T&O Digital Services

T&O Digital Services – Transforming Industry with Data-Driven Excellence

At **T&O Digital Services**, we empower businesses to **leverage digital twins, simulation, and advanced analytics** to drive operational excellence, enhance decision-making, and unlock new levels of efficiency. Our expertise lies in **bridging strategy and technology**, ensuring that digital transformation is not just a vision but a measurable, value-generating reality. **We specialize in**:

Simulation & Digital Twins

Creating dynamic, data-driven models to optimize production, logistics, and processes.

Operational Excellence & Automation

Enhancing efficiency through smart data integration and automation strategies.

Data-Driven Decision-Making

Equipping organizations with actionable insights to future-proof operations.

As the digital innovation arm of T&O, we differentiate ourselves by **combining deep process expertise with cutting-edge digital solutions**, ensuring that every initiative is not just technologically advanced, but strategically aligned with business goals.

01 | Industry Challenges

If you don't know what's going wrong, how can you fix it?

Key industry issues

Inefficient Processes

Production Complexity

Resource Utilization

Supply Chain Coordination

System Fragmentation

Lifecycle Prediction

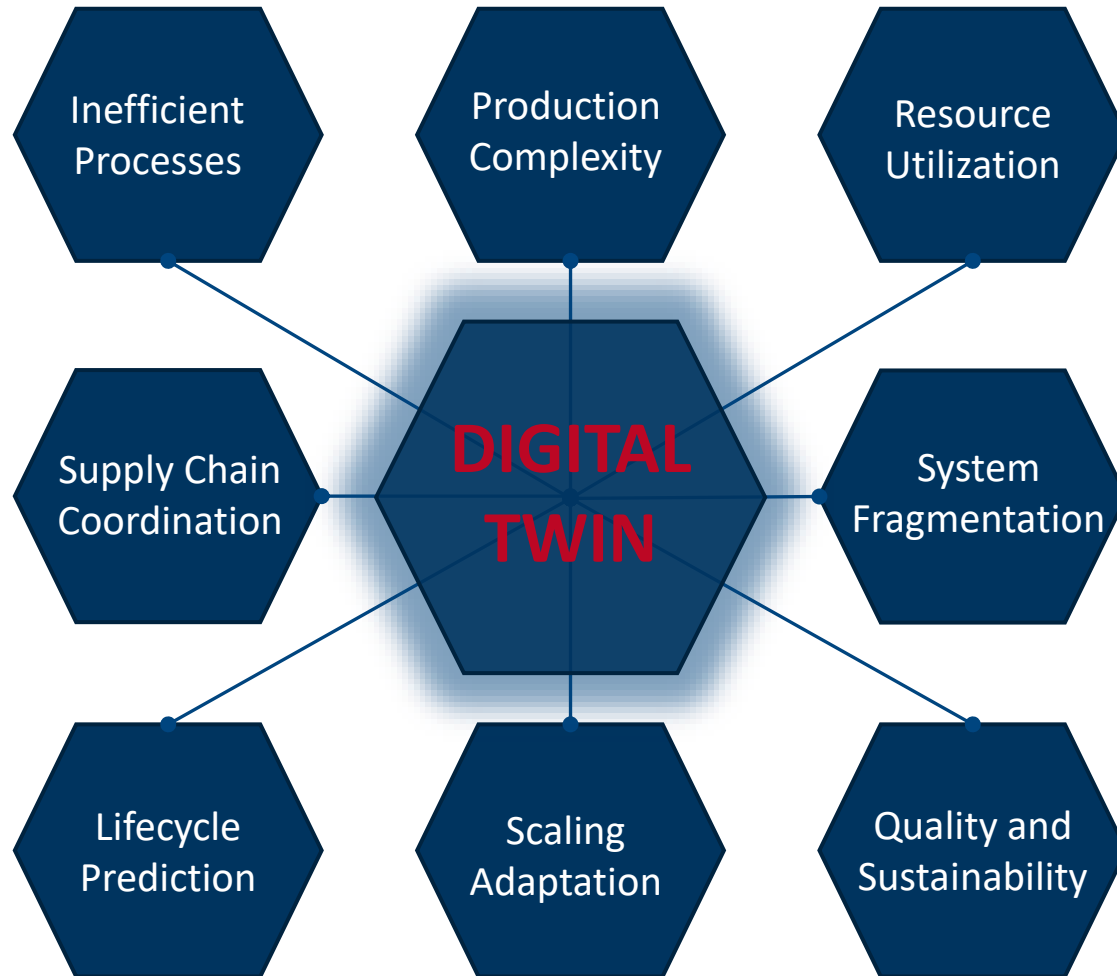Scaling Adaptation

Quality and Sustainability

Managing complexity across production, processes, and supply chains is increasingly challenging as customization grows. Companies need solutions that streamline operations and maintain efficiency across the entire production landscape.

