

DAIMLER

AutomationML Governance at Mercedes-Benz AG

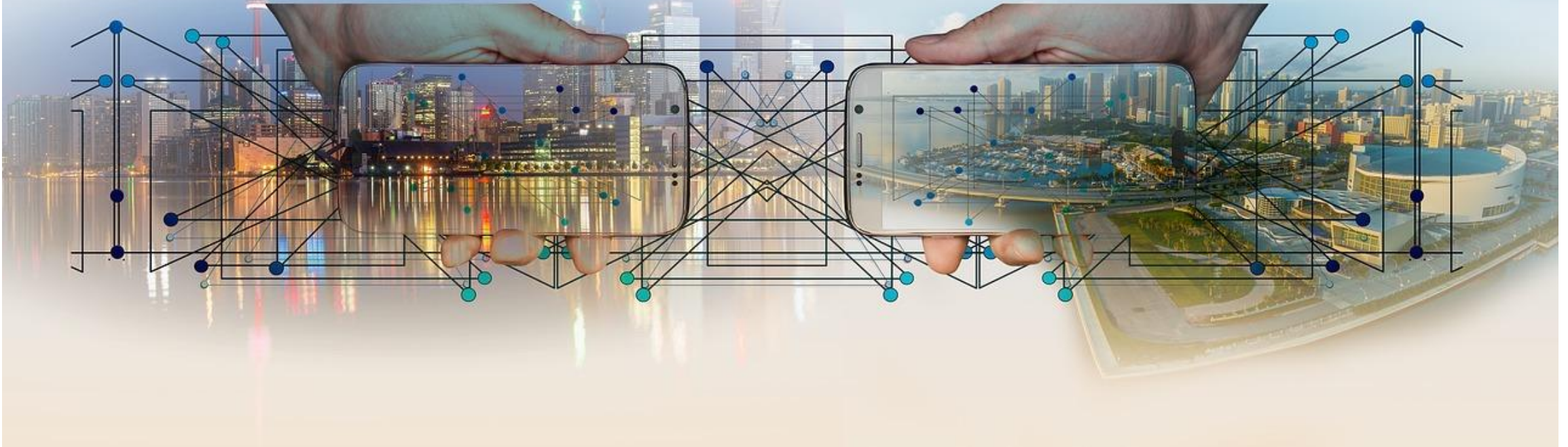
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Daimler Protics

Data driven by Passion

Understand company's data – Connect engineering disciplines



This presentation...

*...provides a recommendation for an AutomationML Governance **set-up**.*

*... explains why it helps to **successfully introduce** AutomationML.*

*...explains why it is needed to develop a consistent, company-wide **semantical model**.*

