



# Online-Konferenz: digitaler Wandel im Produktionsmanagement

*“AI made in Hamburg - das  
Artificial Intelligence Center  
(ARIC) Hamburg”*

Alois Krtil / CEO

Hamburg, 12.01.2021



# 1\_AI made in Hamburg

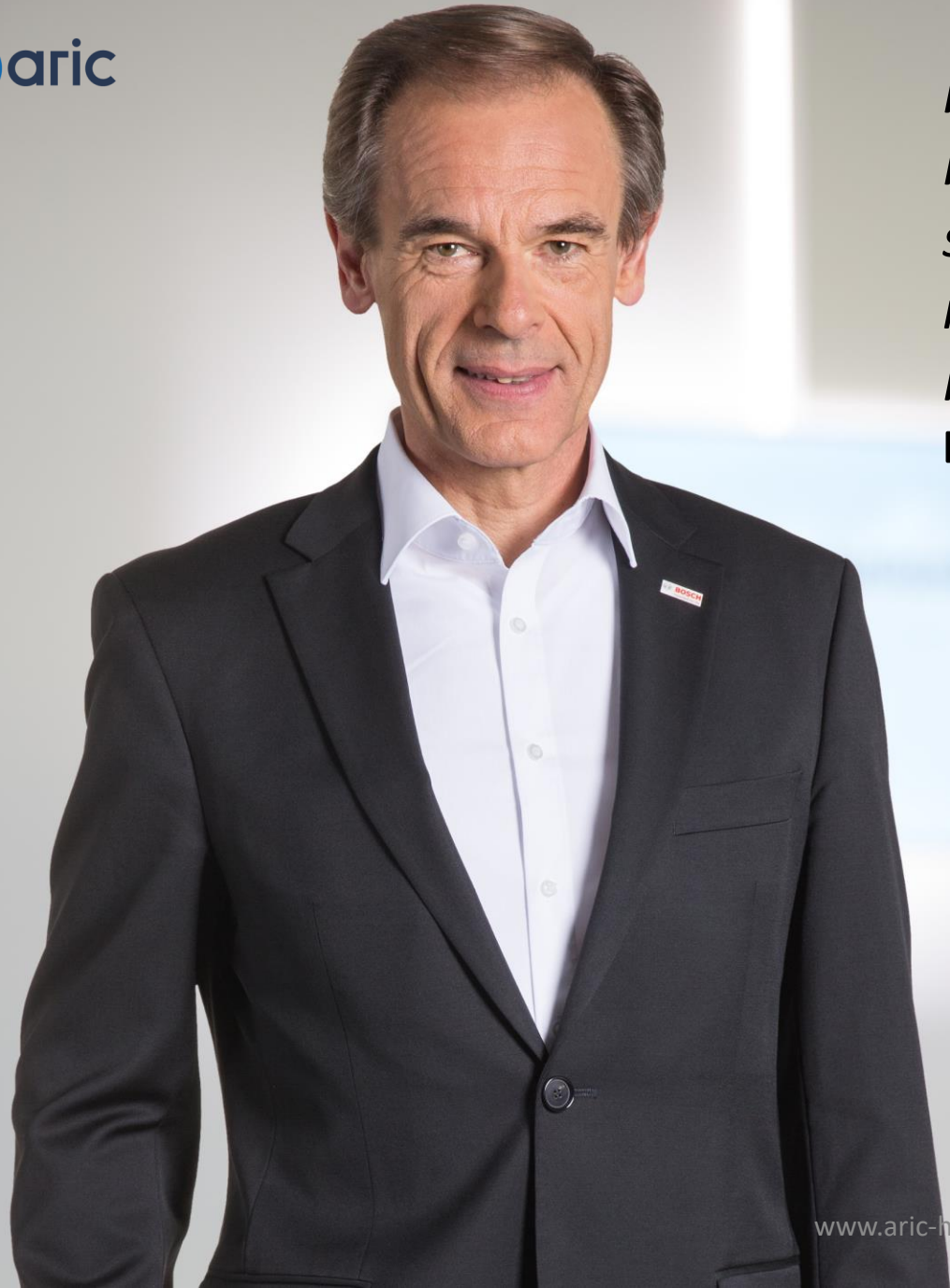
## 2\_das Artificial Intelligence Center (ARIC)

artificial intelligence will find  
its way into all areas of our  
work and life on a massive  
scale in the coming years

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# Wie wird das Potential von KI eingeschätzt?

