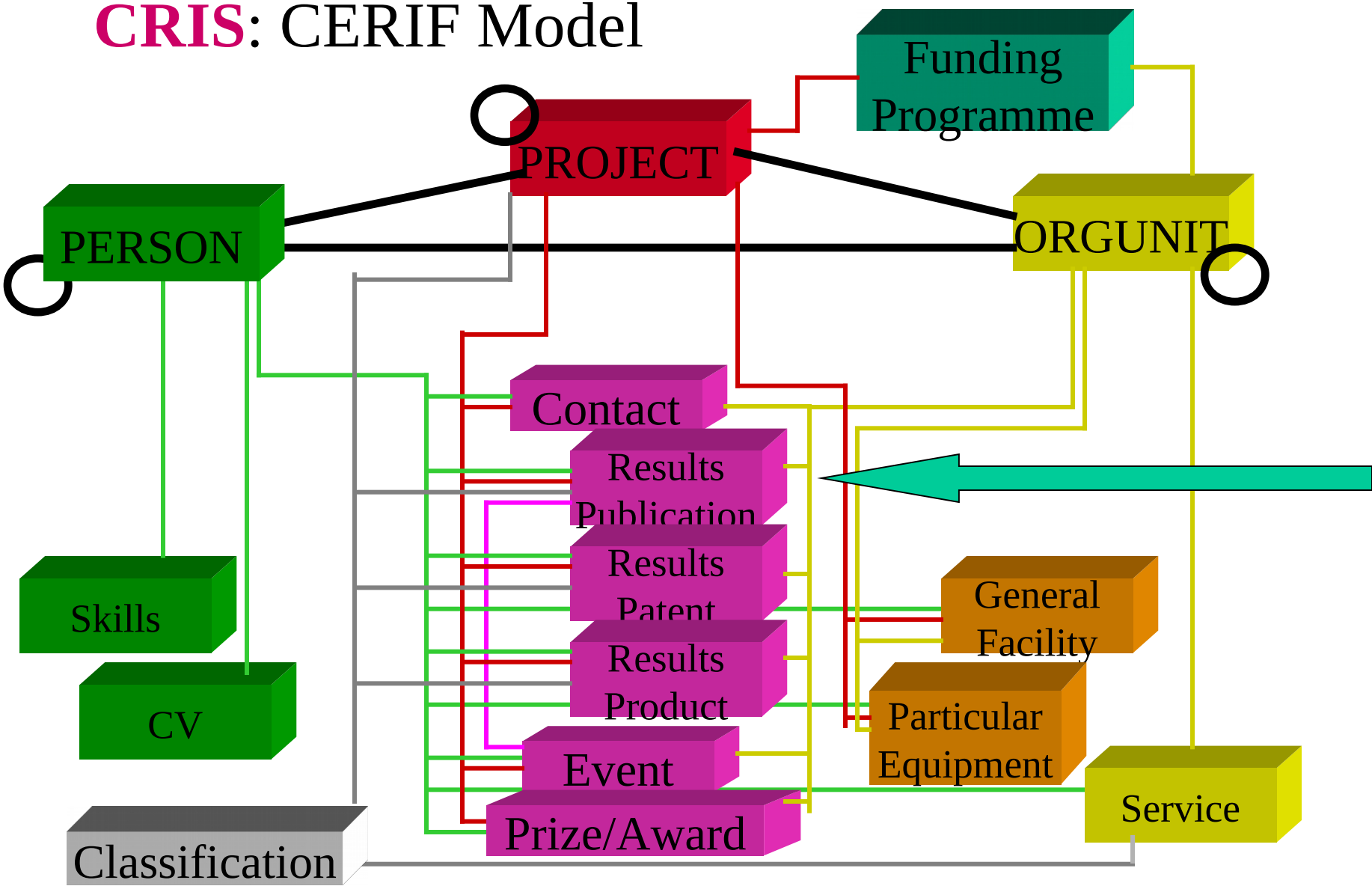