*...gives **insights** into Mercedes-Benz's semantical model.*

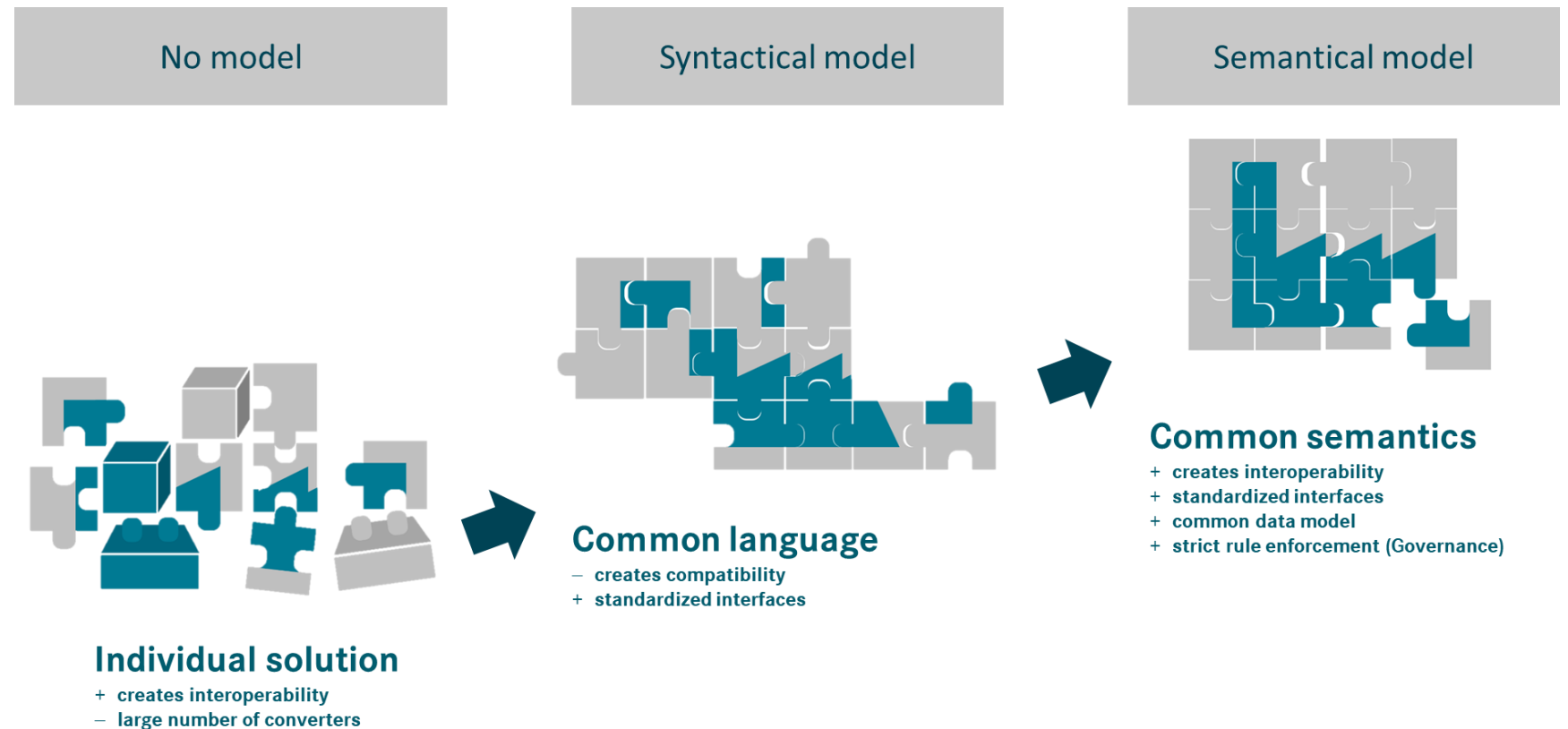
*...describes the **application** of an AutomationML Governance at **Mercedes-Benz AG**.*

Connecting engineering disciplines means connecting software tools. However, data exchange can be challenging.

As flexible as AutomationML is with its meta-model (syntactical model), **rules and guidelines** are required to create a suitable semantical model that make it work.

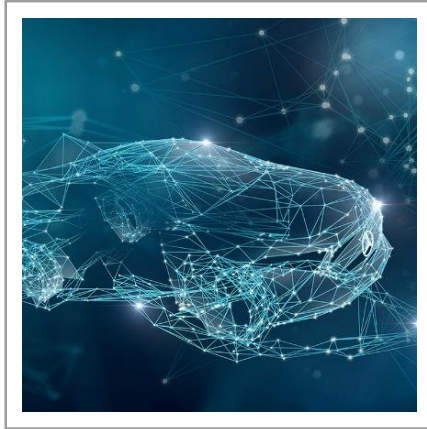


To ensure a company-wide consistency and application of the semantical model, a **AutomationML Governance** is required.



An AutomationML Governance provides the right set-up to successfully introduce AutomationML in a company.

Basics adapted
from IT
Governance



THE WHAT

One specific goal of an AutomationML governance can be to make data exchange easier by developing and maintaining a semantical model.

Possible goal categories: [strategic alignment, value delivery, risk management, resource management, performance measures]



THE HOW

Below mentioned process steps can be applied.

Process steps: [plan and organize, acquire and implement, deliver and support, monitor and evaluate]



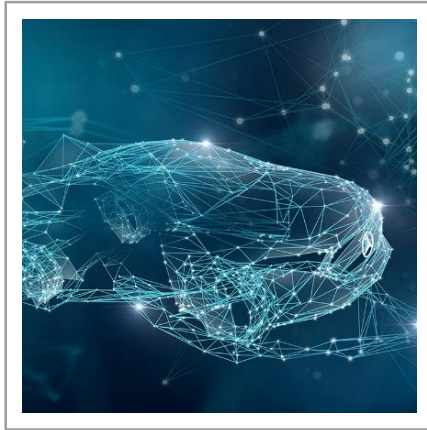
THE WHO

It is recommended to have below named roles from IT departments and their neighboring technical departments involved.