The **lack of integrated data** and difficulties in adopting digital technologies create barriers to effective decision-making and process optimization. Seamless data integration and digital tools are essential for unlocking the full potential of modern production environments.

Companies face increasing **pressure to improve** performance, safety, sustainability, and risk management. Predictive tools and real-time insights can mitigate risks, reduce downtime, and ensure compliance with sustainability goals.

Solution to industry issues: the Digital Twin

Inefficient Processes

Production Complexity

Resource Utilization

Supply Chain Coordination

DIGITAL TWIN

System Fragmentation

Lifecycle Prediction

Scaling Adaptation

Quality and Sustainability

A Digital Twin is a virtual replica of physical assets, systems, or processes. It captures real-time data and uses AI-powered analytics to simulate and optimize performance, **offering a clear, actionable view of operations in real time**.

Managing complex production environments requires solutions that **ensure efficiency and adaptability**. At T&O we integrate data from multiple systems, streamlining operations and enabling agile responses to changes in demand or production challenges.

Digital Twins provide valuable insights for **better decision-making, reducing costs, and improving efficiency**. It supports sustainability, optimizes safety, and mitigates risks through real-time monitoring, predictive insights, and scenario-based simulations.

Solving key issues with T&O digital services

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Solving Complexity

▶ At T&O Digital Services **we streamline operations**, providing real-time insights that enhance flexibility and maintain efficiency across the entire production landscape.

Seamless Data Integration

▶ Digital Services allows to unify data from disparate systems, breaking down silos and **enables data-driven decision-making** for effective process optimization.

Enhancing Performance

▶ **With predictive tools and real-time insights**, Digital Services help companies mitigate risks, reduce downtime, and meet sustainability and safety goals.
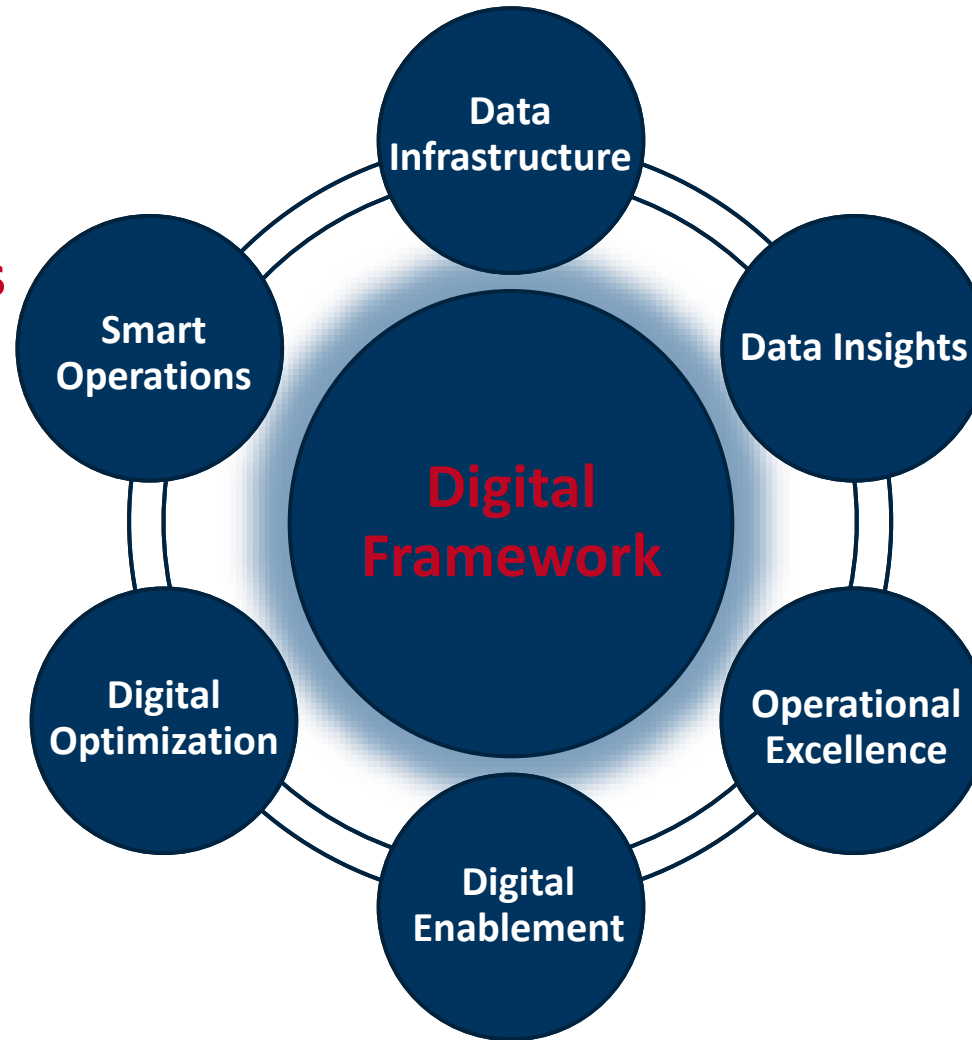
02 | T&O Digital Services

