The MeDIA Initiative

Middleware Development and Innovation Alliance

Governance model and Technology Supply Management

Alberto Di Meglio
Patrick Fuhrmann
Balazs Kolya

EGI Technical Forum

Content

- The Teaser

- The Background

- The Idea

- The proposed Mandate

- MeDIA Web Tool support

- A more formal definition.

- What is a MeDIA working group

- Proposed initial working groups

- An example of the metadata of such a working group

The Teaser

This is an offer to help building-up an open collaboration, where people from software technology teams and people from scientific communities can meet, in real or virtual, to discuss and implement emerging technologies.

The approach is to build that platform from bottom – up as a grass-root initiative.

The background

During EMI times, the *Software Providers (former Product Teams)* got used to processes, they are already missing.

- ...milar interests, ... of

- T... coordinating in...

- T... on ag...

- Co... the pr...

- Or... clarification of misunderstandings between
  – technology providers or
  – between technology providers and consumers.

Examples:

- We already observe inefficient e-mail exchanges, triggered by different people on the same topics. People send requests to random dCache developers.

- Some activities, started with EMI are now stalled as we don't know who is actually responsible and who should make the first step to proceed.

That's cumbersome for the (former) product teams.

The idea ?

- Setting up a system which fills those gaps.
- It should help launching working groups, autonomously working on issues to be solved or perform continuous activities. E.g. testing or verifying interoperability.

How can that be implemented ?

- MeDIA receives requests for a common activity from anyone

- It helps identifying the corresponding Technology Provider Teams

- It brings TPs and 'requestor' together to commonly work on details and a roadmap for the request.

- It finds a 'Chair' for that activity.

- The 'Chair' monitors progress and 'sets' the status of that activity accordingly.

- From that point on, the 'Chair' is in charge of tracking the process.

- The 'Chair' can be any expert in that field.

Can that possibly be extended ?

That's on a rather practical level. But information exchange could be more than that., e.g.

- Giving the technology providers a chance to work in the right direction by bringing them in contact with their customers on a regular basis.

- Providing support for technology users (scientific communities) to learn which technologies are available already, what's on the horizon and where the upcoming challenges are.

- That could be done by organizing 'technical exchange' meetings and inviting experts in various fields to trigger discussions.

- Ideally MeDIA could give support
  - for generating a business opportunity
  - for finding partners and preparing the technical aspects for funding proposals.

The proposed mandate ?

During a meeting in Rome, in March, most of the former EMI partner representatives agreed to join such a collaboration.

There was consensus that this structure must be provided for free and must not interfere with the normal chain of command of the technology providers.

Essentially the audience agreed to support a lightweight monitoring system for common technology provider activities.

MeDIA web tool support

- Mailing list, initially populated with the Rome Meeting participants.

- Web pages with the list and the progress etc of the different activities, at mediasw.org, including wikis etc.

- End of this year, we could make automatic creation and track pages for working groups.

- In preparation: A Social MeDIA platform, to match interests between technology providers and consumers.

- Possibly an *Object Store can be provided*, where the objects (Articles, software etc) can officially be referenced.

In more formal words ?
(Basis for discussion)

MeDIA is a long-term, open, lightweight collaboration on distributed middleware technology. MeDIA members are essentially software developer teams, subsequently called Technology Provider, PT.

