

KORBEL

# Vladimír Korběl, MSc

Design leader experienced in system-level transformation and hands-on optimization of specific user journeys within complex platforms.



**Stanford-trained in innovation and design thinking**

**20+ years leading UX of complex, global programs**

**Specializing in turning fragmented systems into scalable solutions**

# Key achievements

## **Built and scaled UX design & research at Novartis**

Scaled from a team of one to a recognized global practice, embedding research-driven design into complex organizational systems.

## **Delivered impact across pharma, finance, and industry**

Led initiatives across clinical trials, financial markets, and industrial operations, contributing to outcomes up to billion-dollar impact.

## **Led global research and design programs**

Directed multi-market programs and partnered with C-level stakeholders to align strategy and drive system-level solutions.

# **Selected Impact**

Key programs delivering measurable business outcomes across industries.

## **Novartis SENSE — Global Clinical Trial Platform**

Predictive, real-time visibility and decision-making across a multi-billion-dollar clinical ecosystem

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## **Digital Labs — Enterprise Innovation**

Reframed scientific workflows through global research and co-creation across drug development.

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## **Deutsche Börse — Design Transformation**

Aligned fragmented products into a unified system, reducing complexity and operational risk.

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## **Cemex — Operational Efficiency at Scale**

Identified ~\$1B in value through ethnographic research across global cement plant operations.

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# **Novartis SENSE**

**Transforming Global Clinical Trial Operations in Big Pharma**

■ 25 January 2019, 06:01 CET

# Big Pharma's Drug Studies Are Getting a NASA-Style Makeover

● A third of development costs comes from clinical trials. Novartis wants to make them cheaper and faster.

By James Paton and John Lauerman



## SENSE — Transforming Global Clinical Trial Operations

2018-2023

Designed a predictive, real-time system for global trial visibility, decision-making, and risk management.

Role: Design Lead (Research, Strategy, System Design)

Scope: End-to-end (Discovery → Implementation)

Team: 3 designers, 2 researchers

- **Led design and research** for a global clinical trial platform
- **Introduced system-level visibility** across fragmented operations
- **Supports decision-making** within a multi-billion-dollar clinical trial ecosystem

# A Multi-Billion Dollar System Without Real-Time Visibility

Clinical trials represent a multi-billion-dollar investment — yet decision-making is fragmented, delayed, and reactive.

- **No unified view** of trial performance across regions and systems
- **Decisions rely on delayed, incomplete, or siloed data**
- **Operational risks are identified too late** to act effectively



# Leading the Transformation

Led the discovery and design of a global system transforming visibility and decision-making in clinical trials.

- **Defined the problem spaces** through research and executive alignment
- **Led design and research** for a global clinical trial platform
- **Facilitated cross-functional alignment** across regions and disciplines
- **Shaped the system-level solution** from concept to implementation



# Evidence-Based System-Level Insights

## **Planning and execution were fundamentally misaligned**

Trial plans were driven by local incentives and unrealistic assumptions, leading to significant deviations and downstream inefficiencies.

## **Critical data existed — but was fragmented, delayed, and untrusted**

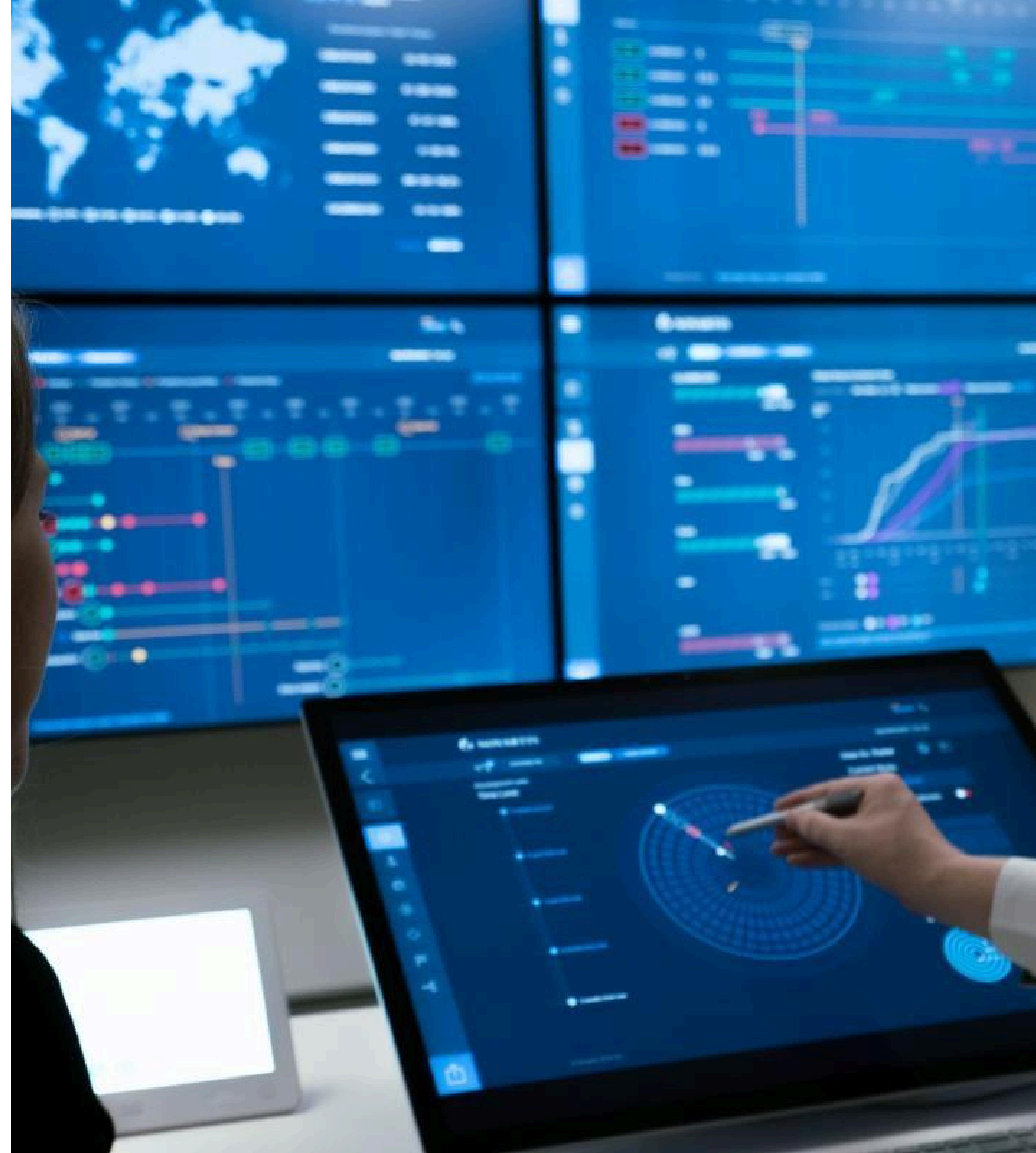
Data was distributed across systems, slow to access, and unreliable, preventing a shared and timely view of trial performance.

