NNTC is a UAE-based IT consultancy, software development, and training company. We focus on innovations and digital transformation projects.

NNTC’s strategic alliances with the two international systems integrators – NGN and CROC – are aimed at competence exchange, IT solution portfolio expansion, and implementation of joint projects to reduce costs of customers operating across different regions of the Middle East.
OUR REFERENCES IN THE REGION
Reducing manufacturing costs by 23.4%

Centralized production planning at the companies’ factories

Optimal production-distribution planning at the factories

Tactical supply chain planning to 18 months

Flexible management of coordination of plans and projects

Automatic sales forecasting to 3 years

Higher demand, supply chain and the labor costs

Lack of visibility and supply chain responsiveness

Manually data entry

Underestimating demand leads to customer dissatisfaction and lost sales

PROBLEM AREAS WE FOCUS

RECENT PROJECTS

Reducing manufacturing costs by 23.4%

Centralized production planning at the companies’ factories
HOW WE SOLVE THE PROBLEMS

The digital supply chain platform GOODSFORECAST helps manufacturing companies to improve forecast accuracy by 25%, optimize inventory turnover by 9% and reduce operating costs.

- **Embedded powerful**, adaptive preprocessing and demand forecasting engine
- Unique methodology of **safety stocks calculation** based on precise risks estimation
- **Deploying on customer’s servers** with full control and flexibility of the platform
- Building an optimal Manufacturing Plan at minimum costs

GOODSFORECAST can **operate with** major database and ERP systems, like:
- Microsoft Dynamics
- SAP
- Oracle
- Teradata
ADVANTAGES

ROBUST SALES FORECAST
Might be involving multiple stakeholders in the process - the forecast accuracy will be improved

ACCESS CONTROL
Grant permission to specific team members and always know who’s working on what

COST MANAGEMENT
Effectively monitor manufacturing costs and determine the root causes for cost variances

CUSTOMIZABLE SOLUTION
Can be integrated in different supply chain management processes

TRANSPARENT S&OP
Full visibility control of material and products flow across the organization and even global supply chains

SOPHISTICATED ALGORITHMS

2nd place in M5 Forecasting Competition
(estimate the uncertainty distribution of Walmart unit sales) among well-known tech companies’ teams

Organized by:
## ADVANTAGES

<table>
<thead>
<tr>
<th>Product</th>
<th>Flexibility</th>
<th>Math Algorithms</th>
<th>Implementation Cost</th>
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<tbody>
<tr>
<td>Excel or Excel + MS AS</td>
<td>Very high</td>
<td>Ineffective</td>
<td>Average</td>
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GOODSFORECAST PLATFORM

PLANNING
Demand Forecasting
- Machine learning models with multiple forecasting methods

DISTRIBUTION
Supply Management Promo Module
- Full scale production and shipping plan optimization

REPLENISHMENT
Inventory Management
- Unique methodology of safety stocks calculation

SCHEDULING
Detailed Production Planning
- View real-time costs and performance plan after production planner’s adjustments

WATCH VIDEO
GOODS FORECAST PLANNING

Forecasting accuracy improvement up to **30%**

**PLANNING FEATURES**

- Effective operates with rare and scarce goods
- Flexible configuration of the user access rights to the system and data
- Smart alerts despite changing market conditions

**S&OP DEMAND FORECASTING**

Intelligent sales prediction based on advanced forecasting methods

Interactive plan construction of sales plans with the participation of experts, taking into account any factors
Promo forecasting accuracy improvement 50%

**PROMO FORECASTING AND PLANNING**

- Forecasting on Sell-in and Sell-out data
- Promo–effects calculation on the most detailed level (item/store)
- Possible manual adjustments by users

**PROMO FEATURES**

- Calculations of the recommended and actual effects
- Filtering by various factors (margin, accuracy, shortages)
- Assessing the need of new sale promotion for some locations and SKU
GOODSFORECAST. DISTRIBUTION

Margin growth up to 5%

DISTRIBUTION FEATURES

- Entering of manual adjustments to provide commodity stocks
- Intuitive and transparent interactive map (e.g. production planning)
- Flexible data access differentiation for employees

S&OP SUPPLY OPTIMIZATION

Answering both “where to produce?” and “how to ship?” questions, dealing with raw materials, supply chain costs, availability and capacity constraints

Creating master-plan for transport, warehouse in the S&OP process
GOODSFORECAST. REPLENISHMENT

Stock reduction up to 20%

REPLENISHMENT FEATURES

- Operates with new products without any troubles
- Effective delivery and shipment scheduling
- GoodsForecast server generates of high-quality forecasts (up to 1 million forecasts per hour)

INVENTORY OPTIMIZATION

Calculation and analysis of mid-term supply plans (distribution resource planning)

Both finished goods and raw materials inventory management

Fully automated replenishment calculations up to 500,000 items/hour
SCHEDULING FEATURES

- Optimal automated line scheduling for a higher planning efficiency
- Assisting the planner in estimating deadlines for fulfilment of orders
- Taking into account the manufacturing costs and the whole technological process

FLEXIBLE & POWERFUL APS*

- Automatic estimation of production requirements based on customer sales orders, demand forecasts, normative stocks
- Taking into account raw material and staff availability, reporting new replenishment needs for both cases

Production costs reduction up to 25%

* Advanced Planning and Scheduling
DASHBOARDS

- Detailed information of each recorded event in real-time (day/hour)
- Revision checkpoints; avoiding the human factor in inaccurate information
- Holistic inventory risk management with the optimal data-driven recommendations

Medium-term Load Forecasting

Supplier & Item card
TECHNONICOL Group is the largest manufacturer of materials based on bitumen in Europe and Russia, with over 40 plants producing construction materials, which are distributed in 70 countries, and employing more than 6,000 employees.

OPERATIONAL PLANNING PROBLEMS

Production resources and commodity storage space are limited. Switching assembly lines leads to extra costs, failure to meet the guaranteed delivery dates resulting in the highest fines.

Poor automation of the production planner. The lack of confidence in the optimal scheduled shipment and loading lines inevitably led to a low level of factory productivity.
### CASE STUDY. TECHNONICOL

#### GOODS FORECAST IMPLEMENTATION MODULES

<table>
<thead>
<tr>
<th>Automated Inventory Management</th>
<th>Scheduling</th>
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<tr>
<td>Accounting for annual and weekly seasonality</td>
<td>Accounting for existing orders</td>
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<tr>
<td>Data preprocessing (deficit, sales spike)</td>
<td>Production planning with the storage capacity and production capacity</td>
</tr>
<tr>
<td>Promotions and decline in price</td>
<td>Scheduling optimization based on production costs and penalties</td>
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<tr>
<td>Competence adjustment by the user</td>
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#### RESULTS

- Reducing production costs by 23.4%
- Drastically reduce the human factor and lower quantity of errors
- Creation of Knowledge Management in operational planning process
- Potential centralization of production planning the company's factories