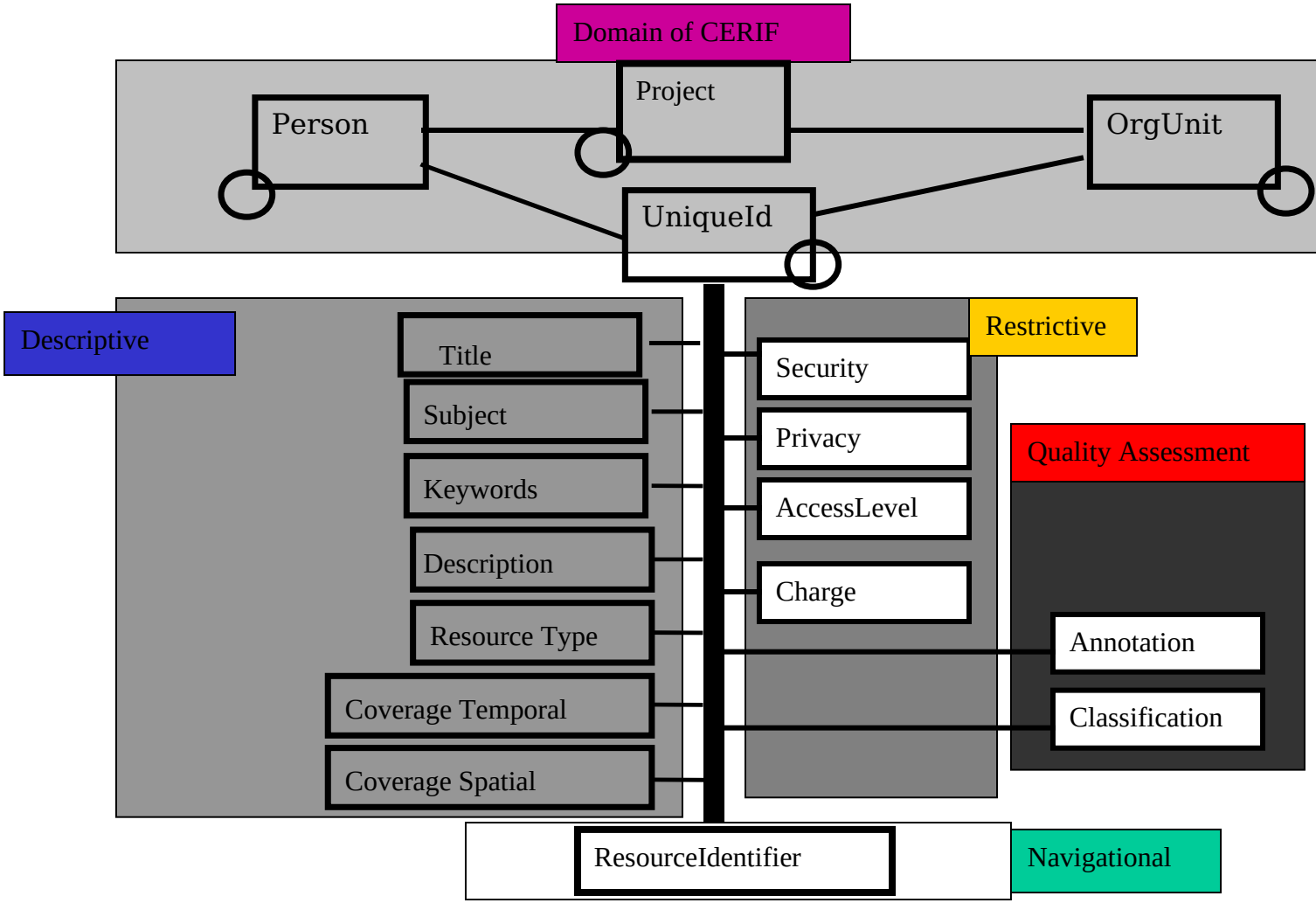