## **Trial management was reactive, not proactive**

Teams lacked continuous visibility and control, identifying risks too late and relying on manual effort instead of systematic decision-making.

# **A System for Real-Time Visibility and Decision-Making**

**Designed a centralized control system  
providing a unified, real-time view of  
global clinical trial performance.**



# Core System Capabilities

## **Unified operational view**

Consolidated fragmented data into a single, shared view across trials and regions.

## **Proactive risk management**

Enabled early identification of risks and continuous monitoring of trial performance.

## **Scalable decision support**

Equipped global teams with actionable insights to drive faster and more effective decisions.

# Translating System Complexity into Usable Interfaces

Designed interfaces that make complex, multi-source data understandable, actionable, and usable in real time.



The Enso wheel can represent compassion or enlightenment and inspired the 'study overview' graph

# From Fragmentation to Control

## Focused visibility

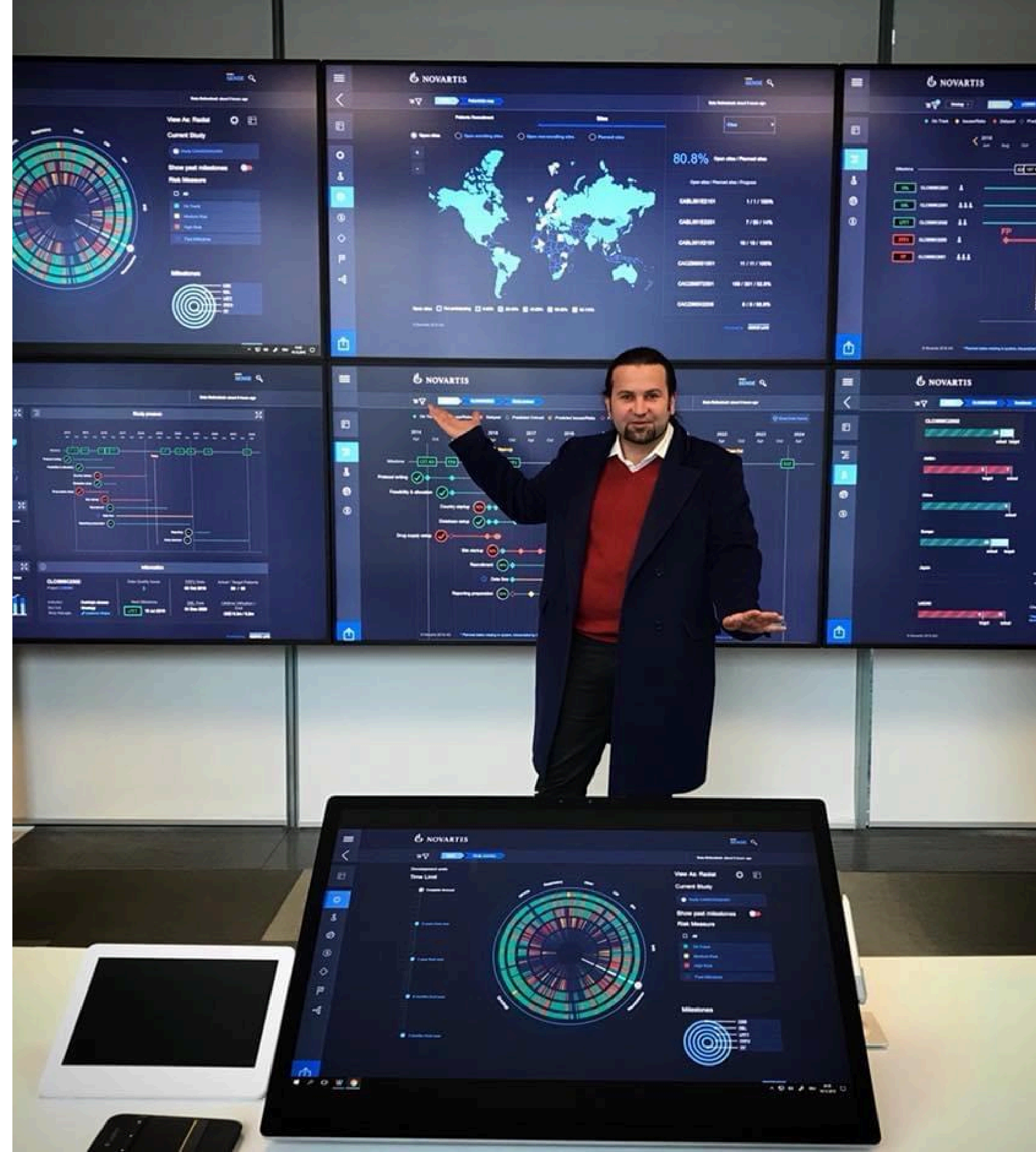
Surfaced the most critical signals across trials to enable rapid understanding.

## Actionable insights

Transformed fragmented data into clear trends, risks, and decision points.

