



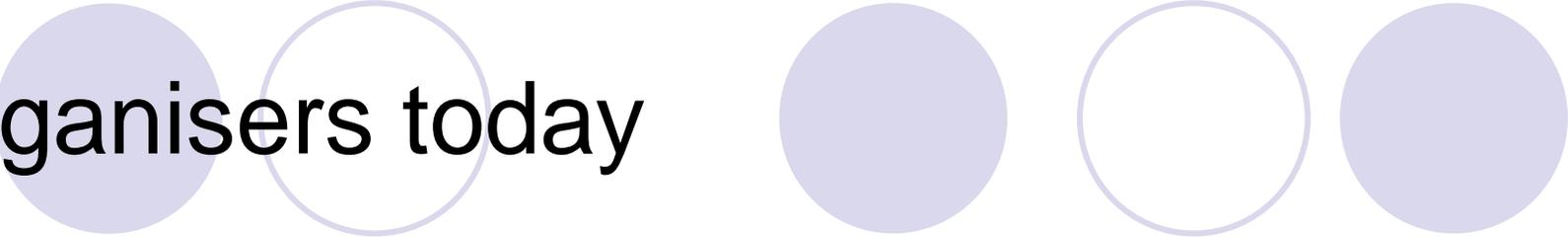
# OSLC PLM Workgroup

Working meeting  
May 11<sup>th</sup> 2010  
[open-services.net](http://open-services.net)

V0.2

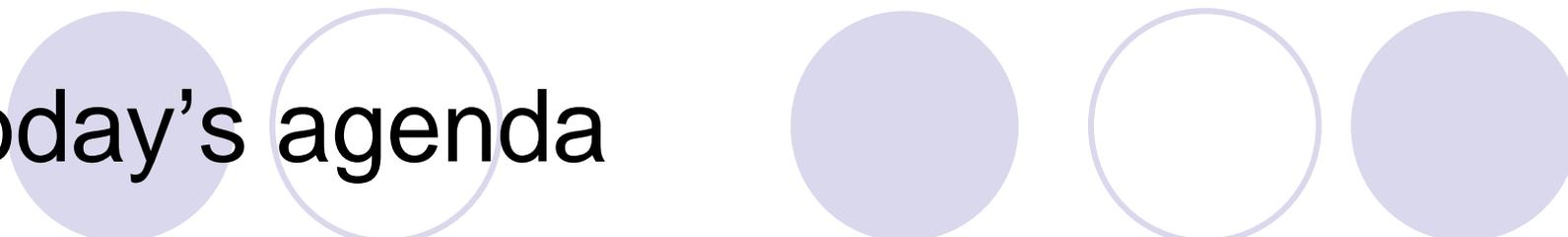


# Organisers today

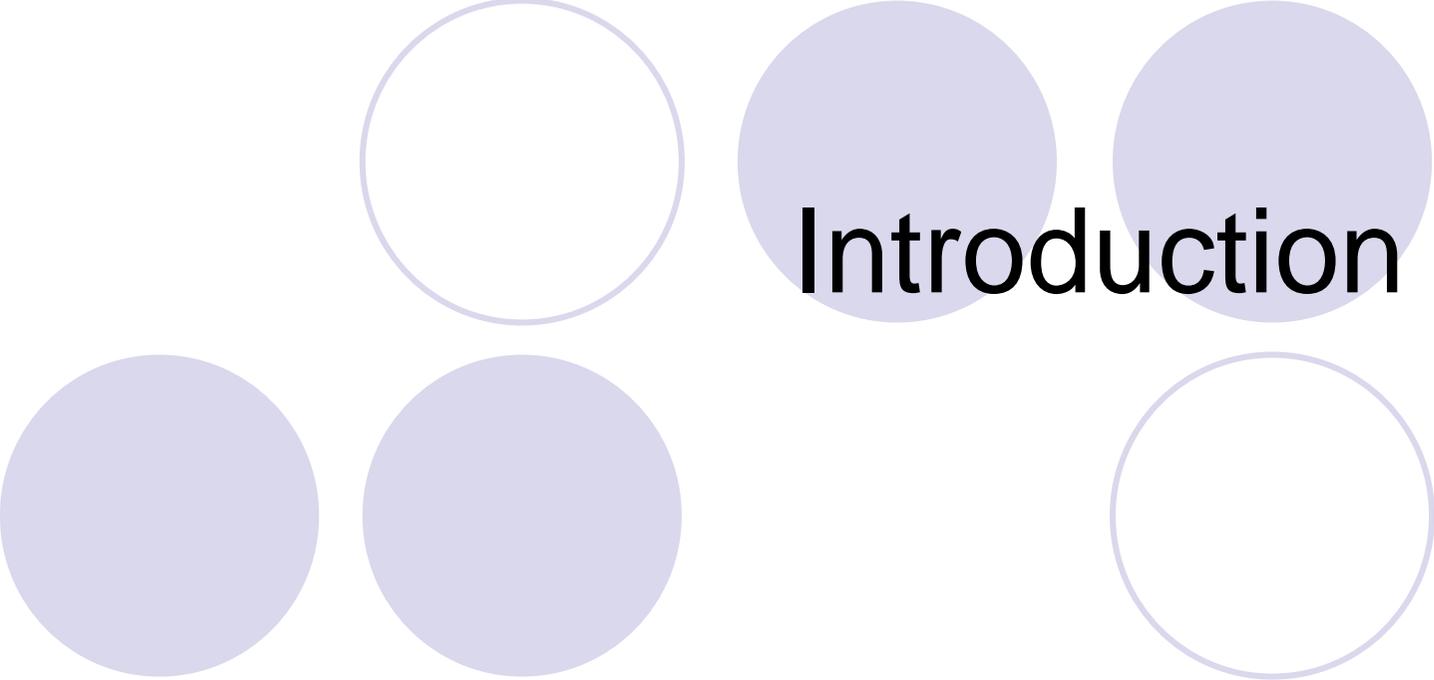


- Workgroup lead: Rainer Ersch, Siemens
- Coordinator: Gray Bachelor, IBM

# Today's agenda



- Roll call and brief introductions- welcome new members
- Objective for today's meeting - Scenario walkthrough
- Summarise PLM Workgroup meeting of April 20th and review progress of the [Action plan](#)
- Comments upon and matters arising from the last PLM Workgroup Main meeting
- Update on the available posted [PLM scenarios](#)
- Focus on the Systems Engineering scenario
- Summarise discussion ahead of proposed working session
- Proposal and plans for a meeting at Innovate 2010
- Proposal for next meetings - Working session May 17th 11am EST
- Covenants
- Any other business
  
