

# TIPS Industry Solutions and Services for paper and board mills



**tieto** *EVRY*

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## Industry challenges and how to overcome them

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The paper and board industry is facing many business challenges in the rapidly changing business environment. The rising fibre, energy and raw material costs eat into profits. In addition, there is constant competition for the limited supply of raw materials, making it essential to be able to make quick decisions and find the most profitable portfolio to produce and sell.

Declining customer demand, especially in newsprint and graphical paper, creates overcapacity, price competition and the need to increase your service level. Moreover, new environmental requirements force you to adjust your production and purchase processes while your customers continuously demand faster response times and new transparency.

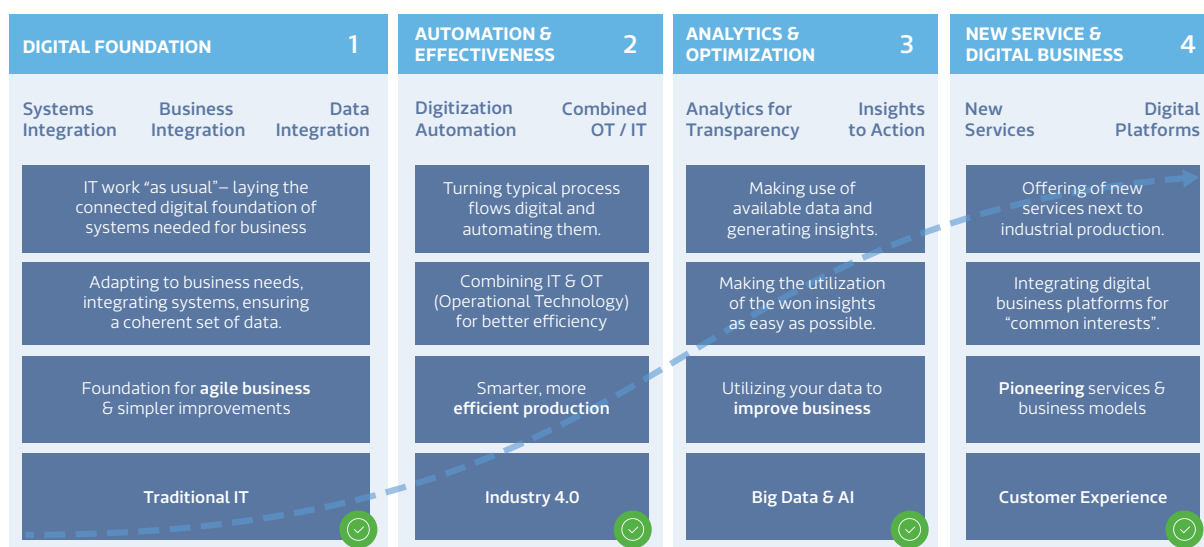
The winners in this game are the players who are best able to turn these challenges into opportunities and competitive edge. Smart and more automated mills, together with optimized and transparent purchasing and order-to-cash business processes, will support your future success. Using real-time information and investing in R&D will build your capabilities for the future, addressing new business areas and specializing in high-tech products.

TietoEVRY's **TIPS Industry Solutions and Services** are designed to improve the efficiency and profitability of your paper and board business. You can adapt to the ever-changing workflows in a mill as business, production, process, and quality information are all integrated and configured to help you develop optimal business processes.

# How to go forward

The challenge is a big one. How to create cost savings, increase production efficiency, improve customer service, and create your future all at the same time? Not forgetting to stay up to date with the rapid development of the next generation of Information Technology (IT) and Operational Technology (OT) systems and fast integration of supply chains without losing your competitive edge and well working practices.

## Digitalization in the paper and board industry



A typical digitalization process is shown in the picture above, where most companies in paper and board are somewhere between levels 1 and 2 today, some making trials on level 3. It is important to understand that there are no true shortcuts to building the value creation and data foundation. However, the direction the future is taking will enable the companies also to benefit for example by using applicable new digital ecosystem platforms rather than building everything themselves. Getting it all integrated is truly imperative.

The future is about selecting the right combination of fast-developing, easy-to-update generic solutions and secure your critical capabilities with industry-specific solutions. The right combination

of systems with available standard interfaces will offer you reduced complexity, easy integration, and the functionality you need to run your business.