## Designed for action

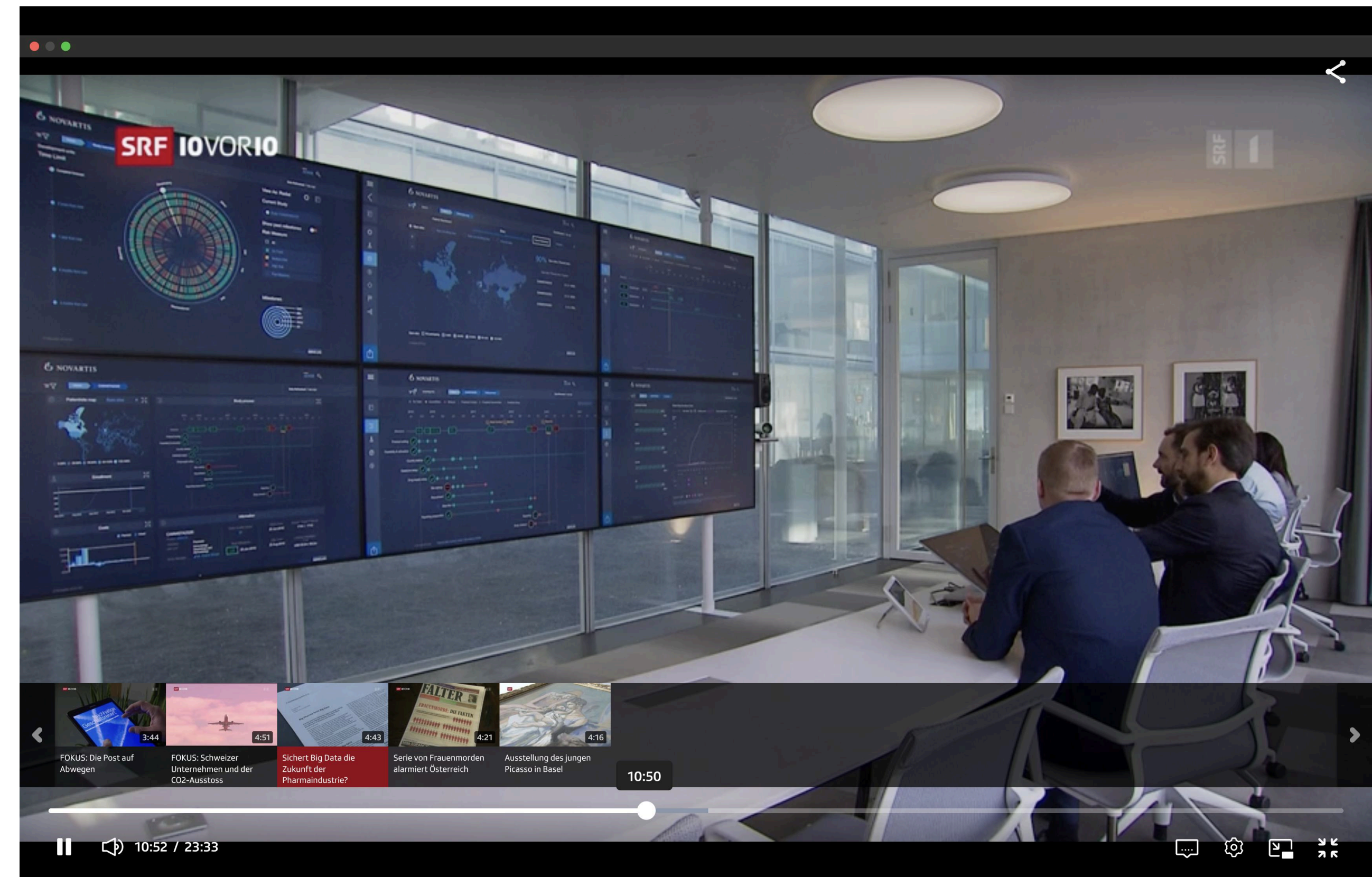
Enabled teams to move from insight to action within a unified system, supported by the Maya design system.



# Business Impact

Driving visibility across a multi-billion dollar clinical trial ecosystem.

- **Adopted by 3,500+ users across global drug development** (Global Drug Development & Novartis Institute for Biomedical Research), enabling real-time monitoring of clinical trials
- **Shifted trial management from reactive to data-driven, proactive, decision-making**, establishing real-time visibility as a new operational standard
- **Recognized as a flagship innovation, featured in Bloomberg and Swiss national TV**, influencing broader system and design adoption



<https://www.srf.ch/play/tv/10vor10/video/sichert-big-data-die-zukunft-der-pharmaindustrie?id=8c99e686-de2f-45a3-87ac-b6aa8b1cd845>

# **Digital Labs**

**Driving Innovation Through Enterprise Design Thinking**

# Driving Innovation Through Enterprise Design Thinking

2019-2021

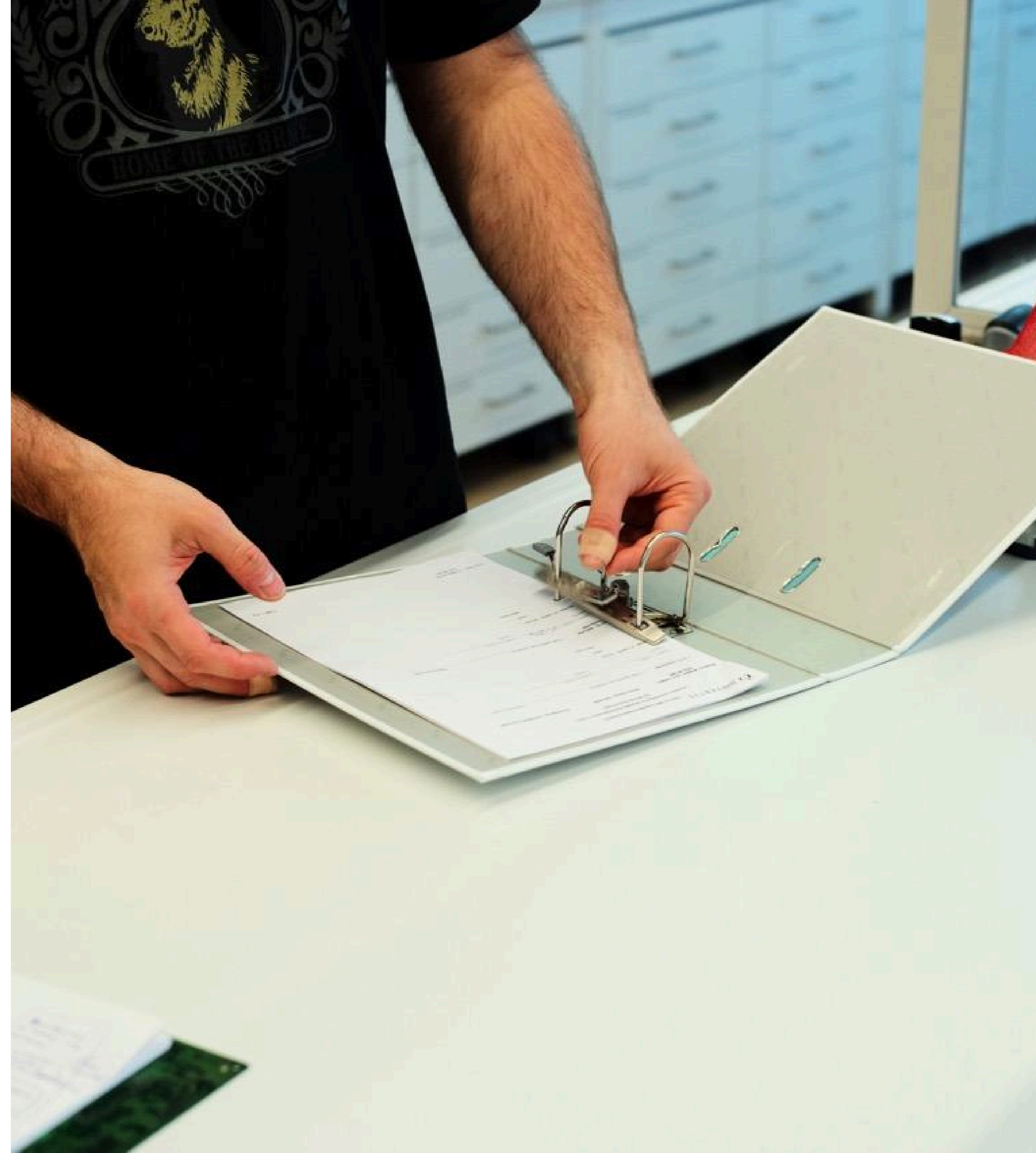
Led global discovery and co-creation to reframe how scientists work within drug development.

