THE ALIGNMENT PUZZLE WHITE PAPER

Deep dive:

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1 Where does the Alignment Puzzle Model come from?

In this deep-dive chapter we sketch the background of the Alignment Puzzle Model used in the book. It's also known as the SPCOI model, after its five components: Strategy, Process, Control, Organization, and Information. We start with a brief overview of the sources of the model's core ideas.

1.1 Sources of the SPCOI model

SPCOI states that the design of a company's control system should first and foremost be derived from the characteristics of both the strategy and the company's primary business process. In the second step, the organizational structure and the information systems are derived from the characteristics of the strategy, the primary processes, and the control system.

In shaping "SPCOI," we were, of course, inspired by thinkers who came before us. We're happy to explain that here.

The adage structure follows strategy has been a familiar management principle for more than 60 years when configuring organizations (e.g., Chandler, 1962). You'll see that principle reflected in the model. But the model also includes the puzzle pieces "Process," "Control," and "Information," and it implies a particular sequence. Inspiration for these additions came from leading management thinkers in Groningen, Delft, and Eindhoven; from hands-on work at the former Fokker Aircraft company; and from consulting practices at Incontrol, Magnus Management Consultants, and IPL-TNO.

At its very foundation lies the systems view of organizations, based on general systems theory. An organization consists of a controlled system that has relationships with its environment and is controlled by a controlling system— "controlling" in the sense of "consciously influencing". This idea comes from "*Systemen en organisatiekunde*" (De Leeuw, 1974).

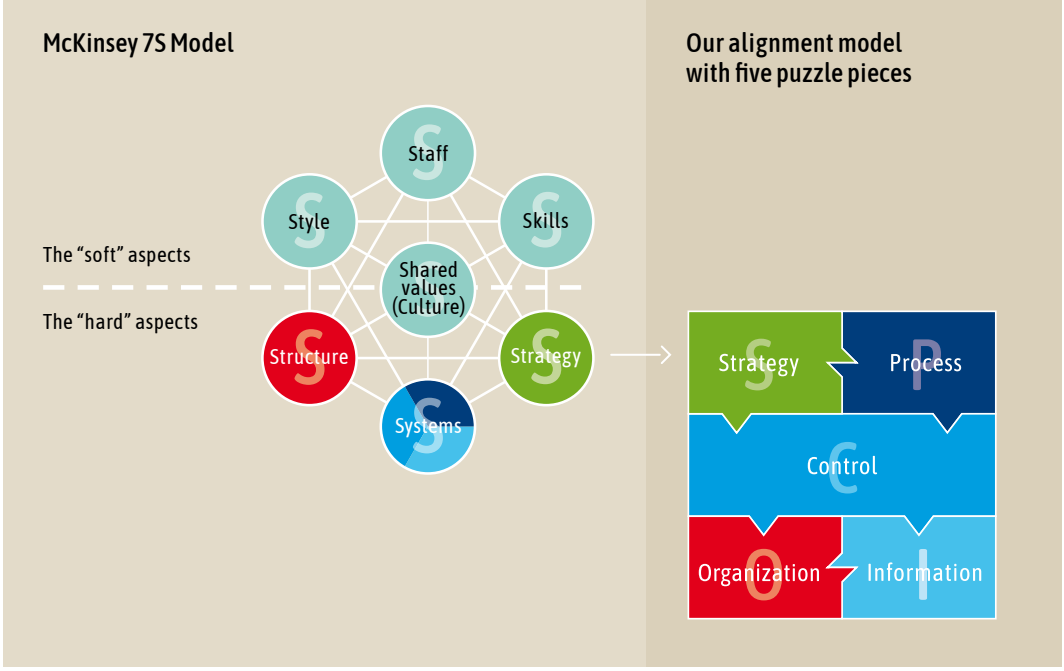
At this stage, processes have not yet entered the picture. That insight (in part) comes from "*Analyse van organisatieproblemen*" (In 't Veld & Malotaux, 1975). The authors distinguish between static and dynamic systems such as companies, with the key feature that processes take place in dynamic systems. In companies, they distinguish processes that direct (*richten*), processes that design/organize (*inrichten*), and processes that execute (*verrichten*). They further split the latter into primary, controlling, and supporting processes.