A Digital Twin is not just a mirror of reality, it's a crystal ball for the future.

The digital framework for tailored services

Digital Services – built to adapt to your needs

Our Digital Framework is not a single, fixed product but a flexible model designed to extract high-value insights tailored to your unique operational needs.

Our focus is on delivering the actionable outputs. From predictive insights to strategic scenario modeling, we guide your business toward optimal results without the need for a full infrastructure overhaul.

Actionable outputs for optimal results

What is T&O Digital Excellence & Services

T&O Digital Excellence & Services is your trusted partner for practical, scalable solutions. We offer tailored solutions that seamlessly integrate with existing systems and infrastructure. Our approach is designed to evolve with your business needs, providing a clear focus on high-impact results.
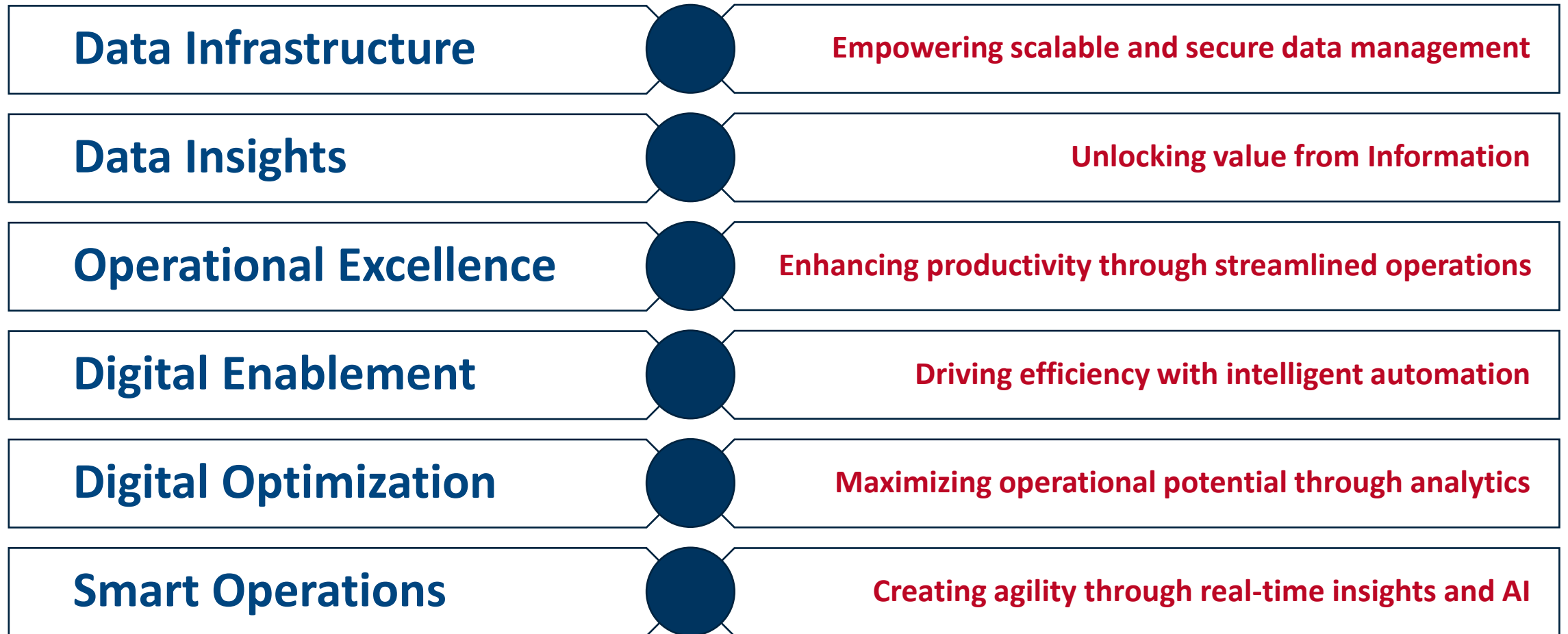
Integrated solutions for modern industry needs