“Our research estimates that AI could contribute **\$15.7 trillion** to the global economy by 2030, as a result of productivity gains and increased consumer demand driven by AI-enhanced products and services.” - PwC Research 10.2020

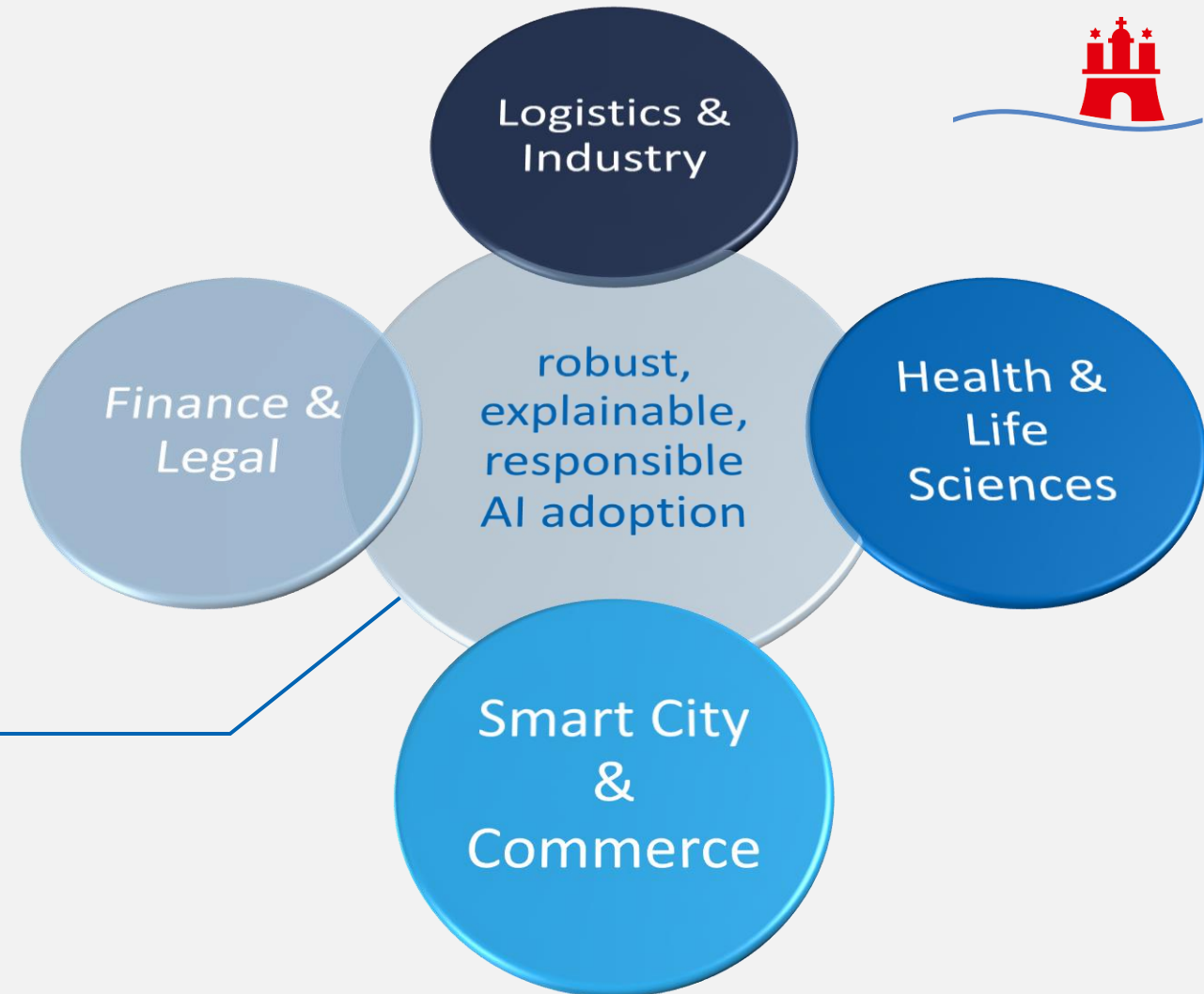


*In zehn Jahren wird kaum noch ein Bosch-Produkt ohne künstliche Intelligenz denkbar sein. Bereits in fünf Jahren werden Produkte mit künstlicher Intelligenz voraussichtlich 10 Prozent des Bosch-Umsatzes ausmachen.*  
**Dr. Volkmar Denner, Bosch CEO 2019**

## Why Hamburg?

AI is driving Hamburg's clusters and branches. Research on AI has a strong scientific tradition in Hamburg. Hamburg and the Metropolitan Region are characterized by the