



DIAMOND

Digital Plant Modeling with Neutral Data Formats





19./20. March 2024

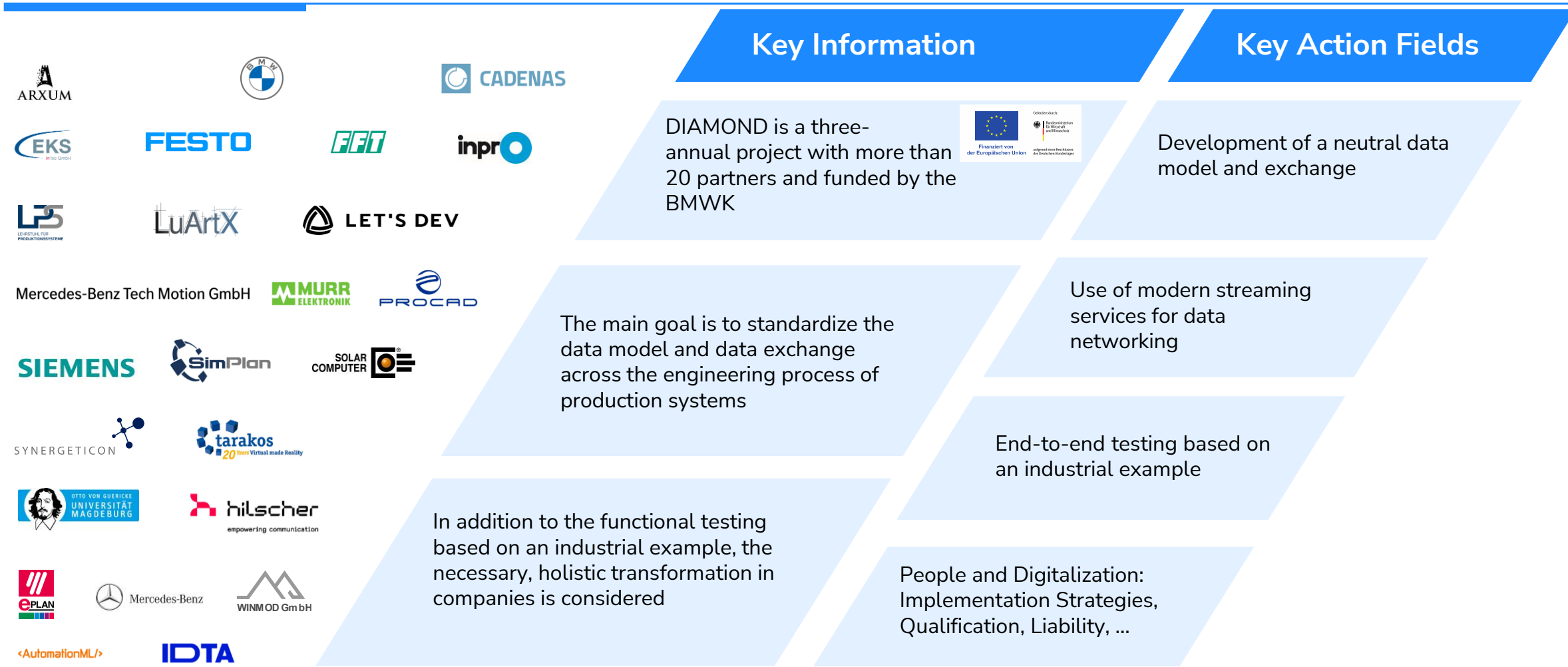
CADENAS INDUSTRY FORUM 2024 – WWK Arena

Mayor-Ulrich-Straße 90; 86199 Augsburg

 **DIAMOND**



DIAMOND at a glance





LuArtX IT at a glance



CAD and BIM software development for industry. Digital factory planning and MEP.