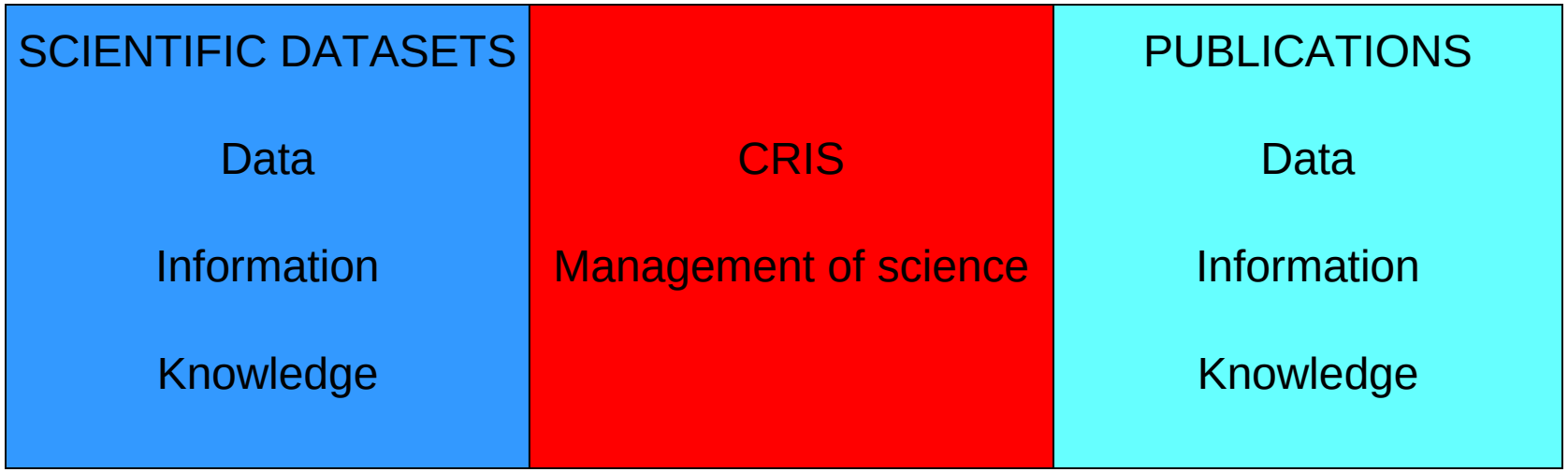
CRIS: CERIF Model



