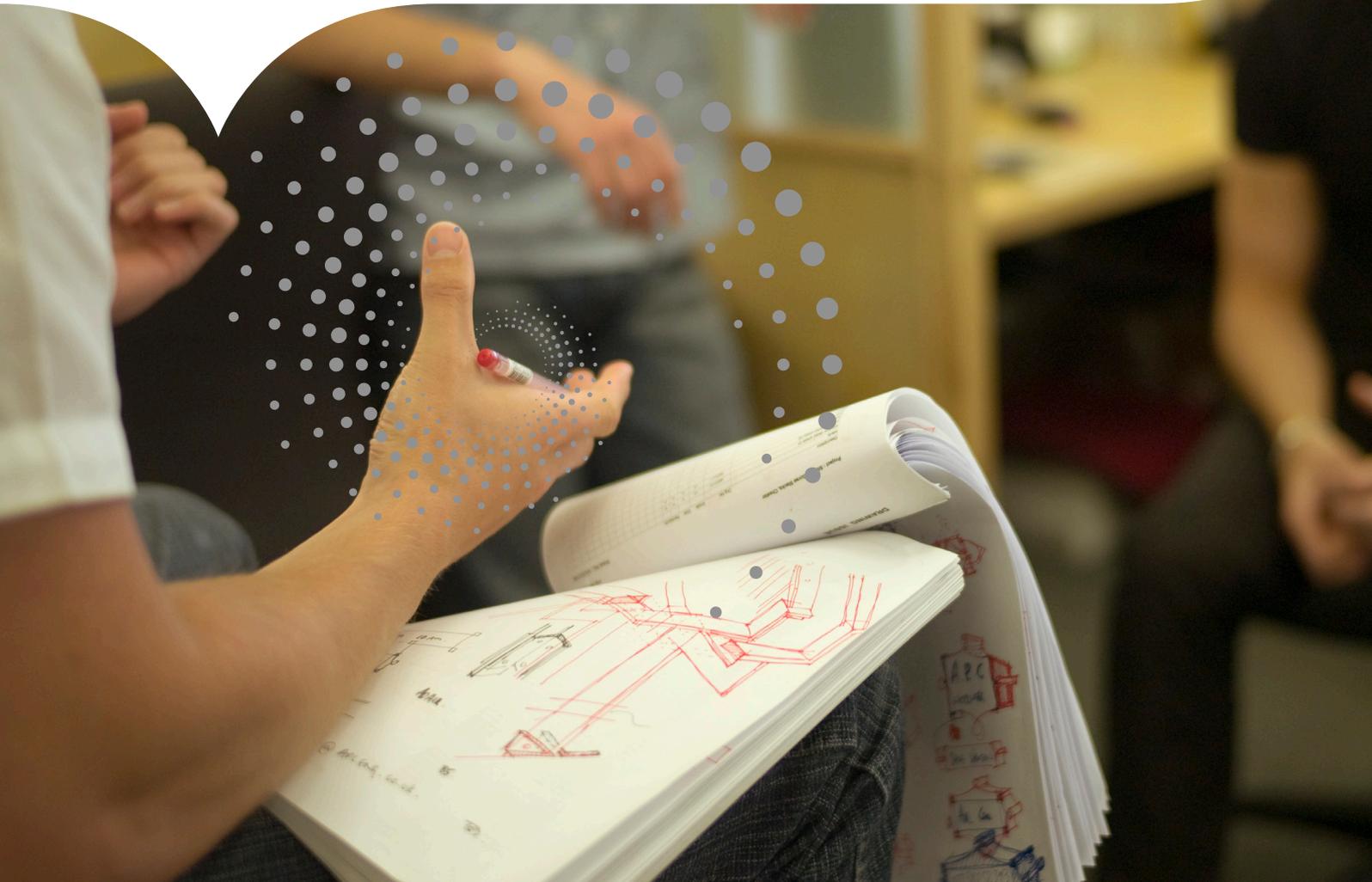


# Advanced Planning and Scheduling

**Optimizing logistics, supply chains, operations and your workforce to reduce cost and improve availability and revenue**



**People matter, results count.**

### The opportunity

Planning is at the core of most organizations, and has a direct impact on their operational costs, revenue, and customer service levels. Every day, many decisions are made about how to utilize scarce resources on a strategic, tactical, and operational level.