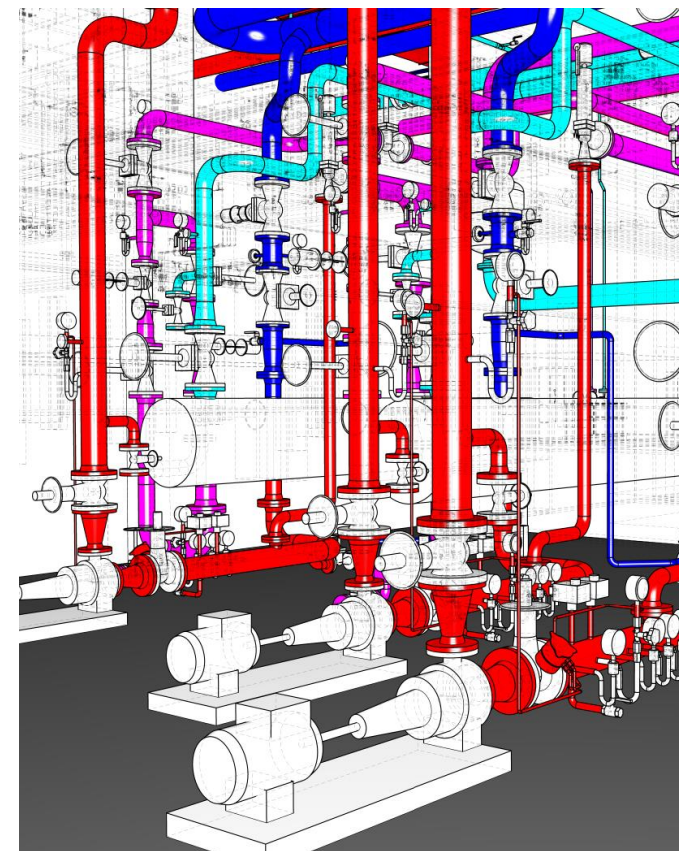
We work with the CARF attachment based on the MicroStation and are a leader in the automotive sector.

Our goal is to offer our customers, partners and CAD users the best possible solutions for all project and service phases.

We also reflect our success story, processes and know-how as a partner in the DIAMOND project.

We create data consistency with the integrated calculation, 3Dfindit CADENAS interface and the AML interface export and import.

We impart our knowledge and new developments to our users and customers via webinars, online group training and individual training.

