

IBM Engineering

Stitching a Product Digital Thread with OSLC

OSLC FEST 2022

16/11/22

Gray Bachelor & Fabrice Mendes
Solution Architects
IBM Development



<https://www.textileartist.org/sabine-kaner-stitching-life-experiences/>

<https://sabinekaner.com/>



Need a way from **A** to **B**

with **OSLC** ?

Call **IBM**



Fabrice Mendes



Gray Bachelor

Sample (system) product scenario

Where are we with OSLC today ?

What do we need ?

Proposed work group

Inspiration !

Typical scenario

A System Engineer Reacts to a change in Requirements (for a Systems Product)



Key aspects:

build up a change request

represent a Product

align configurations

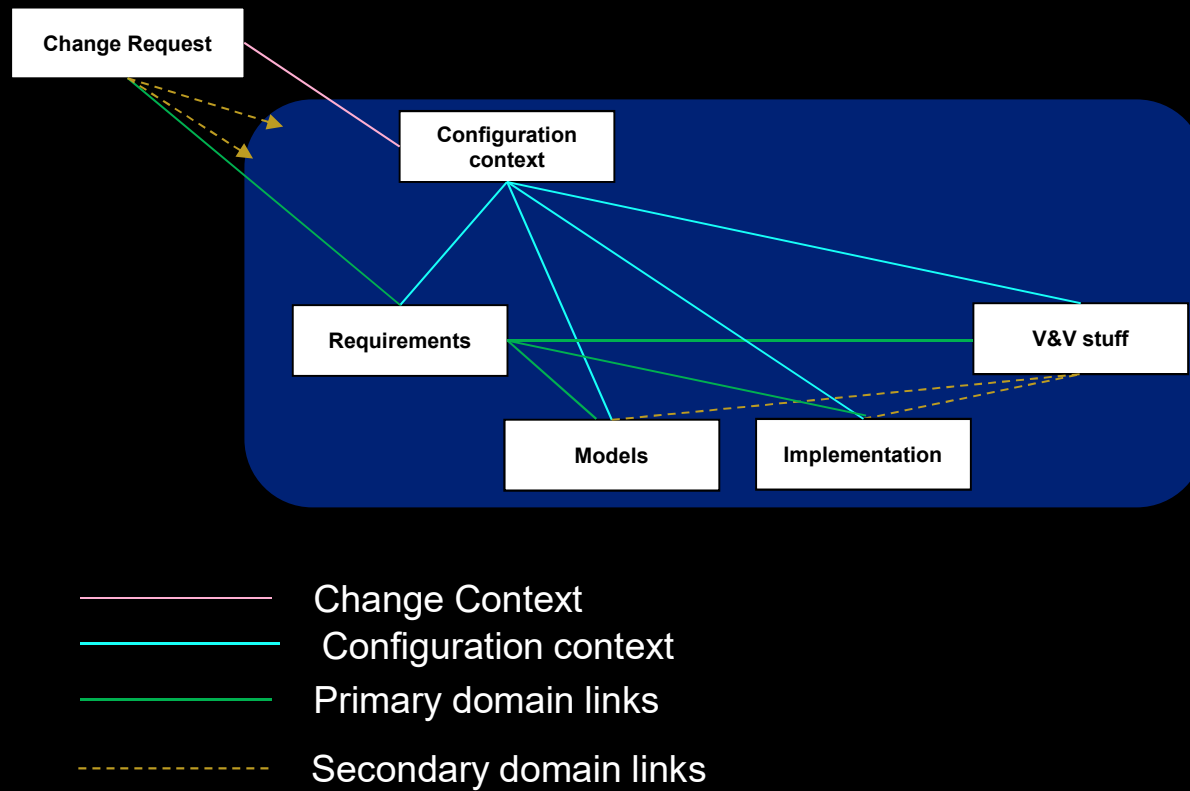
link & trace Product to Requirements

and also to other domains

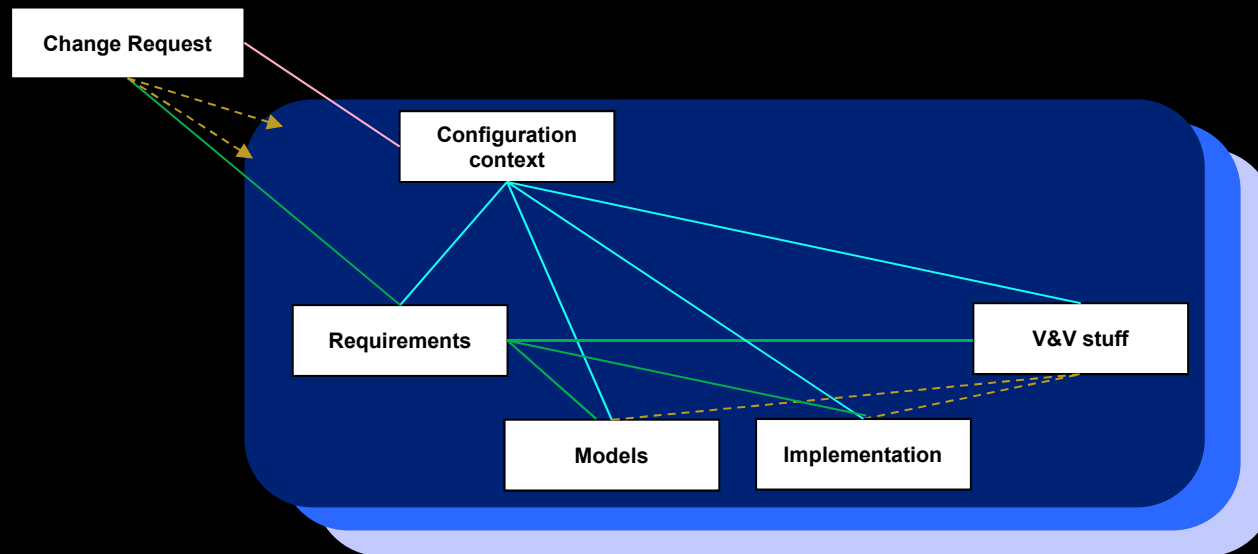
deliver in context

report and analyse status, etc

Simplified view a generalised model for a Digital Thread for the target scenario



Simplified view a generalised model for a Digital Thread for the target scenario



- Change Context
- Configuration context
- Primary domain links
- Secondary domain links