- Next steps
- Close



# Introduction

# April 20th Attendees

- Rainer Ersch (Siemens, lead)
- Gray Bachelor (IBM, organizer)
- Brenda Ellis (Northrop Grumman)
- Charles Krueger (BigLever)
- Pascal Vera (Siemens)
- Roch Bertucat (ENEA)
- Brent Feather (IBM)
- Kamala Sista (IBM)
- Mike Loeffler (General Motors)

**Check if miss anyone**



# Roll call

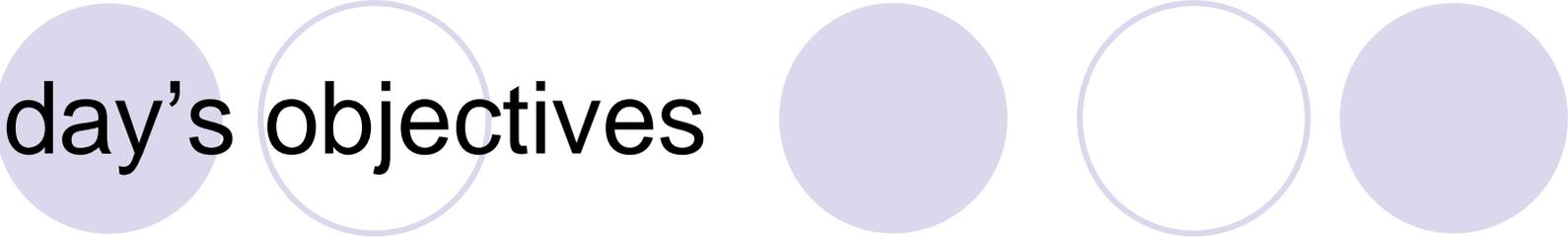
- Please briefly state your name, organisation, role
- If you are in the web conference put your details in a chat
  - Send to “All”
- If not please send an email to [gray\\_bachelor@uk.ibm.com](mailto:gray_bachelor@uk.ibm.com)



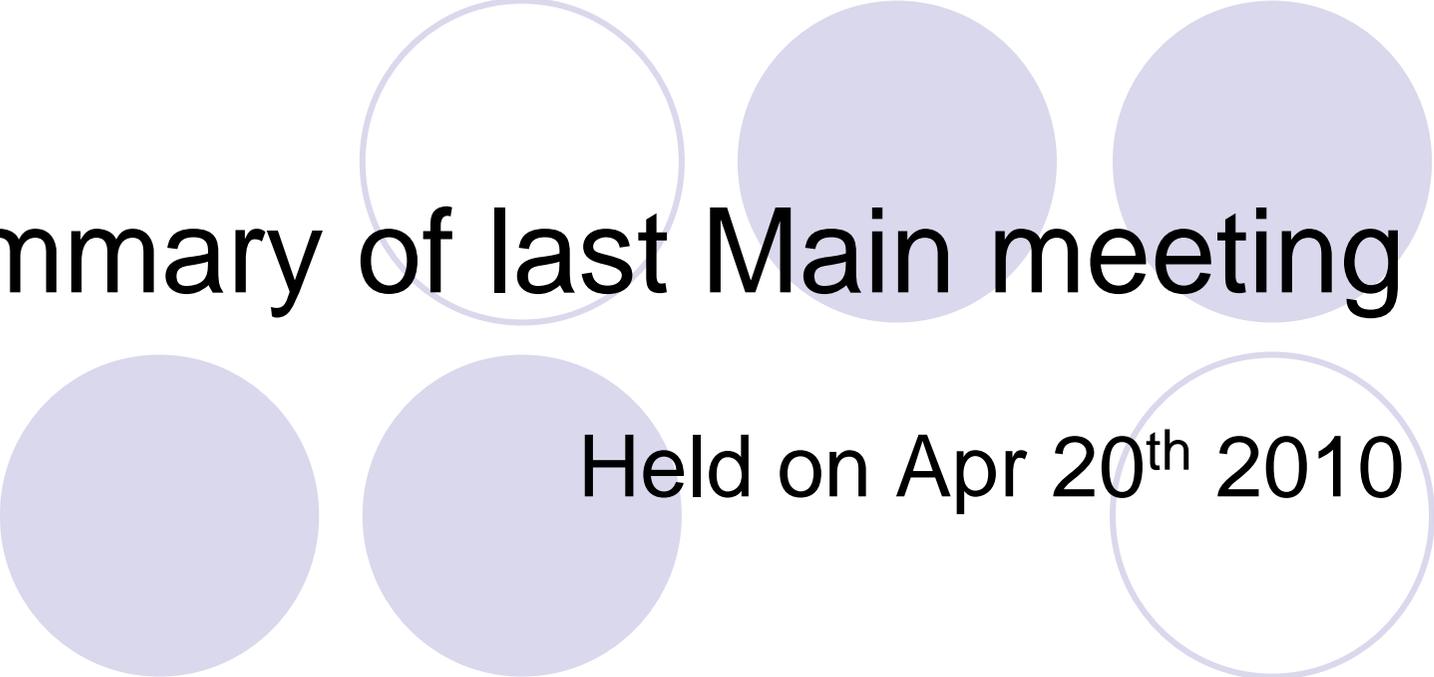
# Aims of an OSLC PLM workgroup

- Evaluate applicability of existing OSLC specifications towards use in an ALM/PLM setting
- Contribute towards extension or new OSLC specifications base upon need or ALM/PLM collaborations

# Today's objectives



1. To discuss common ground around the Systems Engineering scenario
2. To decide on next working session to elicit use-case
3. To discuss a meeting at Innovate 2010