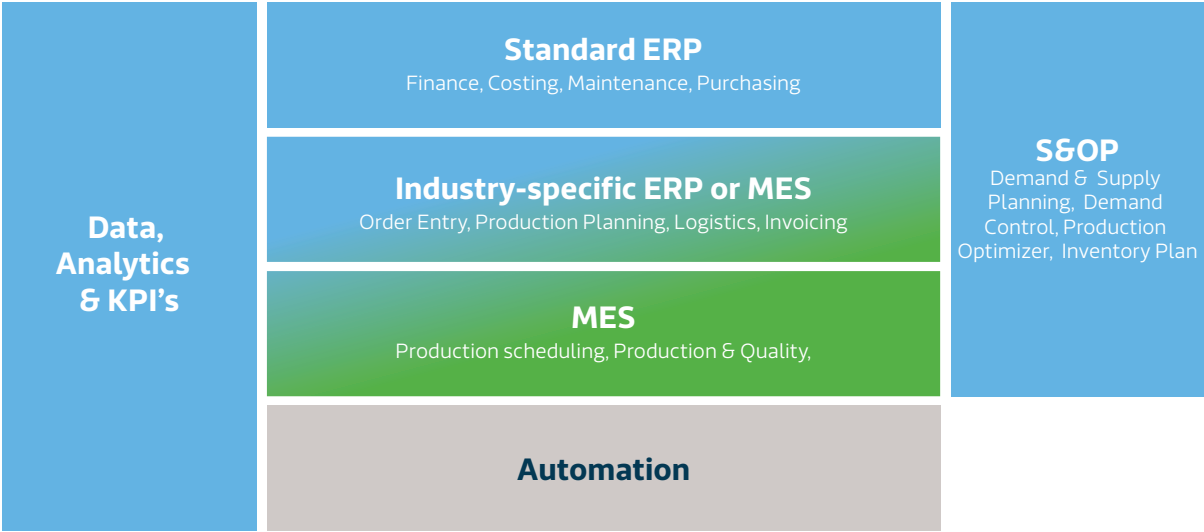
All this will enable you to increase automation, standardization, and overall operational efficiency. You will have access to real-time information and be able to provide it to your customers as well. You can access the necessary information on the go or on-site – any time, any place, and with any mobile device. You will be able to get closer to your customers with new interactive tools. Finally, you have the opportunity to provide new, value-adding services for your products.



# Solution overview

TIPS combines the functionality and the best practices of several previous generations of advanced Sales and Mill Execution Systems (MES) and over 50 years of industry know-how. It manages the whole order-to-cash value chain and has an active future development roadmap.

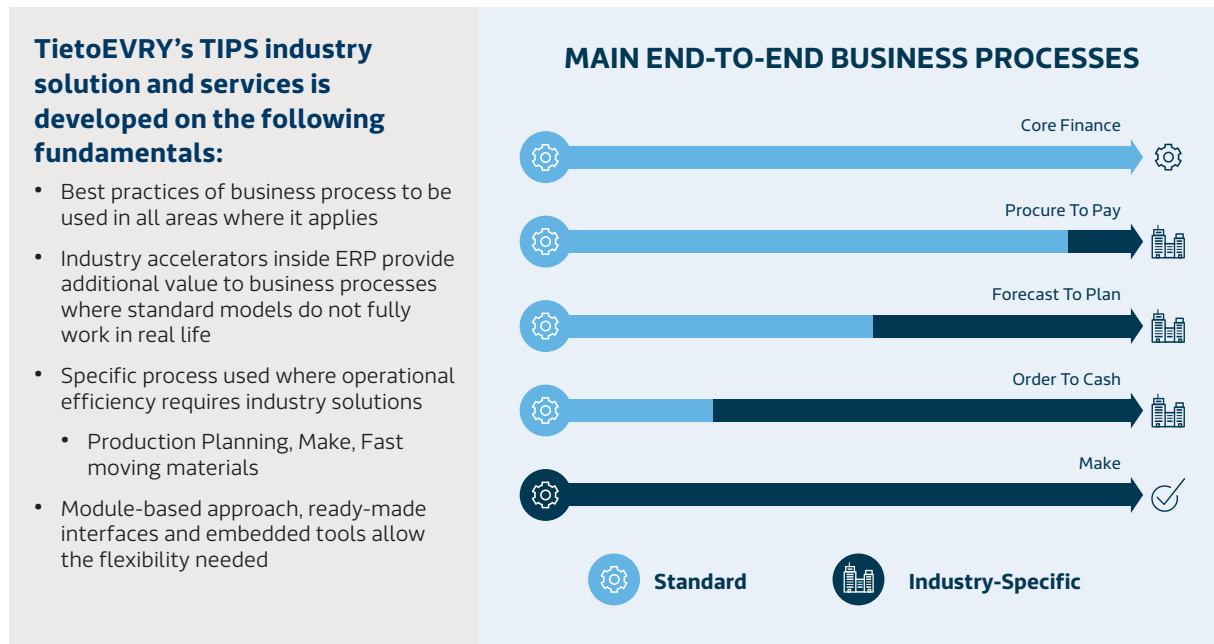
The system creates a working solution by combining ERP, MES and OT as a full package as shown in the overview picture below .