▶ Using Digital Twin Framework to enhance operations

▶ Delivering insights for smarter decision-making

▶ Focused on consultative solutions

▶ No infrastructure implementation required

Comprehensive services to empower your business

▶ Streamlined workflow improvements

▶ Custom tools to advance digital capabilities

▶ Reliable, data-driven performance enhancements

▶ Clear, actionable intelligence from complex data

T&O Digital Services at a glance

Data Infrastructure		**Empowering scalable and secure data management**
Data Insights		**Unlocking value from Information**
Operational Excellence		**Enhancing productivity through streamlined operations**
Digital Enablement		**Driving efficiency with intelligent automation**
Digital Optimization		**Maximizing operational potential through analytics**
Smart Operations		**Creating agility through real-time insights and AI**

03 | Use Cases and Success Stories

It's not the strongest that survive, but the ones most responsive to change.

Warehouse System Planning and Operational Simulation

The simulation model enables data-driven warehouse system planning, optimizing space utilization and material flow to ensure seamless operations in a high-demand environment.

Advanced predictive analytics improve decision-making, reduce inefficiencies, and enhance responsiveness to fluctuating inventory levels and order processing requirements.

T&O developed a digital twin for warehouse planning, integrating simulation-based analysis to optimize logistics and operational efficiency. It supports strategic decision-making by evaluating capacity constraints, material flow efficiency, and automation strategies.
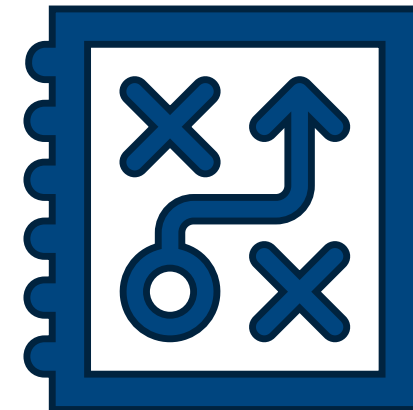
Project Overview

Objectives

- Design a **scalable warehouse system** that meets increasing storage and distribution demands.

- **Optimize facility layout** and automation strategies for improved efficiency.

- Identify potential **bottlenecks and optimize throughput for peak operational conditions**.

- Validate investment strategies to balance cost-effectiveness and long-term operational goals.

Challenges

- **Addressing storage limitations** and space constraints in high-density warehouse environments.

- Ensuring efficient order fulfillment and material handling processes **without increasing operational complexity**.

- **Integrating automation solutions** while maintaining flexibility for future growth.

- Minimizing operational risks and disruptions through **predictive scenario analysis.**

Methodological Approach

Strategy

By integrating advanced simulation models, we enable a data-driven approach to warehouse optimization, reducing inefficiencies and ensuring future-ready logistics operations.

▶ This approach enables scenario-based evaluation to improve space utilization, streamline order fulfillment, and maximize automation efficiency.

▶ By incorporating real-time simulation insights, we help companies anticipate operational challenges, mitigate risks, and validate investment decisions before implementation.

▶ Our method ensures adaptability to fluctuating demand, enhances cross-functional collaboration, and strengthens overall supply chain resilience.

Methods
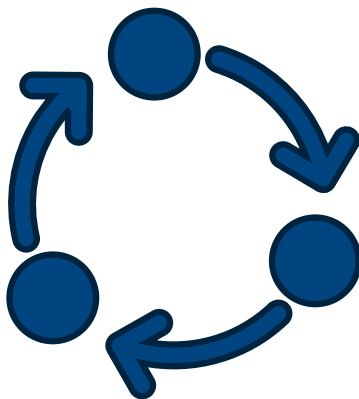
▶ **Scenario Analysis**

▶ **Bottleneck Identification**

▶ **Throughput Optimization**

Tools

▶ **Simulation Software**
- AnyLogic
- visTABLE

▶ **Consultancy Frameworks**
- Capacity Planning
- Automation Strategy
- Performance Benchmarking

Results and Benefits

"T&O's simulation-driven approach provided us with invaluable insights to optimize our warehouse operations. Their expertise in logistics and automation strategy ensured a seamless and future-proof solution. The digital twin allowed us to test multiple layout configurations and automation scenarios, giving us confidence in our investment decisions and long-term warehouse strategy."
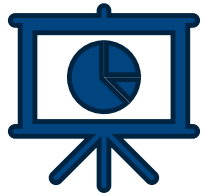
▶ **100% Transparency in Logistics Operations**
Achieved full visibility over system performance, ensuring real-time decision-making.

▶ **CHF 1 Million Cost Savings**
Simulation insights prevented capital expenditures while ensuring operational efficiency.