logistics, aviation, industry, smart city, commerce, health and lifesciences sectors. All sectors, where you cannot afford to make any mistakes when adapting key technologies.

We target industries, economies and ecosystems where the adoption of artificial intelligence in a serious and appropriate way matters.



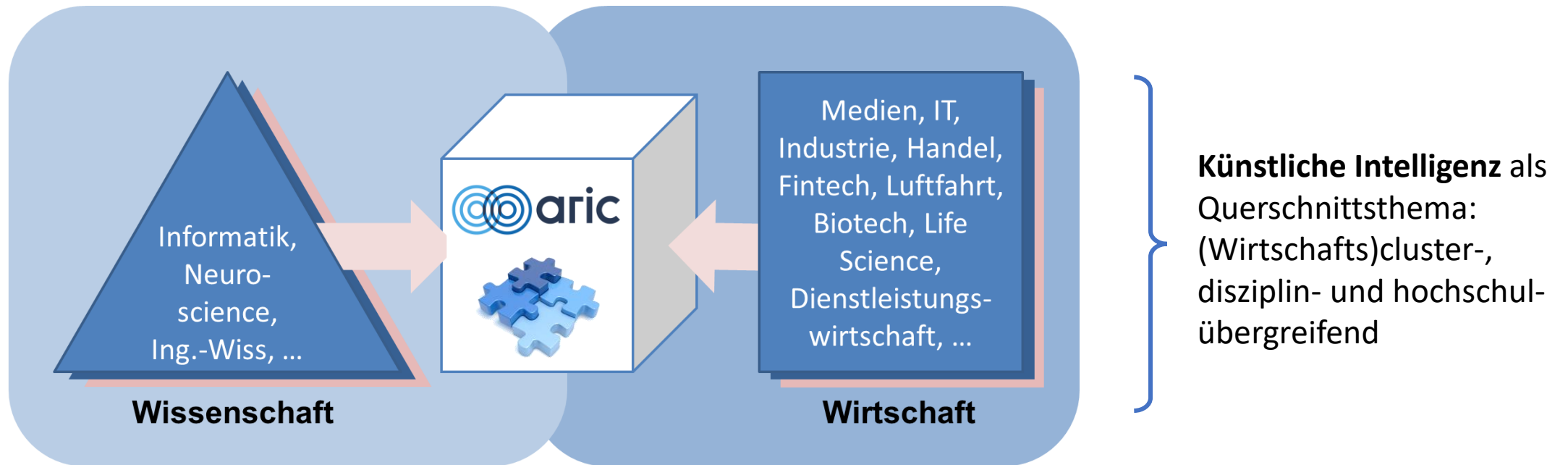
# AI Innovation made in Hamburg

- 21 (private and public) Universities
- Research Institutions: Leibniz, Max Planck, Fraunhofer, Helmholtz, DLR, ...
- Global R&D Centers
- Innovation Infrastructure
- Incubators
- Accelerators
- Networks & Ecosystems
- Innovation Communities
- Business Clusters
- Old & New Economy
- Startup Centers
- 100+ AI Startups
- ...