Proposed Formalised DC
(improved hyperlinks, CRIS, metadata)



Overall : The Way Forward



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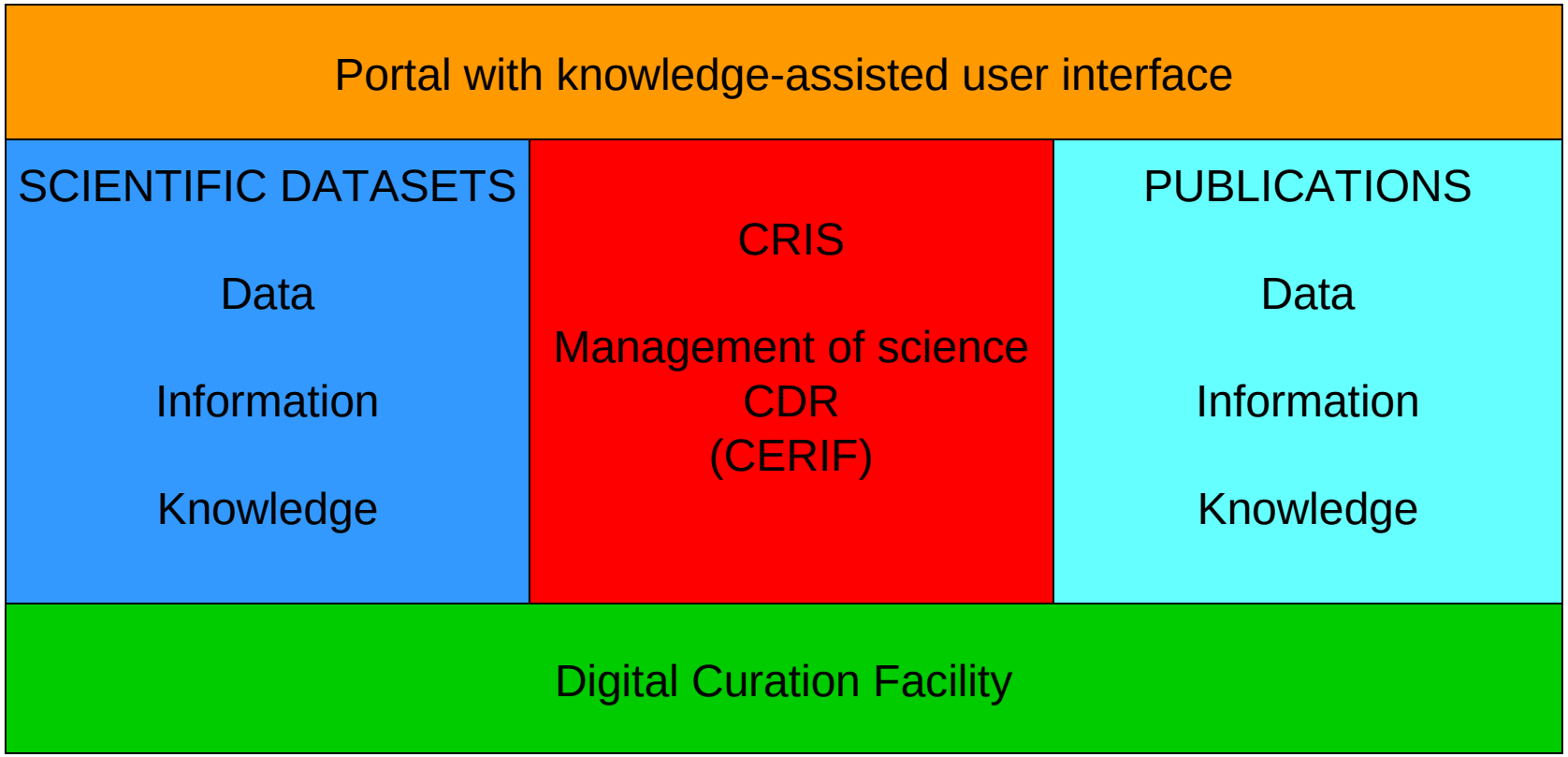