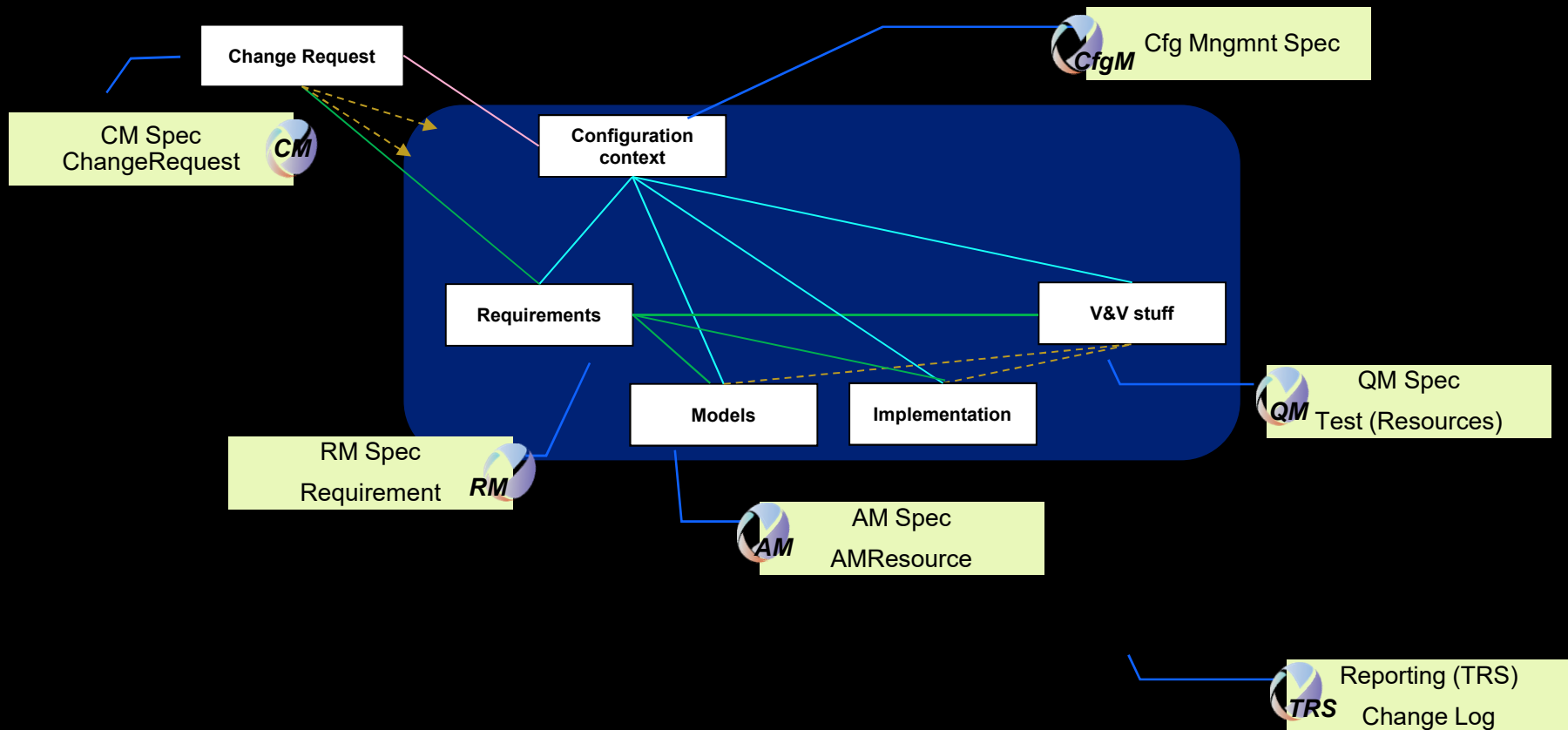
.....
Across the
disciplines,
contributors,
along the lifecycle