# KI Expertise aus beiden Welten: ARIC

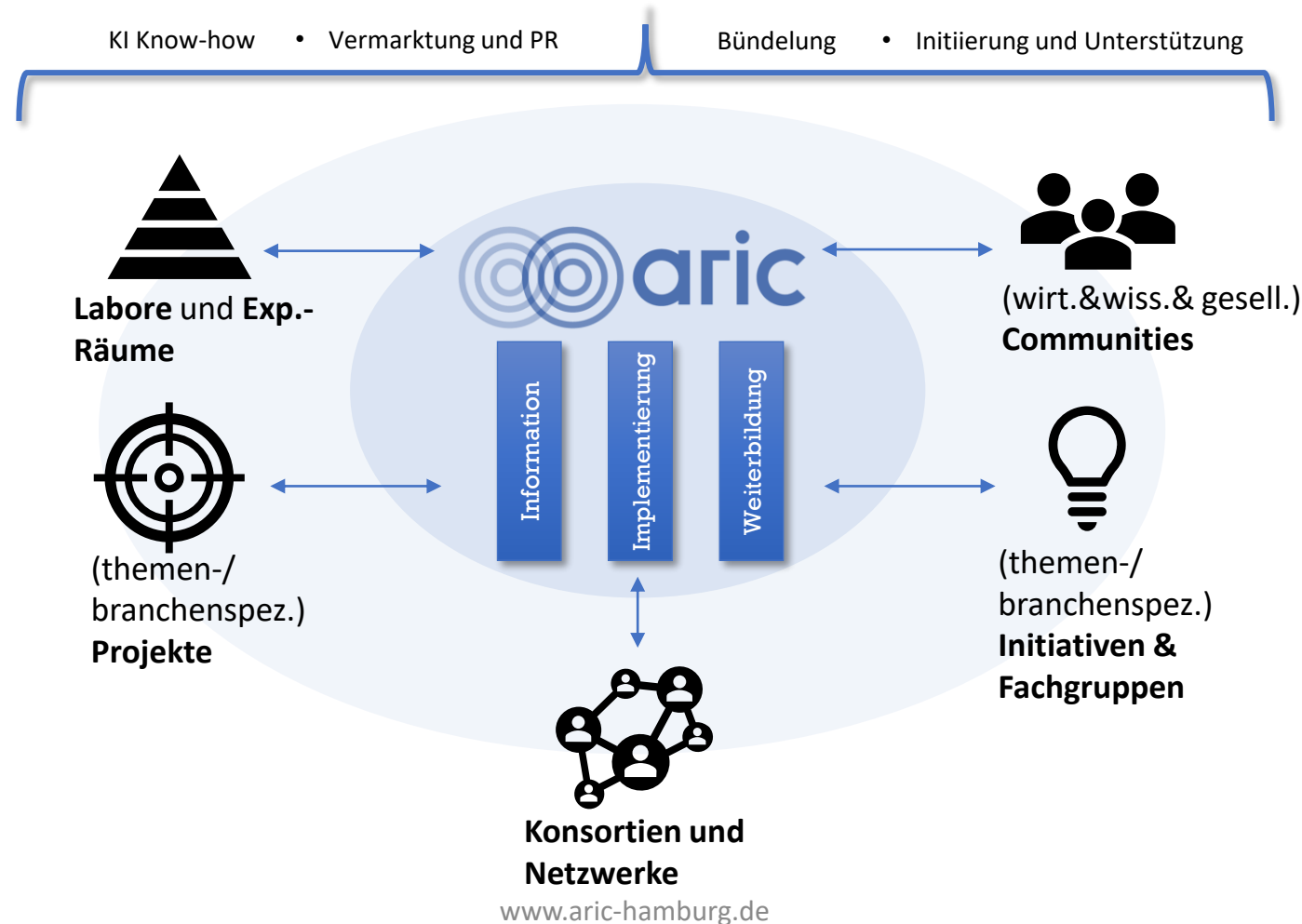
Verbindung von anwendungsorientierter KI-Forschung  
und praxisorientierter Anwendung