As all companies are different and solutions vary between industry segments, TIPS has over the years been developed to include standard interfaces and ways of working with different setups that best fit customer demands. Besides customers selecting fully standardized, cloud-based ERP and including everything industry-specific in TIPS, TietoEVRY supports customers with more tailored ERP and taking care of only mandatory parts out of ERP. In all cases, TIPS, our industry knowledge, and capability to integrate make the solution work for your specific situation.

# Standard process vs industry-specific process

## Where industry domain knowledge makes the difference



TIPS provides you with access to the full service offering from TietoEVRY. In addition, selected applications are available through mobile devices. Several additional services, such as interactive database monitoring, mill health check, and intelligent mill services, help you run your business more smoothly. The TIPS User Community provides you with up-to-date information and news, usage tips and hints from experts, moderated sessions to inform you of current issues, as well as a possibility to connect with other TIPS users.





# TIPS industry solutions and service components

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Below is a list of the most important TIPS modules and services with short introductions.

## TIPS Planning Suite

TIPS Planning Suite consists of multiple sub-modules, each one providing optimizers for fulfilling customer orders, equipment efficiency, and profitability throughout the supply chain. It starts with Sales and Operational Planning (S&OP) creating optimized production plans, automatic ATP/CTP (availability to promise/capability to promise) check and forecast-based management of the inventories. Finally, Trim and detailed scheduling optimizers guarantee maximum performance in waste and machine settings.

## Order to Cash

The Order-to-Cash process manages customer orders, delivery of goods to customer and creating invoices for accounting. TIPS is fully integrated with SAP ERP enabling the use of standard SAP with industry-specific extensions. TIPS also includes a fully featured Sales module designed for the paper and board industry, while enabling immediate and automatic order confirmation and multileg logistics with manual or EDI-based communication.

## Production & quality

TIPS takes care of material traceability starting from received raw materials up to finished goods delivered. TIPS tracks waste components including machine time, material, and quality-based waste. With regard to order fulfilment, TIPS supports producing the correct amount without unnecessary over- or underproduction. In an industry with a high degree of automation, TIPS supports process automation towards operator-free manufacturing.

## Production materials

TIPS BoM (Bill of Materials) is a complete material management tool for all production, coating and wrapping processes. It provides recipe handling as well as managing the raw material stocks, tracking actual and planned consumption, and proposing purchase orders for raw material re-ordering.

## Costs, pricing, and profitability

TIPS Costing affords calculation of standard products. Using the consumptions from TIPS BoM, it computes actuals and variances in the cost tracking

process. Simulation functions are available to achieve profitability-based raw material planning.

Based on easy configuration of packaging articles, the TIPS price calculator provides accurate calculations in the offering process before manufacturing, and comparison with the actuals afterwards.

## Data, analytics & KPIs

Data and Analytics is divided into two parts, reporting & analytics, and advanced analytics. TIPS MES, Automation and ERP are the main contributors of data for both.

Reporting and Business Intelligence (BI) describe what has happened in the past and, using statistical models, to some extent also predict what will happen in the future. The KPIs are based on actual figures, following strict calculation rules.

