

**„Smuggling“ PMI
reliably over obstacles
on Data „Autobahn“**

Jan Stothfang

Introduction



Jan Stothfang

- 20 years ProE and Creo admin
- 10 years CEO at B&W
- MBD advocate
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B&W Software

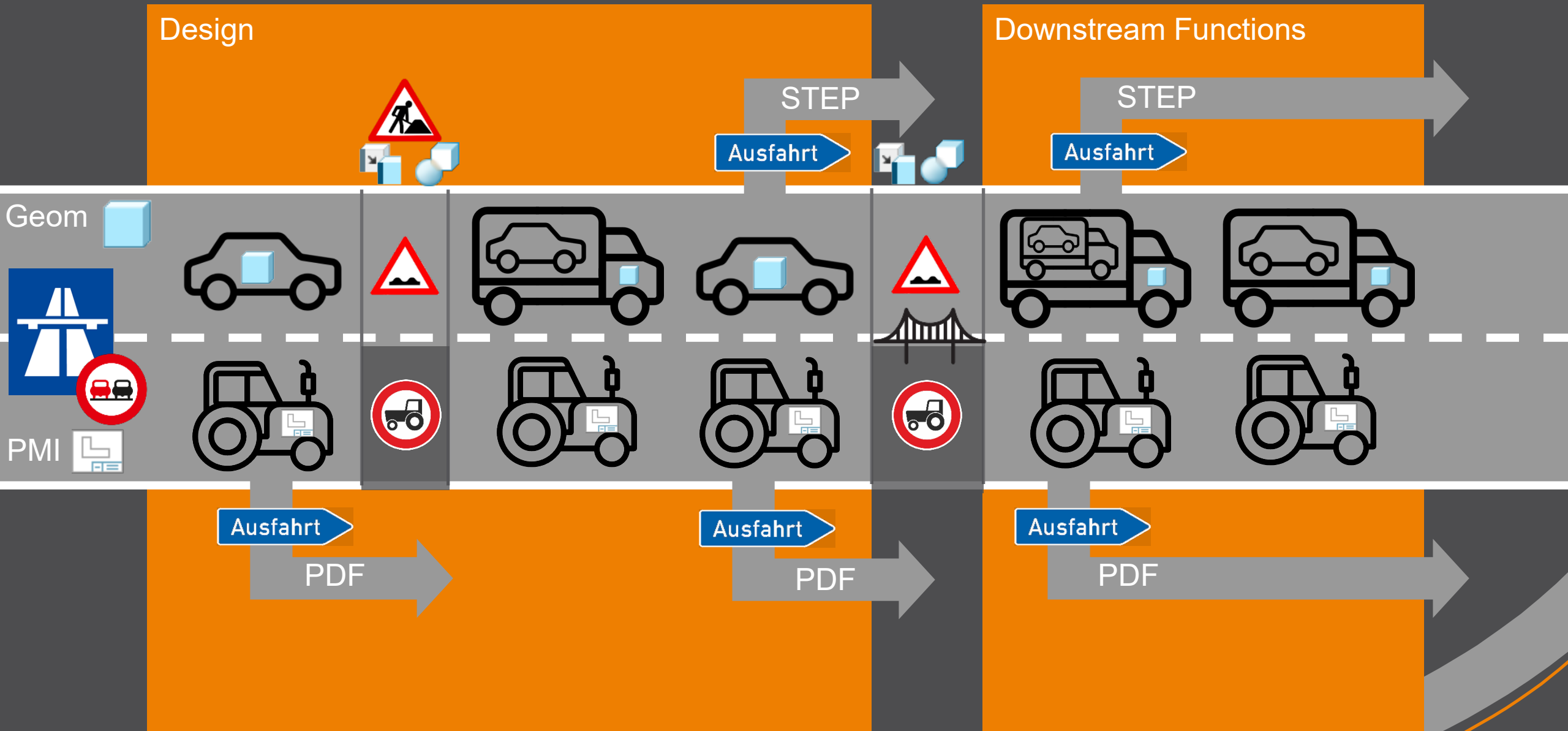
- PTC Development Partner for Creo Parametric applications
- Based in Erlangen, Germany
- www.buw-soft.de