▶ **15% Increase in Operational Effectiveness**
Improved equipment selection and system design to enhanced throughput.

▶ **30% Faster Order Fulfillment**
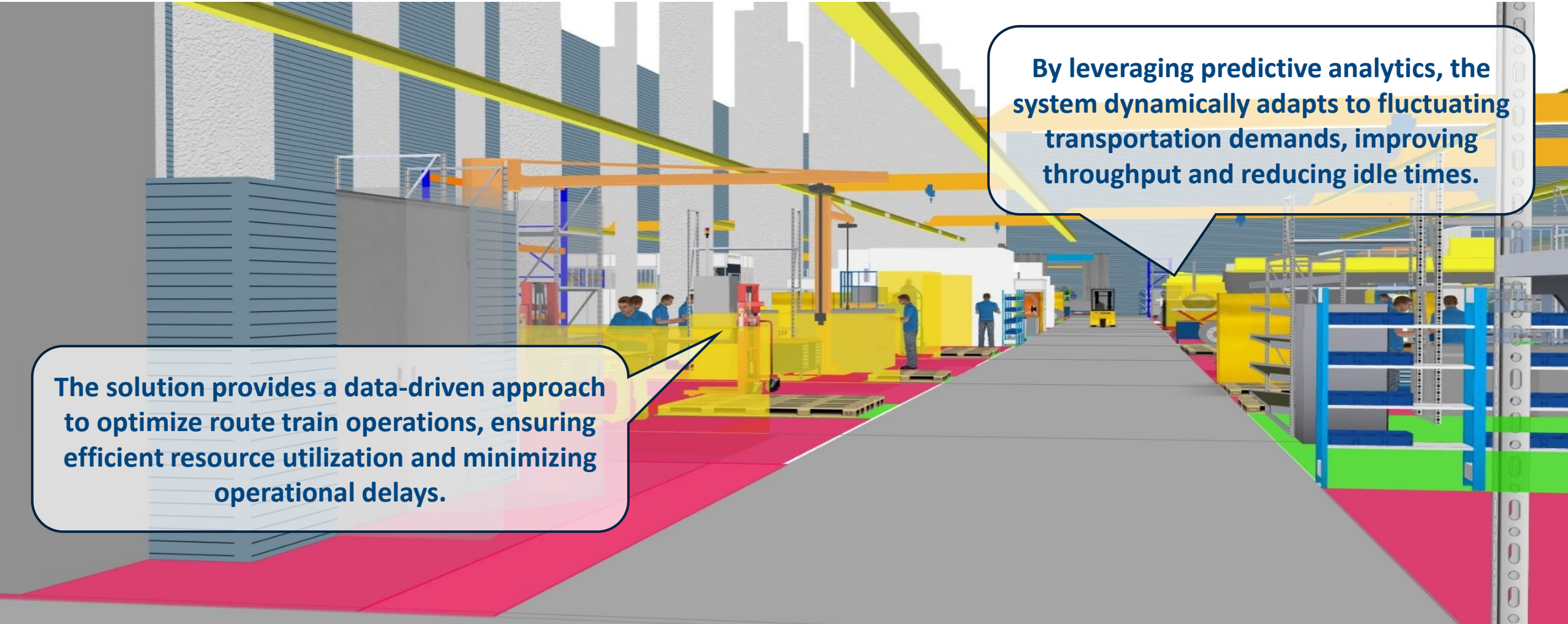Streamlined warehouse processes and material flow optimization enabled significantly shorter lead times.

▶ **Enhanced Decision-Making**
Data-driven scenario evaluations enabled more precise planning and risk mitigation.

▶ **Scalability & Adaptability**
The warehouse system is future-proofed, allowing for seamless growth and process adjustments.

▶ **Improved Stakeholder Confidence**
Validated investment decisions through simulation-based analysis, ensuring long-term efficiency.

▶ **Reduced Operational Risks**
Predictive modeling minimized disruptions and optimized warehouse resilience under varying demand conditions.

-1 Mio. CHF Savings

+ 15% Effectiveness

+ 100% Transperency

Simulation-Based Optimization of Logistics

By leveraging predictive analytics, the system dynamically adapts to fluctuating transportation demands, improving throughput and reducing idle times.

The solution provides a data-driven approach to optimize route train operations, ensuring efficient resource utilization and minimizing operational delays.

We created a simulation model to optimize route train logistics by analyzing flows, capacity, and schedules. The solution enables data-driven decision-making, ensuring seamless network integration and improved transportation efficiency.

Project Overview

Objectives

▶ **Determine the optimal number of route trains** required to handle both maximum and minimum transportation demands effectively.

