Data readiness index: Design, CEO-1-pager

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AI-data readiness index: Design logic

The executive problem: AI value does not come from data storage. It comes from data products or data that can be used in applications to automate business processes, improve decisions, and create measurable outcomes (Crosby & Schlueter Langdon 2019). The design logic of the AI-Data Readiness Index therefore starts with business results and works backward to the data capabilities required to produce them. Core idea: The index is built around an end-to-end data value chain with four building blocks: data usage, data products and factories, dataspaces for distribution, and data sources. This allows executives to see where value creation is blocked: at the source, in data refinement, in sharing/distribution, or in application usage.

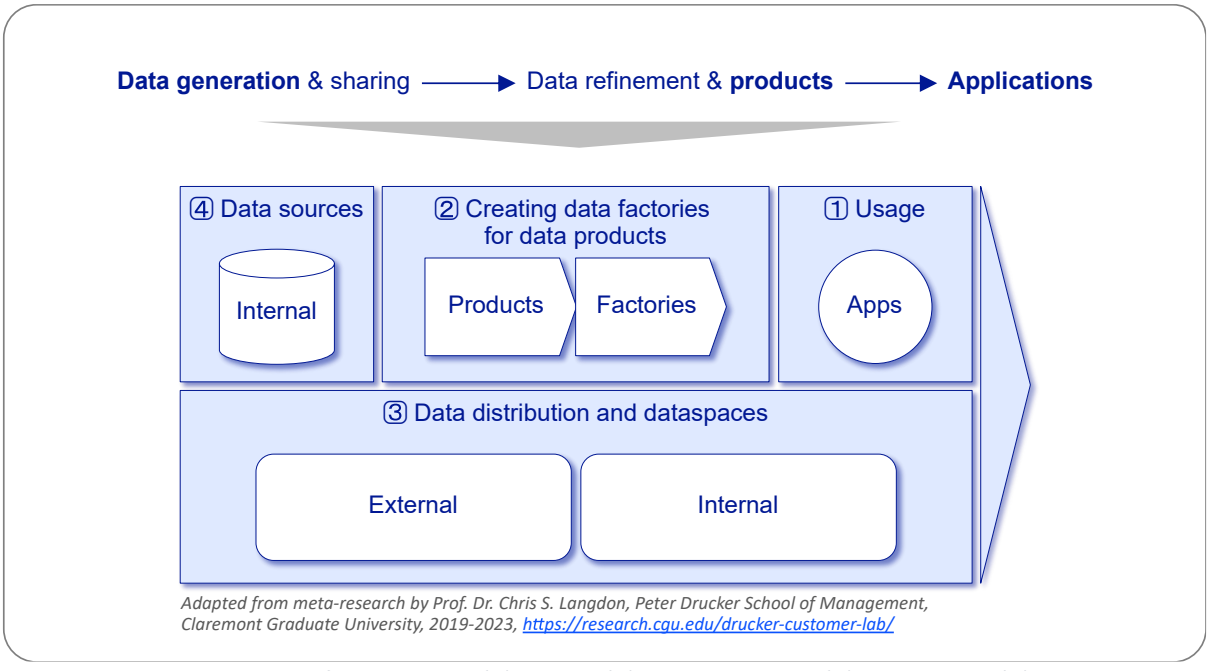

Figure 1: Data value chain framework – (1) usage, (2) data products, (3) dataspace, (4) data sources

Why this matters now

Companies often have more data than ever, but not necessarily the right data in the right form. Raw data needs to be refined into usable data products, with clear labels for content, quality, source, and rights. Without this productization step, AI and analytics teams keep wasting time on data wrangling instead of business results. The missing capability is industrialization. Companies need “data factories” that turn raw data into AI-ready data products at scale through rights management, ingestion, harmonization, quality scoring,

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metadata, and governance. This is the data equivalent of moving from handcraft to factory production.

What the index measures

The index should assess four executive-level readiness dimensions as illustrated in Figure 1 (adopted from Schlueter Langdon & Sikora 2020):

- Usage: Are there business applications and use cases that can create value from data?
- Data products and factories: Is raw data refined into reusable, governed, high-quality products?
- Dataspaces and distribution: Can data be shared securely across internal silos and external partners?
- Sources: Are relevant internal and external data sources accessible, reliable, and usable?

This structure gives management a practical map of the full data value chain, from raw data to application value.

Design principle

The index must be business-oriented, actionable, and measurable. It should not be another abstract technology benchmark. Its purpose is to establish a clear baseline, compare participants from lagging to leading, and identify where targeted action is needed.
The design follows a simple executive logic: start with outcomes, identify the required applications, then trace back to the data products, distribution mechanisms, and sources needed to deliver those outcomes. This makes the index useful for investment decisions, not just maturity scoring.

Proof points: Early dataspace pilots including RealLab Hamburg

The framework was validated with early dataspace deployments including RealLab Hamburg, where cross-organizational data sharing through a dataspace enabled a mobility super-app (Schlueter Langdon & Schweichhart 2022). The system used live data from multiple mobility providers to construct data chains for intermodal travel planning, resulting in better mobility with 30% faster travel speeds and lower CO_2 emissions.

CEO takeaway

AI-data readiness is not about owning more data. It is about having the right data, refined into products, governed properly, shared securely, and used in applications that create business value. The index gives executives a practical diagnostic tool: establish the symptoms, identify the bottlenecks, and prioritize the investments needed to move from AI ambition to AI results.

Key references

Crosby, L., and C. Schlueter Langdon. 2019. Data as a Product to be Managed. Marketing News, American Marketing Association (October 10th), link

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