But today's planning decisions are often sub-optimal. They may not be based on the right information and processes, or may be executed by non-professional planners who have to work with unsuitable IT. As a result, too often planning is a case of trying to keep up with reality, instead of being a key process with a direct impact on the CEO's dashboard, as it should be.

To see just how complex the planning task can be, consider an airport where hundreds – sometimes thousands – of security officers need to be allocated 24x7 to gates and security filters in a way that minimizes flight risks, ensures on-time departure, and keeps operational costs to a minimum. The challenge is to decide how many security officers, with what skills, need to be used when and where in order to realize the best possible performance against KPIs. In doing so, it is necessary to take account of the everyday dynamics of late arrivals, uncertain passenger numbers, and the heavy penalties for delaying a flight.

**We have helped our clients realize up to 15% cost reductions and up to 10% revenue increases**

### The Solution

Capgemini's Advanced Planning and Scheduling (APS) proposition helps you make the best use of people, process, technology, and information in order to increase service levels and at the same time reduce operational cost. We have helped our clients realize up to 15% cost reductions, up to 10% revenue increases, and significant improvements to both customer service and employee satisfaction. Capgemini's APS proposition supports planners in making better decisions based on the right information and using powerful, flexible visualization and optimization techniques. It helps to establish operational excellence by enabling better planning decisions at strategic, tactical, and operational levels.

### Workforce planning and optimization

Businesses need to have the right employees in the right place at the right time. They must strike the right balance between operational efficiency on the one hand and employee and customer satisfaction on the other. APS helps to:

- Optimize staff utilization
- Increase revenue
- Improve staff and customer satisfaction
- Reduce planning time
- Improve planning cycle time
- Improve management information and process control

For example, we have helped a car breakdown recovery organization to improve engineer utilization by up to 7% and reduce planning time by 75%. A public transport company increased utilization of its drivers, conductors and platform assistants by 9%, and reduced planning time by 60%.

### Supply chain planning and optimization

Businesses can use APS to optimize their transport network, gain full control over the fleet, align transport with production plans (or vice versa), and collaborate more closely with customers across the supply chain. Here, APS helps businesses to:

- Reduce inventory and transportation costs
- Optimize capacity utilization, delivery performance, and customer satisfaction
- Increase revenue
- Minimize planning effort and throughput time
- Improve management information and process control

One of our clients, a manufacturing company, reduced planning cycle time from six hours to 30 minutes, and increased production capacity by up to 20%. A shipping company improved service levels while reducing operational costs by up to 15%.

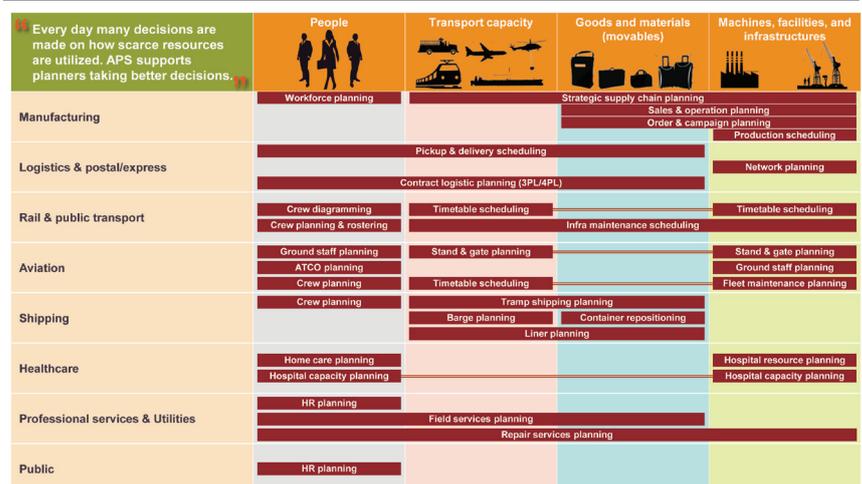


Figure 1. Some industries that can benefit from APS

**Some planning puzzles that we help to solve**

APS supports complex planning decisions in a wide range of industries, often requiring the planning and scheduling of multiple resources. Some examples are shown in figure 1.

