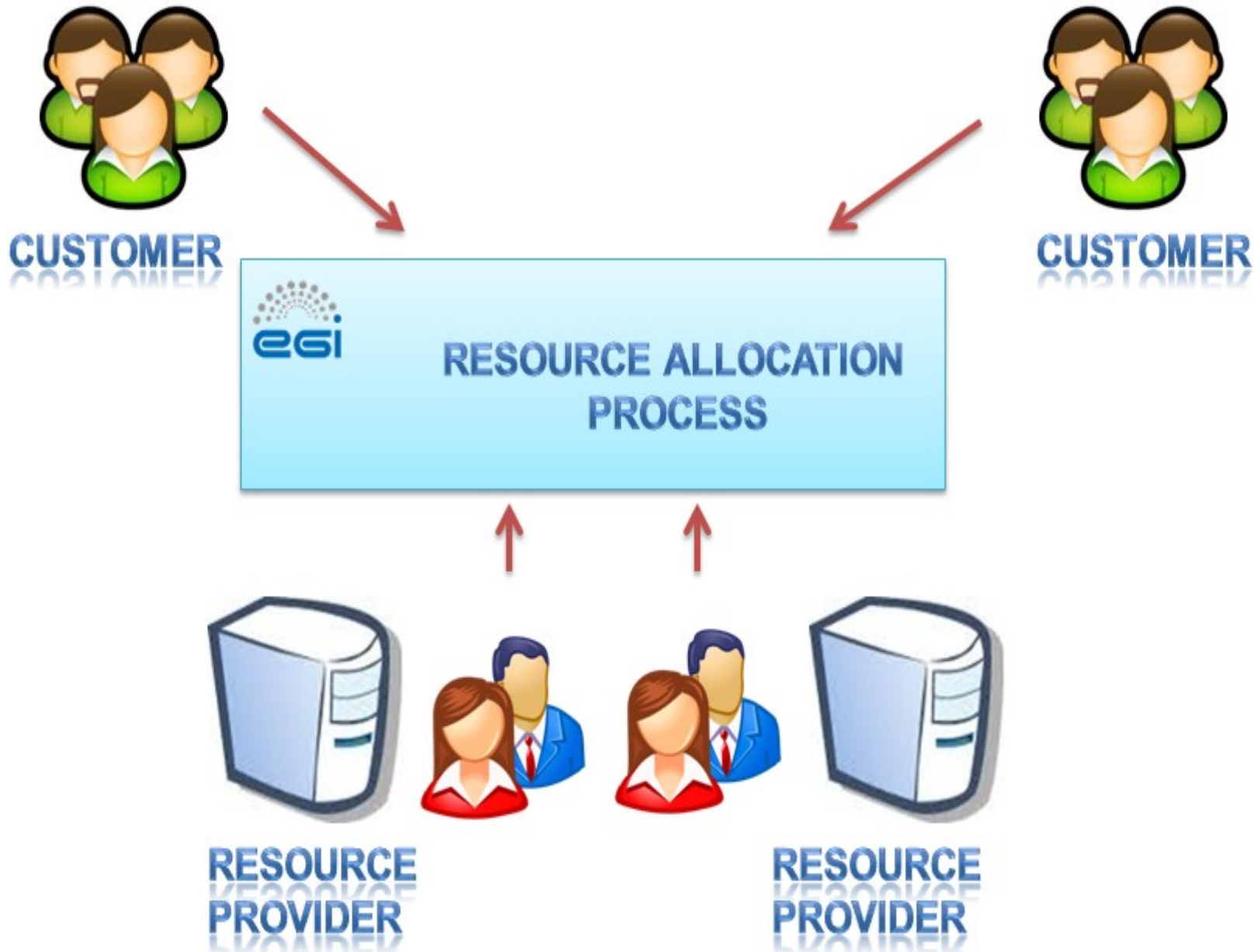


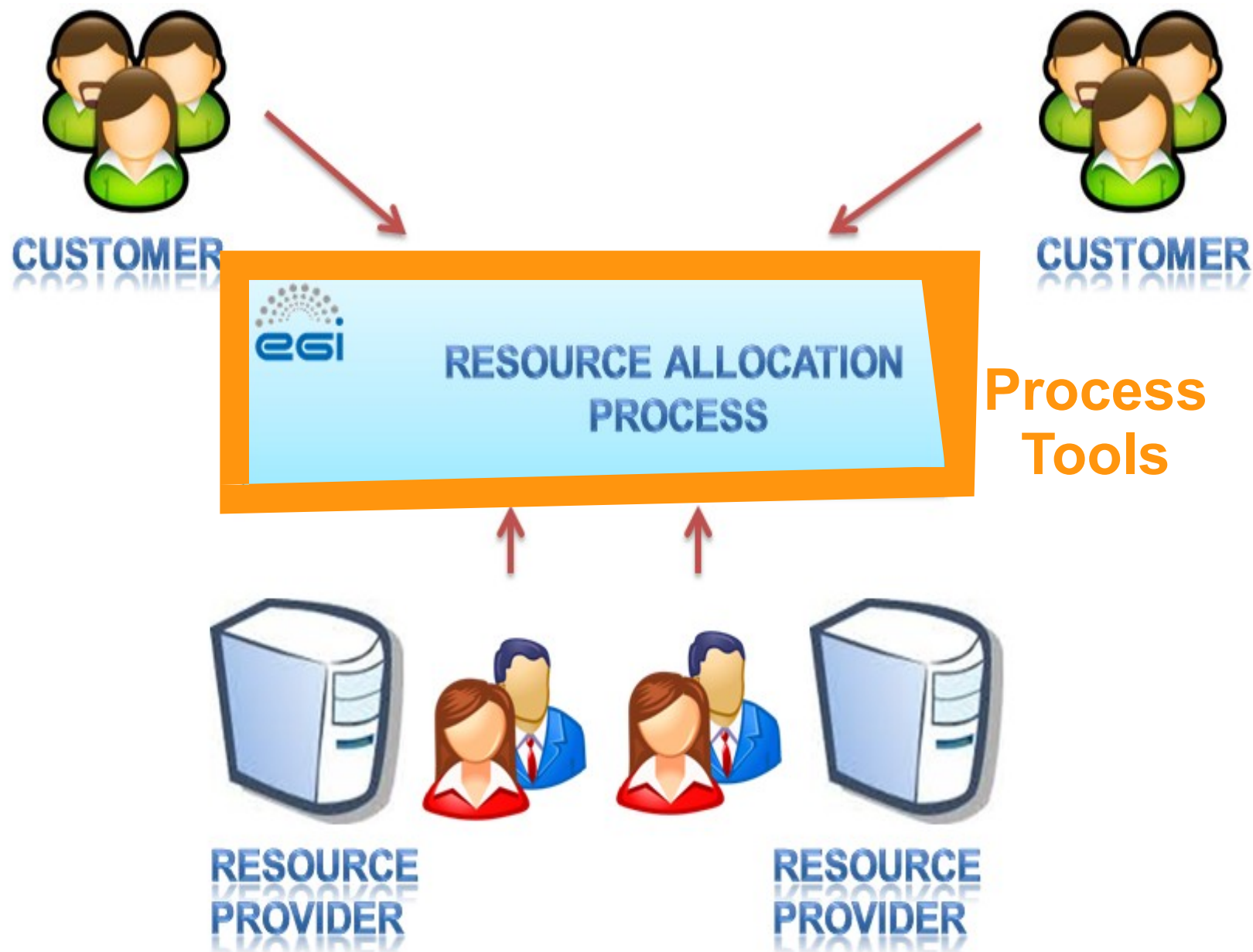
# Tools for automating applying for and allocating federated resources