Roles: [board of directors, executive management, committees supporting the executives]

“The AutomationML governance provides structures (the WHO) and processes (the HOW), which ensure that AutomationML supports and enables the achievement of IT strategies and objectives of a company (the WHAT). It is also responsible for developing standards as well as monitoring their implementation and compliance.”

WHAT is the achievement? – Mercedes Benz's goal is to make data exchange easier by utilizing AutomationML.



THE WHAT

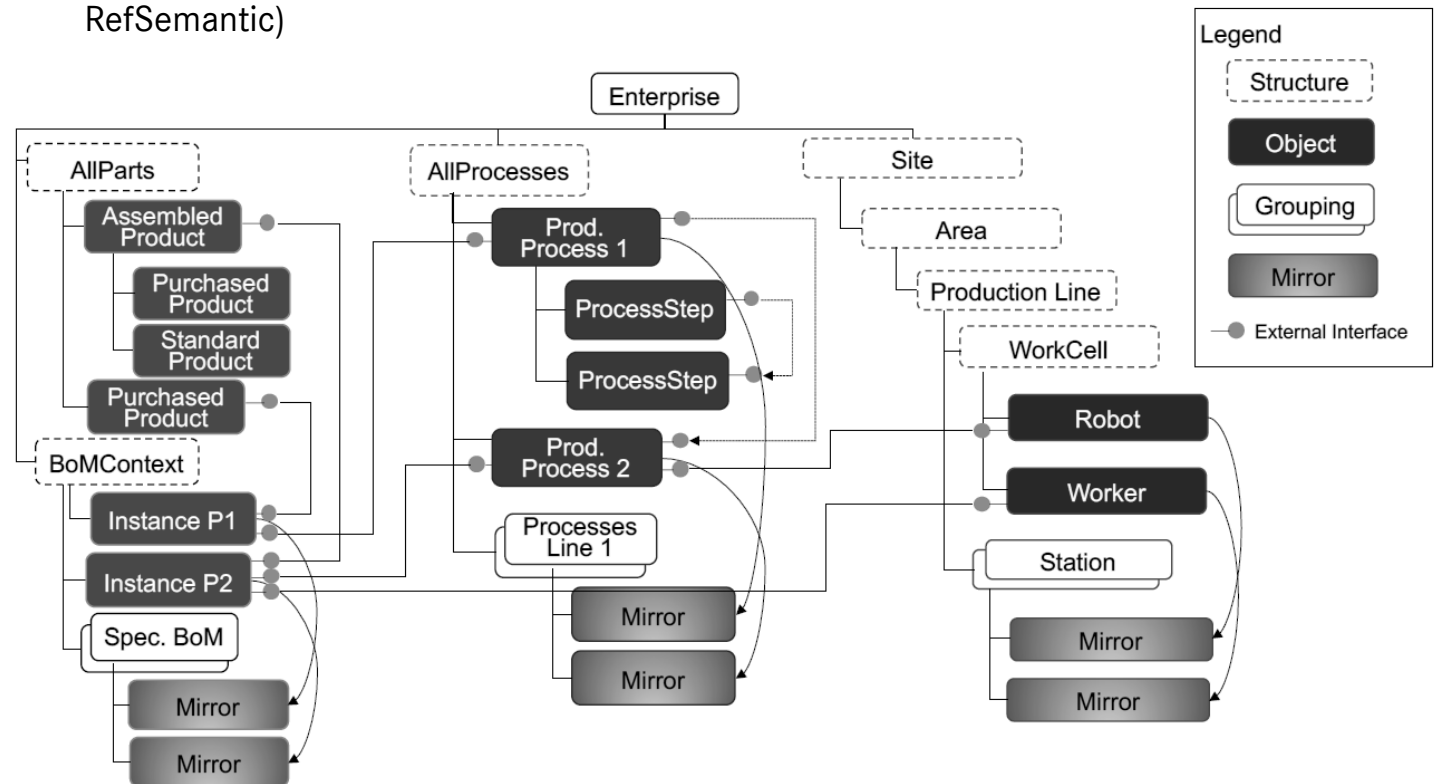
One specific goal of an AutomationML governance can be to make data exchange easier by developing and maintaining a semantical model.

Requirements:

- ✓ Extensible and neutral description
- ✓ Living semantical model
- ✓ Standardized model structures
- ✓ Standardized neutral content

Solution:

- PPR concept (product, process, resource) as a generic model basis
- Definition of abstract classes as derivation basis
- Definition of role and interface classes according to standards
- Definition of an attribute library with unique attribute IDs (referenced via RefSemantic)



WHO is involved to reach the WHAT? - It is all about committee work at Mercedes Benz.



