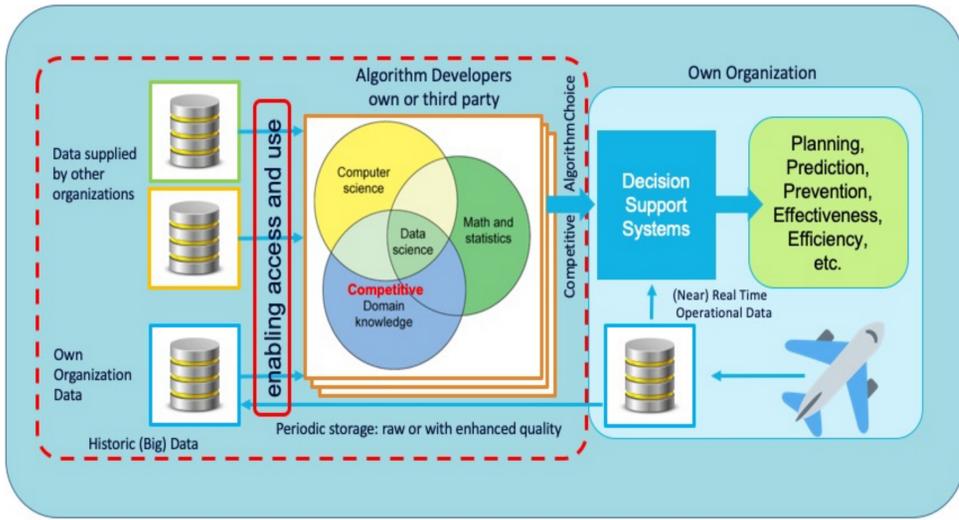


ExchangeWell Governed Digital Data Marketplaces

A demo showing how data scientists can create and execute AI learning transactions across multiple sovereign data asset owners to serve a common benefit without revealing IP and content.

The more data - the better the algorithm



- AI algorithm based Decision Support Systems create business value by supporting real-time complex decision taking such as **predicting the need for aircraft maintenance**.
- Algorithm quality increases with the availability of aircraft data.
- Multiple airlines operate the same type of aircraft.
- **Research Question:** "How can AI algorithm developers be enabled to access additional data owned by multiple airlines?"
- **Approach:** Applying Digital Data Marketplace concepts to facilitate trusted, fair and economic data asset sharing ensuring it can only be used for a particular **agreed purpose**.

A Digital Data Marketplace enables consortium governed AI learning

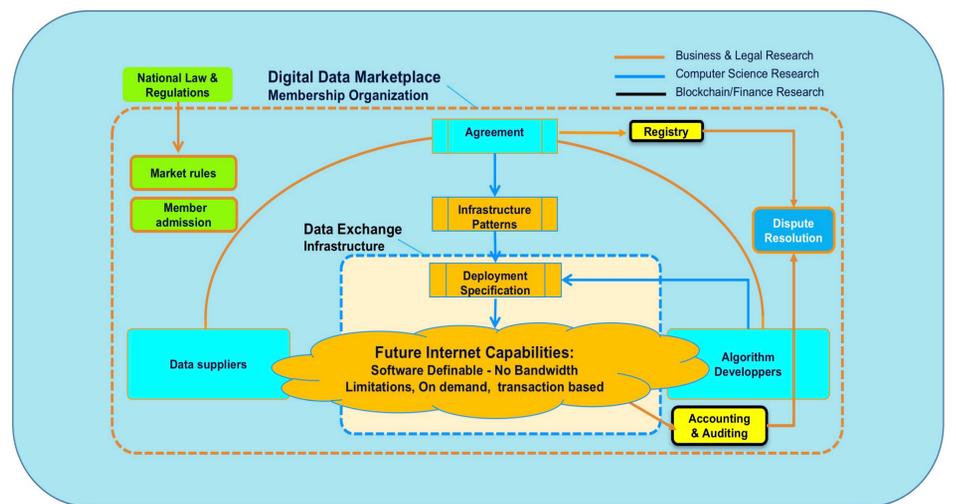
A **Digital Data Marketplace** is a membership organization governed data exchange serving a common goal: e.g. *increase value, accuracy and competitiveness of AI algorithms supporting innovative data driven aircraft maintenance*.

ExchangeWell, as a neutral industry consortium, is institutionalized to create, implement and enforce membership rules organizing **trust**.

Market members create **agreements** to exchange data assets for a **particular purpose** under specific conditions.

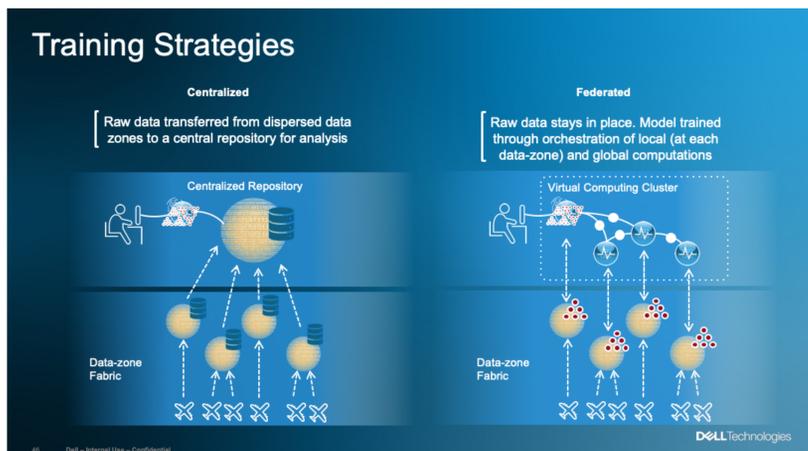
Agreements subsequently drive data science transactions creating processing infrastructures using infrastructure patterns offered by global data exchange providers such as **Equinix**, with over 200 datacenter locations.

Equinix is a **neutral place** providing the required global interconnectivity to cloud infrastructures in a secure and software definable way.



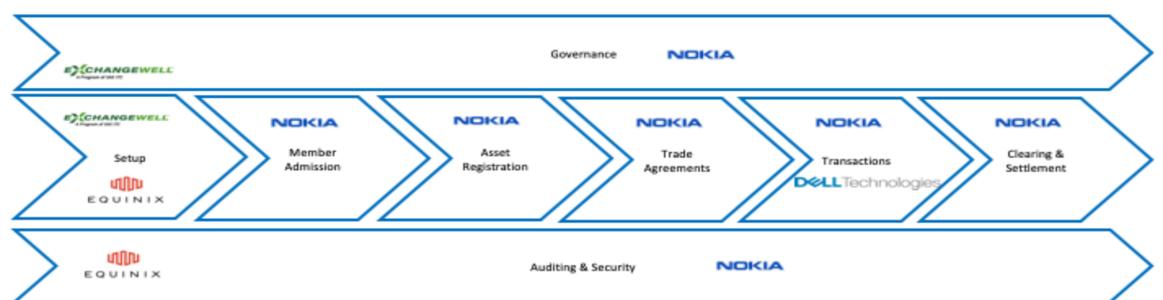
Implementing training methods and secure data science workflow orchestration

Federated training



Dell Technologies Milky Way federated analytics ensures data sovereignty and provides comparable accuracy as centralized training strategies

Digital Data Marketplace orchestration



Via Nokia's Datapace, members can register assets, expose, and subsequently arrange access and use of assets via a smart contracts. Subsequently, data science workflows are created and orchestrated as transactions that are logged. Datapace uses Hyperledger blockchain technology to register all actives in an immutable distributed ledger.

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