▶ Define the required number of trailers**, ensuring capacity is balanced with operational efficiency** across varying scenarios.

▶ **Analyze utilization rates and bottlenecks** in the route train system to enhance scheduling and reduce delays.

▶ Establish a timetable and an operational blueprint for the efficient deployment of route trains, **minimizing idle time and increasing throughput**.

Challenges

▶ **Balancing operational efficiency** with fluctuating capacity requirements.

▶ **Ensuring compatibility** with existing logistics infrastructure.

▶ Addressing scheduling complexity while **maintaining service reliability**.

▶ Providing data-driven insights to **support long-term strategic planning**.
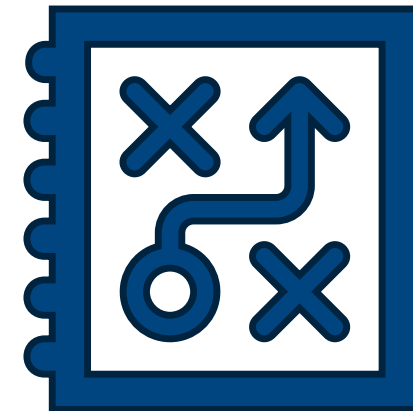
Methodological Approach

Strategy

Leveraging dynamic simulation to enhance route train logistics, optimize resource utilization, and improve scheduling efficiency, ensuring a seamless and adaptive transportation network.

▶ Through advanced simulation modeling, we optimize route train logistics by analyzing transportation flows, capacity utilization, and scheduling constraints.

▶ This approach enhances resource efficiency, minimizes delays, and ensures seamless integration into existing logistics networks.

▶ By leveraging data-driven insights, we establish a scalable and adaptable transportation framework for long-term operational excellence.

Methods
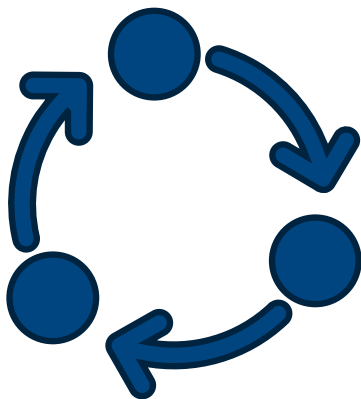
▶ **Scenario Analysis**

▶ **Data-Driven Simulation**

▶ **Efficiency Assessment**

Tools

▶ **Simulation Software**
- AnyLogic
- visTABLE

▶ **Consultancy Frameworks**
- Process Mapping
- Performance Benchmarks

Results and Benefits

"Working with T&O provided us with a clear understanding of our logistical challenges. Their expertise in simulation-based optimization has helped us implement practical solutions that reduced costs and improved efficiency."
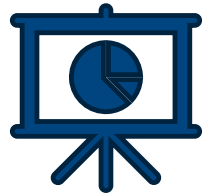
▶ **+100% Transparency in Logistics**
Enabled full visibility into route train scheduling and performance.
▶ **45% Cost Reduction**
Lowered investment costs for transportation infrastructure.
▶ **50% Lead Time Reduction**
Minimized scheduling delays and increased transportation efficiency.
▶ **Optimized Resource Utilization**
Enhanced fleet efficiency, reducing idle times and maximizing capacity.

-45 %
Invest

▶ **Optimized Transportation Efficiency**
Enhanced logistics planning by integrating dynamic simulation models for route train scheduling.
▶ **Data-Driven Decision Support**
Enabled scenario-based analysis to improve capacity utilization and minimize delays.
▶ **Seamless System Integration**
Validated logistics operations for compatibility with existing infrastructure and future scalability.
▶ **Scalable and Adaptive Framework**
Developed a flexible model to accommodate evolving transportation demands and operational constraints.