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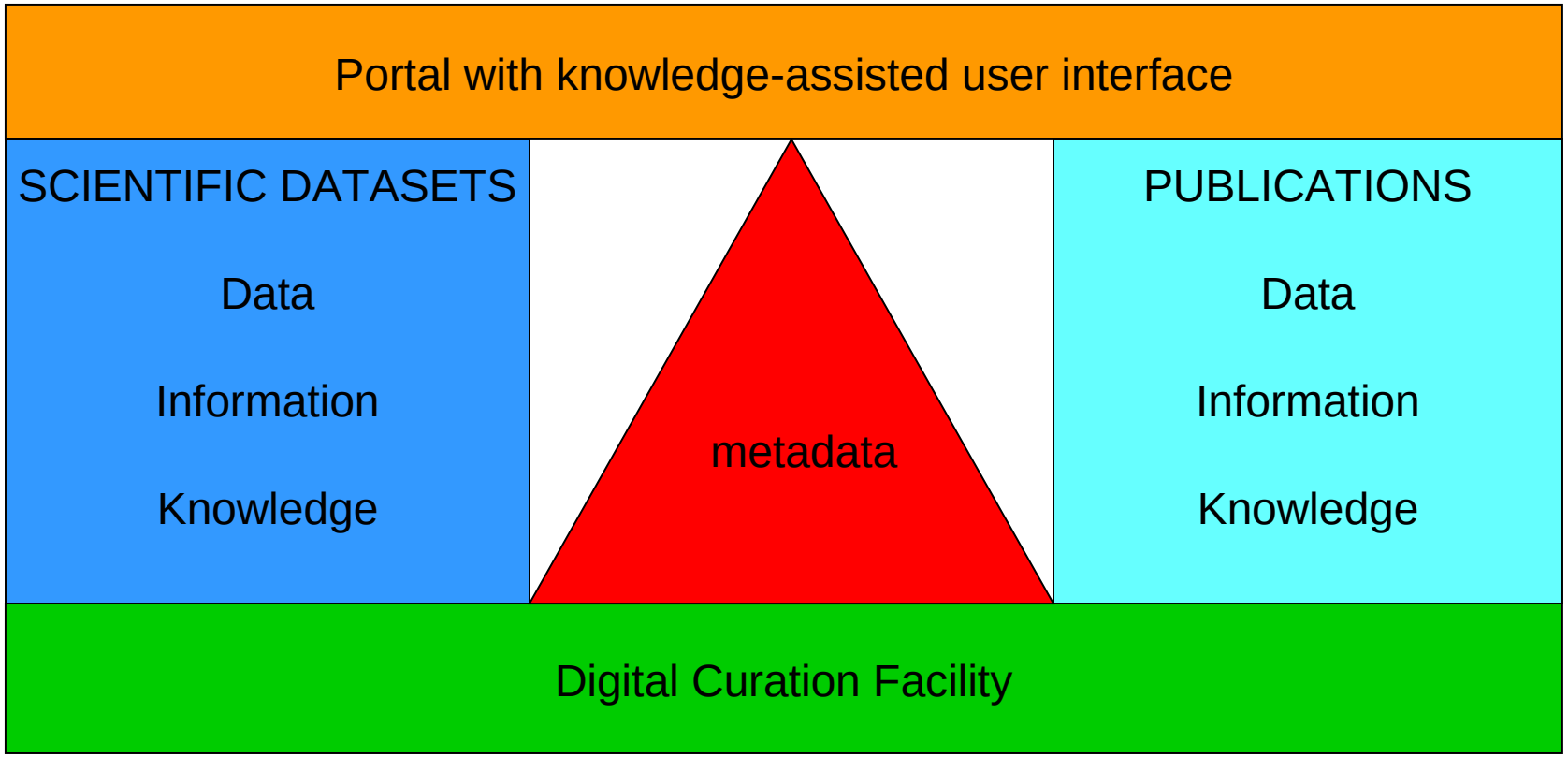

