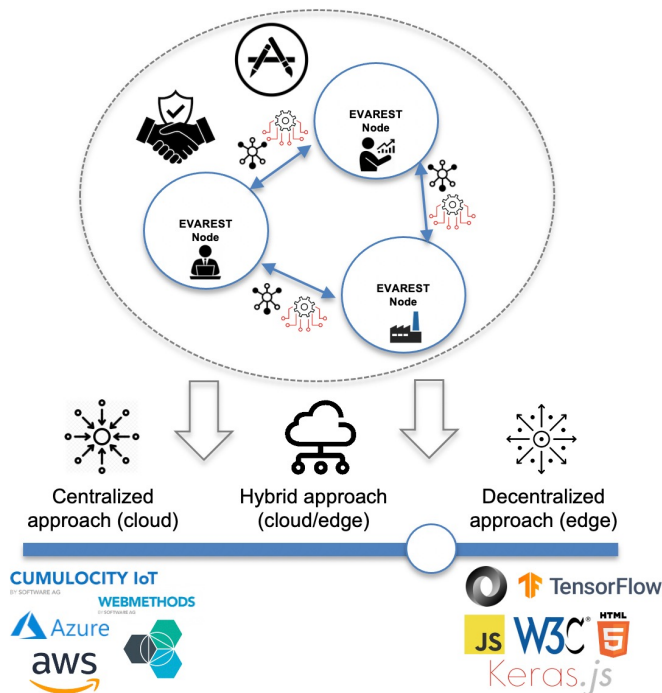# EVAREST

Development and Utilization of data products in food industry through smart services

Aim of the EVAREST research project is the development and utilization of data products in the food industry ecosystem through smart services. On the basis of an open, technical data platform that transcends the boundaries of manufacturers, as well as accompanying economic and legal utilization concepts, the (legally) secure utilization of data as an economic asset and the provision of user-specific smart services for various stakeholder groups will be enabled.

Centralized approach (cloud) — Hybrid approach (cloud/edge) — Decentralized approach (edge)

The exhibit shows how a data product is created and exploited by combining data streams from two primary producers. A primary producer A holds historical data on quantities and prices of his offered commodities (e.g., slaughtered goods, cocoa beans). He buys additional quantity and price data from another provider via the EVAREST platform, as well as a smart analytics service. An electronic contract between the primary producers and a so-called broker secures the trade. The broker represents a trusted third party within the marketplace.

This party runs the service on the data, resulting in a data product that includes a forecast of commodity volumes and prices for the next 6 months. Primary producer A can offer the resulting data product for sale through the EVAREST data marketplace. Food producers, such as sausage producers or chocolate producers, can purchase this data product and get a better planning reliability regarding prices and availability of the required raw materials. Thus, not only a cost saving in production or an increase in income through the sale of data products is realized: the anticipatory production also enables the reduction of food waste and thus a protection of the climate.

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The decentralized, global EVAREST data marketplace enables data sovereignty for data producers through an individual design of the EVAREST access node (edge, cloud, hybrid). The usage of edge computing and smart e-contracts further secures data trading. Semi-automated generation of higher-value data products is realized through decentralized AI services (e.g., TUCANA Smart Analytics Services and Data Product Patterns). Users can receive answers to business problems in the form of data products and services via natural language query of the EVAREST Data Lake. This is based on a knowledge graph of distributed, self-describing data products and services.

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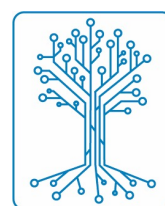
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