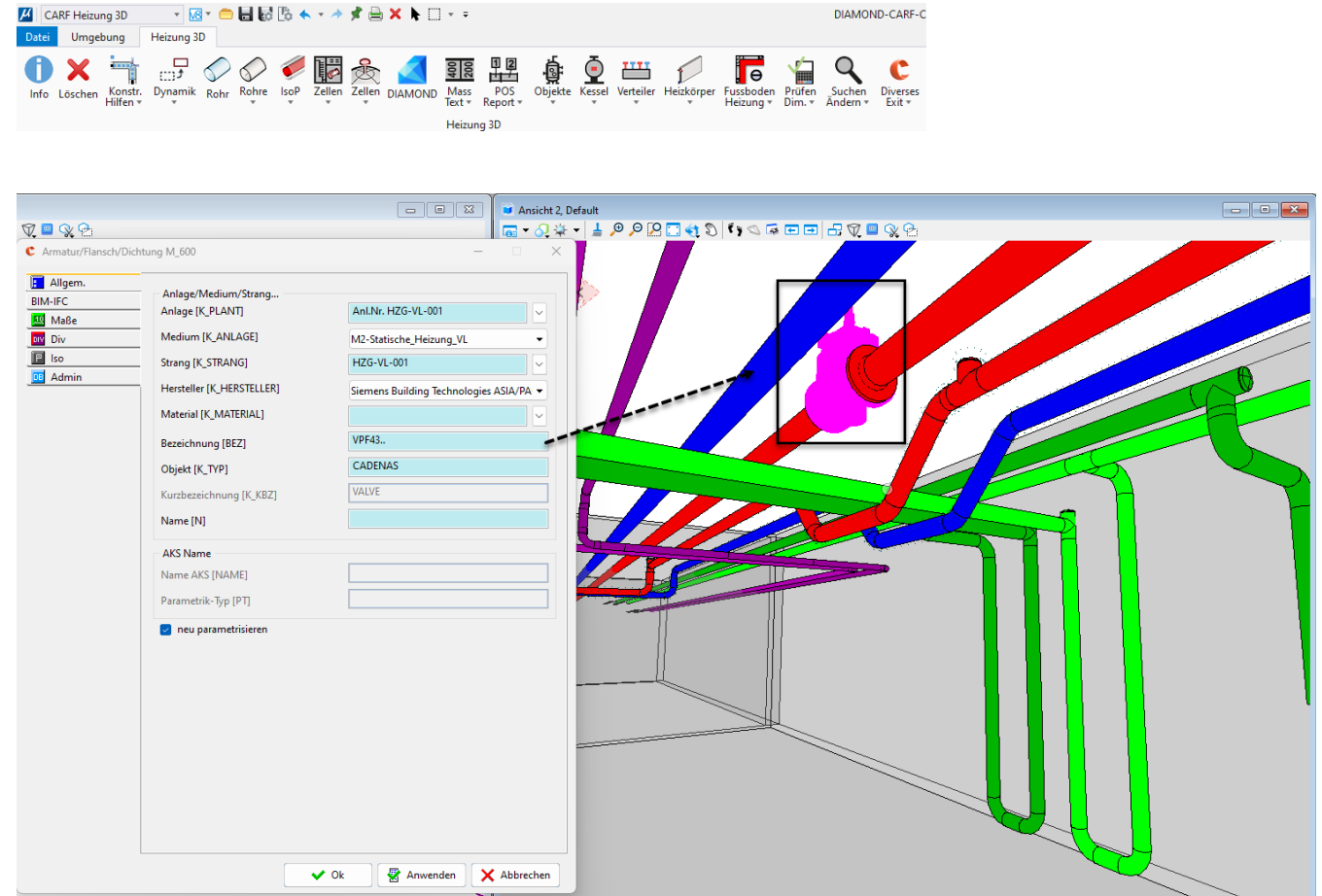




DIAMOND/CARF/CADENAS Interface

- ◆ Everyday life with CARF in service phases 1-8
- ◆ It must be possible to create data consistency in all service phases. Manufacturer-neutral components, as well as manufacturer-compliant components, are inserted into the plans from the DIAMOND/CARF/CADENAS interface.
- ◆ All components receive a CARF data mask with attributes and can be supplemented and processed specifically for the project and ENV.
- ◆ The aim of the DIAMOND project is also to transfer the placed components to the calculation interface, and to redimension them back into the DIAMOND/CARF/CADENAS interface and to transfer the components back into the model with the correct dimension:

Ventilation duct network, pipe network, drinking water and sewage network calculation via SOLAR-COMPUTER





Enterprise DIAMOND/CARF/CADENAS Interface

The Enterprise version with the DIAMOND/CARF/CADENAS interface offers the following advantages:

- All components that are put out to tender and installed in accordance with the specifications are provided by the company's own ENV
- All service phases cover the same manufacturers and articles. Result: The plans have data consistency
- The technical documentation is easier to check for correctness during project handover and commissioning
- The subdivision of the components according to trades can also be specified separately [ENV]

The left screenshot shows the 'Visual Enterprise Search Engine | 3Dfindit' interface. It displays a search result for material number 48874918. Below the search bar is a table with columns: Materialnum... (MTRLNO), Level of Develop... (LOD), Nennweite (SIZE) (mm), Nenndruck (NM/NL/PP/PT), Einzelverpackt, in Tüt... (SPLCPCKNG), plombierbare Handrad... (LEADSLNG), and a final column with 'Absperr'. Row 37 is highlighted in blue.

	Materialnum... MTRLNO	Level of Develop... LOD	Nennweite SIZE) (mm)	Nenndruck NM/NL/PP/PT	Einzelverpackt, in Tüt... SPLCPCKNG	plombierbare Handrad... LEADSLNG	
34	48874928	200	50	PN 16	No	No	Absperr
35	48013339	200	50	PN 16	No	Yes	Absperr
36	48013882	200	50	PN 16	Yes	No	Absperr
37	48874918	200	65	PN 6	No	No	Absperr
38	48013871	200	65	PN 6	Yes	No	Absperr
39	48013328	200	65	PN 6	No	Yes	Absperr
40	48874929	200	65	PN 16	No	No	Absperr

The right screenshot shows the 'Cadenas Schnittstelle' interface. It displays a detailed view of material number 48874918. Below the search bar is a table with columns: Material num..., Level of Develop..., Nominal diam... (SIZE) (mm), Nominal press..., packed in plastic bag..., and Lead sealing c... (LEADSLNG). Row 37 is highlighted in blue.