# Summary of last Main meeting

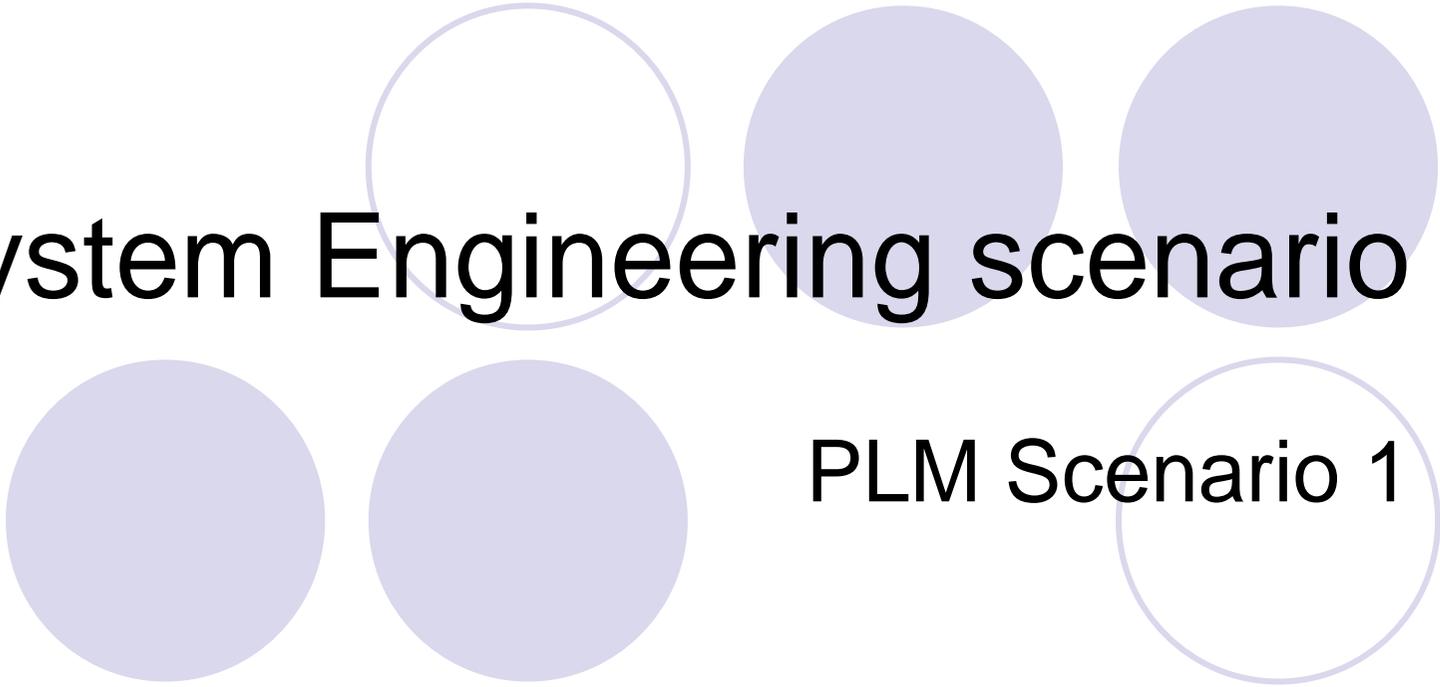
Held on Apr 20<sup>th</sup> 2010

# Topics addressed at the last meeting

- Scenarios
- Proposal to focus on Scenarios from GM
- Covenants
- Innovate 2010

# Actions review

#	Description	Source	By whom	By when	Status
1	Access scenario pages on wiki	Main 16/2/2010	All Community members	16/3	Underway
2	Arrange CM/RM deeper dive	Main 16/2/2010	Gray	3/3	Done
3	Arrange next call 16/3	Main 16/2/2010	Gray	16/3	Done
4	Scope of PLM – config. Change, re-use	Main 16/2/2010	Gray	18/2	Done
5	Page layout updates	Main 16/2/2010	Gray/Scott	19/2	Done
6	Post minutes	Main 16/2/2010	Gray	16/2	Done
7	Start glossary	Main 16/2/2010	Scott	19/2	Underway
8	Arrange next call 30/3	Main 16/3/2010	Gray	30/3	Done
9	Call for Voting	Main 16/3/2010	Gray	30/3	Done
10	Add covenant to <a href="#">PlmHome</a>	Main 16/3/2010	Scott	30/3	Done
11	Add a view of artefacts e..g architecture, system and discipline	Main 30/3/2010	Rainer ? Gray	30/4	Proposed
12	Walkthrough scenarios	Main 30/3/2010	Rainer	20/4	Done
13	Meet at Innovate	Main 30/3/2010	Rainer	30/5	Proposed



# System Engineering scenario

PLM Scenario 1

# Systems Engineering scenario

## Systems Engineer Reacts to Changed Requirements

### PLM Scenario 1 – outline

1. SE receives input of change to existing product needed by marketing (via Change Request)
2. SE locates existing requirement(s) affected by desired change, either directly in requirements manager or SysML requirements diagram view
3. SE traces affected requirements to determine impacted behavior and physical design artifacts, adding them to CR as part of solution
4. SE adds or removes requirements as necessary
5. SE searches for behaviors and physical designs to meet new and revised requirements based on previous uses and related requirements
6. SE proposes changes of requirements, behaviors and physical designs as solution to CR, while collaboratively, all affected suppliers and downstream engineers analyze, review and approve changes