*Tomasz Szepieniec  
ACC Cyfronet AGH, Poland*

# Goal of the project: RA process tools



# Goal of the project: RA process tools



# Formal summary

- Coordinator:
  - Tomasz Szepieniec, ACC Cyfronet AGH
- Consortium:
  - Academic Computer Centre CYFRONET AGH
    - tools development
  - Centre National de la Recherche Scientifique (CNRS), IN2P3
    - integration with existing operation tools environment
- Funding:
  - Total costs: 107k, EU contribution: 50k
  - Staff effort: 14.5 PMs
- Timeframe
  - 12 months from 1st April
- Project supervisor:
  - Tiziana Ferrari,
  - Resource Allocation Task Force

# Motivation & Concepts

- Demonstrating Excellent European Science on EGI's Shared Resources

<https://documents.egi.eu/public/ShowDocument?docid=1415>

- EGI Pay-for-Use

<https://documents.egi.eu/public/ShowDocument?docid=1391>

- EGI Resource Allocation Task Force

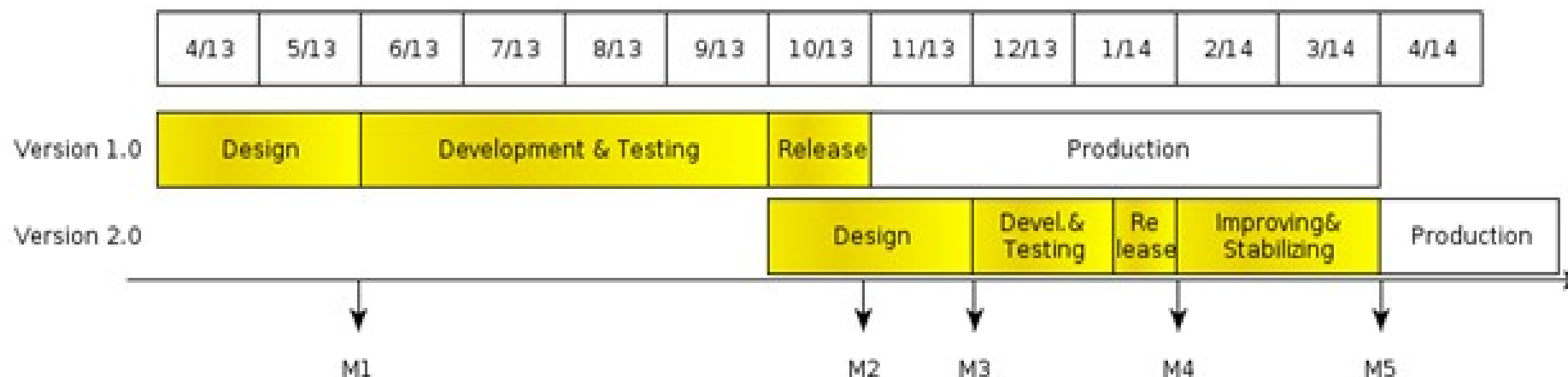
[https://wiki.egi.eu/wiki/Resource\\_Allocation\\_Task\\_Force](https://wiki.egi.eu/wiki/Resource_Allocation_Task_Force)



