Engineer Software

One infrastructure plan for 14 departments

Designed a comprehensive infrastructure framework for a research institute impacting 14 departments, featuring flexible modules, unified data pipelines, and structured support strategies for long-term adoption.

2025

14

research departments on one infrastructure plan

Situation. At a research institute comprising 14 diverse research groups, each group worked with varying data sources, formats, scales, and software tools. The technical expertise and available IT resources varied widely across the groups. While a few had managed to create and deploy custom IT solutions, many struggled with the complexity of their data infrastructure needs, diverting valuable time and focus from their core research work.

Task. The task was to devise a solution that would allow researchers to focus on their scientific work rather than IT challenges. The goal was to design and implement a scalable, institute-wide data infrastructure that could accommodate the broad and differing requirements of the majority of research groups.

Action. A robust, forward-thinking infrastructure plan was developed that balanced flexibility and standardization. The plan outlined key components such as modular architecture, integration pathways for diverse data sources, user-friendly interfaces tailored to varying technical skill levels, and scalable storage and processing solutions. It also included strategies for onboarding, support, and governance to ensure adoption and sustainability.

Result. The resulting infrastructure plan was both technically sound and strategically aligned with the institute's research goals. It unified the vision for data management across the organization, provided a clear path to reducing IT burden on researchers, and laid the foundation for a shared, efficient, and

future-ready research data environment. The plan was well received for its inclusivity, clarity, and adaptability, setting a strong direction for the institute's data infrastructure transformation.

Bring this experience to your project

Use "One infrastructure plan for 14 departments" as a starting point for a similar challenge in your organisation. The services behind this work are available for your project. The shape of a system worked out on paper first, so the parts fit and the cost is known before anyone writes code.

Explore our services Get in touch →

Look behind the result

Read the situation, decisions and result in this example. We can discuss which parts transfer to your constraints and which need another approach. One infrastructure plan for 14 departments — 14 research departments on one infrastructure plan

Explore our services Get in touch →

Planning infrastructure for a whole organisation?

Talk through your project with the engineer responsible for delivery. We agree the scope, price basis and handover in writing before work begins.

Role context: Platform and Data Engineer. It draws on Platform Architecture, Solution Architecture, Data Engineering, Data Pipelines (ETL/ELT), Data Governance, Infrastructure, Technical Leadership, Stakeholder & Reporting and Documentation. And while you are here, we are rather good at Platform & Solution Architecture, Data Pipeline Development (ETL/ELT), Data Governance & Quality, Technical Leadership & Consulting and Technical Documentation.

Get in touch Explore our services

One piece of **a longer record** — and it is all on this site.

Every entry is written the same way: the situation, the task, what we did and what changed.

See the whole record

Define the improvement you need

Describe the workflow, the existing interfaces and the users who need the change. We can define a testable delivery and a handover that lets your team maintain it.

See what it costs Get in touch →

Planning infrastructure for a whole organisation?

Ask about the decisions behind “One infrastructure plan for 14 departments”. You will speak with the people who can explain the work and assess your own project.

Explore our services

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Contact card

Carefully Crafted With Love by D.

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