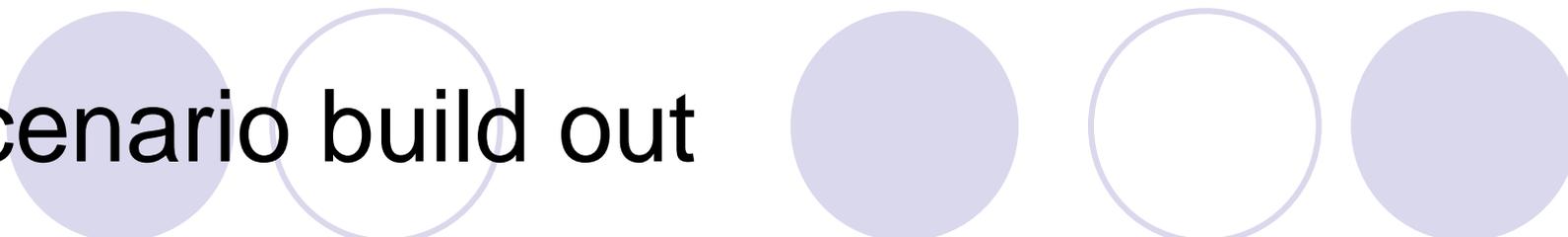
# Systems Engineering scenario

## Systems Engineer Reacts to Changed Requirements

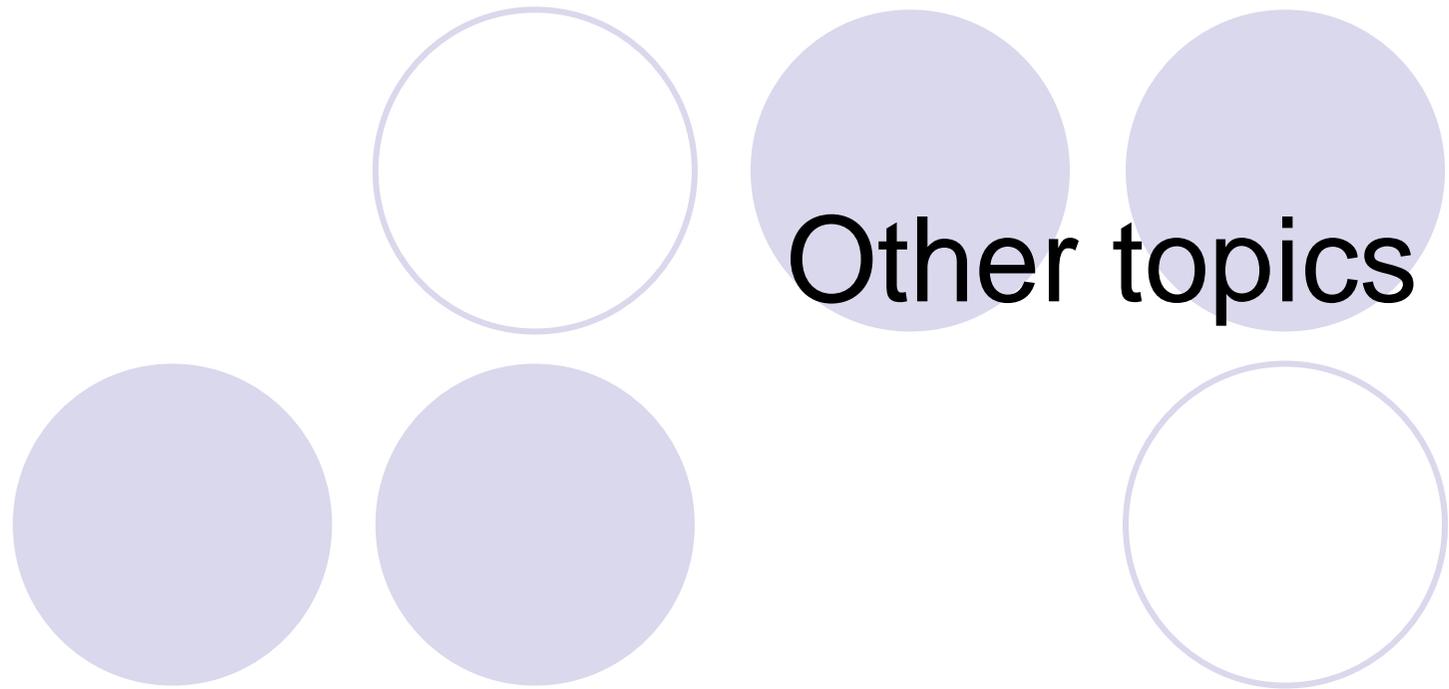
### PLM Scenario 1 – more insight

1. Marketing user (change requestor) opens change request tool (probably connected to enterprise PLM repository) and creates a change request to change the (already released) requirement that defines behavior of the **optional** power window feature on 2012 Ultra platform to add automatic open and close on all six windows. Existing required behavior is automatic open only on driver window. The requirements at this level are likely in the PLM repository.
2. Systems Engineer (SE) receives notification of the change request by email, including a link to the change request.
3. SE opens the change request by clicking the link in the email, this opens a (thin or rich client) portal into the enterprise PLM system that shows many aspects of the data for the Ultra platform
4. SE clicks the link in the change request that points to the requirement, opening the requirement in a SysML<sup>2</sup> Requirements Diagram editing tool
5. SE creates new working revision of the Ultra platform requirements context so the requirement can be changed, the new revision opens in the requirements editing tool
6. SE locates an existing generic power window feature implementation in a related architecture that matches the change requestor's needs by searching for existing requirements using the requirements editing client or related query tool
7. IFF EXISTS:
  1. SE compares the new implementation with the existing one, specifically looking at differences between requirements decompositions (spanning PLM and ALM), models (probably in ALM only), hardware designs (probably in PLM only) and software source code (in ALM) plus calibrations (probably in PLM)
  2. SE adds the new requirement and implementation to the change request as the solution
  3. SE swaps out the old implementation and replaces it with the new one in the working revision of the context
  4. SE fixes any loose ends left when the new implementation was swapped in, the loose ends (potentially in both PLM and ALM) are added to the CR as solutions
8. ELSE:
  1. SE traces all links from the existing requirement to determine what decomposed requirements (spanning PLM and ALM), behavior models (probably in ALM only) and physical implementations (hardware in PLM, software and/or calibrations in ALM and PLM) are impacted by the change
  2. SE adds all effected items to the change request by linking them
  3. SE modifies each of the impacted items in the context, either swapping it out with another existing one that fits the need, or creating a new one
  4. As the SE is making changes the working context is being updated as edits are saved, thus allowing interested collaborators to view and comment in real time
  5. Any further detailed design changes that the SE identifies cause a detailed CR to the appropriate subject matter expert (recursively), with attached links to the specific items that need to be changed. These changes must be closed out before the complete design can be finished.
  6. As each edited sub-requirement, model and physical design is finished, it is reviewed and approved for release. After all sub-elements are released the next higher assembly is updated with the new released revision if necessary.
9. ENDIFF:
10. SE submits the revised working context for review and approvals
11. After all validations and reviews are signed off the new context is automatically moved to released state, becoming mainstream design intent, with some effectivity statement (effective immediately, effective as of a certain date, a certain build event or lot, etc.)
12. Release of revisions automatically closes out the change request

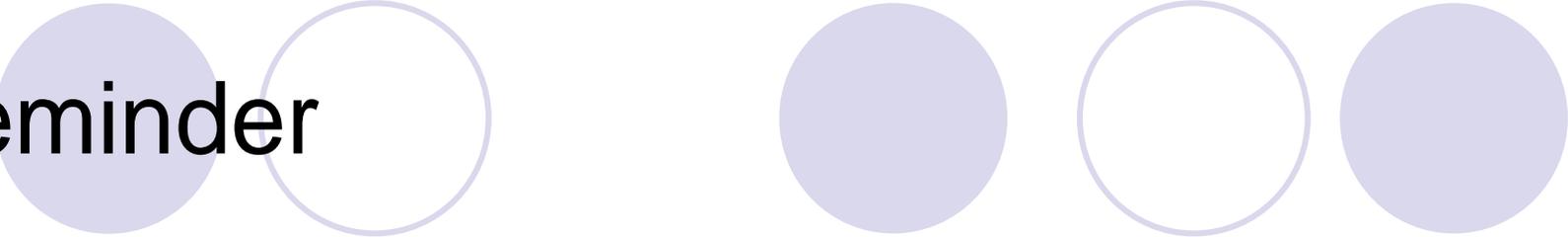
# Scenario build out



- What is the intended Business scope ?
- What is the key Problem statement ?
- What Business value can be captured ?
- Who are the Stakeholders/Actors ?
- What are the Measures of Effectiveness ?
- What are the key use cases ?
- What are the Key verbs and nouns ?
- What are the Key Business entities and their lifecycle ?
- What is the existing OSLC spec alignment ?