Role: Design Lead (Research, Strategy, System Design)

Scope: End-to-end (Discovery → Implementation)

Team: 6 designers, 4 researchers

- **Scientists were overwhelmed by administrative tasks, limiting time for research.**
- **Conducted field research** with 48 users across 7 countries.
- **Applied a structured 4D design thinking** framework across global teams.



# From Research to Organizational Alignment

Led global discovery and co-creation to reframe how scientists work within drug development.

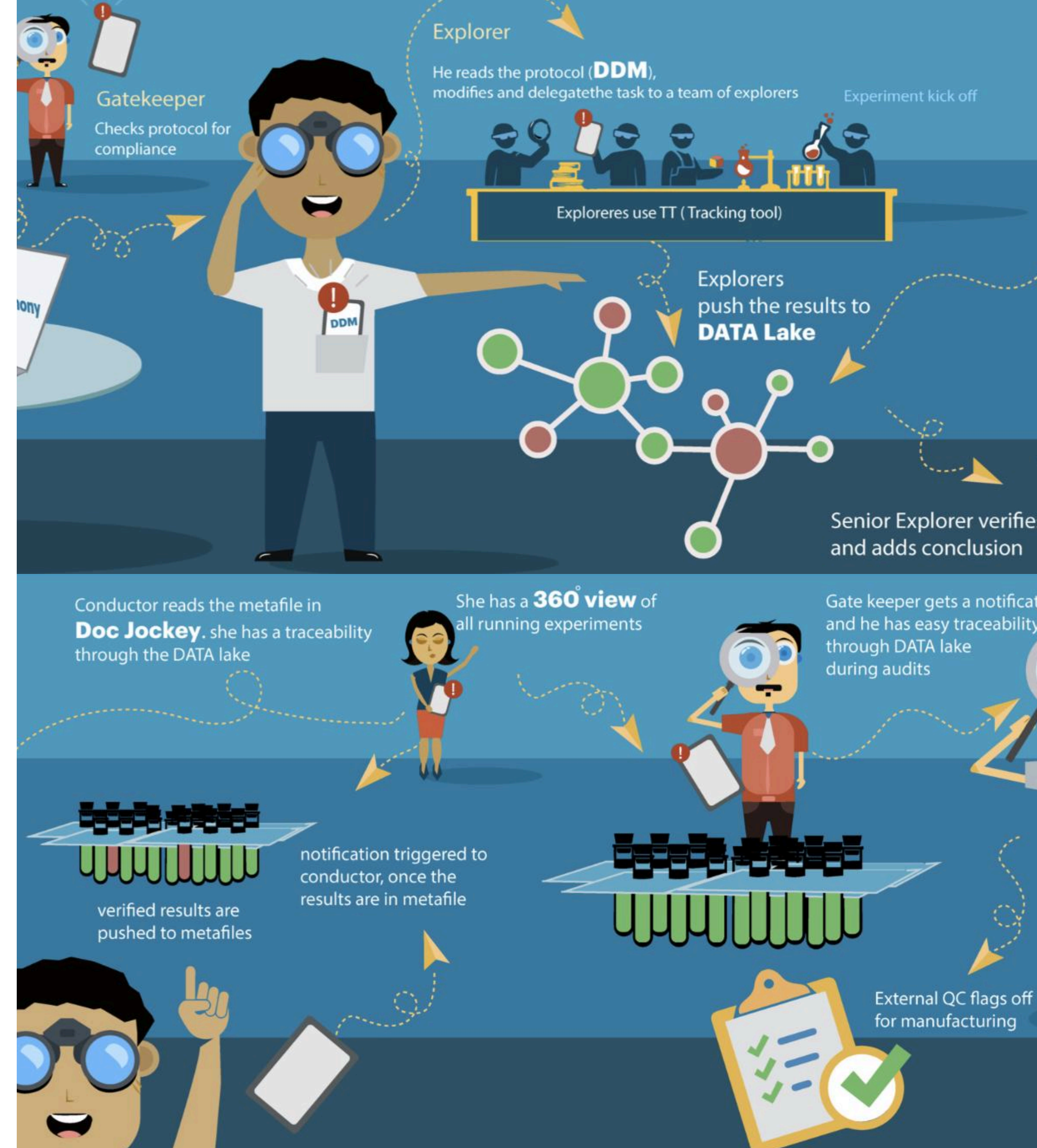
- **Synthesized insights** into opportunity areas across the drug development process
- **Led global workshops** to align stakeholders around shared problem understanding
- **Facilitated cross-functional collaboration** to generate and validate solution concepts