A little bit of history

OSLC Domains

Systems & SW PRODUCTS

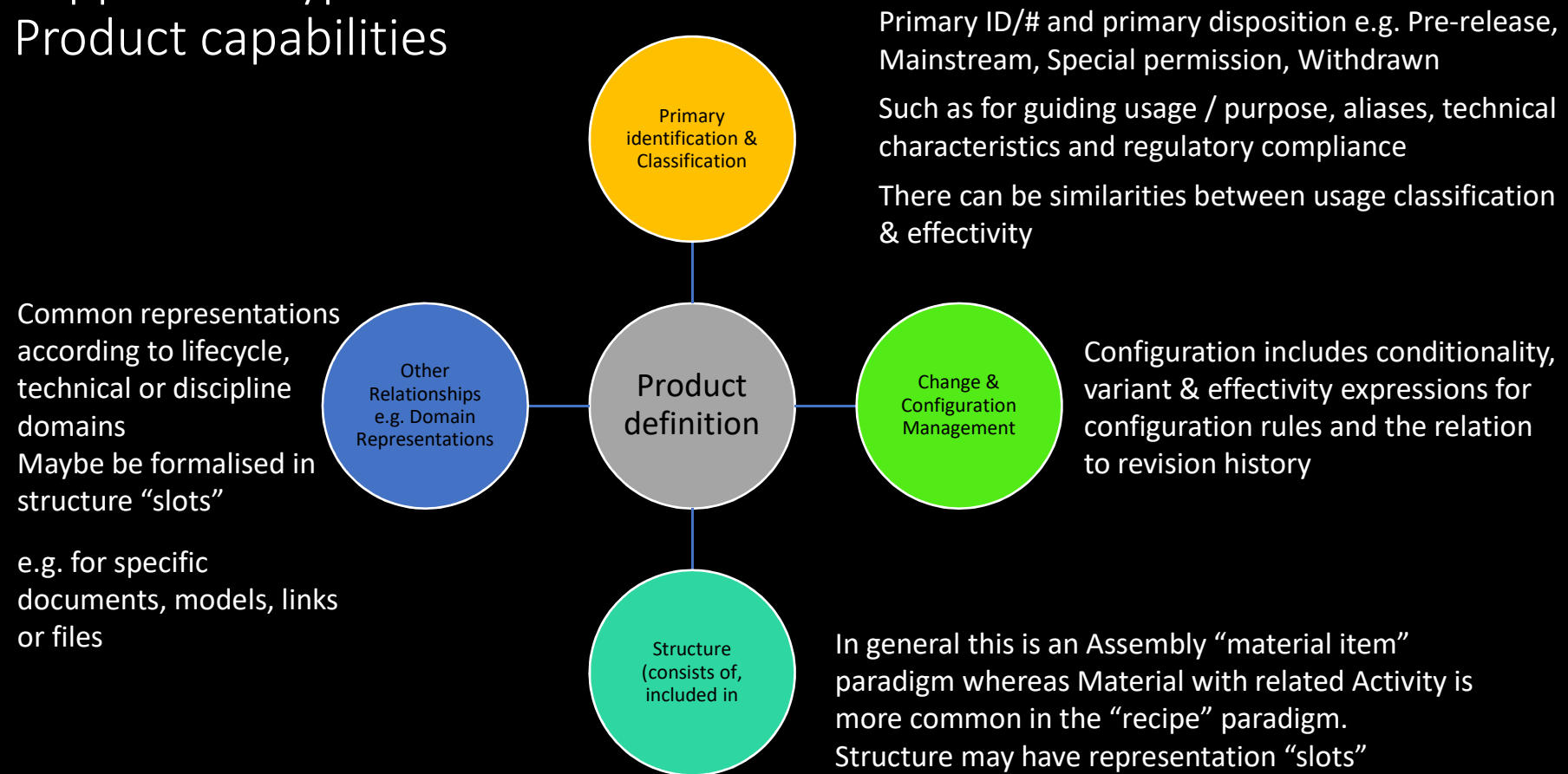
Where are we with OSLC today ?