What these examples have in common is the major impact that planning decisions have on business performance. What would the impact be if a hospital could reduce throughput time for patients, and at the same time use fewer medical staff? What if a maintenance company could reduce the driving time of its field service engineers so that they could service more customers, bringing in more revenue at lower cost?

As the examples show, APS can help you identify and realize opportunities, and turn planning into a competitive advantage.

**Our five-step approach**

Capgemini’s proven, technology-independent Value Driven Planning™ approach is built up from a number of products and services. As well as being integrated into a full APS program, they can each deliver business value on their own.

- 1. Value scan.** This first step identifies opportunities to improve your planning and scheduling processes. We help you define business goals and planning decisions, create an impact matrix, and assess the maturity of your current planning and scheduling.
- 2. Business alignment.** We create a roadmap for turning the APS opportunity into a competitive

advantage, always taking account of people, process, technology, and information. We assess the current status and produce a design of the future APS, together with a business case for the change.

- 3. Solution alignment.** We translate your requirements into a solution definition. We also produce project estimates and a project plan for implementation, and can carry out technology selection and produce a proof-of-concept if required.
- 4. Build.** Implementation of the APS solution can involve design or redesign of business and planning processes, creation of new working procedures, and definition of roles and responsibilities. We can carry out technical design of IT solutions, and either implement them or manage the implementation. Training can also be provided.
- 5. Running/optimization.** We can provide go-live support. Once the solution is up and running, we help fine-tune it and track the benefits. If required, we can run it as an outsourced service, or provide it on an “as-a-Service” basis from within the cloud.

**Capgemini’s APS capabilities**

With an APS track record that goes back more than a decade, Capgemini has the know-how, experience, and techniques to ensure that your APS project achieves return on investment within months. We work across all sectors with complex planning requirements, including rail and public transport, professional services and utilities, public sector and healthcare, aviation, shipping,

logistics and postal/express, and manufacturing.

We are technology-independent. We are familiar with all the major solutions available in the market place, and can implement many of them in partnership with the vendors, yet we have no commitment to any specific one. To the best of our knowledge, we are the only major systems integrator with a dedicated APS competence centre, and it is that depth that makes us unique.

**Capgemini Business Analytics**

Capgemini’s Business Analytics global practice network is a core unit within the Business Information Management (BIM) global service line and operates in 25 locations across the world, drawing on a database of over 100 analytics client credentials and analytical models. It provides high-function analytics-based solutions to all major industry sectors and business functions.

Capgemini has over 7,000 consultants working in BIM across the world. We work with all the leading big data and analytical technologies, and provide services to support business analytics, from high-level strategy to managed outsourced services. We recognize that analytics are specific to industry sector and sub-sector, and have experts and solutions across all of them.

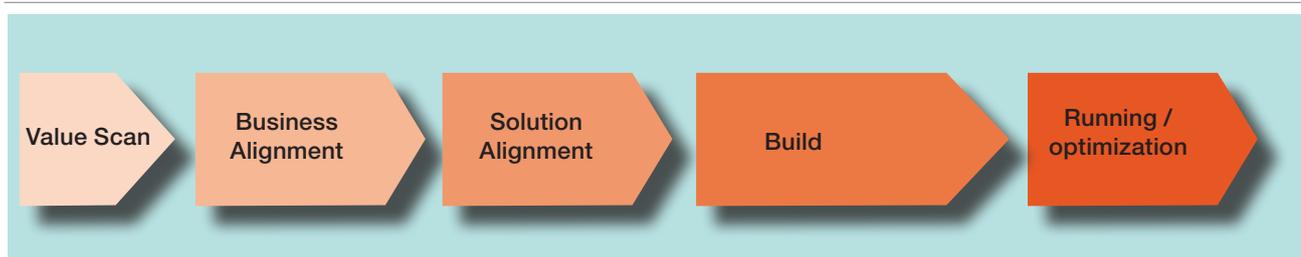


Figure 2. Capgemini’s five-step approach to APS programs



## About Capgemini

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With around 120,000 people in 40 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2011 global revenues of EUR 9.7 billion.

Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Rightshore® is a trademark belonging to Capgemini



More information about our services, offices and research is available at

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