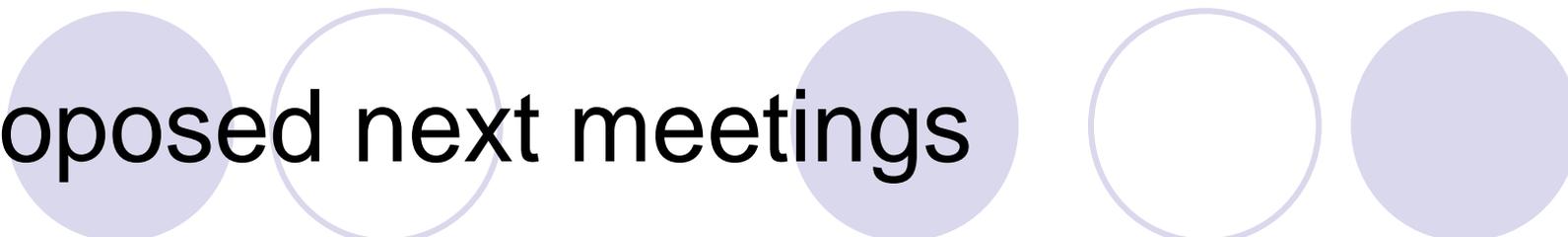


**Other topics**



# Reminder

- OSLC Covenants
- Proposed close date: May 31<sup>st</sup>

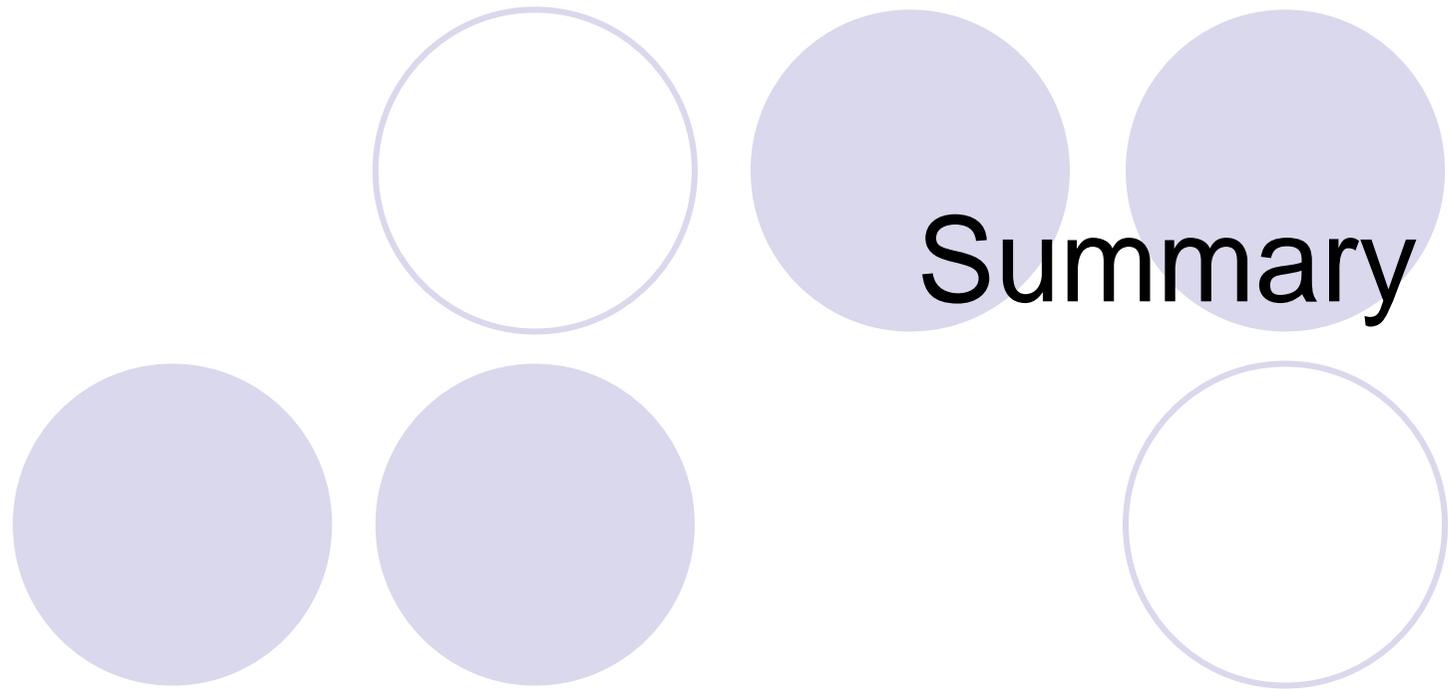


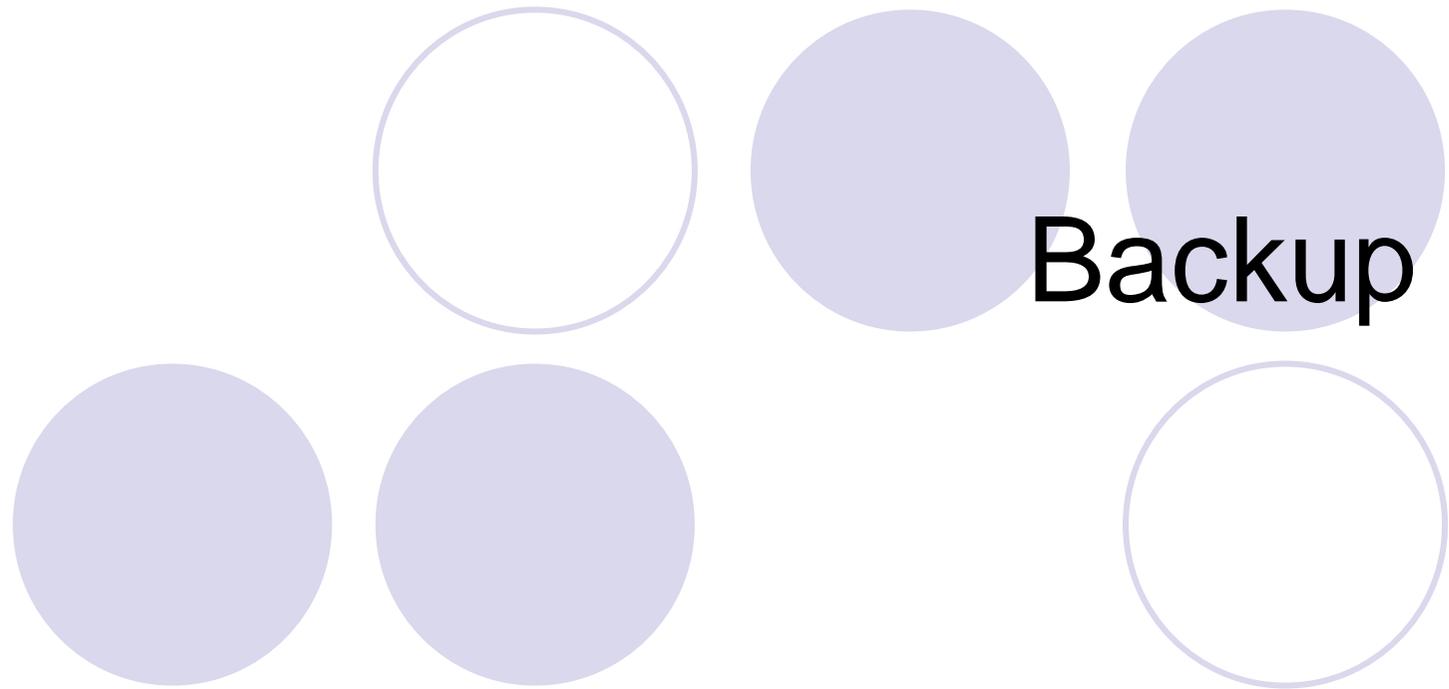
# Proposed next meetings

- Next meeting of the PLM Workgroup working session
- Proposal: May 17th at 11am Eastern Daylight Saving Time
  - use-cases
- PLM Workgroup at Innovate 2010
  - Proposal from Rainer Ersch
  - Wednesday, June 9th, from 4pm-5pm+



Any other business ?





# Current community specs

## Scenarios

[Collaborative Application Lifecycle Management](#)

[Software Project Management](#)

[OSLC Common Architecture](#)

## Topics

[Change Management](#) - integrations with software work item and change management repositories.

[Quality Management](#) - integrations in quality management and testing.

[Requirements Management and Definition](#) - integrations in requirements management and requirements definition tools.

