unisys

Data aggregation and insights

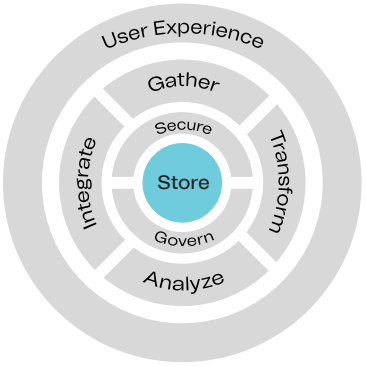
A guide to deliver business outcomes using data-driven insights and AI

Data aggregation and insights

Every industry has been touched in some way by the surge of Big Data and the reach of artificial intelligence (AI) in the past decade. The manufacturing industry, for example, is searching for ways to adopt smart manufacturing (aka Industry 4.0) as a gold standard to increase efficacy. Industry 4.0 promises automation, smarter monitoring through IoT, actionable predictive insights as well as a future-proof and sustainable way of doing business. Through smarter data management, manufacturers can leverage relationships for maximum value and gain insight to make products that target customers better.

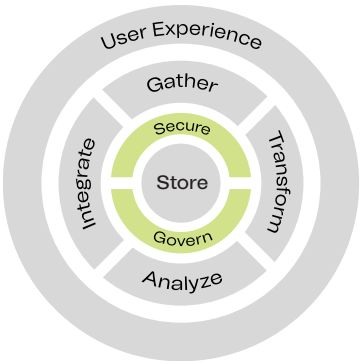
Data is the new necessity in this space. Without high-quality data, AI adoption is virtually impossible. Projects trying to implement AI without implementing a data management strategy first are doomed to fail.

Nevertheless, organizations still struggle with data management, which is best approached as a marathon rather than a sprint. A strategic, integrated approach is needed to succeed. The following model helps you to assess your data maturity and shows you a step-by-step roadmap to prepare your data for smart manufacturing.



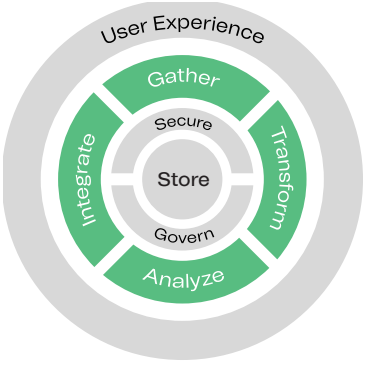
1. Build heterogeneous data stores

The era where everything can simply be stored in a relational database is over. Data comes in a variety of different shapes. We see structured sources from transactional systems like ERP; unstructured sources like audio, video and text content; and, especially in smart manufacturing, lots of real-time data from IoT, sensors or other machinery. As a first step, all this data needs to be stored – due to the complexity – in a heterogeneous data store.



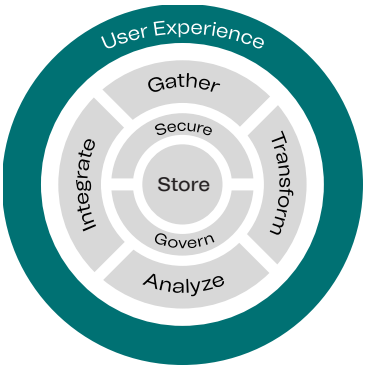
2. Govern and secure

Not everyone should be allowed to see everything. Modern data platforms need to have bulletproof security and auditability to adhere to regulations like the General Data Protection Regulation (GDPR). Secure role- and record-based access is required, and anonymization, pseudonymization and record retention need to be thought of. Not having the right security and governance concepts in place not only makes your data management activities disjointed and wasteful, but also opens your company up to legal liabilities. This can not only result in a substantial financial risk, but also reputation damage.



3. Aggregate and analyze

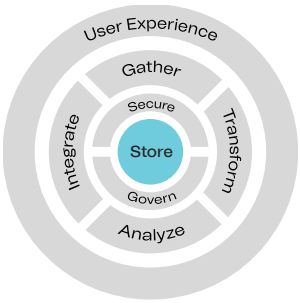
After the different heterogeneous data stores have been secured and wrapped around with compliance and data governance layers, the stored data needs to be aggregated and analyzed. This is the step where we first observe business value from the data and provide the foundation to leverage artificial intelligence and machine learning. AI can be used to monitor your data quality and automatically resolve issues, enrich your data, give you predictive insights into the future and automate tasks.



4. User experience

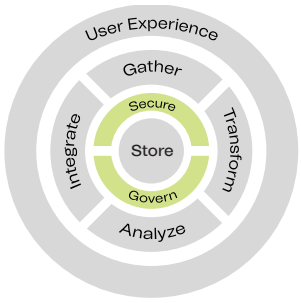
Usability is key to raise adoption rates of new technology. Nobody wants to switch between
10 screens to get needed information. Therefore, all the different components and software pieces used for the tasks above need to be integrated into a unified user experience — a portal that hides the complexity of the underlying tasks from the business users and provides them not only with data, but also with context-dependent information.