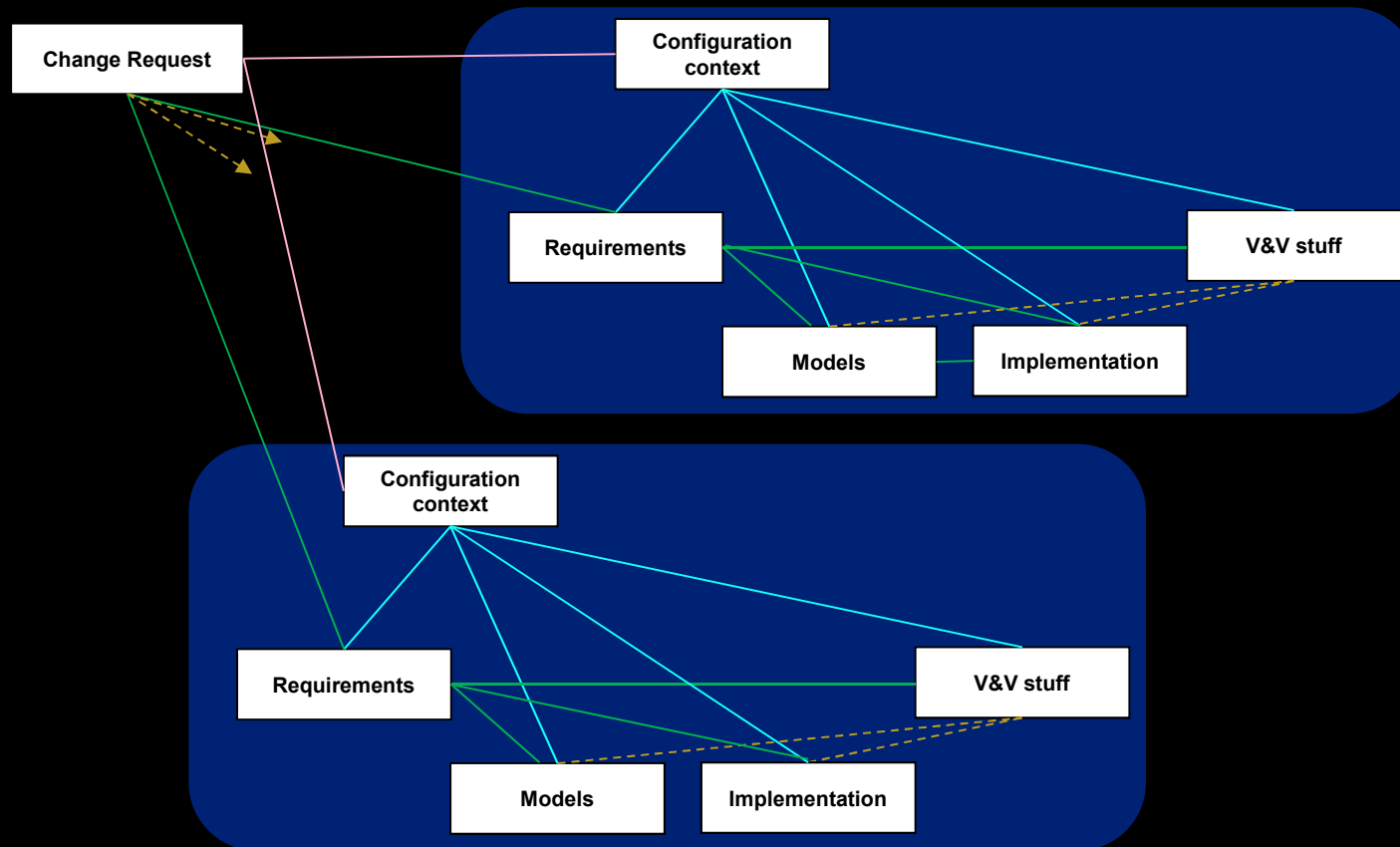
What do we need ?



