

# Resource intensive yarn and fabric manufacturer saves USD\$1.4M per year through energy and steam optimization

INDUSTRY	REGION
TEXTILE	EU-Turkey
MILL CAPACITY	60 M meter/year

## CHALLENGE

- Resource intensive process – Denim production (6.5 kgs steam & 1.5 kWh energy for 1 meter denim)
- Multiple Utilities & Resources (Steam, Water, Compressed air Energy, Coal and process productivity) to be analyzed for benchmarks across process lines
- Energy bill too high : >1Mn Euro per month

## APPROACH

- Bosch Software and Digital associates adopted a prioritization approach
- Individual areas of energy consumption within the plant were established.
  - Production & maintenance areas were prioritized as they could be lead areas for scale up.
  - Bosch experts also worked with data from manual data logs. The operating data of the heat generators, compressors, and production equipment at the plant were collected.

## SOLUTION AND OUTCOME

- Based on the study , digital intervention strategies were recommended.
- Eliminate steam wastage during machine idling in Dyeing & Finishing
  - Optimization of compressor operations
  - Productivity improvement in ring & yarn
- Steam & energy analysis was done using AI models to understand wastages , establish benchmark operating conditions. Our domain expertise was used to configure these models to suit the right data points.
- Business outcomes delivered:
- Transparency of multi utilities
  - Peer level comparisons & benchmarks
  - Estimated steam and energy savings to the tune of USD\$1.4 M /year (~12% p.a)