[Asset Management](#) - integrations between asset management and ALM tools.

[Architecture Management](#) - integrations related to models and other artifacts used during analysis, design and construction that help maintain architectural integrity.

[Software Configuration Management](#) - integrations targeted at version control, change sets, baselines and other resources

[Automation \(Build/Deploy\)](#) - integrations involving software automation tools like build, deploy, and analysis tools.

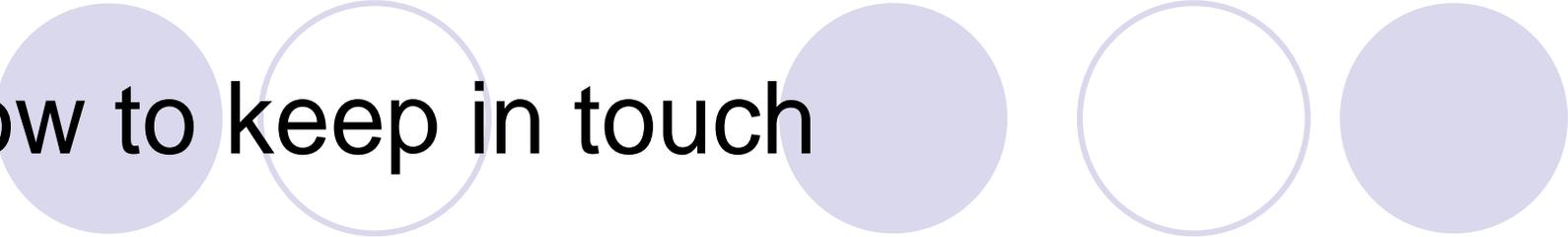
[Estimation and Measurement](#) - integrations with estimation tools and performance, project, and portfolio management

[Query](#) - a simple query language for filtering lists of resources and selecting which properties to return

[Reporting](#) - a common set of features that RESTful services should implement to enable reporting.

[Service Provider Catalog](#)