MeDIA activities are primarily carried out within Working Groups (WGs). MeDIA itself and the *MeDIA Working Groups* are overseen by a thin coordination layer composed of community elected "MeDIA Chairs".
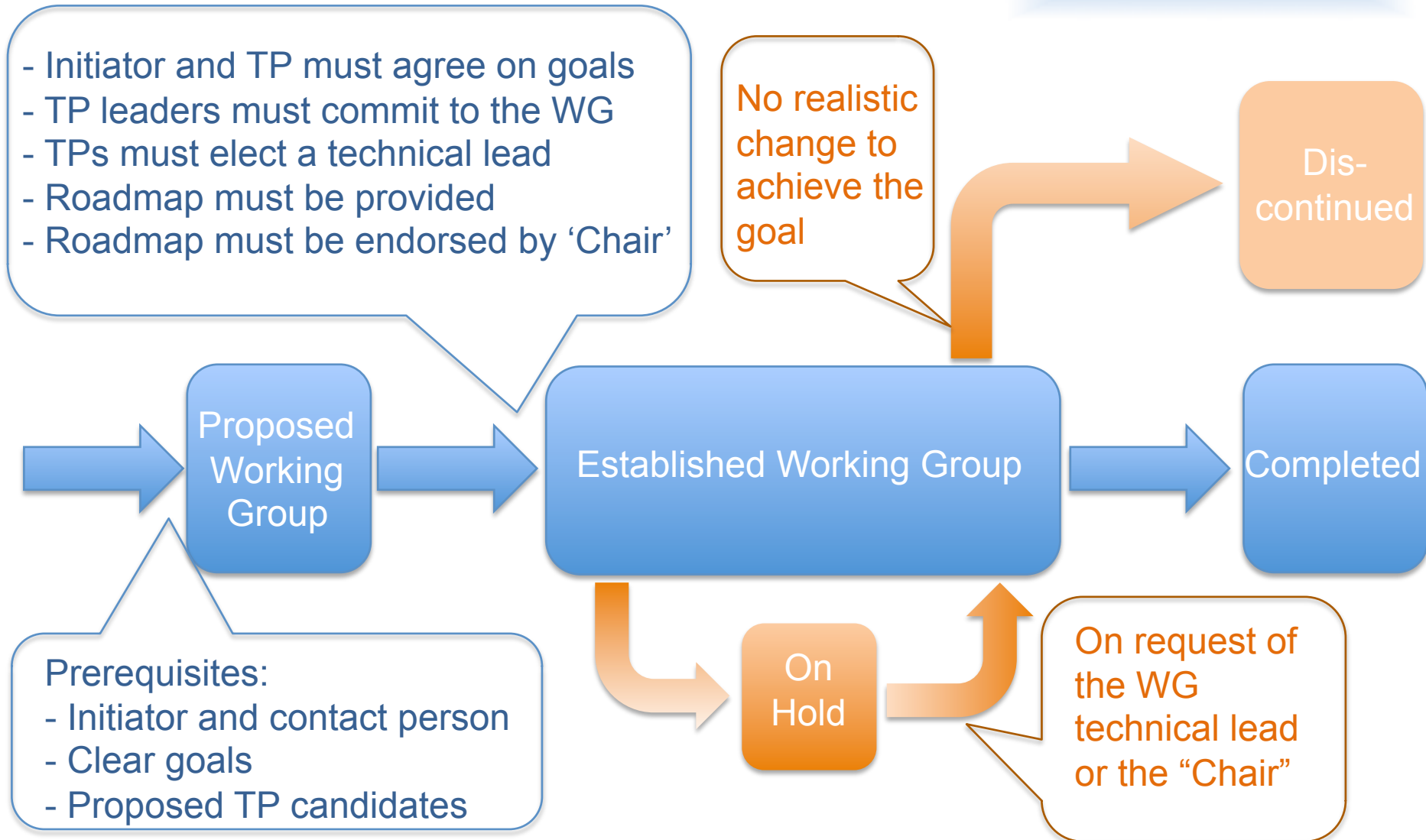
What is a
MeDIA working group ?

- Working groups are the place were technical work is being performed.

- A group consists of two or more Technology Providers, TPs.

- A group is created and run to solve a technology problem or to oversee a process of common interest?

- A group can be

  – *Goal-oriented*, with well-defined outcome, expected to be achieved within a giving timeframe

  – A *continuous task,* e.g. monitoring compliance of TPs towards a technology agreement.

What is a
MeDIA working group ?

- A groups can be formed either by an external request to MeDIA (e.g. a scientific community would need a certain solution) or by a request launched internally, from the member TPs.

- The proposed WG is created if sufficient interest is available.

- The progress of the group is monitored by the corresponding MeDIA Chair.

- WGs are listed on the MeDIA web pages and benefit from the MeDIA collaboration tools.