A third source we should certainly mention is the PBI concept from "*Bestuurlijke informatiesystemen en automatisering*" (Bemelmans, 1975). It states that the characteristics of the processes determine what form of control can be applied (P > B). Control must fit the coordination needs of the business process. The characteristics of the control system, together with those of the processes, determine what information is required (P > B > I). Information in the primary process must match the information needs in the primary business process and in the control process.

It's also interesting that Bemelmans discusses the information needs of processes. The nature and structure of primary processes within organizations are not subject to daily fluctuations, the "story of the week," or momentary scandals. That makes processes a robust, stable basis for systems development. Because it's the foundation, it's crucial to have sound insight into- and understanding of the characteristics of those primary processes. You can't develop suitable information systems if you don't know that foundation.

1.2 "Soft" and "hard" aspects in the 7S model

In the classic "In Search of Excellence" (1982), McKinsey consultants Peters and Waterman present a classic framework for diagnosing and improving how an organization works. It consists of seven aspects. With a couple of clever moves, they grouped them into seven English terms that all start with an S: Strategy, Systems, Structures, Skills, Style, Staff, and Shared values. Over the years, this has proven to be a handy overview in organization science. If you compare the overlap between the SPCOI model and the 7S model, it looks like this:



Our focus is on Strategy, Systems, and Structures: the so-called hard aspects that form the basic conditions for the rest. You have to get these right before you can meaningfully work on Skills, Style, and Staff. Otherwise, you're fixing the roof while the walls are collapsing.

2 What did we do to make PBI "our model"?

First, we added Strategy and a two-way arrow between Strategy and Process. The primary process must deliver on both the commercial strategy and the supply strategy, and strategists, when inventing new things, must consider what the existing primary process can and cannot handle.

Second, we incorporated Organization into the model, which includes, among other things, the distribution of tasks and authorities, standardized ways of working and the system for personal performance management. A chosen control concept only exists on paper until it's brought to life—not just with information systems but also with organizational measures.

O & I must be well aligned—hence the two-way arrow between Organization and Information. O & I function as communicating vessels when implementing solutions. Information systems must be able to deliver the information the organization needs. And the complexity and usability of the systems must be in line with people's skills.

That central position of the Control puzzle piece—and the respective, equal standing of Process relative to Strategy and of Information systems relative to Organization—is anything but commonplace.

3 A real-world example: misalignment at Fokker

Time to share an example from our professional experience. Let's go back to 1988, the year Fokker Aircraft faced several challenges. We'll briefly describe three of them first.

1. Misalignment between Strategy and Process

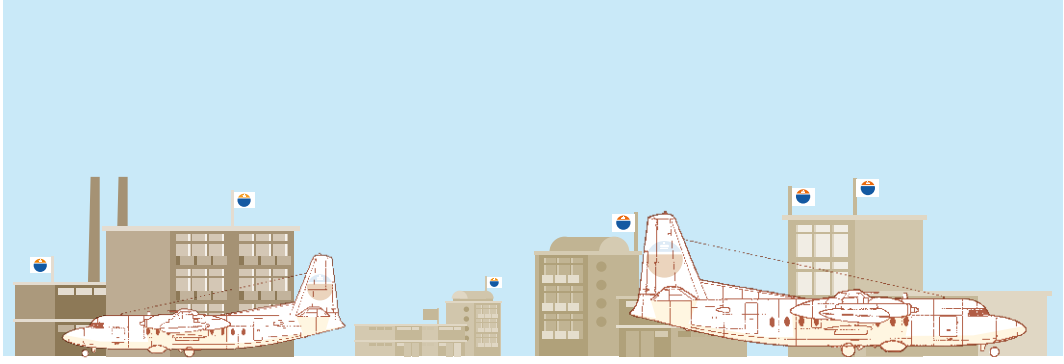
At that moment, Fokker was working flat-out to deliver the first aircraft of the new Fokker 50 program on time, while simultaneously ramping up production of the—also new—Fokker 100. Developing two new aircraft at once demands an enormous effort. The Fokker 100 was also being sold to a new category of customers (Swissair, KLM, US Air) who were contractually very demanding and imposed hefty penalties for late delivery. That created extra pressure and time stress. The capacity to do everything at once simply wasn't there. In other words: Strategy had promised things the Process couldn't handle.