# Designing a Role-Based Digital Lab Ecosystem

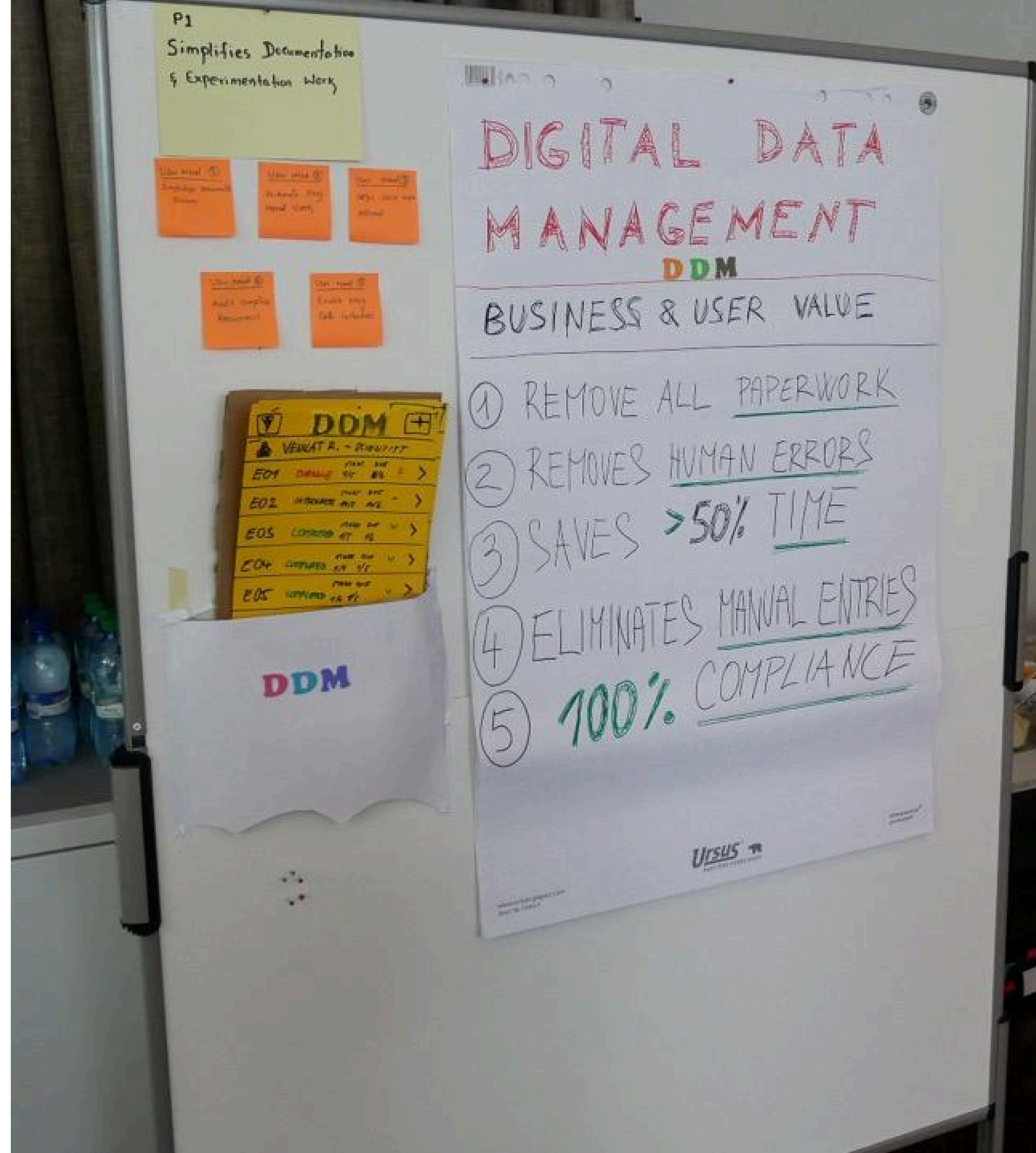
Reimagining how digital tools support scientific work across the lab ecosystem.

- **Structured workflows** across Explorer, Gatekeeper, and Conductor roles, aligning tools with real-world responsibilities
- **Designed an integrated ecosystem of applications** enabling continuous data flow across the lab lifecycle
- Established a **modular foundation** for a scalable, data-driven digital lab environment



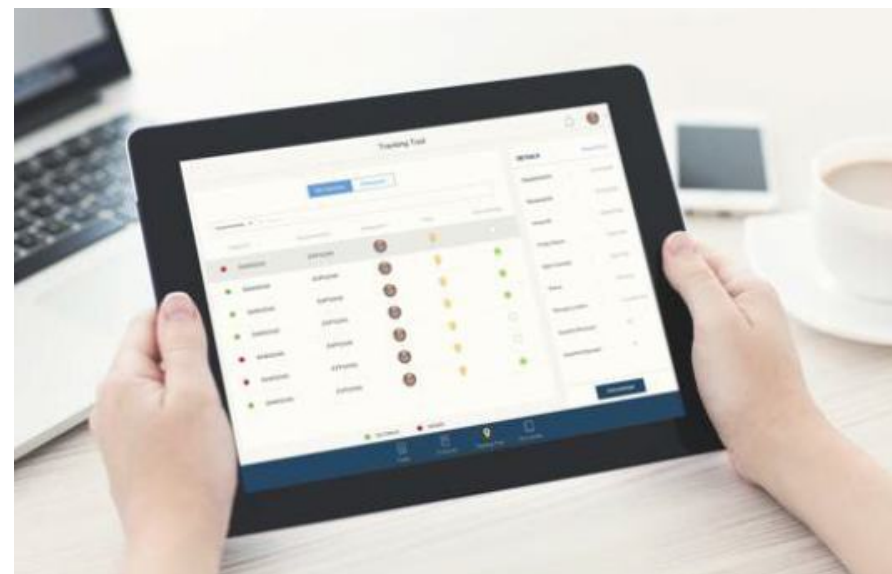
# Business Impact

- **Aligned global stakeholders around a shared vision for a modular digital lab ecosystem**, bridging business, IT, and scientific functions
- **Identified high-impact opportunities to reduce manual effort and improve data reliability**, enabling more efficient and compliant scientific workflows
- **Led UX design of the apps ecosystem** working with stakeholders and engineers