- Motivation
- Product Manufacturing Information (PMI) transfer throughout Creo process chain
 - Classic approach
 - MBD approach
 - Obstacles and solution ideas
- Considerations and conclusion
- Example
 - Live Demo

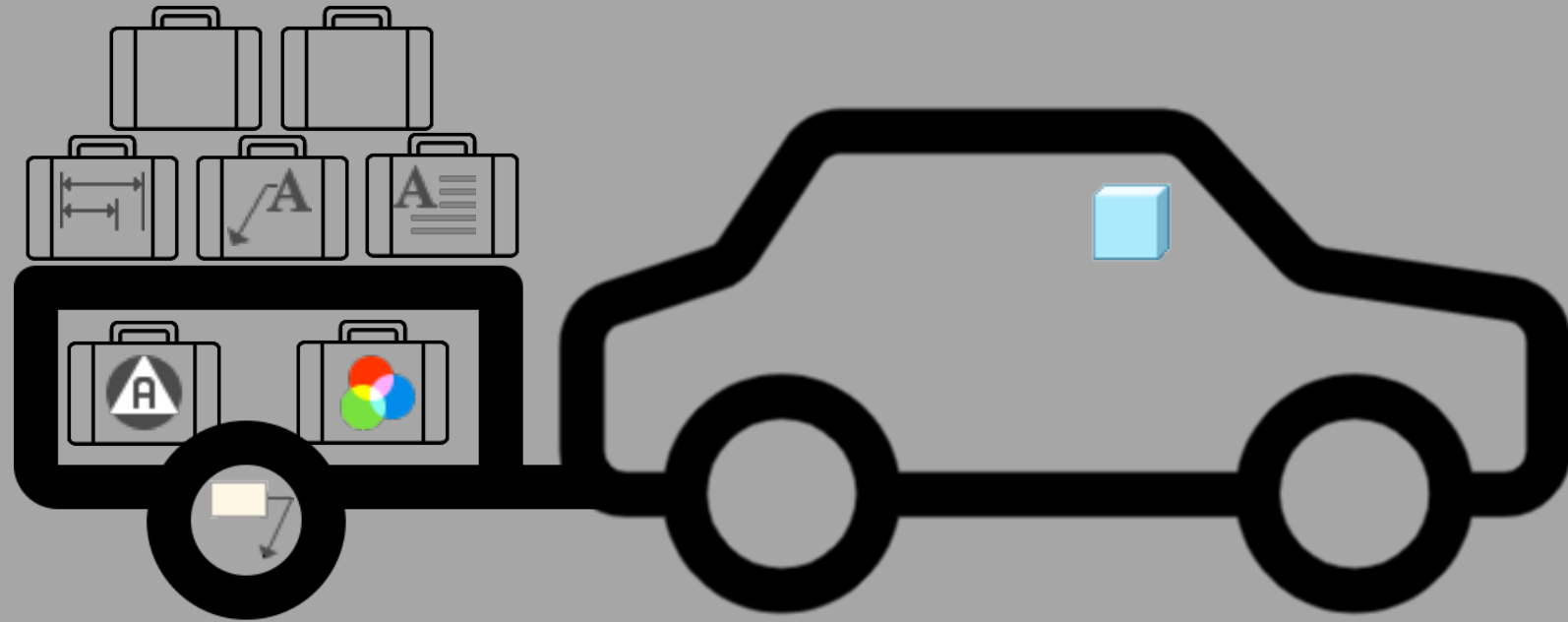
Motivation

- General MBD goals
 - Time saving and quality improvement
 - Receive information (PMI) from up-stream processes
 - Reliable, quick and easy
 - Pass on information (PMI) to down-stream processes
 - Reliable, quick and easy
- Status
 - Still difficult to adopt for many reasons