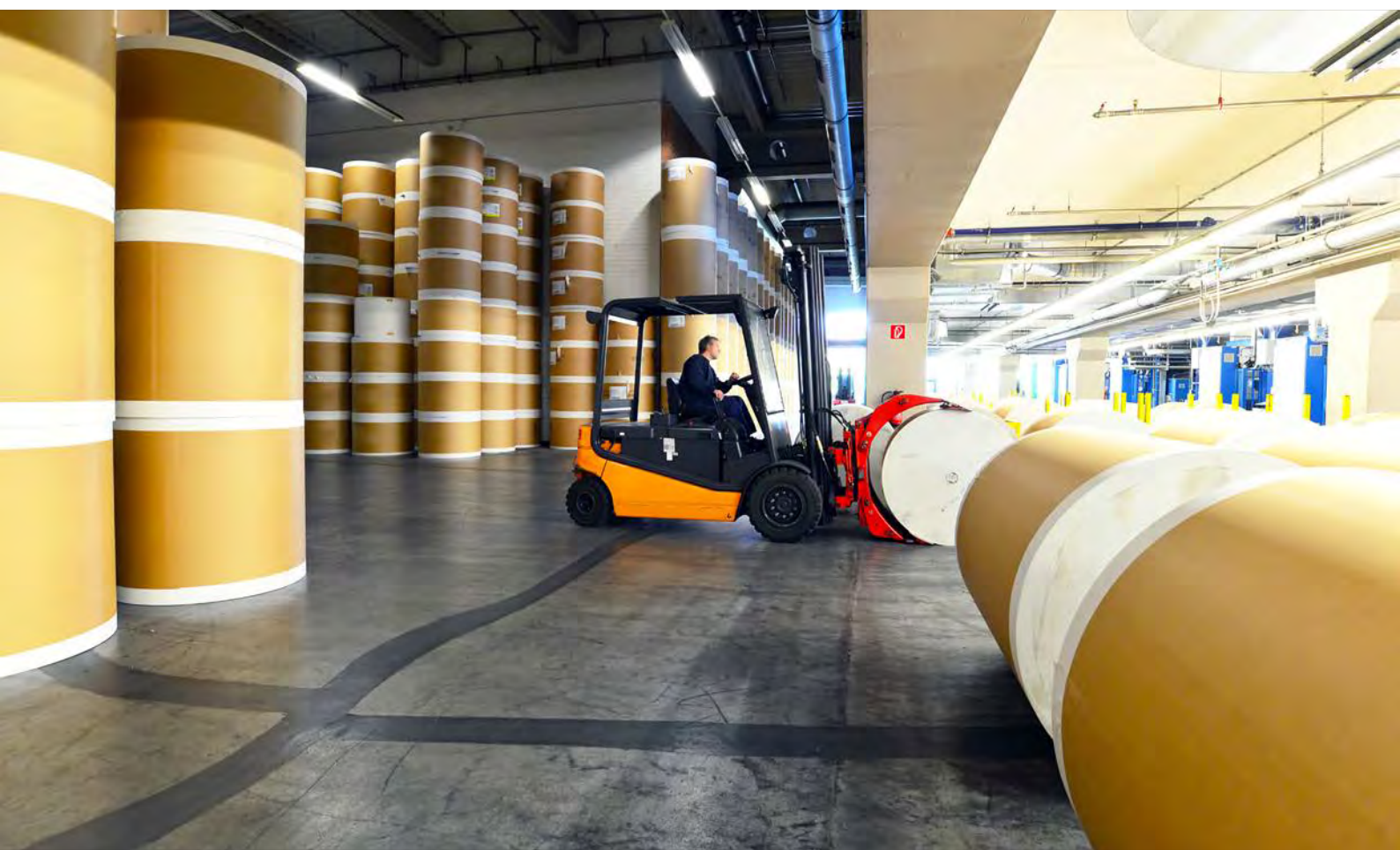
Advanced analytics uses data to cover predictive (what will happen), diagnostic (why it happened) and prescriptive (what should I do) analytics.

Artificial Intelligence (AI) provides new methods in getting more value from data. Numerous use

cases exist: predicting process values or failures, identifying contributing variables, detecting anomalies and optimizing process settings, just to mention a few examples. Those will enable faster root cause analyses of failures, thereby increasing production throughput, preventing incidents from happening, and providing continuous process improvement thanks to diagnostic analytics. Soft (virtual) sensors enable a cost-efficient way to increase product quality. AI has huge potential in optimizing mill processes and operations.