**Innovation durch Kooperation: Artificial Intelligence Center (ARIC) Hamburg**



## „Die Heimat für Künstliche Intelligenz in Hamburg“



# ARIC?

## Das ARIC als KI- *Enabler*

Bündelung von  
Ansprechpartnern,  
Expertise, Ressourcen &  
Netzwerk;  
Projektentwicklung und  
gemeinsame  
Umsetzung



Informieren



Ausprobieren



Projektieren



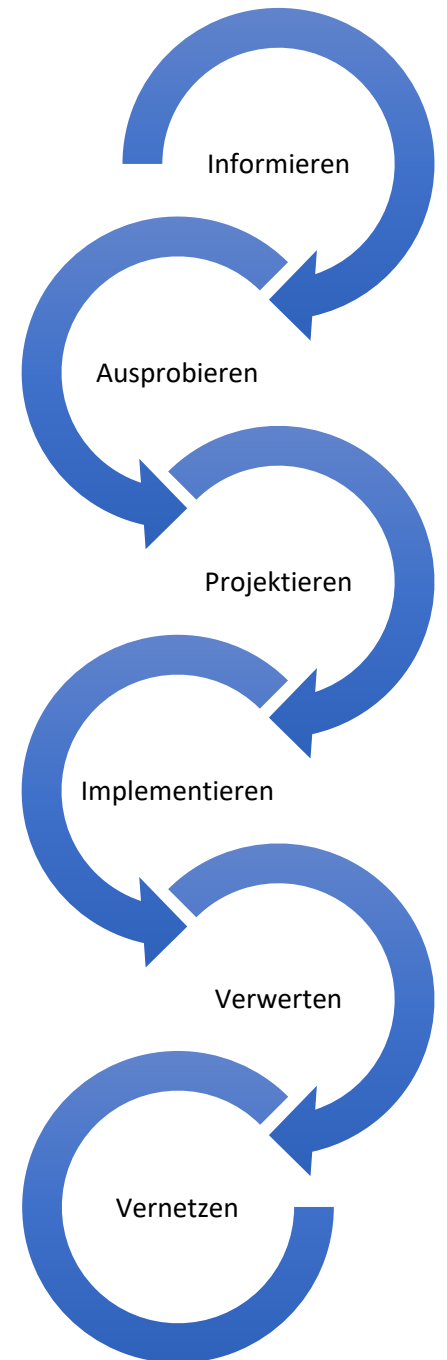
Implementieren



Verwerten



Vernetzen



# KI als Treiber für digitalen Wandel im Produktionsmanagement

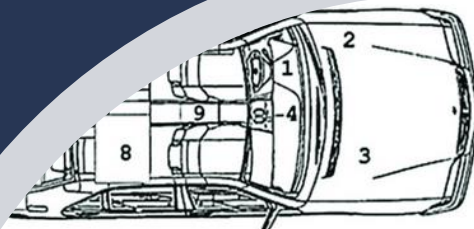
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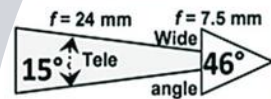


# „dynamisches maschinelles Sehen“

- 1990er: Prof. Ernst Dickmanns, UniBwM
- **VaMoRs** Passenger Car, 1758 km von München nach Odense/Dänemark



- 1 electrical steering motor
- 2 electrical brake control
- 3 electronic throttle
- 4 front pointing platform for CCD-cameras
- 5 rear pointing platform
- 6 Transputer Image Processing system
- 7 platform and vehicle controllers
- 8 electronics rack, human interface
- 9 accelerometers (3orthogonal)
- 10 inertial rate sensors



At distance  $L_3 \sim 20$  m ( $\sim 60$  m),  
the resolution is 5 cm/pixel



Quelle: Dickmanns, Ernst. (2020). May a Pair of 'Eyes' Be Optimal for Vehicles Too?. Electronics. 9. 759. 10.3390/electronics9050759.

A large iceberg is shown floating in the ocean. The tip of the iceberg is visible above the water surface, while the vast majority of the iceberg's mass is submerged below the surface. The water is a deep blue, and the sky above is a lighter blue with some clouds. The entire scene is framed within a circular, torn-paper-like border.

Everything-as-a-Service

Individualisierung

Automatisierung

Ubiquität



## Q&A?

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