

WDML: some scenarios for operations, financial models

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Decoupling of roles: modularity

Content providers:

- individual responsibility for continuity of services

Integrators and IT infrastructure providers:

- costs covered within their (wider) service commitments



Operational structure

Cloud concept

IT infrastructure delocalized:

few locations at partners offering enabling capacities for:

- storage, hardware
- software (maintenance and development)
- credible warranty of dependable availability and long(er)-term preservation



Integration and interoperability

**WDML system associated with
a broader service framework for science:**

- functional interoperability
- integration of physical infrastructure

Legal solutions

EuDML business plan, March 5, 2012:

- *a model of voluntary membership contributions is foreseen*
- *various members contribute various resources to the initiative, in a way that the collective contributions facilitate the continuous operations and further development of EuDML services*

Global integrated IT platform for mathematical content
• open operations mode

Collaborative effort of content provision and enrichment
• cluster as multiscale concept

Novel participatory funding schemes:
• cost shared among contributors
• Information Open Communication model

Future vision



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Possible short- and mid-term initiative

Constituting a community around infrastructure based on:

- DRIVER international infrastructure
- and EuDML experience

This would enable WDML to offer

- a consistent and sustainable aggregation and federation of the DMLs over the world



What does it mean for WDML?

Suggestion applicable to the development of tools
to be shared among the DMLs:

Such an initiative should not be limited
to aggregation of individual collections, but offer:

- ☐ rich tools
- ☐ a future-proof development environment
- ☐ infrastructural support to the involved parties
(besides end-users)
- ☐ and possibly offer DMLs hosting and long term preservation
wherever needed



Infrastructure open for diverse content

- Open for grey literature
- Open for working papers and repositories
- Open for enhanced publications
- Promotion of new networked quality ensurance forms
- Participatory culture
- Fundamental role of proactive educational usage forms of the mathematical content



Some incentives and motivations:

Necessary fundamental contributions of mathematics
to next-generation computing systems

Necessary contributions to big-data based science
and technology

Mathematics everywhere