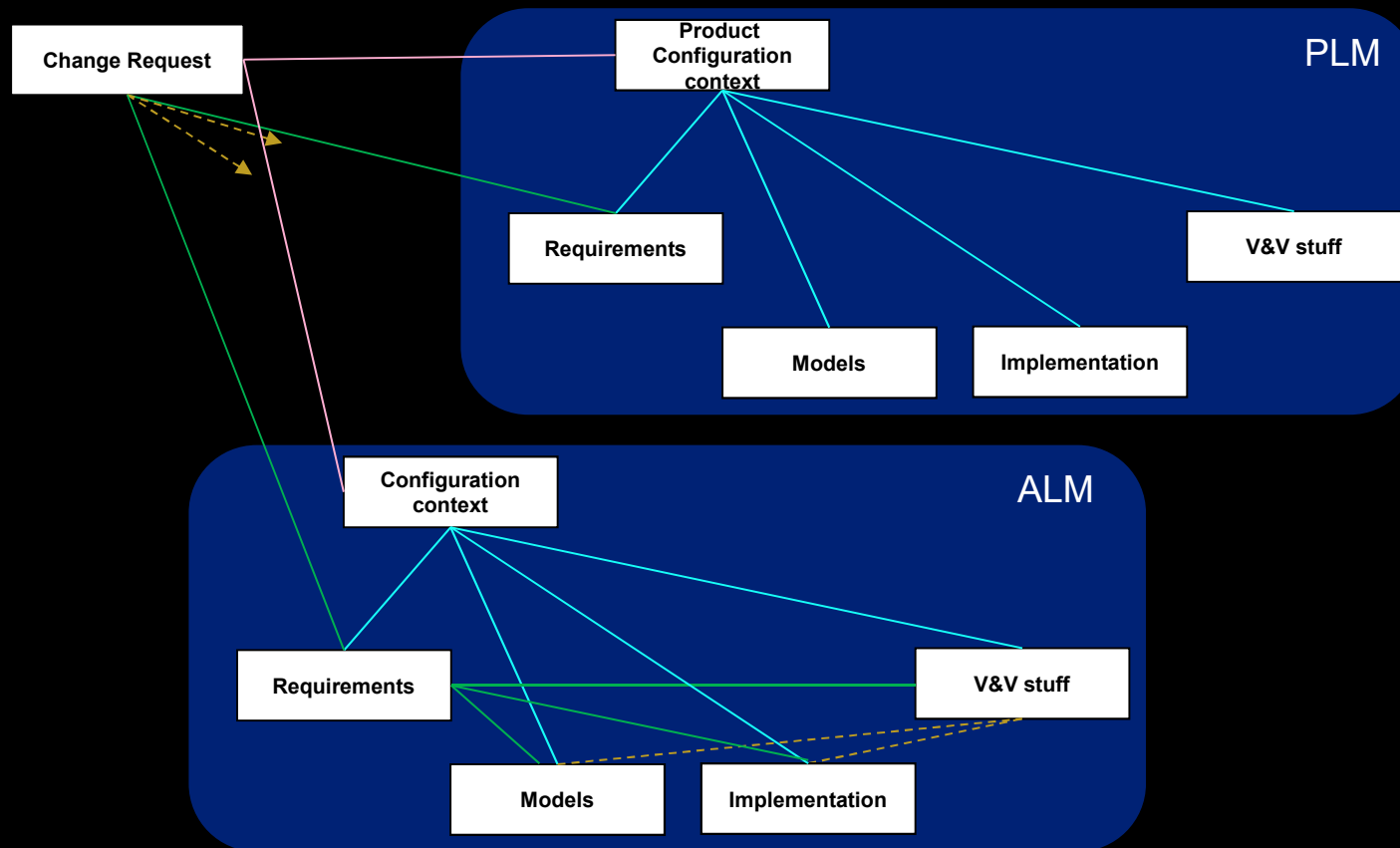
Support for typical Product capabilities



