



# Know today, what will happen tomorrow

Business Forecasting



[kpmg.ch/data](https://kpmg.ch/data)

Decision making, the principal task of management, is challenging because most information received by managers is no longer current and the future, in which decisions take effect, is uncertain. In addition, conventional management information systems, such as data warehouses, are often limited to describing the past based on historical data. There, Key Performance Indicators (KPIs) show whether objectives set in the past, were achieved today.

To make effective decisions, managers rely on answers to relevant questions such as the following:

- In which direction do current trends point?
- Is the current situation an outlier or a sign of rising instability?
- Is there a crisis under way?

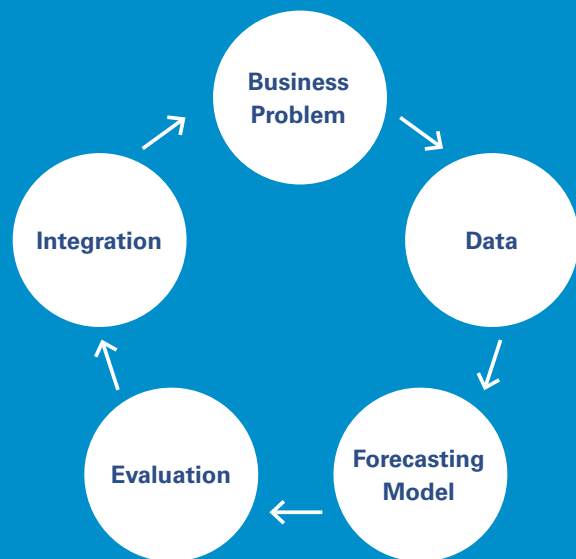
Well-grounded forecasts answer such questions and help organizations compete in the dynamic and short-lived economy. In addition, they expand the leeway of organizations, since forecasts help them avert adverse trends in time or reinforce beneficial ones.

#### **Your Benefits**

KPMG helps your organization realize the benefits of forecasting. Examples of how you can apply forecasting to increase profits, reduce lead times, and increase customer satisfaction, are:

- Early identification of trends and patterns
- Prediction, planning, budgeting, plausibility testing, and validation of costs, prices, revenues, cash flow, etc.
- Controlling: prediction of deviations, e.g. in purchasing, production, and sales targets
- Early warning: predictions of impending instability
- Anomaly detection: outlier detection, e.g. of financial transactions
- Scenario building: worst, trend, and best case scenarios
- Compliance: prediction of violations of legal or corporate regulations
- Fraud: prediction of fraudulent transactions
- Cyber security: prediction of malicious manipulations of IT systems
- Supply chain management: minimization of inventory surplus and timely demand fulfillment





Life cycle of a forecasting project

### Our Common Approach

Before planning a forecasting system, KPMG carries out workshops with you to determine the potential benefits of forecasting in your particular case. The workshops do not take longer than a day or two. If a significant benefit is identified, the introduction of a forecasting system is further explored. Our cyclic, collaborative approach is made up of the following stages:

- **Business problem:** identification of a relevant business problem and anticipation of the potential benefits of the forecasting system.
- **Data:** selection of data for forecasting. Data analysis (e.g. seasonality) and approach to collect, cleanup, and transform data.
- **Forecasting model:** selection of the most appropriate forecasting model; depending on factors such as whether it is a short, medium, or long-term forecast.
- **Evaluation:** evaluation of reliability of the forecasting model, e.g. by means of a pilot project.
- **Integration:** integration of the forecasting system in the IT environment; amongst others, connection to the data flows of your organization. Use of forecasts, e.g. presentation of results in online reports and dashboards, decision making and initiation of actions to control machinery, send alerts via email or SMS, etc. Part of integration is monitoring of operations of the forecasting system to secure its benefits. During operation, additional relevant problems are uncovered and lead to the first stage of this process.

### Architecture of your Forecasting System

To ensure modularity, scalability, and maintainability, KPMG implements forecasting systems comprising the following components:

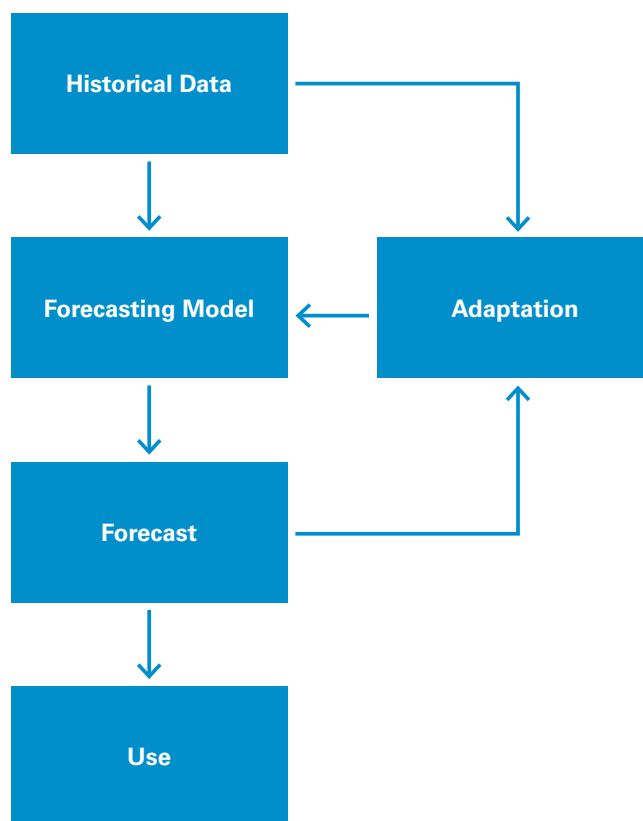
- **Historical data**, e.g. from a data warehouse
- **Forecasting model** to generate forecasts
- **Forecast** of values passed on to other places
- **Adaptation** of model to minimize forecasting error
- **Use** of forecasts for presentations (reports and dashboards), decisions, or actions carried out by other systems

### All Hardware and Software Platforms

KPMG helps you implement your forecasting system on all hardware (local or cloud-based) and software platforms (commercial or open source). Our global alliances with companies such as Microsoft and Oracle ensure that you benefit most when using a particular platform.

### Preconfigured, Parameterized Forecasting Solutions

For frequently occurring practical cases, KPMG has developed preconfigured, parameterized forecasting solutions that can be introduced in a few days at your organization.



Modular architecture of forecasting systems

## Why KPMG?

You will be competently and comprehensively advised by an interdisciplinary team of data scientists, management specialists, and software developers with many years' experience. The team draws on the latest methods of statistics, management, and IT.

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