
Columbus
Once you know how...
Optimize Demand Forecasting with Machine Learning
Increase accuracy and enable higher efficiency and transparency in supply chain operations and planning

Why use Machine Learning for your demand forecasts?

- Applying machine learning (ML) in demand forecasting can increase the accuracy of your demand predictions.
- It can help reduce traditional challenges in planning such as long delivery lead times, high transport costs, high inventory and waste levels.
- Accuracy in forecasting significantly reduces operating costs and makes businesses more efficient and profitable.

- *Majority of enterprises still use manual or outdated methods of forecasting. 73% of supply-chain executives said that they are using spreadsheets for planning.* (McKinsey)

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Machine Learning forecasting vs traditional forecasting

1

Machine learning can identify patterns that are too complex for humans to observe

2

Machine learning can make predictions based on a much larger data set than traditional methods

3

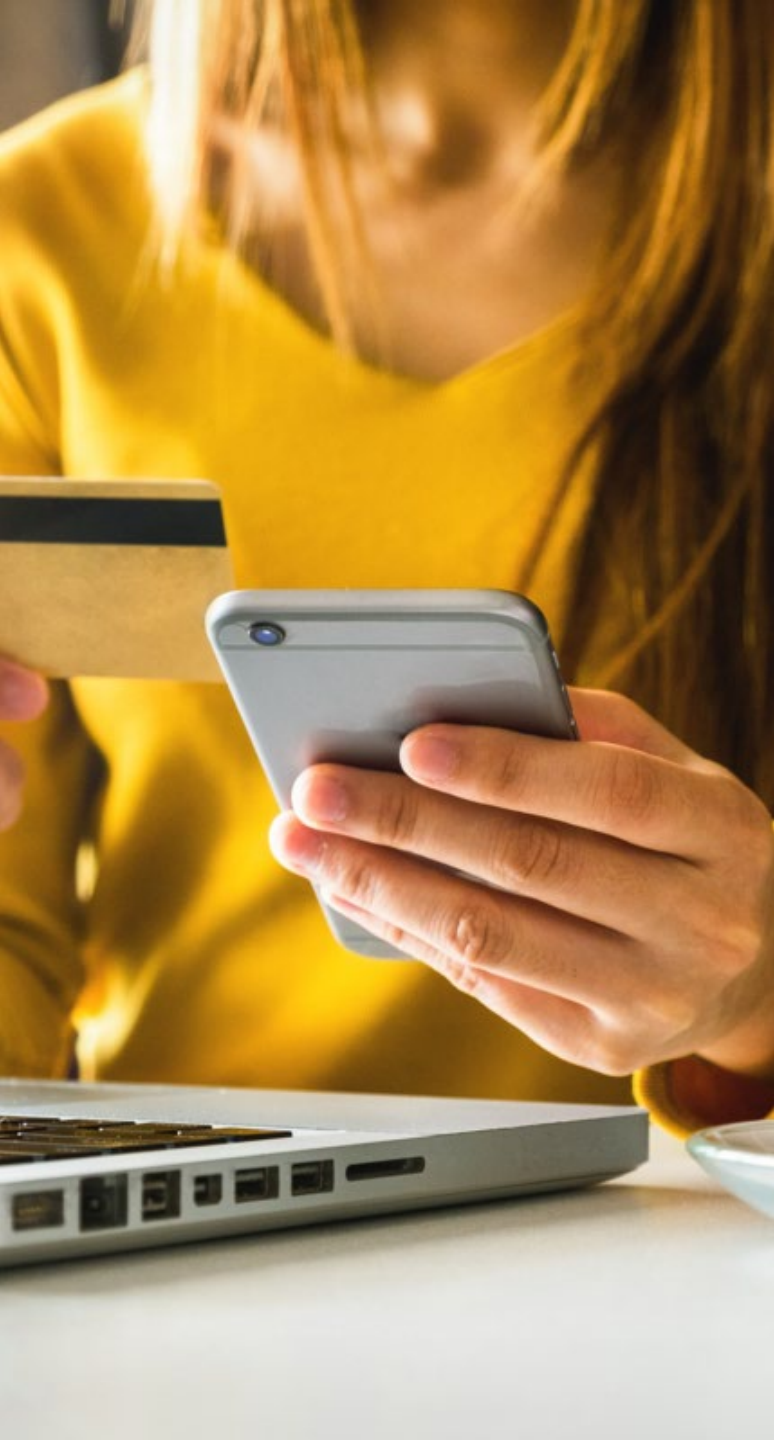
Machine learning is not as biased by human emotions or subjective opinions

4

Machine learning can adapt to changes quickly

5

Machine learning is a more efficient and accessible use of resources



Leverage your demand forecasts with ML

The ML-based demand forecasting solution developed by Columbus uses Microsoft Azure services and can be integrated with and managed within Microsoft Dynamics 365.