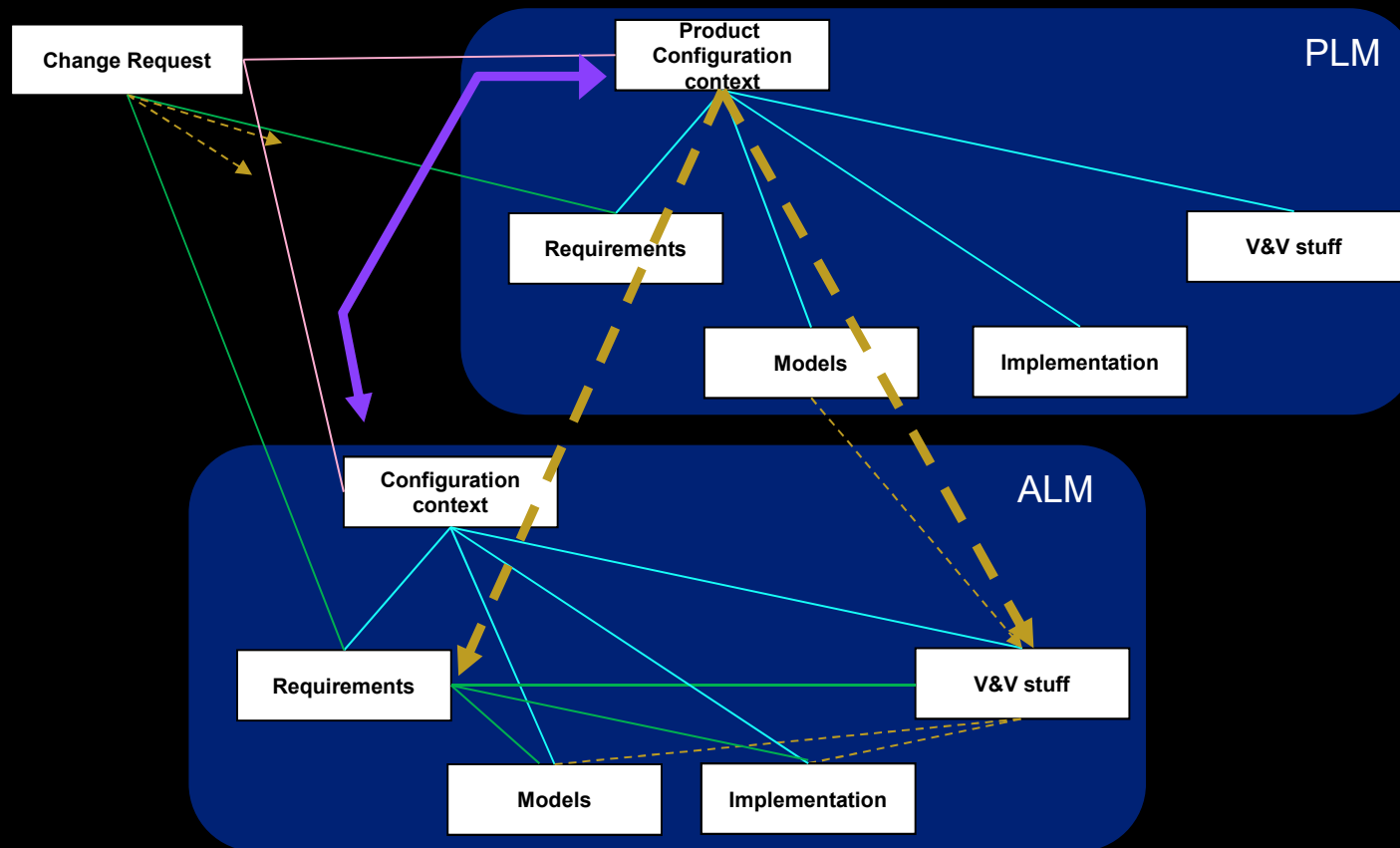
Lets have 2 worlds for a more complex Digital Thread