Service Delivery and  
Service Level Management  
in Grid Infrastructures



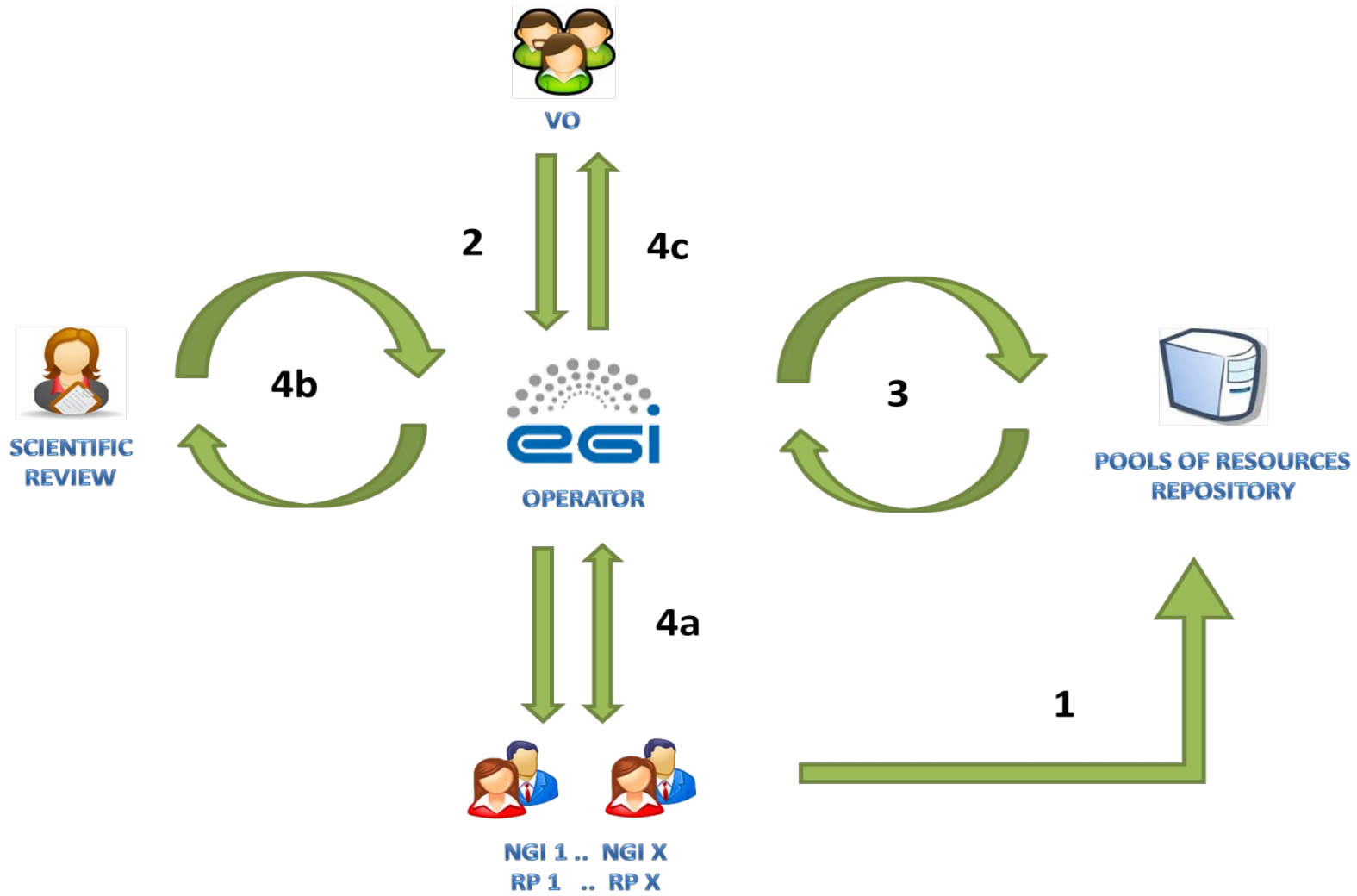
# Technical workplan



Milestone number	Date	Description
M1	May 2013	Technical design of the tool and definition of initial first set of high priority functions for the 1st release of the tool. Functions will be discussed with the Resource Allocation Task Force.
M2	Oct 2013	Release of Version 1 of the tool and deployment in the Operation Portal
M3	Nov 2013	Implementation plan of Version 2 of the tool
M4	Jan 2014	Release of Version 2 of the tool (beta-version) and deployment in the Operations Portal for final testing
M5	Mar 2014	Release of Version 2 of the tool (final version) including user-guide, and configuration manual. Enabling this version in production operation infrastructure.

# Ongoing Activities: Process Implementation Concept

Targeting to cover all the useful scenarios...



# Ongoing Activities: Process Implementation Concept

Targeting to cover all the useful scenarios...  
 ... according to IT SM good practices...