-50 %
Time

+ 100%
Transparency
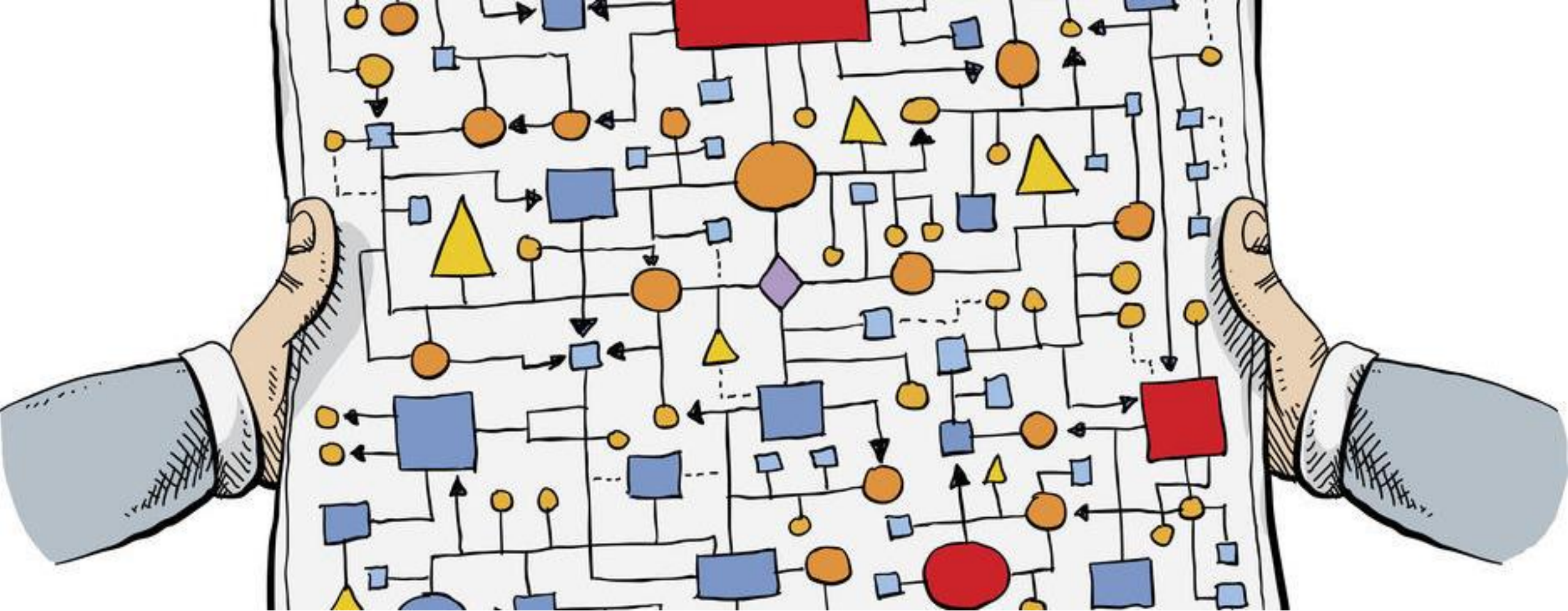
04 | Implementation Strategy

Transformation is not a one-time event; it's a journey of continuous improvement.

Implementation Strategy for Digital Excellence

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more than technology – a framework for growth

▶ Digital Excellence demands a clear, adaptive path tailored to your strategic goals.

▶ Our phased approach builds a flexible, digital foundation for immediate and future goals.

▶ Each phase transforms data into actionable insights, boosting decision-making and agility.

▶ Leveraging machine capabilities, we set your business up for sustainable, scalable success.

Definition	Study	Design	Validation	Implementation
Clarity	**Perspective**	**Innovation**	**Confidence**	**Success**

Our role in your digital journey

Maximizing your digital potential for your success

▶ At T&O, we align digital insights with your goals, transforming complex data into actionable outcomes that **empower confident, data-driven decisions**.

Delivering targeted, high-value outputs
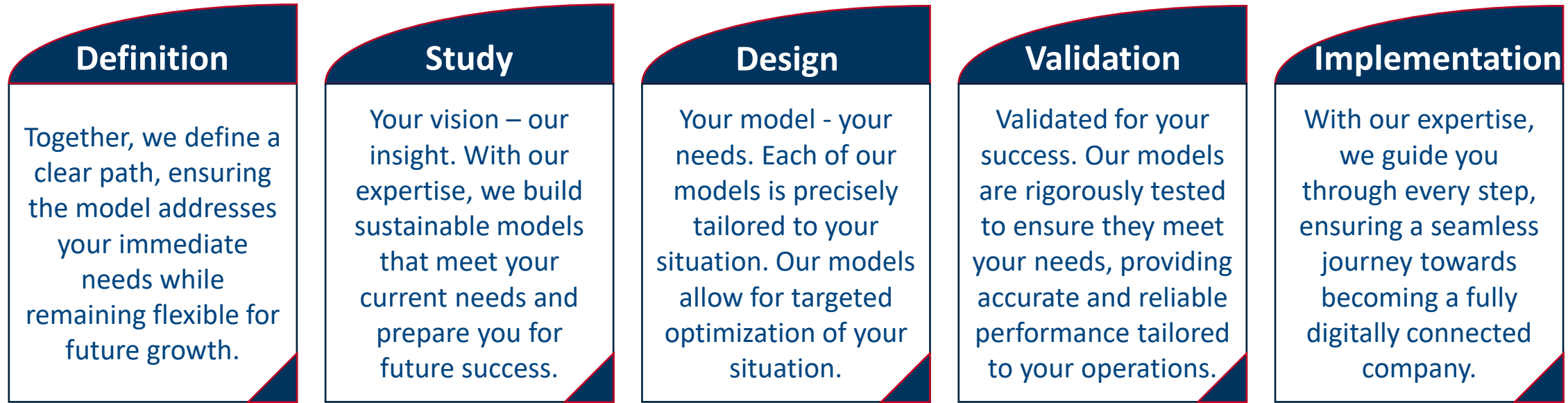
▶ Our tailored outputs - from simulations to predictive insights - **drive impactful decision-making and strategic planning** without requiring infrastructure changes.