Classic Creo Data „Autobahn“



PMI Transport in Trailer



Combined States



Dimensions & Tolerances



Attached Notes



Unattached Notes

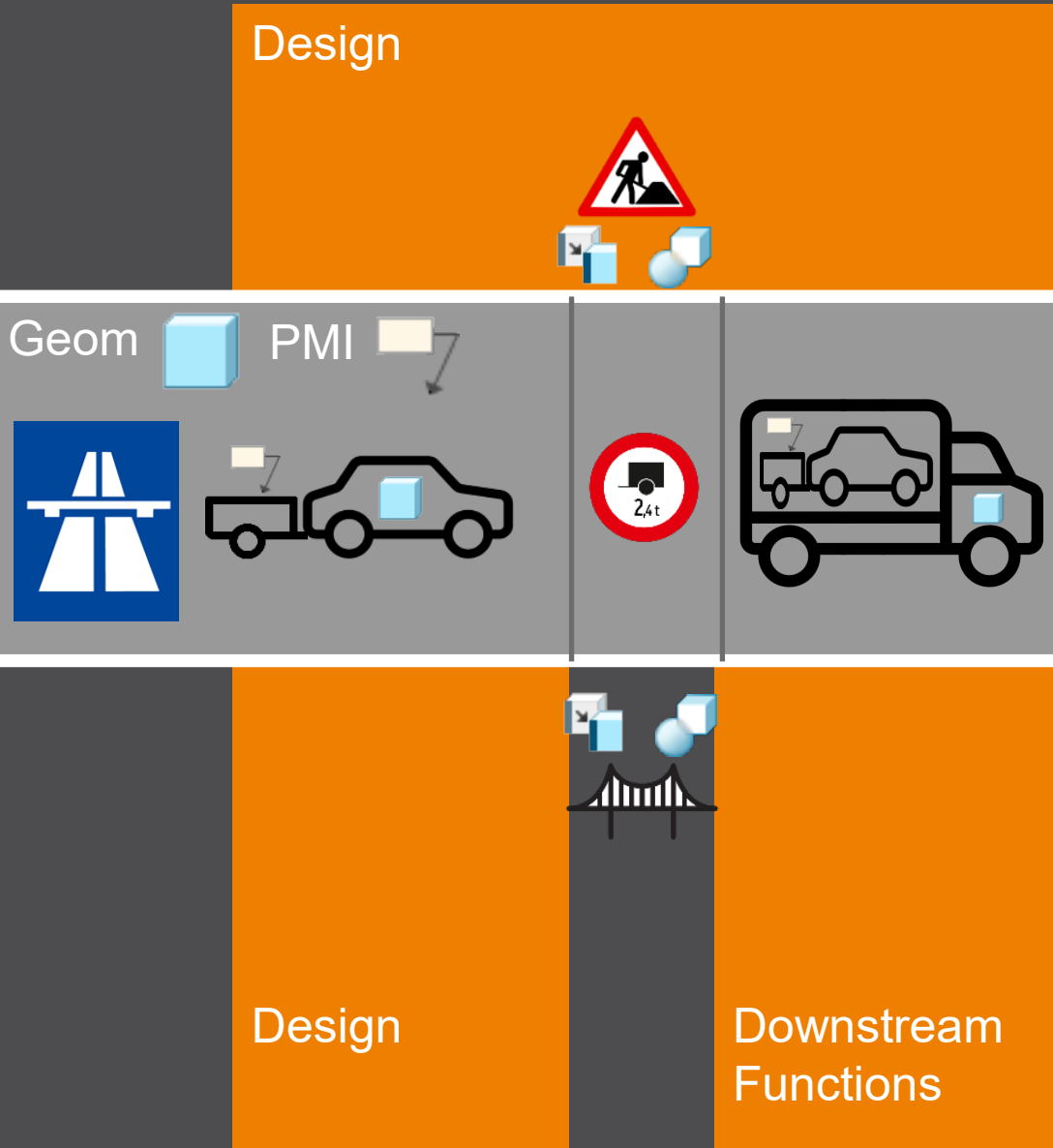


Symbols



Appearance states

Obstacle: Road Work & Bridge



Obstacles:

- ExtCopyGeom
- External Merge
- Inheritance



Restrictions for PMI in trailer:

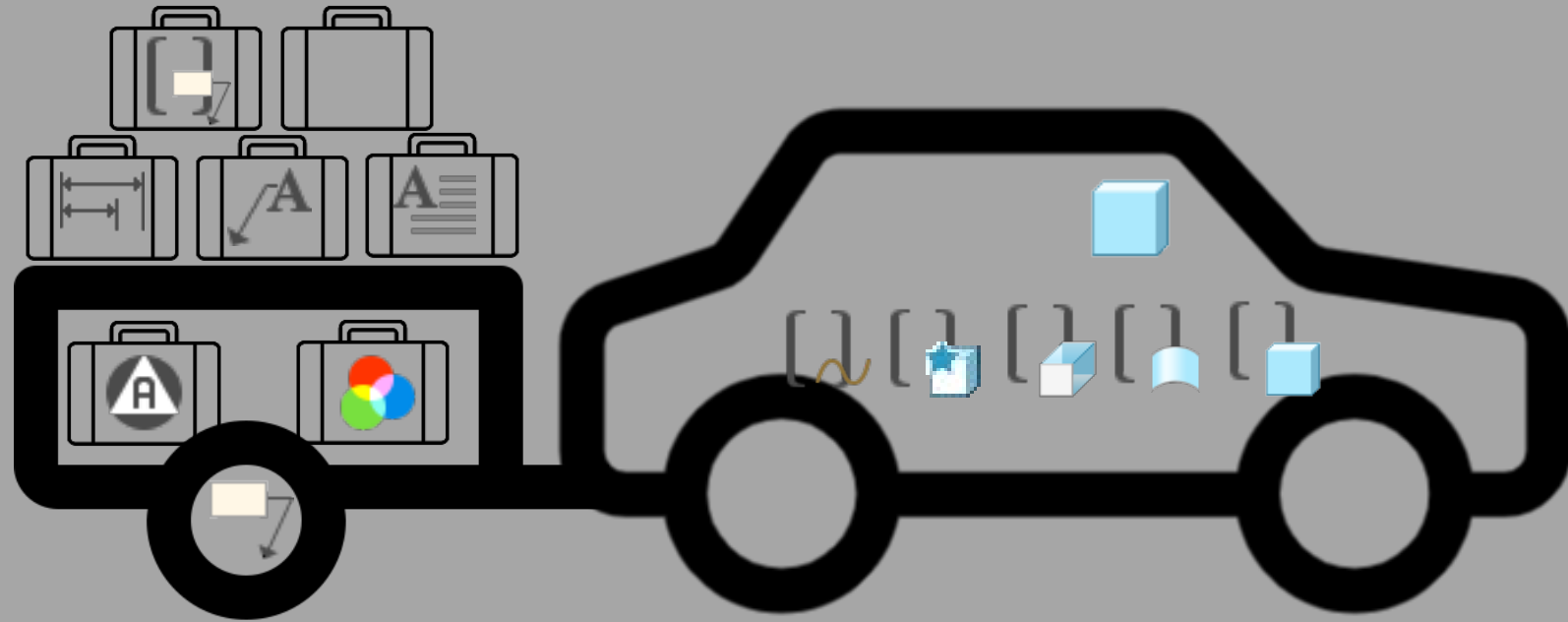


1x empty Combined State



1x Appearance State

Approach: Smuggling



Combined States



Dimensions & Tolerances



Attached Notes



Unattached Notes



Symbols



Appearance States



Model Parameter



Surface Parameter



Feature Parameter



Body Parameter

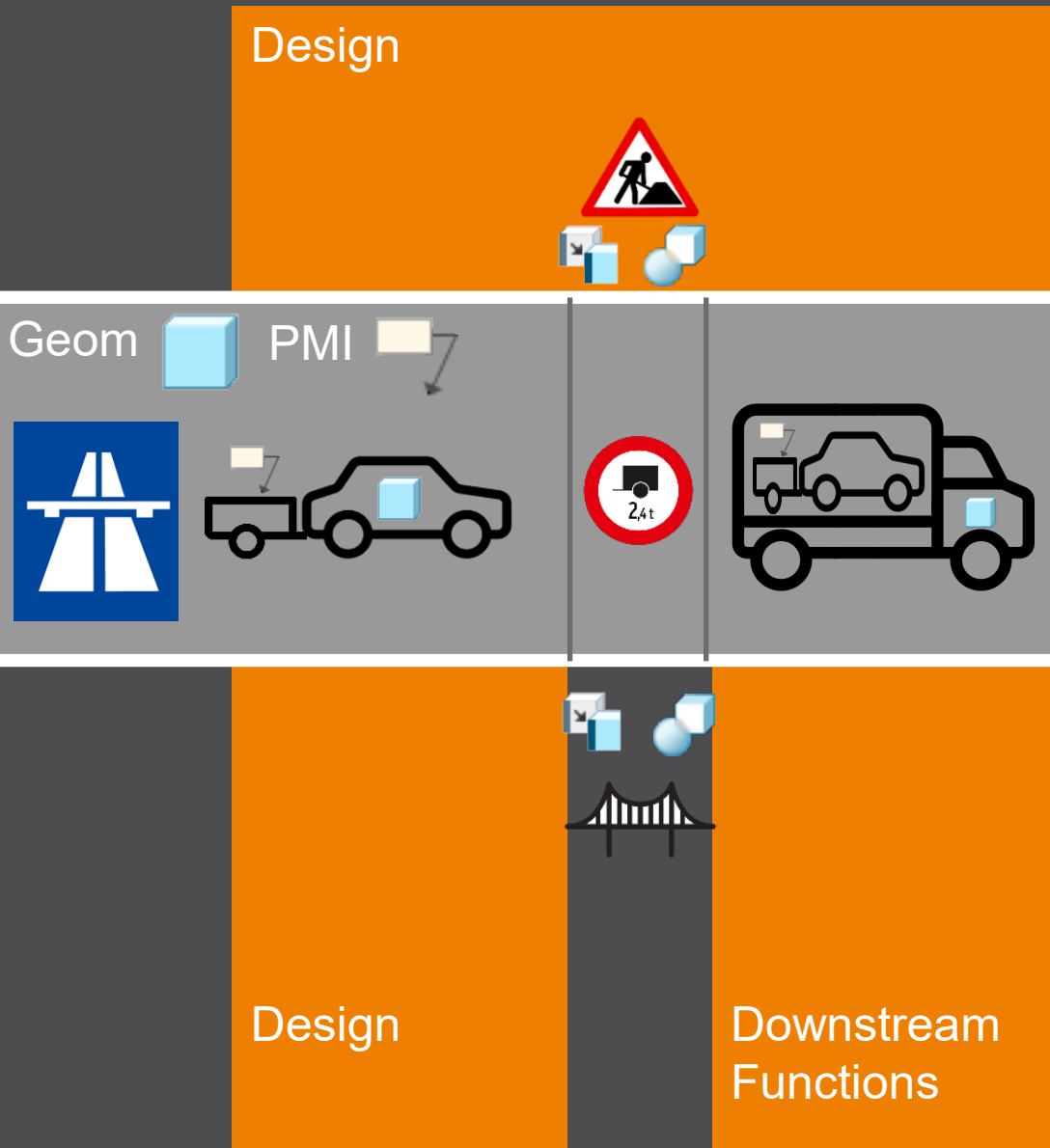


Edge Parameter



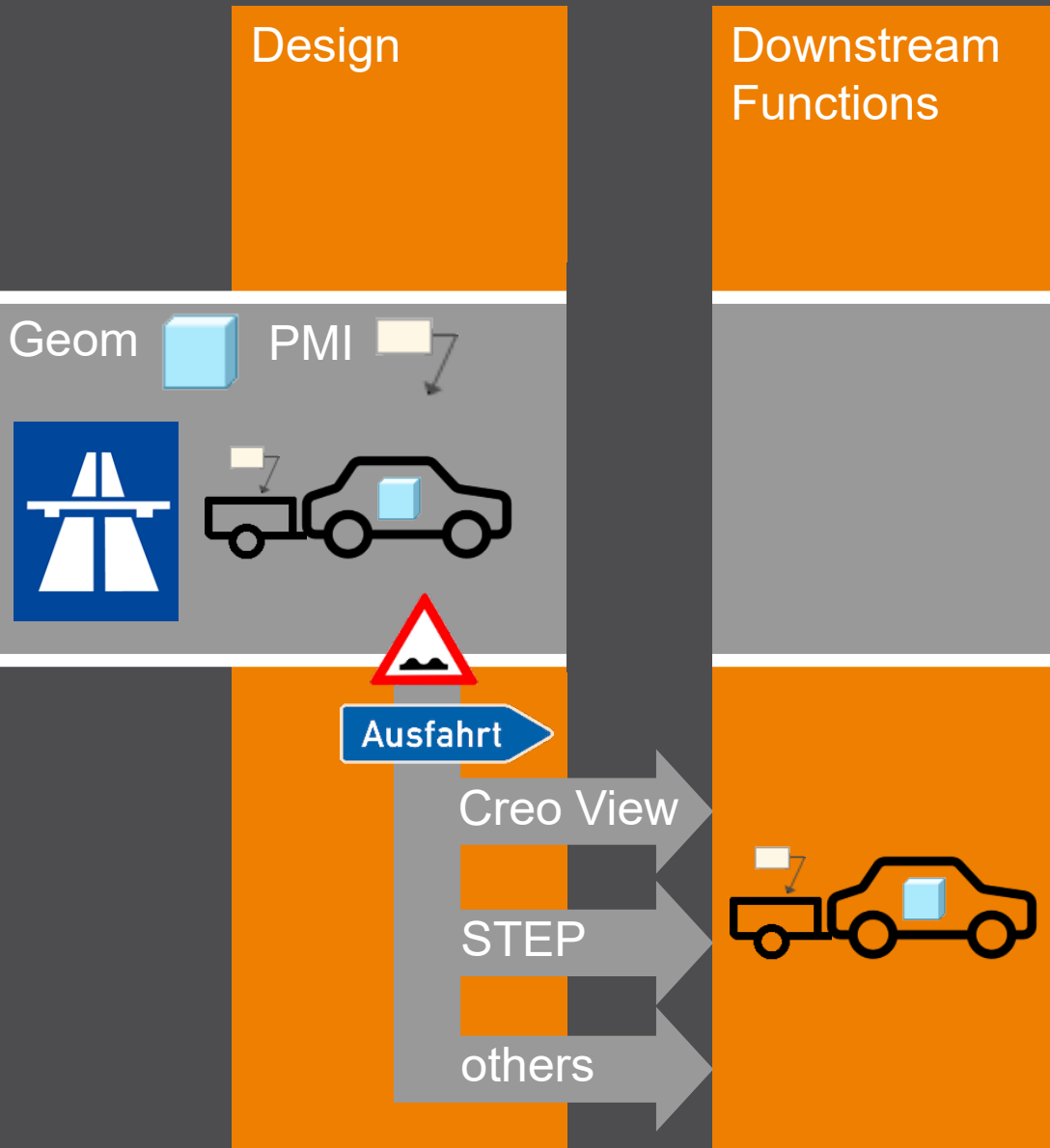
Annotation Parameter






















Obstacle: Road Work & Bridge



Combined State	1x	1x	1x			
Dims & GD&T						
Attached Notes						
Unattached Notes						
Symbols						
Appearance State	1x	1x	1x			
Model Parameter						
Surface Parameter	all	all	all			
Feature Parameter			all			
Body Parameter	all		all			
Edge Parameter	all	all	all			
Annotation Param.			all			

„Exit“ to neutral formats



 Ausfahrt	STEP	CreoView
 Combined States	1x	all
 Dims & GD&T	all	all
 Attached Notes	all	all
 Unattached Notes		all
 Symbols		all
 Appearance States	1x	all
 Model Parameter	all	all
 Surface Parameter	all	
 Feature Parameter		
 Body Parameter		all
 Edge Parameter	all	
 Annotation Param.		all

Consideration and Conclusion

- Where to go?
 - Who is using the information (PMI)?
 - Is associativity needed and maintained in target format?
 - Is PMI visibility needed and maintained in target format?
- Surface Parameter are a good choice
 - Parameter are invisible to humans in the first place
 - Applying manually is time consuming

- Content
 - Set Context
 - Update CS from legacy part
 - Apply Meta Data and Titleblock or Properties
 - Create new Comb state
 - Apply Surface finish
 - Export ?

Thanks for your attention 😊

See you at Booth #1000

or

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