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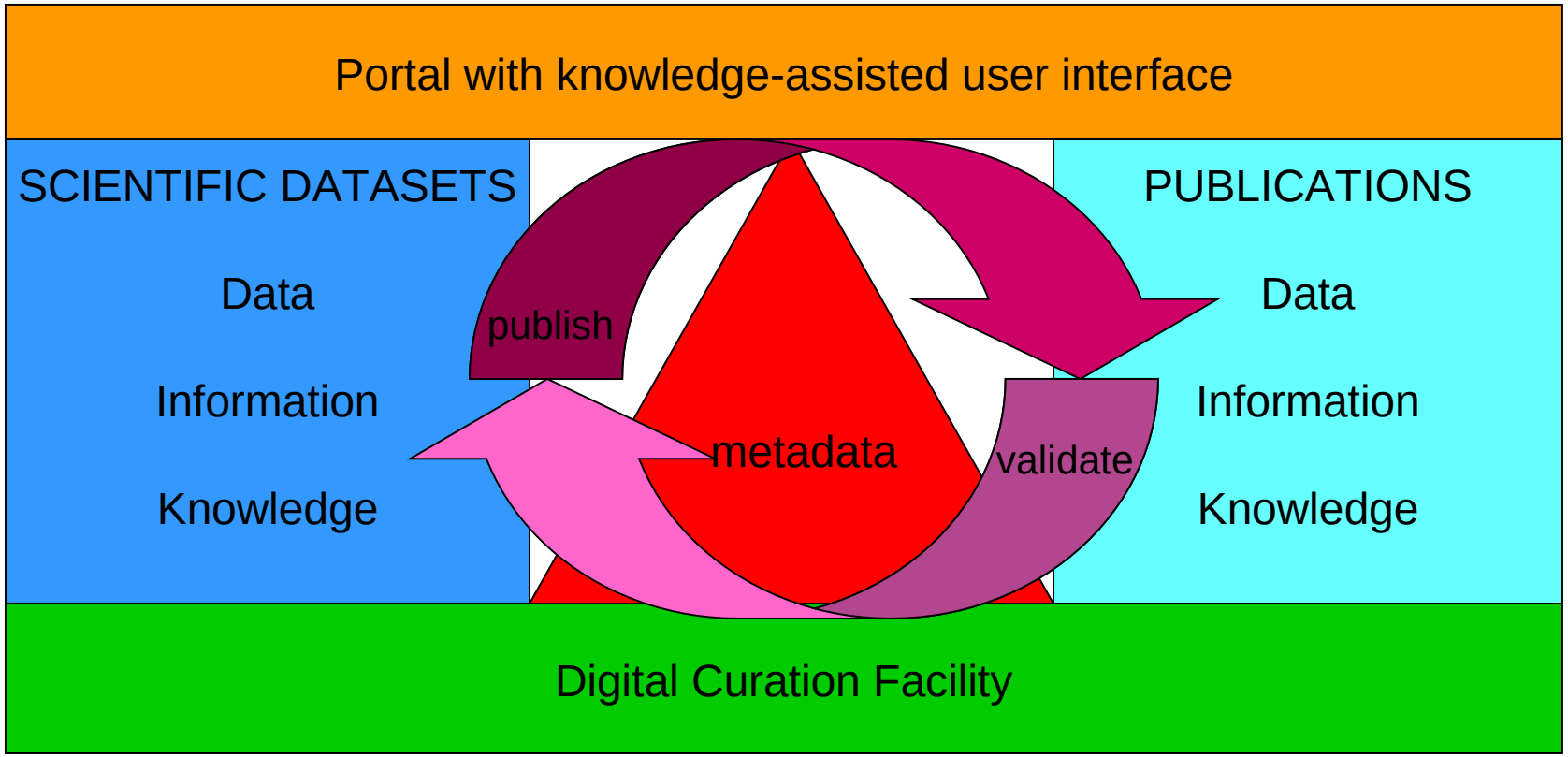