Lets adjust one for typical PLM



Lets align the contexts and add configured links



Gray's opinion of most common usage - a gross simplification of course !

	ALM	PLM	Dedicated	RYO
Change Request	**	***		**
Formal Activities	**	***		
Agile Activities	***	-		
Requirements	***	*		
System Models	***	**	**	
Products	***	***		*
Mech models	-	***		
EE models	**	*	***	
EDA models	**	-	***	**
Tests	***	*	***	***
Test Results	**	***		***
HILS, SILS, MILS	**	*	***	
Source code	***	-		
Builds	***	*		
Defects	***	**	*	***
Documents	*	***	***	***
Configurations	***	***		*

← Imbalance creates a pull from PLM process

← Imbalance creates a pull from PLM process

Greatest needs

← Imbalance creates a pull from PLM process

← Imbalance creates a pull from PLM process

← Imbalance creates a pull from ALM process

Greatest needs

Some decisions and challenges

Basic choices:

Distinct OSLC resource vs built out of existing ?

Product structure linktype for “included in” or consists of”

Selected linktypes for CM, RM, AM, QM and Configs ?

Crawl, walk, run challenges:

Discovering or engaging with deep meta-data for extended vocabularies

Scoping down queries and change logs from large scale databases (like PLM)

Aligning configurations & versions e.g. some BOM node & revision = configuration context root

Handling variants effectively and dynamic configurations

OSLC Product workgroup

Suggested aim

Specify the necessary services and representations to integrate the Product structure domain, in the context of OSLC lifecycle use cases, with the existing domains of CM, RM, AM, QM and CfgM.

Starting from an industrial scenario

Meetings ahead *proposed*

Nov 30th vendor perspectives Sodius Willert and PTC

Dec 7th Scenario discussion

Q1 meetings

Work on scenario

Identify user stories and sample data

Map to existing OSLC standards

Gaps and inspiration from other standards

Prioritised requirements

Approach paper for discussion

Q2

Draft OSLC Project Specification

Please get involved

All are welcome !

Quick look

Digital Thread including Product information

Product structures using Global Configurations

Model driven Digital Thread extended to Products

Certain capabilities are not part of standard product
<https://www.ibm.com/support/pages/ibm-legal-disclaimer>

Thank you

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Thank you
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Discussion

Questions?
Comments ?

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