**Service Level Agreement (SLA):** agreement involving the Customer

**Operational Level Agreement (OLA):** agreement supporting an SLA usually between two of the following: EGI, NGI, and Resource Center



# Ongoing Activities: Process Implementation Concept

Targeting to cover all the useful scenarios...  
 ... according to IT SM good practices...



...and enable RA process on both EGI and NGI level.



## Ongoing Activities: Technical Solution

- Assessment of customization possibilities and costs for design in different scenarios.
- Two options of technology platform:



- Developed by Cyfronet team
- Running in production mode in PL-Grid
- Adaptivity limited in some process options



- Proprietary framework but option to get free licence
- Designed with SLM good practices in mind
- Adaptive, clear technical implementation enabling easy customization

# Bazaar workflow (simple)

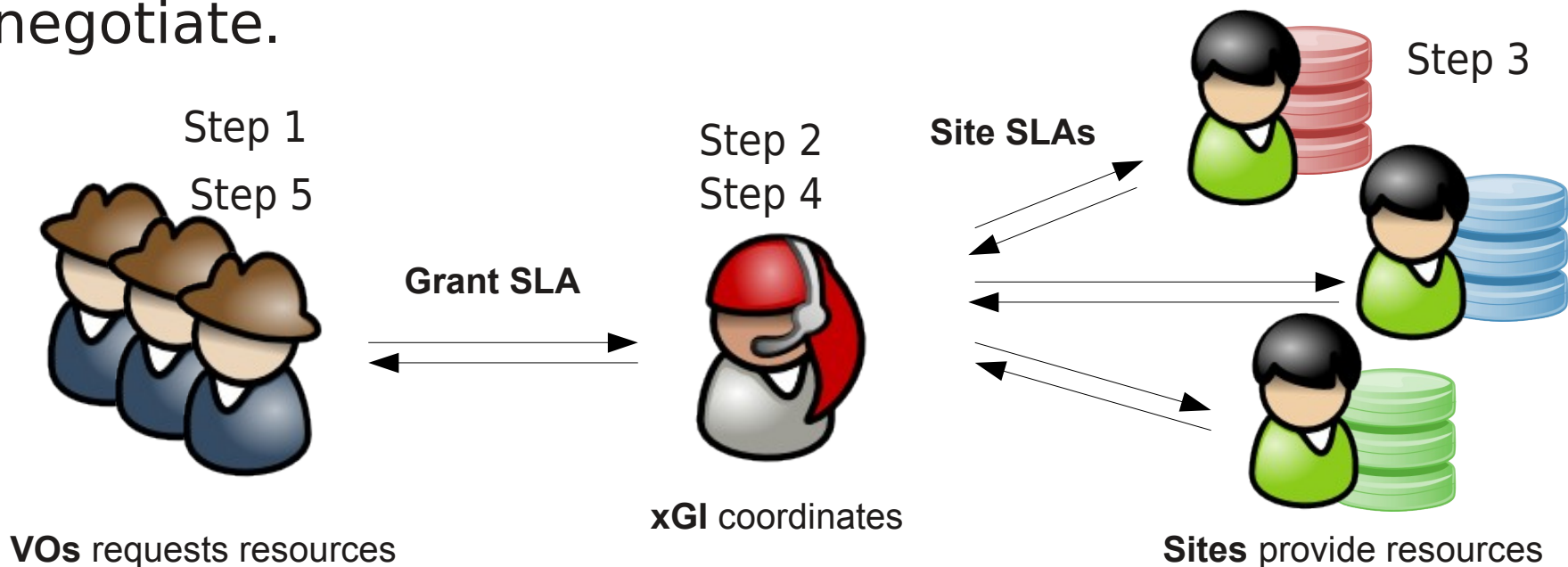
Step 1. VO specifies their requirements (Grant SLA).

Step 2. xGI receives the request and informs selected Sites.

Step 3. Sites offer or refuse resources (Site SLAs).