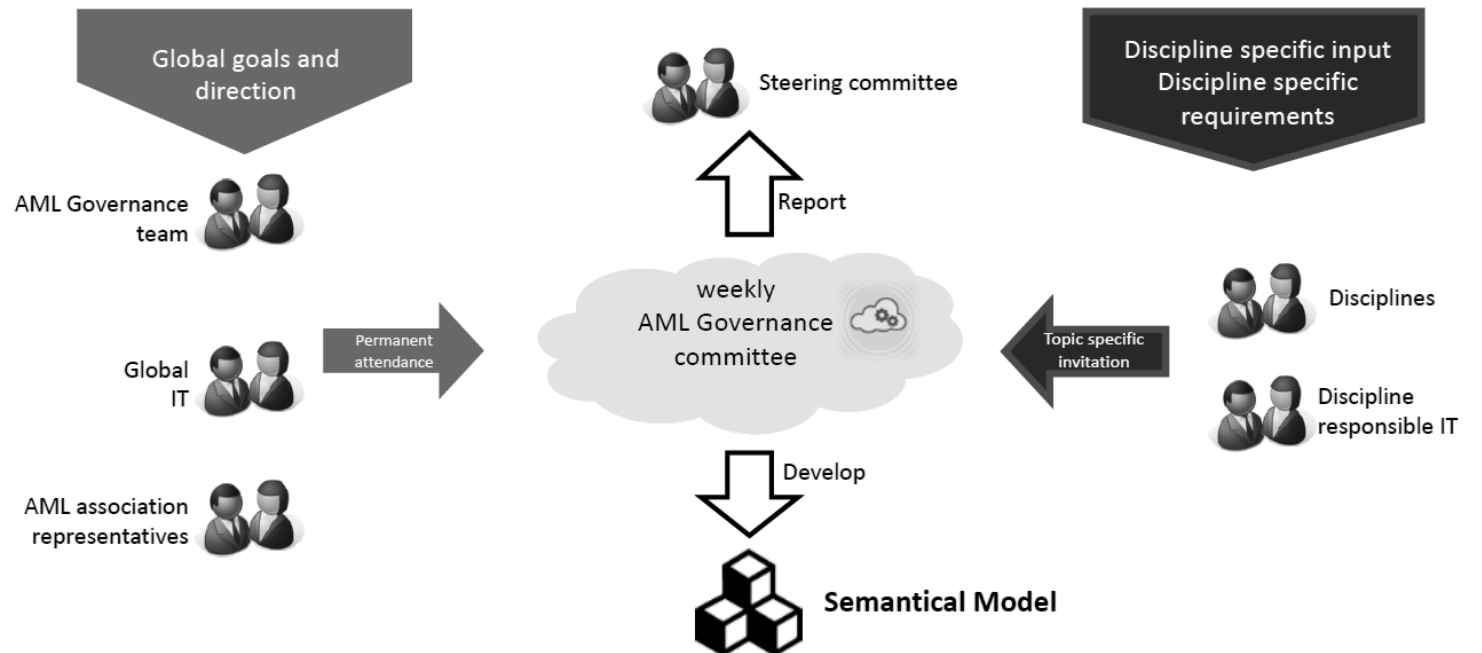
THE WHO

It is recommended to have roles from IT departments and their neighboring technical departments involved.

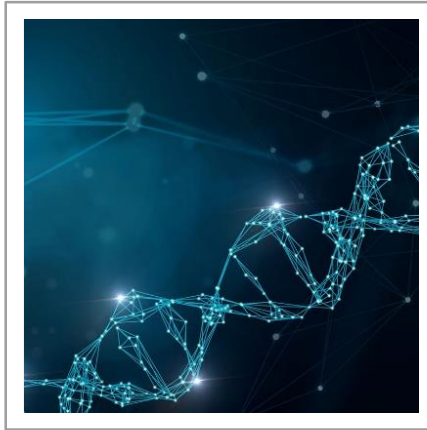
Enabling a living semantical model means to install a permanent AML Governance team.