	Material num...	Level of Develop...	Nominal diam... SIZE) (mm)	Nominal press...	packed in plastic bag...	Lead sealing c... LEADSLNG
35	48013339	200	50	PN 16	No	Yes
36	48013882	200	50	PN 16	Yes	No
37	48874918	200	65	PN 6	No	No
38	48013871	200	65	PN 6	Yes	No
39	48013328	200	65	PN 6	No	Yes



DIAMOND/CARF/CADENAS Interface

◆ Goals and Implementation, Waste and Added Value

- ◆ The main goal is to use CADENAS and CARF to create the necessary connection data and requirements for the integration of the components and to generate added value for the users and project participants.
- ◆ The resulting requirements are included in the Common Data Model in short form CDM and further processed.
- ◆ For CAD users, it is a waste every day not to be able to use the digital data consistently in all service and project phases.
- ◆ Through the DIAMOND/CARF/CADENAS interface, we map and cover the data consistency within the service phases. In this way, we create added value by making processes faster and easier.



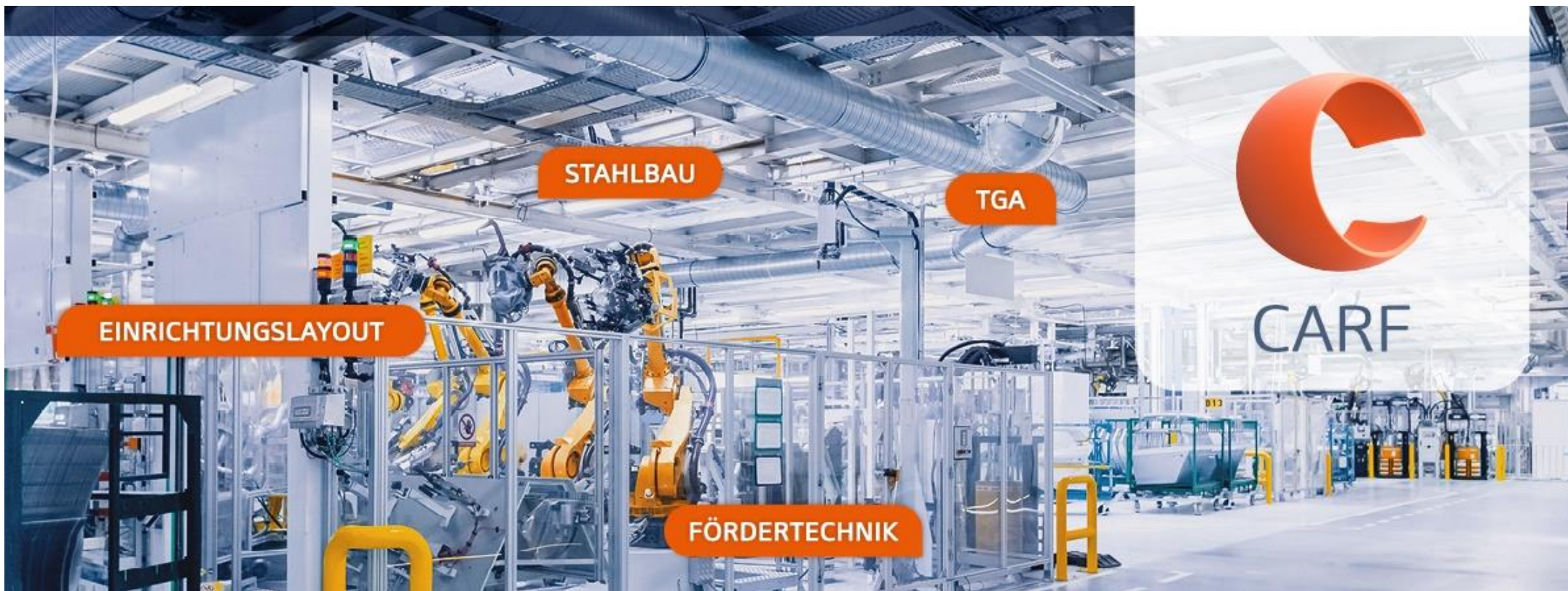
FACTS: LOWER PROJECT COSTS, FAST, EASY, AND HYBRID WORK

◆ Transformation into a digitalized world

- ◆ Industry, CAD users, planning and execution must adapt to the change to a digitalized world and adapt their processes accordingly in order to remain competitive. This requires a rethink and a high willingness to invest in new technologies and processes.



THANK YOU FOR YOUR ATTENTION





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