Step 4. xGI combines received offers and sends the result to VO.

Step 5. VO decides whether to accept the offer, refuse it or negotiate.



# Grid Resource Bazaar for PL-Grid

grid resource  
**BAZAAR**

- Pick role
- Tester
- NGI Operator
- UG Manager
- Reviewer

Organization filter

Your roles

- Resource Users
  - plgcmarcin
  - plgglescsmc
  - plggqcmr
  - plggsicmat
  - plggvocms
  - plggzbitcm
  - plgucmazur
- Resource Providers
  - ICM

Your new role is not showed?

Home Bazaar log NGI\_PL plggsicmat Refresh tab

Actions & information Pending Actions

Date	Topic	Act.
30/12/2011 14:10	Zaproponowano zmiany do Site SLA SIC-2012	
29/12/2011 15:22	ICM przydzielił zasoby do grantu SIC-2012	

Grant SLAs Column filter

Main st.:  Agreed  Proposal  Draft  Cancelled  
 Activity st.:  Active  Blocked  Pending  Completed  
 Get personal grants 150 SLA

ID	Name	Start Date	End Date	Version	Cov. State	State
703	SIC-2012	01/01/2012	30/12/2012	3706/2012-01-02	COVERED	AGREED

Site SLAs Column filter

Main st.:  Agreed  Proposal  Preagreed  Draft  Cancelled  
 Activity st.:  Active  Blocked  Pending  Completed  
 Get personal grants 150 SLA

ID	Name	Res. provider	Start Date	End Date	Version	State
826	SIC-2012	ICM	01/01/2012	30/12/2012	3702/2012-01-02	AGREED
831	SIC-2012	TASK	01/02/2012	30/12/2012	3704/2012-01-02	AGREED

Site SLA: '826'

Menu Offer\_Changes

Basic SITE SLA information

SLA id : 826 (ver.: 3702/2012-01-02)  
 SLA name : SIC-2012  
 Resource provider : ICM  
 Resource user : plggsicmat  
 Superior SLA : SIC-2012 (id: 703)

States:  
 Main : AGREED  
 Activity : ACTIVE

Resources

Period no. 01-01-2012 - 30-12-2012

Computational Resources  
 Max total walltime 800,000 h

Storage Resources  
 Total storage space 1,200 GB

Other specification :  
 Moge zaproponowac powyzsze limity na caly grant. Liczba uczestnikow grantu nie jest mi znana, ponadto moze zmieniac sie w trakcie.

Action comment : SLA agreed due to superior Grant SLA accept

Contact person : [Wojciech Marchwinska](#) (plggsicmat as RU)

# Agreement Demo Portal Screenshot

GridSystem
Home [Link](#) [Link](#) [Link](#)
Logged as: John Deree [My account](#) [Logout](#)

Project DMPW301

INBOX

[plganna87](#)

[plgpszep2013a](#)

[plgmama12](#)

OUTBOX

[plgchemia2](#)

[plgyui2000](#)

[plgmooha2012b](#)

## Slaname 1 with user 1

SLA Number: **13569**

Team: **XYZ392**

**STATES**

main: PROPOSAL

activity: NOT APPLICABLE

A change had been offered to the SLA, which you possibly have not seen yet. ✕

### Resources

PERIOD

Start

End

COMPUTATIONAL RESOURCES				
ⓘ	Max Walltime	20000	30000	h
ⓘ	Max Total Walltime		5000	h
ⓘ	Lorem ipsum		1500	h

✎ Edit
⊕ Delete

Actions

Send proposal

Edit offer

Negotiate proposal

Accept proposal

Reject

Delete

Cancel
Sent
Save draft

# Design Phase Checklist

- Overall RA process concept (input from RATF) **DONE**
- RA procedure description (input from RATF) **IN PROGRESS**
- Evaluation on technical platform **IN PROGRESS**
- Integration with operation tools concept **TODO**
- Version 1 functionality list **TODO**

Due: end of May!