- ✓ Up-to-date AML knowledge
- ✓ Facilitator of AML Governance committee
- ✓ Contact point for AML matters

- Governance committee develops the semantical model
- Permanent core team with 1-2 experts per role
- Discipline experts attend only when needed
- AML Governance team report to steering committee
- Intensity or frequency of communication can vary depending on the model development phase (see next slide about the HOW)



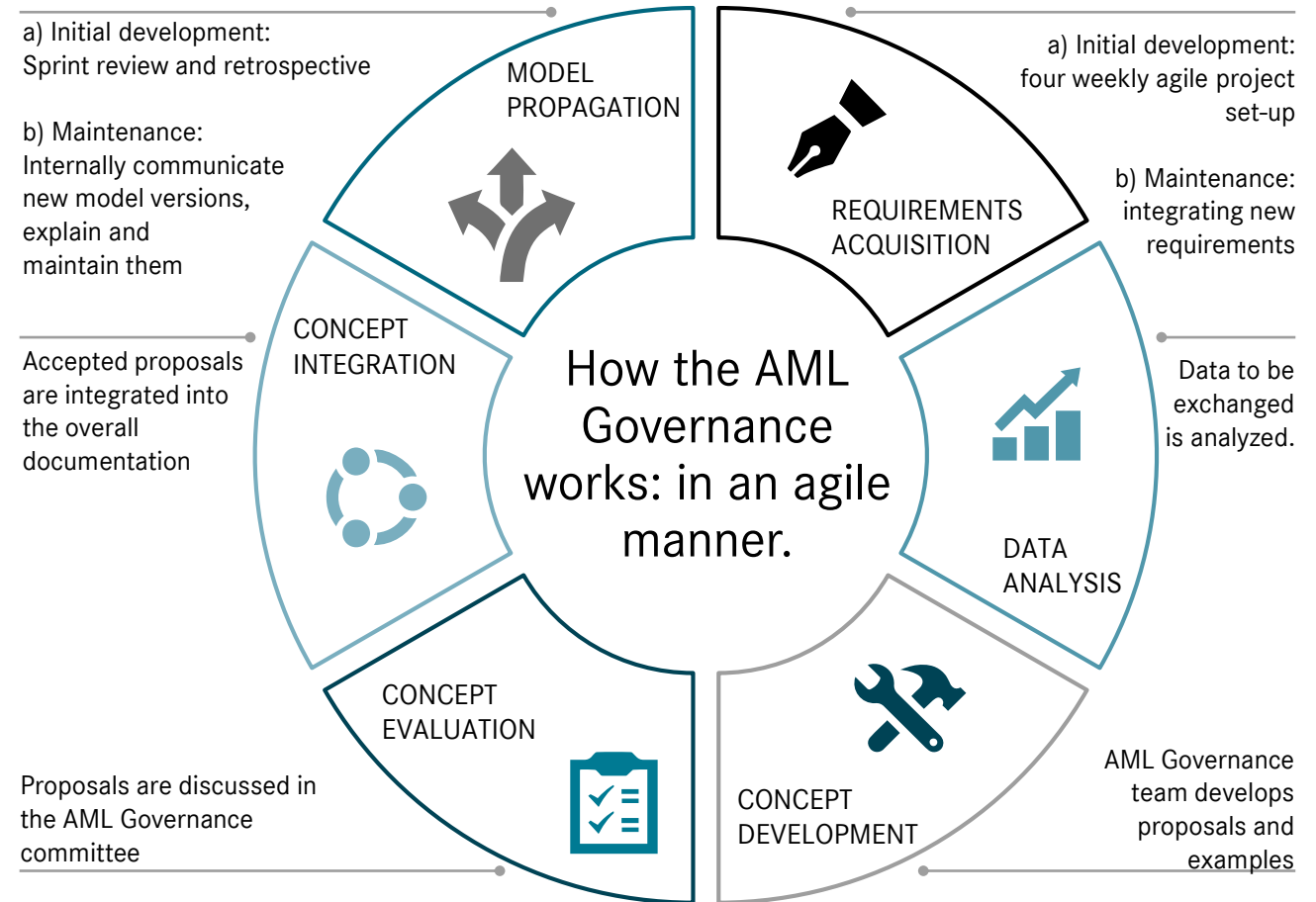
HOW is the WHAT reached? – Describing the process from the AML Governance team and committee