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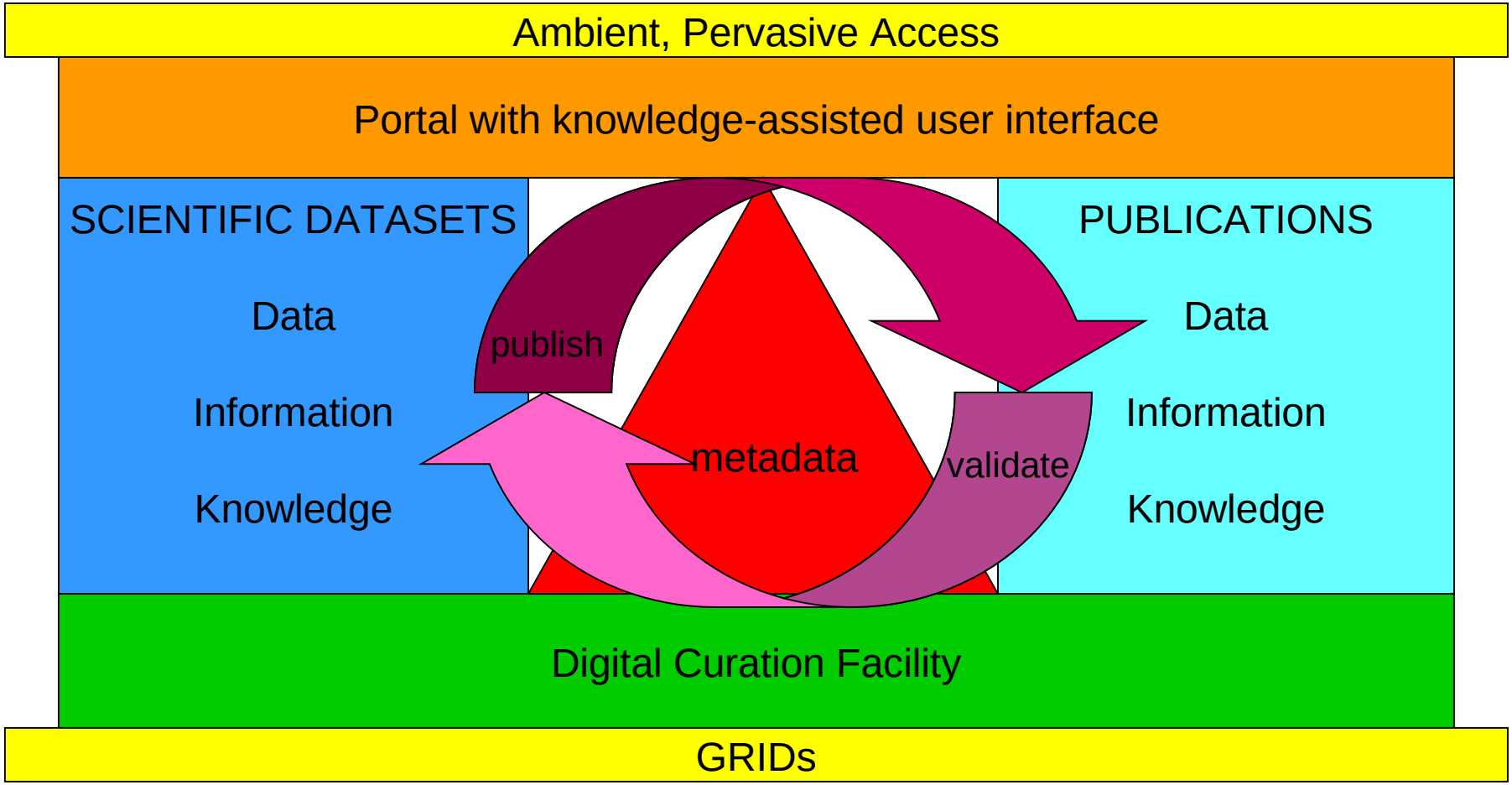
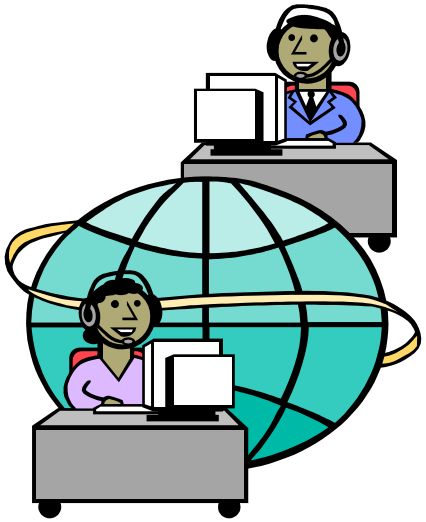


With

- Workflow Support
- Cooperative Working Facilities



✂➔ better R&D

✂➔ wealth creation

✂➔ improvement of the quality of life

Conclusion

- Supporting the **Research Process** with ICT

- **Overcomes the problems**
  - **End-user threshold barrier**
  - **End-user volume barrier**
- **Puts Research Publications in context**
  - **Grey → White**
  - **Related to CRIS data**
- **Positions research organisations for the 'new world'**
  - **GRIDs & Ambient computing**