Companies not using Microsoft Dynamics 365 can also utilize the ML-based demand forecasting solution. The forecasts can be viewed and adjusted via a Power BI dashboard.

This solution enables a more accurate and reliable demand forecast enabling higher efficiency and transparency in supply chain operations and planning.

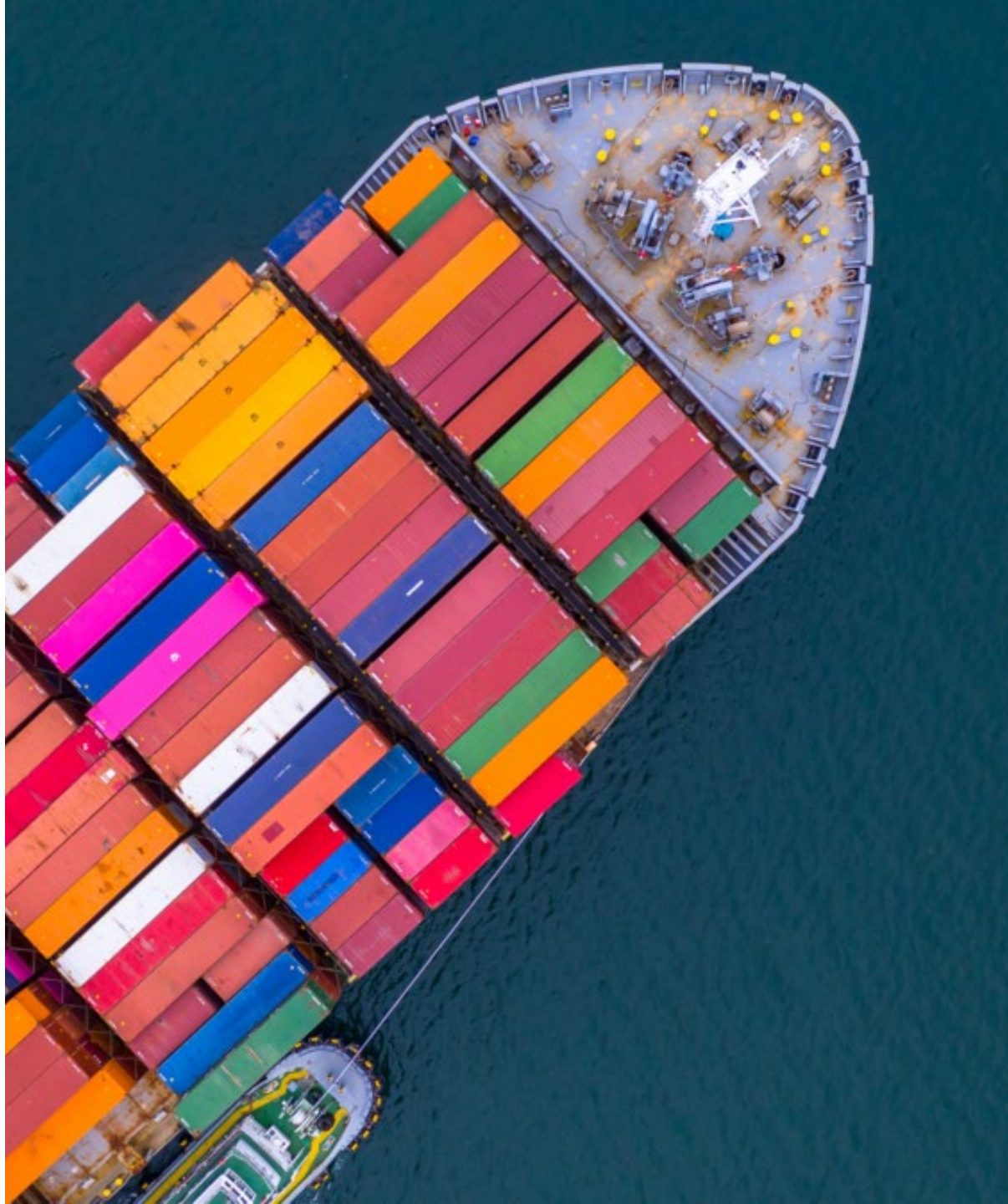
Who is the solution for?