# How to keep in touch

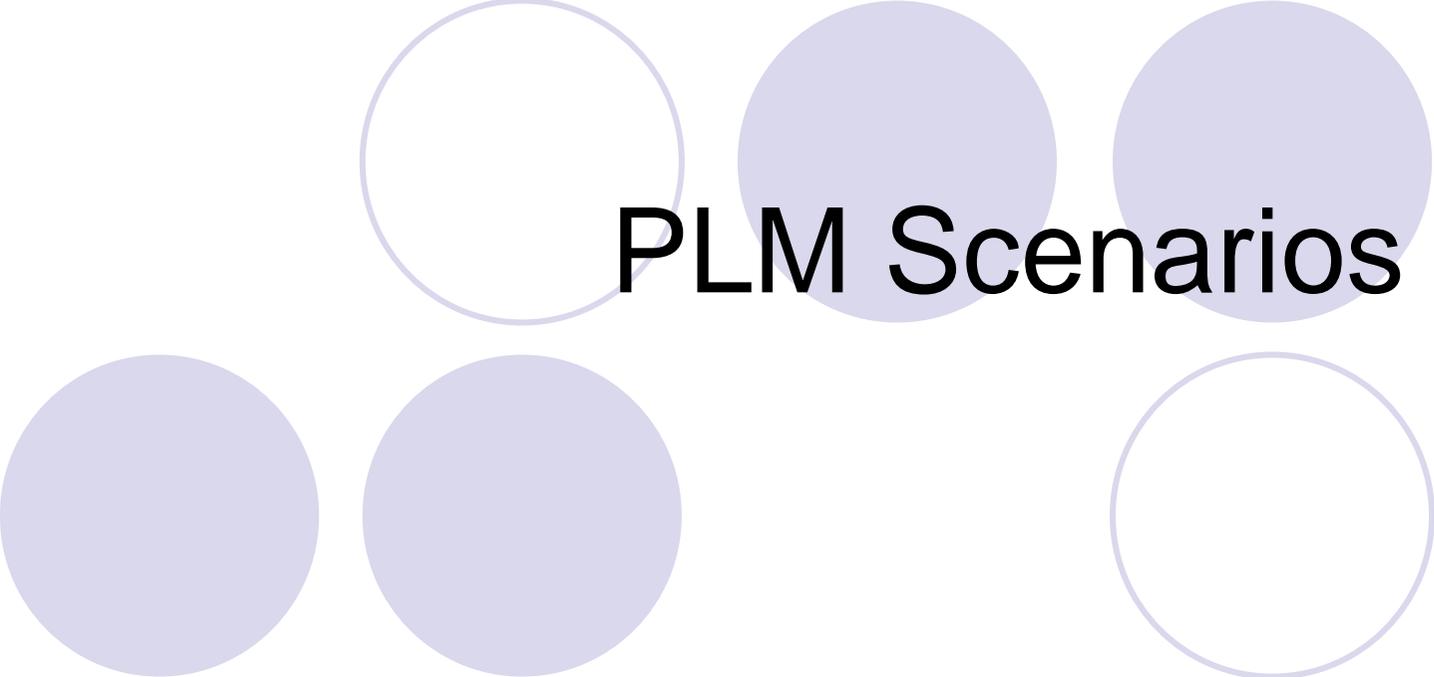


- Open services (OSLC) home
  - <http://open-services.net/html/Home.html>
- Register on open-services.net
- PlmHome page
  - <http://open-services.net/bin/view/Main/PlmHome>
- Community mailing list
  - <http://open-services.net/html/Community.html>
- PLM Workgroup mailing list
  - [http://open-services.net/mailman/listinfo/oslc-plm\\_open-services.net](http://open-services.net/mailman/listinfo/oslc-plm_open-services.net)
- Wiki
  - <http://open-services.net/bin/view/Main/WebHome>
- UserList
  - <http://open-services.net/bin/view/Main/UserList>

# open-services.net terms of use

## *In a nutshell*

- <http://open-services.net/html/Terms.html>
  - This is a facilitated community
    - Contributing to workgroups, maillists, wiki is covered by the Creative Commons - Attribution License  
<http://creativecommons.org/licenses/by/2.0/>
  - Contributors to this Web site may jointly Contribute to a draft or final Specification (“Specification”) which will be so marked, with the intent that such Specification may be freely implemented by any party
    - must agree to the non-assertion covenant
    - must have sufficient rights to the Content that you Contribute
  - All information shared is deemed to be non-Confidential
    - do not share Confidential information



# PLM Scenarios

# Scenarios built up on the wiki

- GM

- Offer 3 sources for guidance and input
  - SysML and AP233 mapping
  - OMG PLM services
  - OMG PDM enablers

- Siemens

- Offer 2 scenarios
  - Configuration/Change\Issue Management
  - Requirement Management

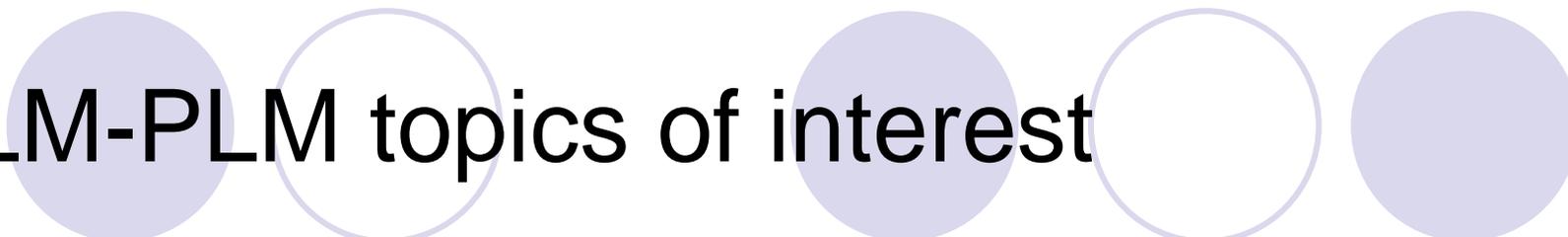
- IBM

- Offer 1 scenario
  - Assignment of product identity to incoming customer request
- Identifying other scenarios
  - Product requirements management.

# Background to the ALM-PLM areas of interest in the OSLC workgroup

- These represent areas that have come up in real cases
- Offered from experience of
  - PLM process integration
  - ALM-PLM integration scenarios
  - CALM for Systems
- 6 topics were identified with a 7<sup>th</sup> added at the Feb 16<sup>th</sup> meeting for Configuration Management





# ALM-PLM topics of interest

1. PLM product or System identities used within the ALM environment such as to name (e.g. identify, classify or associate) activities and artefacts
2. Location of ALM content from a PLM or system context and/or location of relevant PLM content from an ALM or system context
3. ALM deliveries of product or system content (artefacts) into a PLM setting such as part of a release managed by PLM
4. Flows of plans, requirements, quality info and changes activities and items between ALM and PLM or System context
5. Analytics, reporting from ALM to PLM, from PLM to ALM or combinations including a System context
6. Organisation, role, approvals and authorities affecting ALM in a PLM setting or System context
7. Establishment, association and maintenance of configurations, variants, options and their effectivity

# ALM-PLM areas of interest #1

- PLM product or System identities used within the ALM environment such as to name (e.g. identify, classify or associate) activities and artefacts
- e.g. to label an ALM task as being “for” a product or system project
- e.g. to label a document in ALM as being “for” a product or system project
- e.g. label an artefact or delivery in PLM as being of type ALM
- Scenario:
  - Within ALM a devt work item is associated with an existing Product
  - Within ALM a devt work item is associated with an existing Product release project code name or System platform release programme\*
  - Within PLM annotate product content as being of type ALM

# ALM-PLM areas of interest #2

- Locate ALM content from a PLM or system context and/or location of relevant PLM content from an ALM or system context
- e.g. to identify available product or project names to associate an artefact or activity in ALM
- e.g. to identify PLM classifications for ALM content
- Scenario
  - Within ALM locate the available “valid” Product or project
    - Valid by way of authority, filters, criteria e.g. organization, product family
- e.g. To identify relevant (all existing) ALM content directly associated with a Product or Project known to PLM
- Scenario
  - Within ALM query artefacts or activities using a Product or project identity provided from PLM
  - Within PLM query ALM content