- The chair of a WG ensures sufficient communication between the initiator of the WG and the WG itself.

Working group diagram

- Initiator and TP must agree on goals
- TP leaders must commit to the WG
- TPs must elect a technical lead
- Roadmap must be provided
- Roadmap must be endorsed by 'Chair'

No realistic change to achieve the goal

Dis-continued

Prerequisites:
- Initiator and contact person
- Clear goals
- Proposed TP candidates

Proposed Working Group

Established Working Group

Completed

On Hold

On request of the WG technical lead or the "Chair"

Example initial MeDIA WGs

Topic	Involved Technology Provider
Dynamic Federation	CERN-Data (FTS3), dCache, StoRM
Data Transfer Interoperability	CERN-Data (FTS3), dCache, StoRM, BestMAN
Accounting Interoperability	APEL, CREAM, NorduGrid-ARC, dCache.org, CERN-Data, StoRM
Computing Element Interoperability	NorduGrid-ARC, UNICORE, CREAM, GridWay, Globus, OosOosGrid
GLUE 1 retirement	CERN-Info, NorduGrid, EGI operation tools, CERN-Data, LCG experiment frameworks
Service discovery	e.g. EMI EMIR TP
Commercialization	CERN-Data, dCache.org, Hydra …

Working Group Example
The Dynamic Federation

Group Name	Dynamic Data Federations
Initiator	dCache.org/CERN-DM (Patrick)
Candidate TPs	CERN-Data (FTS3), dCache, StoRM
Goal	• Providing components that can aggregate on-the-fly storage and metadata farms exposing standard protocols that support redirections and WAN data access. • Making they transparently behave as a unique system, similar to a WAN-wide cluster • On-the-fly building the illusion of a unique namespace from a set of distinct storage endpoints or metadata endpoints like DBs • Being able to accommodate also explicit, catalogue-based indexing and name translation. • Very high compatibility with external data management systems to interact with • Very high flexibility on naming conventions, algorithmic and non algorithmic translations • Very high performance and scalability, even with slow/distant endpoints or databases.
Timing	Roadmap need to be determined
Take up	WLCG experiments, Photon Science, other communities with distributed data.

Planning for an event

- In case there is enough interest we will propose an event to indentify the most urgent and interesting topics for discussion and hopefully launch the first working groups.

- This is a good opportunity to identify projects and find partners to be proposed for funding (e.g. H2020).

Concluding

- MeDIA is a proposal for a bottom up, grass root collaboration.
- It will only materialize if people find it useful. (Other then EU projects)
- To make it work, communities and technology providers have to engage themselves.
- This is essentially a "call for action"
- We can only help to set it up.

The End

further reading
www.MeDIAsw.org

Tool support ?

Mailing list is initially populated with the Rom Meeting participants.

Web pages with the list and the progress etc of the different activities, at mediasw.org

Between now and the end of the year we could make automatic creation and track pages for working groups.

Possibly an Object store with, where the objects (Articles, software etc) can officially be referenced.

First Media Event in the next months. One part were we want to make a list on how to solve problems for the next years. And the second on how to solve this.

Grass Root.

- Without details

- Launch the proposal to have a meeting. Finding the challenges. Very level presentation of what we want to build.

- Sign up for the mailing list. Be prepared for a MeDIA forum. End of Jan.

During EMI times, the *Software Providers* got used to processes, which there are not missing.

The Background ?

➢ Continuous information exchange (roadmap, technology) between groups of similar interests including users and infrastrutures. (e.g. CERN-DM, dCache.org and StoRM)[requirment gathering or better facilitating : Step one : event once or twice to ask what the challenges are for the future. We pick the once with the most interest. From that we take one initiator and from that we start a working. Invite outstanding scientist which triggers questions and discussions. The community will chose what will win.

➢ Someone who tracked progress of common activities and if necessary coordinated inter-product team processes. (not enforcing , only facilitating)

➢ Coordintated implemention of selected agreements.

➢ (nagios probes)

➢ Continuous product inter operability's testing.

➢ !! Clearification