BWF Group

Streamlined Reporting Compliance

How the long-established BWF Group produces more efficiently with digital transformation

ENISCO | FORCAM
smart factory experts

BWF GROUP

Credibly fulfilling reporting obligations

" **Without digitization and the correspon-
ding software, the reporting obligations
cannot be credibly fulfilled.**

Christoph Tippel, Head of "Innotec by BWF Group"

The Company
"Innovation by tradition" for over 125 years

The BWF Group, a traditional family business based in Of-
fingen, Bavaria, is a global textile and plastics industry lea-
der. With around 1,800 employees at 16 production sites
worldwide, including around 800 at four German sites, the
BWF Group offers a wide range of products. The compa-
ny operates in four business areas in which it is regarded
as a technology leader: industrial filters, wool felt, techni-
cal needle felt, and high-quality plastic products.

The corporate logistics of the over 125-year-old compa-
ny are complex due to its diverse product portfolio. Each
business unit has its own supply chains, specialized teams,
and machinery, which work according to different interna-
tional standards.

Executive Summary
Added value with MES

- **Machine statuses in real-time**
  "Thanks to real-time data, the shift
  supervisor can monitor the perfor-
  mance and condition of the
  machines at any time without
  having to wait for the next shop
  floor meeting", says Tippel.

- **Alarms are sent directly to the
  phone**
  Shift supervisors receive push
  messages to their mobile devices
  via Microsoft Teams, which inform
  them immediately about machines.
  This makes it possible to take im
  mediate measures, such as involving
  maintenance.

- **Proof of the CO2 footprint**
  The automatically generated
  production data supports the
  top-floor teams in determining the
  product's and Corporate's Carbon
  Footprint within the framework of
  the ESRS/E1 requirements.

- **Cost allocation**
  The finance department also
  benefits from precise production
  data, which enables the precise
  allocation of costs.

BWF Group

Initial Situation
Own unit drives digitalization

"Innovation by Tradition": In line with its motto, the BWF Group has decided to consistently digitize its processes to prepare for the future. As early as 2018, the company established its own department for innovation and digitalization, the "Innotec by BWF Group."

"Through lighthouse projects, we are driving digitalization across all divisions," explains Christoph Tippel, Head of Innotec.

The company already has experience in data acquisition, particularly in energy data. As an energy producer, the BWF Group operates photovoltaic systems, a hydroelectric power plant, and a combined heat and power plant. In 2022, it created a corporate carbon footprint (CCF) and several product carbon footprints (PCF).

The Challenge
Fulfilling German and European reporting obligations

Historically, data collection has been time-consuming and prone to errors. "To record energy and consumption data consumption data," says Tippel," we had to manually go from switch cabinet to switch cabinet and enter the data into Excel spreadsheets." This approach did not allow for comprehensive analysis or optimization. However, various information and consumption data will have to be recorded regularly and reported. For example, since 2024, the German Supply Chain Act has been essential for the BWF Group.

In addition, from the 2025 reporting year, the EU directives CSRD (Corporate Sustainability Reporting Directive) and ESRS (European Sustainability Reporting Standards) must also be met. With the EU directive CSRD, both the corporate carbon footprint and the product carbon footprint must be documented in the future. ESRS E1, the specified standard for climate reporting, prescribes this.

> " *To record energy and consumption data, we had to go manually from control cabinet to control cabinet and enter the data in Excel tables*

Scope 3 emissions, which affect the entire supply chain, pose a significant challenge. Tippel emphasizes: "Without digitalization and appropriate software, the reporting obligations cannot be credibly fulfilled."

Clarity in the jungle of terms:

With its "Green Deal" program, the EU aims to significantly reduce greenhouse gas emissions by 2030 and achieve climate neutrality by 2050. Industrial companies in the EU are to make a major contribution to this.

A brief glossary of abbreviations:

- ESG (Environmental, Social, Governance):
  an overarching concept for sustainable corporate management

- CSRD (Corporate Sustainability Reporting Directive):
  EU directive on mandatory sustainability reporting

- ESRS (European Sustainability Reporting Standards):
  Detailed reporting standards for implementing the CSRD

- ESRS E1:
  Specific standard for climate reporting within the ESRS

- CCF (Corporate Carbon Footprint):
  Total CO_2 footprint of a company

- PCF (Product Carbon Footprint):
  carbon footprint of individual products

So-called carding machines at the Hof site. This is where the BWF Protec division produces technical felt materials - Photo: BWF Group

The Solution

Hof site: Automated real-time data instead of manual recording

At the Hof site, the division BWF Protec produces technical felt materials for occupational safety, fire protection and filtration. The huge carding machines that are used for this, were still monitored manually until recently. With the help of an HTML tool developed in-house the data was recorded and transferred to SAP/ERP (S/4HANA).

To optimize the process, BWF Protec opted for the MES software (Manufacturing Execution System) from FORCAM ENISCO. This software now automatically records machine statuses such as breakdowns and downtime and will also record energy data in the future. The use of the MES software brings noticeable improvements, as factory teams can now access reliable data in real-time.

Intensive training as a cultural basis for digital change

Digitalization at the BWF Group is advancing not only technically but also culturally. "We have intensively trained our employees at all levels—from machine operators to engineers," explains Tippel. Everyone was encouraged to create their own dashboards and to use the process data for their needs. "The training sessions have been hugely motivating," says Tippel.

Outlook

Further expanding digital production

The BWF Group is planning to expand digitalization at further German and European locations, focusing on automating data acquisition. Despite the high demands imposed by regulations, Tippel sees an opportunity: "Yes, reporting requirements are bureaucracy, but we in the EU are taking the first step."

With its clear strategy and motivating corporate culture, the BWF Group shows how digitalization optimizes production processes and contributes to the fulfillment of complex reporting requirements.

FORCE MES FLEX

Energy monitoring in MES FLEX

MES FLEX offers modular MES functions to optimize your production processes. It analyzes, plans, and controls your production and optimizes it. Predefined use cases, such as energy monitoring, enable a quick rollout so that you can achieve success from your digitalization digitization project. The MES adapts to your individual goals.

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