# ALM-PLM areas of interest #3

- ALM deliveries of product or system content (artefacts) into a PLM setting such as part of a release managed by PLM
- e.g. Promotion of an ALM delivered item, configuration, part or document, to a PLM release by way of
  - release identity
  - item descriptors for the PLM environment
  - notification of availability
  - authority
  - Transfer to PLM
- Scenario:
  - Within ALM allocate an ALM item to a PLM managed release
  - Within ALM promote an ALM item for a PLM managed release
  - Within ALM promote an ALM configuration towards a PLM managed configuration

# ALM-PLM areas of interest #4

- Flows of plans, requirements, quality info and changes activities and items between ALM and PLM or System context
- e.g to Synchronise activity or artefact information or links
- Scenarios:
  - Transfer a record or artefact between ALM & PLM
  - Maintain a link and notify of changes to state of content at link between ALM & PLM
  - Instantiate an ALM workflow from PLM
  - Instantiate a PLM workflow from ALM
  - Transition an ALM workflow in PLM
  - Transition an ALM workflow in ALM

# ALM-PLM areas of interest #5

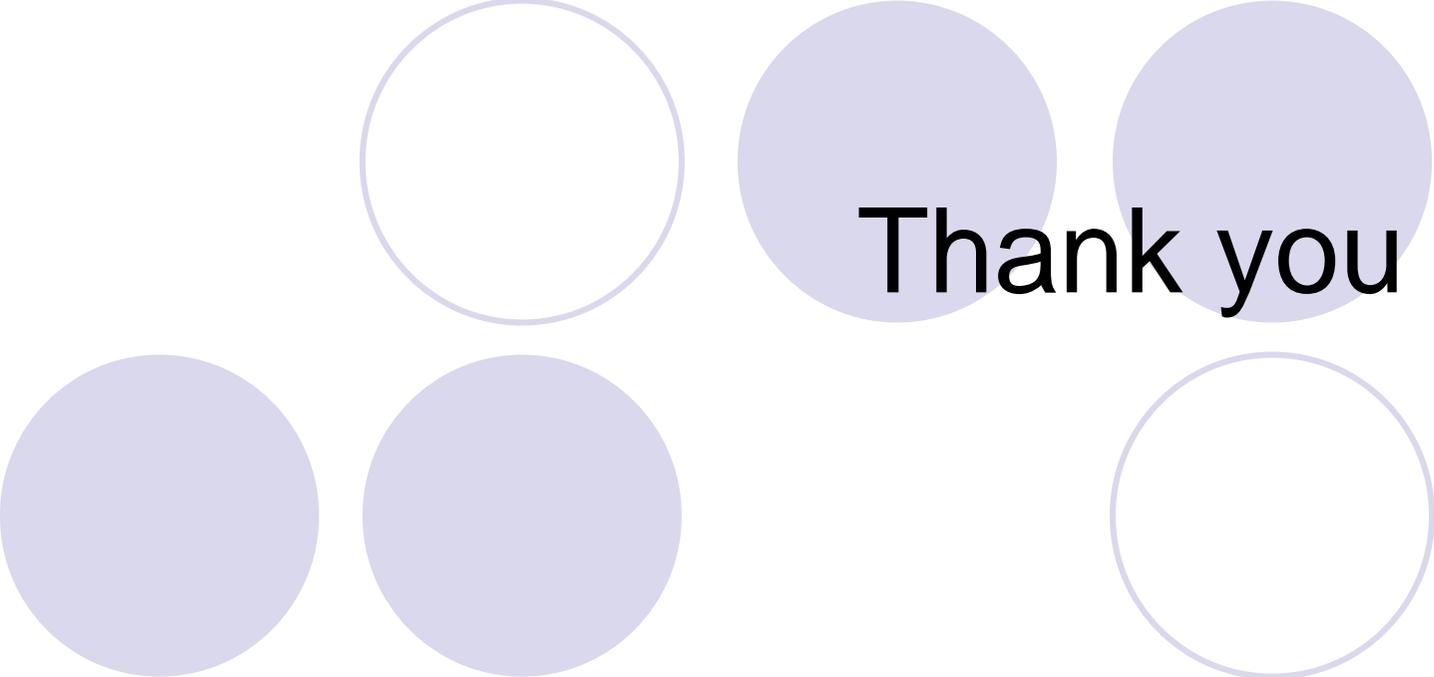
- Analytics, reporting from ALM to PLM, from PLM to ALM or combinations including a System context
- e.g. to enable visibility of process or content measurements for governance or activity closure/sign off
- e.g. query PLM product schedule from ALM
- Scenarios:
  - Make a PLM product process query from ALM
  - ALM to setup a reporting event rule in PLM
  - ALM to report an event to PLM
  - PLM to setup a reporting event rule in ALM
  - PLM to report an event to ALM
  - ALM to access a PLM process measure report
    - SW Devt manager query a product milestone (date)
  - PLM to access an ALM process measure report
    - Program Manager query the status of a SW component

# ALM-PLM areas of interest #6

- Organisation, role, approvals and authorities affecting ALM in a PLM setting or System context
- e.g. Assignment of organisational responsibility for an activity or artefact
- Scenarios:
  - Addition of PLM roles to an ALM workflow
  - Approval of ALM activity from PLM role
  - Setting of activity or data access rights from PLM context within ALM
  - Addition of PLM user identities in ALM
  - Query of role or user rights across ALM and PLM

# ALM-PLM areas of interest #7

- Establishment, association and maintenance of configurations, variants, options and their effectivity
  - e.g. Establish a partially populated Config of identities, structure of activities and artefact. Impose an initial CM regime.
    - Templates, Make from
  - e.g Register identity of a configured item (CI)
    - Identities, Notification, Authorities, Versioning rules
  - e.g. Notify of updates to CIs
    - Initiate workflow to handle updates
  - Scenarios
    - Establish PLM configured ALM or hybrid structures
    - Allocate an ALM item to a PLM configuration
    - “Make from” in ALM from PLM held config
    - “Make from” in PLM from an ALM delivery template
    - Maintain association between ALM and PLM configurations
    - Apply Change control to a combination of configurations in ALM and PLM
    - Compare ALM configurations across ALM and PLM



Thank you

[rainer.ersch@siemens.com](mailto:rainer.ersch@siemens.com)

[gray\\_bachelor@uk.ibm.com](mailto:gray_bachelor@uk.ibm.com)