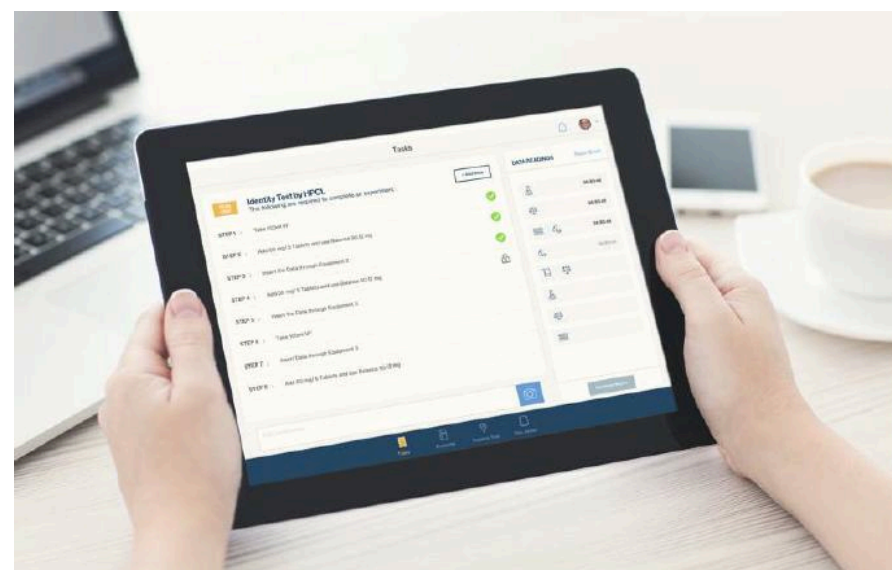
# Digital Lab Ecosystem — From Data Capture to Regulatory Submission

1. Data Capture → 2. Structuring → 3. Planning → 4. Submission



## Sample Tracking

Tracks lab samples in real time using Bluetooth/NFC, eliminating loss and manual search.



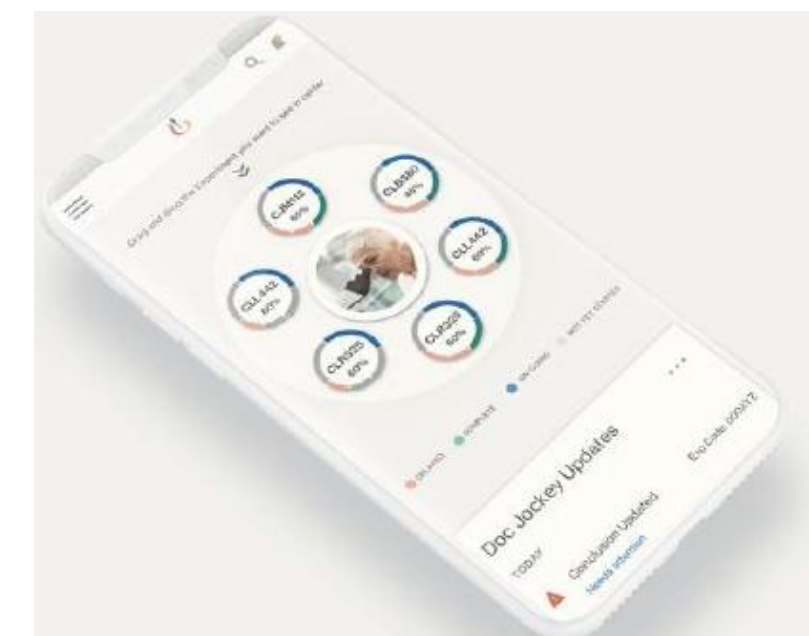
## Digital Logbook

Replaces manual lab notes with automated data capture from instruments, reducing human error.



## Drug Project Planning

Provides forward visibility of drug development milestones for better planning and coordination.



## Regulatory Document Management

Structures and manages documents for compliant submissions to health authorities.

# **Risk Management**

**Driving Alignment and Standardization in a Fragmented  
Enterprise — German Stock Exchange**

# Risk Management at Deutsche Boerse

2023-2024

Driving Consistency Across a Fragmented Product Landscape.

Role: Design Lead (Research, Strategy, System Design)

Scope: End-to-end (Discovery → Implementation)

Team: 2 designers, 1 researcher

- Portfolio **lacked consistency across tools** and workflows
- Teams operated independently with **no shared standards**
- **Technology-centered** instead of focus on people

The screenshot displays the 'Risk Monitor' interface. At the top right, it says 'Intraday Risk'. The main table has columns for Status, User name, Clearer name, Pool, Currency, Margin surplus / shortfall (realtime), and Margin surplus / shortfall (snapshot). The table lists various CCP members and their associated pools, with margin values in EUR and CHF. Below the table is a 'Shortfall Analysis' section with a dropdown for 'Pool ID' (MICFRDEFM), a 'Shortfall' value of -1,929,983,420.09, 'Currency' EUR, and 'Collateral Change' 0.00. A sub-table below this shows 'Liquidation group', 'Underlying', 'Participant', 'Account', 'Contribution', and 'Reason' for various groups like PEQ01, PFI02, and SMI.

Status	User name	Clearer name	Pool	Currency	Margin surplus / shortfall (realtime)	Margin surplus / shortfall (snapshot)
		CCP MEMBER MICFR	MICFRDEFM	EUR	-1,929,983,420.09	-1,929,983,420.09
🔄	Testuser 1	FORTIS CLEARING AMERICAS LLC	USANYDEFM	EUR	-660,989,004.95	-660,989,004.95
📞	Emilija Sablij	COMMERZBANK AG	CBKFRIDMM	EUR	-123,868,669.31	-123,868,669.31
📞	Josef Gobl	CCP MEMBER MELFR	MELFRDEFM	EUR	-71,678,577.91	-71,678,577.91
✓	Emilija Sablij	HSBC TRINKAUS & BURKHARDT KG...	TUBDUDEFM	EUR	-71,048,588.71	-71,048,588.71
📞	Tomas Filipek	CCP MEMBER AAAAA	AAAADEFM	EUR	-38,757,919.09	-38,757,919.09
		COMMERZBANK AG	CBKFRDEFM	EUR	-30,131,902.49	-30,131,902.49
		IDE TRADING AND CLEARING INC	IDECCDEFM	EUR	-30,106,999.23	-30,106,999.23
		CCP MEMBER XABFR	XABFRDEFM	EUR	-27,253,656.77	-27,253,656.77
		CCP MEMBER BBBB	BBBBDEFM	EUR	-17,675,333.97	-17,675,333.97
		AMERICAN MONEY MAKERS INC	AMMCCDEFM	EUR	-13,688,418.53	-13,688,418.53
		BANQUE PARIBAS (SUISSE) S.A.	PARGEDEFM	CHF	-13,189,551.31	-13,189,551.31
		CCP MEMBER EKWFR	EKWFRDEFM	EUR	-10,845,096.10	-10,845,096.10
		HSBC TRINKAUS & BURKHARDT KG...	TUBDUOMNM	EUR	-10,728,312.55	-10,728,312.55
		CCP MEMBER ALEFR	ALEFRDEFM	EUR	-7,912,458.67	-7,912,458.67
		CREDIT SUISSE FIRST BOSTON	SKAZHDEFM	CHF	-7,818,490.21	-7,818,490.21
		CCP MEMBER KRUEK	KRUEKDEFM	EUR	-5,523,017.56	-5,523,017.56
		CCP MEMBER LBKFR	LBKFRDEFM	EUR	-4,806,337.86	-4,806,337.86

Shortfall Analysis: Pool ID MICFRDEFM, Shortfall -1,929,983,420.09, Currency EUR, Collateral Change 0.00

Liquidation group	Underlying	Participant	Account	Contribution	Reason
PEQ01	BAS	MICFR	A3		
PEQ01	DAX	MICFR	A8		
PFI02	FGBS	MICFR	A9		
PEQ01	SMI	MICFR	PP		

# Research Insights Analysis Revealed Systemic Risk

Design limitations translated directly into operational risk.