Businesses looking for a way to achieve more accurate demand forecasts	**Companies migrating to or already using Microsoft Dynamics 365**
Companies looking for a ready-made solution to apply ML in demand forecasting	**Businesses using XLS-based forecasting or any non-scalable demand forecasting solution**

How will this solution help your business?

By deploying the ML-based demand forecasting solution, you will enjoy the following benefits:

- Improved demand forecasting accuracy
- Reduced inventory and safety stock
- Predictive analysis that can help you save operational costs
- Less manual time spent on generating forecasts and planning process
- Meet or exceed customer service expectations
- Ease of use for users
- Managed within Microsoft Dynamics 365 Finance and Operations



Features and functions

- Select how much historical data to use
- Select the start date for the forecast
- Select and view the forecast period (day, week, and month)
- Select and view the forecast for specific categories or items
- Modify and authorize adjusted demand forecasts by adding manual updates
- View historical demand and forecast lines
- Remove outliers from historical data to improve forecast accuracy

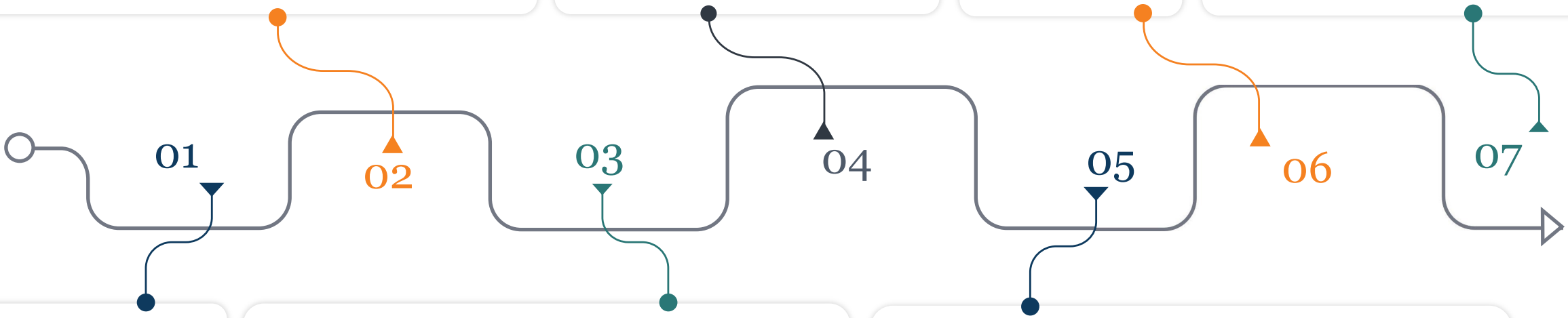
Columbus implementation service in details

Understanding your business needs
- Framing the business problem, defining a clear objective and agree on a success criterion.
- Understand business rules: Identify if any additional rules need to be applied before modelling.

Showcasing initial insights
- Insights from the historical data, trends, and gaps.
- Show how the gaps will be treated.

Testing
Code testing, unit tests, edge-cases and UAT.

Deployment
- Deploying the selected model in Microsoft Azure.
- Set up production environment.



Onboarding Columbus team
Introductory calls and meet the team.

Data understanding
- Assess the data availability, origin of data, how it's processed, it's storage and flow.
- Clarify if the data is enough to meet the objective and success criterion. If not, identify if any external data sources are needed.

Development
- Environment set-up, setting up connections between Microsoft Dynamics 365 and Microsoft Azure.
- Analytical modelling: Exploratory data analysis and feature engineering, model selection (statistical or Machine Learning) and model development and tuning.

Do you want to learn more?

Get in touch with our expert

www.columbusglobal.com

About Columbus:

Columbus is a global IT services and consulting company with more than 2,000 employees serving 5,000+ customers worldwide. Columbus helps ambitious companies transform, maximize and futureproof their business digitally. We are specialized within the industries retail, distribution, food and manufacturing. We offer a comprehensive solution portfolio with deep industry knowledge, extensive technology expertise and profound customer insight. Columbus has offices and partners all over the world and we can deliver our solutions and services locally – on a global scale. www.columbusglobal.com