Trusted advisors, collaborative partners

▶ As your consulting partner, we deliver a customized digital journey, integrating outputs into your processes and **ensuring alignment with your strategic goals**.

Implementation Strategy at a Glance

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Definition	Study	Design	Validation	Implementation
Together, we define a clear path, ensuring the model addresses your immediate needs while remaining flexible for future growth.	Your vision – our insight. With our expertise, we build sustainable models that meet your current needs and prepare you for future success.	Your model - your needs. Each of our models is precisely tailored to your situation. Our models allow for targeted optimization of your situation.	Validated for your success. Our models are rigorously tested to ensure they meet your needs, providing accurate and reliable performance tailored to your operations.	With our expertise, we guide you through every step, ensuring a seamless journey towards becoming a fully digitally connected company.

Throughout all project-phases, we always focus on your benefits.

Clarity	Perspective	Innovation	Confidence	Success

05 | Benefits

The numbers don't lie—efficiency is the true competitive advantage.

Value Across Key Business Dimensions

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Hexagon diagram with "Customer Centricity" in the center, surrounded by: Strategic, Financial, Operational, Workforce, Sutainability, Technology

▶ At T&O Digital Services, we deliver value across multiple dimensions, ensuring that our **solutions align with the unique needs of your business**.

▶ Our expertise combines operational excellence, cutting-edge technology, financial optimization, and strategic foresight to **help you achieve measurable results**.

▶ By tailoring our approach, we ensure a seamless integration of innovative solutions that **drive impactful improvements** without requiring costly overhauls to your existing infrastructure.

Maximizing Your Potential with T&O

At T&O Digital Services, we bridge the gap between strategy and execution, ensuring that your business achieves tangible and measurable improvements through our expertise in digital transformation.

How We Drive Impact

▶ **From Complexity to Clarity**
We simplify complex business challenges with data-driven insights and proven methodologies

▶ **From Vision to Execution**
We transform strategic goals into actionable plans that deliver real results

▶ **From Potential to Performance**
We optimize processes, empower teams, and enhance operational efficiency.

Our Approach

▶ **Holistic Consulting**
Combining operational excellence, cutting-edge technology, and financial insights to shape your success.

▶ **Tailored Solutions**
Every organization is unique. We customize our solutions to fit your specific needs and goals.

▶ **Sustainable Growth**
Ensuring long-term value creation by balancing efficiency, innovation, and adaptability.

Your Benefits at a Glance

Our tailored solutions drive measurable improvements across key business dimensions—enhancing efficiency, reducing costs, and enabling strategic growth.

Strategic

Data-Driven Decisions — Leverage analytics and simulation to align operations with long-term goals.

Future-Readiness — Build resilience and adaptability for changing market conditions.

Operational

Efficiency Gains — Enhance workflows, reduce bottlenecks, and optimize resource utilization.

Scalability & Reliability — Ensure seamless growth and minimize disruptions.

Financial

Cost Optimization — Reduce waste, improve investment efficiency, and maximize returns.

Profitability Growth — Achieve higher margins through smarter resource allocation.

Customer

Customer Experience — Improve service levels, transparency, and customization.

Empowered Workforce — Strengthen collaboration, job satisfaction, and employee development.

Sustainability

Sustainable Operations — Minimize energy consumption, waste, and carbon footprint.

Technology-Driven Innovation — Enable seamless integration of modern tools and digital twins.

06 | Moving Forward Together

The best way to predict the future is to create it.

Our Team

Moritz Laier
Director

Charismatic and experienced project manager who takes initiative and responsibility for the success of your project!

Viktor Poplavski
Senior Consultant

Diligent and reliable expert who approaches every project with precision and experience, ensuring trustworthy and thorough results.

Corinna Ludwig
Junior Consultant

Young, motivated, and technically adept – she brings an open and friendly approach and impresses with her broad technical expertise.

Yannik Zeiträg
Consultant

Our expert for AI solutions and simulations – he combines deep expertise with innovative thinking to drive digital progress.

We look forward to your contact

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