- **Information overload** and **complex navigation** limited effective decision-making
- **Fragmented, Excel-style interfaces** increased cognitive load and reduced usability
- **Heavy reliance on manual processes** introduced inefficiencies and human error

HS

## Heuristics Summary

How design meets Nielsen's Heuristics criteria

### #1 Visibility of system status



### #2 Match between system and the real world



### #3 User control and freedom



### #4 Consistency and standards



### #5 Error prevention



# From Insight to Organizational Alignment

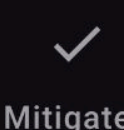
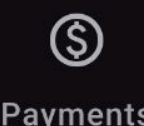
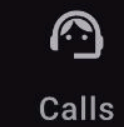
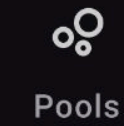
Translating localized findings into a shared understanding across teams.

- **Used research** findings to demonstrate systemic issues beyond a single tool
- Facilitated **cross-functional workshops** to align stakeholders on shared challenges
- Built consensus around the need for a **unified design approach**



# Business Impact

- Aligned stakeholders around a **shared vision** for product consistency across the portfolio
- **Shifted focus** from isolated UX issues to systemic inefficiencies at scale
- **Defined enterprise-wide design system** strategy to align a fragmented product portfolio



## Analysis summary

XYZ123  
XYZ123

Pool:  
**ABC 123**

Shortfall:  
**EUR 123.657.564,00**

Automated Analysis Results:

Product: ODAX  
Amount: EUR 135.765.354,00 (75%)  
Account: A7  
Reason: Market Movement

Reset

Save

## Breakdown

Member

Account

ABC 123	A7
	A2
	A3
ABC 123	B1
	B2
ABC 123	C1
ABC 123	C2
ABC 123	AX
ABC 123	
ABC 123	
ABC 123	
ABC 123	

# **Cement Plants**

**Rethinking Operational Efficiency at Cemex**

# Rethinking Operational Efficiency at Cement Plants

2024-2025

Bringing human insight into a KPI-driven system.

Role: Discovery Lead (Research, Strategy)

Scope: Discovery

Team: 5 researchers

- Efficiency was measured primarily through quantitative KPIs, **overlooking human** and operational realities
- Decision-making relied on **fragmented data** and local practices across plants
- **Limited visibility** into how work was actually performed on the ground



# Understanding Operations on the Ground

Exploring the user needs.

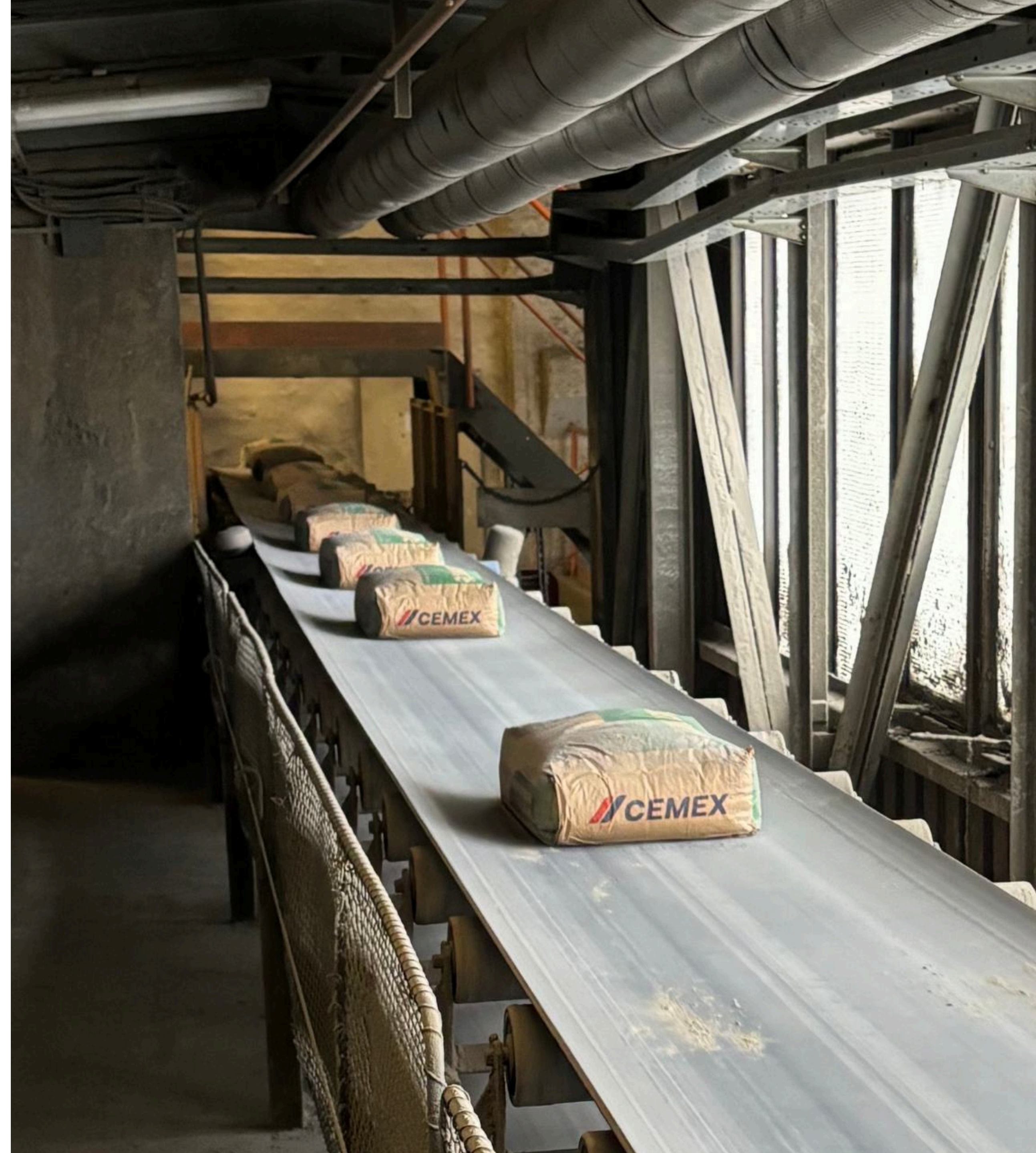
- Led and conducted **field research** across multiple cement plants (US, Mexico, Europe)
- **Observed workflows directly** in control rooms, production lines, and maintenance environments
- **Engaged with operators**, engineers, and managers to capture real-world practices and constraints