THE HOW

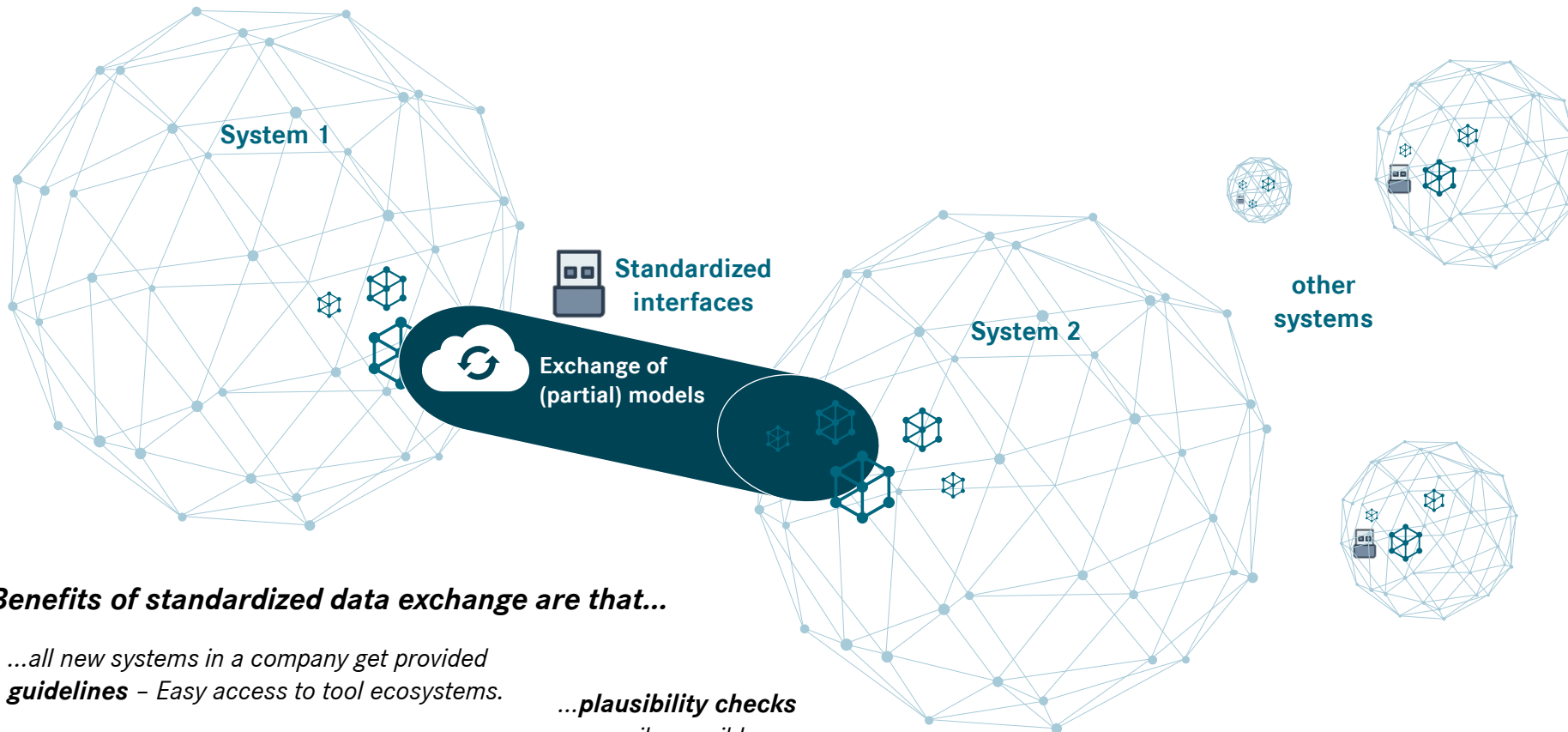
Plan and organize, acquire and implement, deliver and support, monitor and evaluate are process steps that can be applied.

AML governance team should persist (even after the project – the initial development – has ended) to ensure the integrity of the semantical model as new requirements emerge.



Standardized data exchange is a basis for collaboration and cooperation at Mercedes-Benz AG

The engineering of production systems is characterized by many software tools that work ‚hand in hand‘.



Benefits of standardized data exchange are that...

...all new systems in a company get provided **guidelines** – Easy access to tool ecosystems.

... **data quality** is increased through standardized interfaces.

...**plausibility checks** are easily possible.

...choice from best in class software is possible – **no lock in**.

Quick Facts of this presentation



Consolidating and harmonizing the different discipline models existing in a company in one semantical model.



Install an AML Governance team and committee



Keep the AML Governance team

Thank you!



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