## Integrations

Integrations are always an important part of TIPS deliveries. The solution is based on standard interfaces to integrate TIPS industry components with both ERP and automation. A good example is the fully integrated Availability to Promise check that includes inventory, production capacity and raw material availability checks. Based on TietoEVRY's long experience in production automation, the automation integration library contains ready-made interfaces to nearly every device commonly used in the industry. In addition, integration with external parties, such as customers, suppliers, service providers and partners, is available as standard.





# Services

In addition to a rich solution portfolio across the pulp, paper, and fibre industries, we offer a wide range of industry-specific services. Since these services support business-critical processes, 24/7 service time is often required.

Our comprehensive and service portfolio includes:

- TIPS-specific consultation, upgrade, problem solving, optimization, benchmarking services, e2e integration, TIPS SaaS
- Getting more out of data (AI, analytics, data platforms, archiving, B2B messaging and ecosystem hubs)
- Project services (resourcing and project management)
- AMS (24/7 support and maintenance, operations, SIAM)
- Ecosystem partners' solutions and services

# Business benefits

TIPS is designed to improve the efficiency and profitability of your paper and board business. The users have online access to all business processes and mill departments, so you will have information for correct decisions more quickly than ever before.

You can adapt to the ever-changing workflows in a mill as business, production, process, and quality information are all integrated and configured to help you develop optimal business processes. This all leads to more time for people to develop operations, more time for customer interaction, and increased cost efficiency.

## What can you achieve with TIPS?

Increase Orders in Time in Full Deliveries <b>20%</b>	<b>1.5%</b> reduction of energy and raw material consumption	<b>50%</b> shorter actual order lead time	Reduction of trim waste <b>20%</b>
<b>38%</b> lower stock levels	Overall Equipment Efficiency (OEE) up <b>2%</b>	Sales up <b>4.5%</b>	Profit up <b>21%</b>
<b>30%</b> fewer claims, improved customer loyalty	Personnel savings <b>25%</b>	<b>5%</b> less damage	<b>22%</b> Higher payload (truck fulfilment ratio)

# Summary and conclusions

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Meeting today's business challenges is one thing, but in addition, you need to be prepared for tomorrow's challenges. TietoEVRY helps companies navigate the disruption through digitalization, focusing on agile production control and optimized operational excellence.

**TIPS Industry Solutions and Services** are optimized for pulp, paper, fibre, board, packaging, tissue, and non-woven customers using best industry practices. It is the leading industry-specific ERP (Enterprise Resource Planning) and MES (Manufacturing Execution System) and has already been installed in nearly 300 locations worldwide.

You can achieve more sales with less waste, and an increased profit margin. Better OTIF (On Time In Full) delivery rates and shorter lead times will result in higher customer loyalty, thus an opportunity to improve your standing in a volatile market.

# How to get on board

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Get in touch with us to ensure your business continuity in the face of the ongoing digital transformation in the paper and board industry.

We will be happy to arrange a meeting to give you more detailed results. You can read more on [www.tietoevry.com/tips](http://www.tietoevry.com/tips)



# Digital advantage for businesses and societies

Bringing **Global capabilities** to the Nordics in Digital Consulting and Cloud & Infrastructure Services

Scaling the **Nordic mindset** globally in Industry Software, Financial Services and Product Development Services

Delivery centers within EU and globally: Ukraine, Poland, Czech Republic, India, China and the Baltics

<b>24 000</b> professionals globally	Serving customers in over <b>90</b> countries worldwide	Investments in technology and services more than <b>EUR 100</b> million* per year
Turnover of approximately <b>EUR 3 billion</b>	More than <b>10 000</b> customers	*incl. capital expenditure and operational costs



TietoEVRY creates digital advantage for businesses and society. We are a leading digital services and software company with local presence and global capabilities. Our Nordic values and heritage steer our success.

Headquartered in Finland, TietoEVRY employs around 24 000 experts globally. The company serves thousands of enterprise and public sector customers in more than 90 countries. TietoEVRY's annual turnover is approximately EUR 3 billion and its shares are listed on the NASDAQ in Helsinki and Stockholm as well as on the Oslo Børs. [www.tietoevry.com](http://www.tietoevry.com)

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