Field research in cement plant control room

# Business Impact

- **Identified systemic inefficiencies** across operations, unlocking ~**\$1B** in potential value
- Revealed **12 key opportunity areas** spanning manual processes, fragmented communication, control room overload, and reactive operations
- Defined a **strategic direction to address these challenges**, establishing the foundation for a unified system across cement plants



# **Selected Work Across Domains**

**Enterprise, finance, mobility, and public sector systems**

## Pharma & Life Sciences

- Andromeda — Drug Portfolio Management
- Formula 1 — Next-Gen Data Platform
- RADAR — Regulatory Submission Tools
- Protocol.AI — AI for Drug Research
- SCOTT — Batch Delivery Tracking
- Mobi — Internal Chatbot

## Enterprise & Platforms

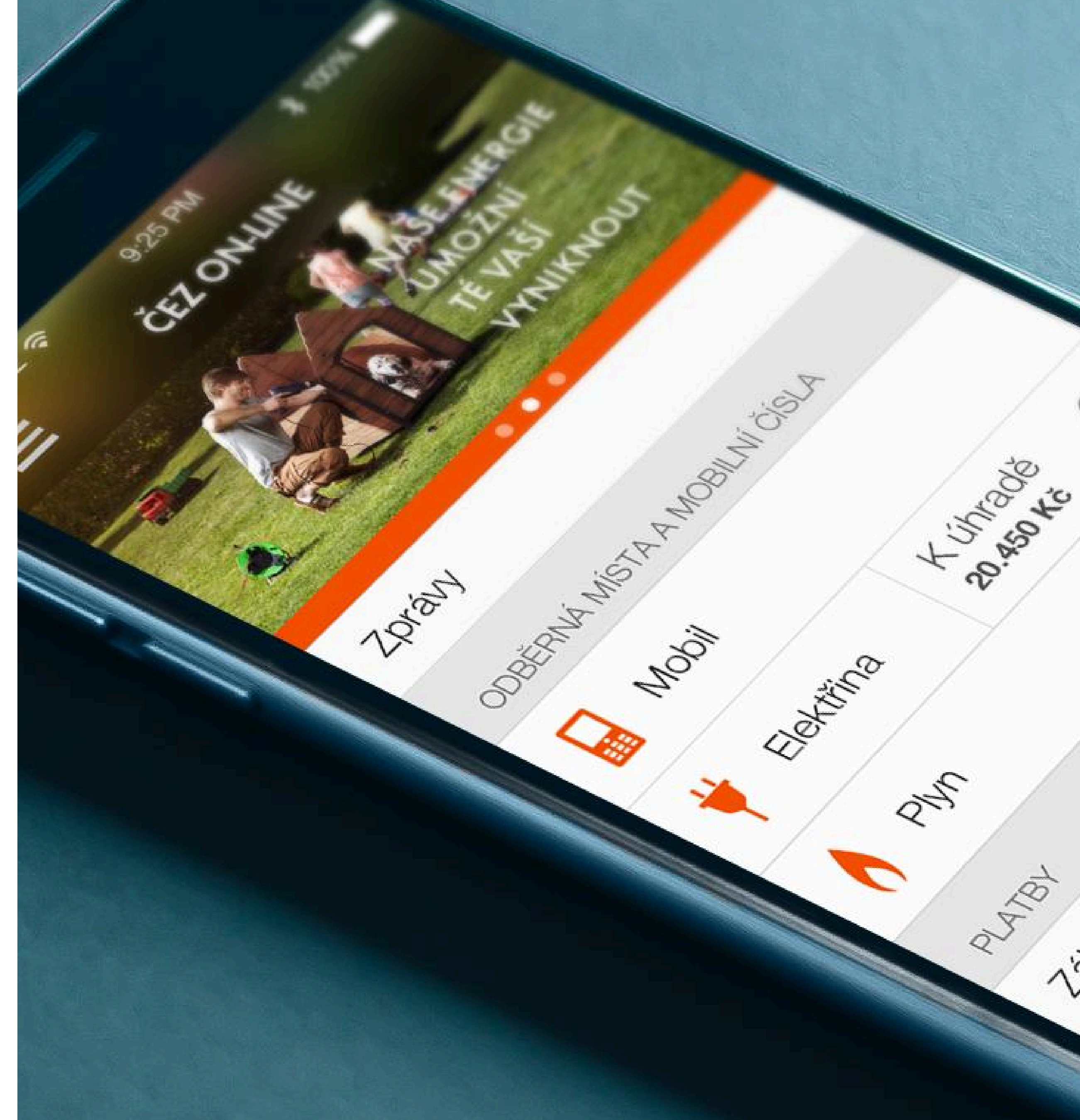
- Infor — Mobile CRM App Ecosystem (multi-app design system)

## Finance & Data Systems

- GE Money — Mobile Internet Banking
- CCS — Fuel Price Tracking Platform

## Applications & Services (B2C, Mobility, IoT)

- ŠKODA Auto — Fleet Technician Application
- DHL — Parcel Tracking Portal
- Smart Water Heater — Connected product design
- CNT Mobile (Ecuador) — Device Sales App
- Grun Mobile (Ecuador) — Mobile Services
- ČEZ — Customer Applications
- VZP — Client Portal





“SENSE is one of the most visually compelling applications at Novartis — a result of Vlad’s leadership and high design standards.”

Robert McGregor, PhD — SENSE Business Lead · Basel, Switzerland



## **Vladimír Korbek, MSc**

**Design Leader helping organizations  
move from fragmented operations to  
scalable, data-driven systems.**

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