Heterogeneous store



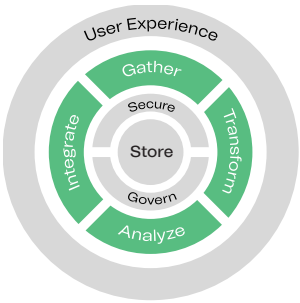
- Structured
- Unstructured
- Files and multi-media
- Complete databases
- IoT data

Govern and secure



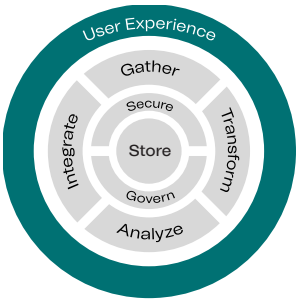
- Secure role and record-based access
- Review/retention/ disposal
- Master data
- Audit

Aggregate and analyze



- Gather
- Transform
- Integrate
- Augment and enrich
- Analyze
- Automize

User Experience

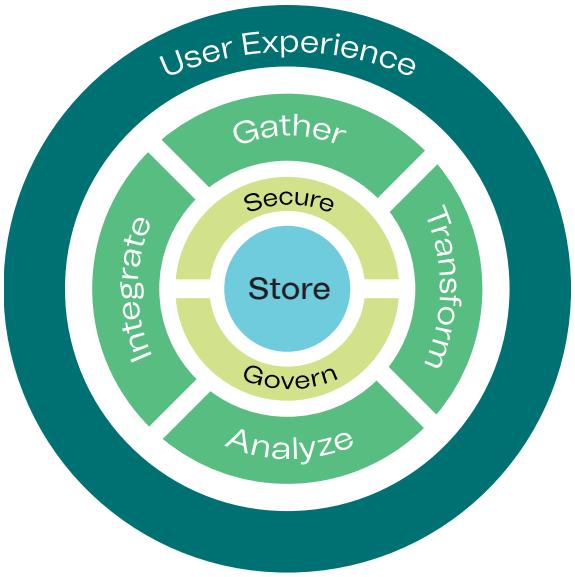


- Search
- Report
- Advanced visualization
- Network and graph analytics
- Dashboards

How Unisys can help

Many clients we speak to have invested in products from other organizations to address one or more of the above-mentioned use cases, but many are facing challenges and are not getting the breakthrough business outcomes. A common reason is that they don't follow the steps in our model. Without high-quality data, AI will fail. Without data governance and security concepts, data and the derived insights cannot be used effectively across the enterprise. Additionally, without those components, there cannot be a unified user experience helping gain breakthrough insights.

That's why products themselves will not deliver business benefits. Increasingly, clients seek partners who can help them adopt a holistic analytics approach, centered on subject matter expertise as well as business use cases. Enabling SMEs to work hand in hand with data scientists, integrators and operational experts unlocks unique value and identifies opportunities to continually improve.



There is no one-size-fits-all approach for effective data management in manufacturing. Unisys' extensive know-how in different products in the data space enables us to choose the right set of products for your business. Depending on your data maturity, we can either provide a ready-to-use platform or use our tailored advisory capacity to build upon your existing data products and strategy to bring it to the next level. Based on our domain knowledge, we deliver not only a set of products but also an integrated solution solving your business problem and establishing an Analytics Center of Excellence. As a result, you achieve improved operational efficiency, automation, flexibility and real-time insights that set you apart from your competitors.

Unisys' comprehensive and customizable managed services offerings accelerate digital transformation to enable smart manufacturing. Our solutions bring an upsurge of workstream collaboration that allows manufacturing workers to collaborate, access and share information easily, quickly and securely within the company ecosystem to address problems and create solutions on a global scale.

Unisys' digital workplace solutions for manufacturing are secure, easy for manufacturing employees to access and use, and offer consistent experiences across all devices and locations. As a result, Unisys' clients can control costs efficiently, expanding and growing with artificial intelligence and machine learning and leveraging virtual assistants for routine tasks.

Learn More

Contact us to learn how Unisys can help your organization to become data-centric: unisys.com/contact-us.

Why Unisys?

- Establish an enterprise platform
- Accelerate speed of delivery through out-of-the-box tools with integrated domain knowledge
- Form a long-term partnership by consistently delivering high client satisfaction through SME collaboration, co-creation and ACoE
- Enable broader value network
- Achieve faster innovation through the use of our vendor-agnostic services and products
- Deploy SaaS and on-premise offerings including public/private cloud
- Realize commodity pricing with lower TCO in a tailored solution
- Access a single platform for multiple applications with higher usability

unisys

unisys.com

12/22 22-0402