2. Misalignment between Process and Organization

In 1983, the executive board set up the organizational unit CPV (*Centrale Productie Voorbereiding*—Central Production Preparation) as a link between the design and production departments. Implementation met with a lot of resistance because CPV's roles and mandate hadn't been well thought through in advance. Five years later, the department still wasn't functioning properly, causing further disruption in the start-up of the two new aircraft programs.

3. Misalignment between Control and Information

In production control and planning, things went wrong in the parts supply for the assembly processes. That wasn't only due to CPV's malfunctioning but also to the failed implementation of a new MRP planning system. In four years, six attempts were made to implement the system, and although a few modules were delivered, they never got the planning module to work. This was the situation in 1988. Time for action, you'd think!

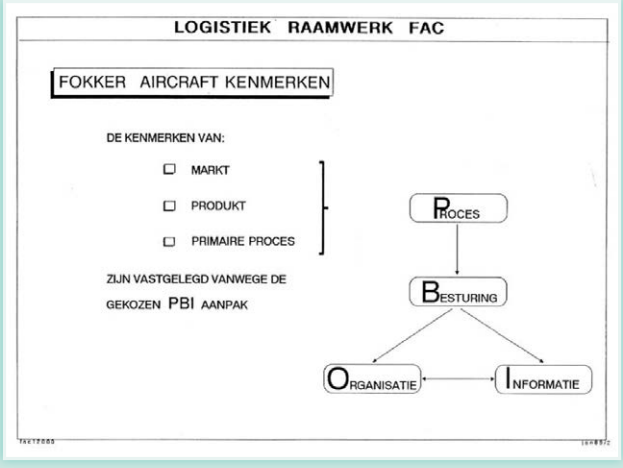


From pause to framework

Action did follow—but not quite as you might expect under such time pressure. The executive board decided to follow the well-known Chinese proverb, "If you're in a hurry, sit down." They made the drastic decision to pause the MRP project and first think carefully about the causes of failure. Only then could they design an approach that would work. They tasked a working group with developing a "Logistics Framework"—what we now call a "supply chain strategy."

The working group used the ideas of De Leeuw, In 't Veld, and Bemelmans as a guiding thread. True to PBI, the group first performed a thorough analysis of the primary process and, among other things, made Fokker's "logistical base design" explicit. Based on the largely unchanging characteristics of the (sub)processes in the primary process, they derived a control concept for parts supply. They also delivered a set of requirements for the control system. That immediately made clear why the MRP project kept stalling.

Hans Quist, delegated sponsor for the Logistics Framework, proposed focusing not only on I (Information) but also on O (Organization) and restructuring mandates and ways of working where needed. According to Hans, you must always tackle organization and systems in conjunction. That's how O was added to P, B, and I—see the original diagram from LRW-FAC, Jan 1989 in the figure below.



Original figure from LRW - FAC
January 1989

Based on the Logistics Framework, Fokker redesigned its control and planning processes with various changes to mandates and ways of working (including for CPV) and launched a large implementation program for a "Common Planning System." This implementation was successfully executed. The results enabled Fokker to carry out, among other things, the largest order in its history (80 Fokker 100s for American Airlines) without any additional investment in production capacity. In 1992, the Association for Logistics Management (VLM) awarded Fokker the Logistics Award of the Year—in part for the delivery performance achieved while reducing internal inventories by 40%.

At that time, the S (Strategy) was still missing from the model. For the Logistics Framework working group, Fokker's strategy offered little substantive traction. The assignment was to improve the logistical performance of the primary process by making organization and systems work.

The Strategy puzzle piece was added in 1991 during the application of the "other four" in an engagement at consulting firm Incontrol, in which one of the authors participated. The (Japanese) client wanted to redesign its Customer Sales and Services Network to capitalize on the open borders that—from 1992 onward—would remove many barriers to the movement of goods within Europe.

In effect, the consulting team argued that the company's (changing) course—in addition to process characteristics—determines the design of Control, Organization, and Information. Exactly what In 't Veld means by direction (*richten*) and what "structure follows strategy" expresses. And that's how the Alignment Puzzle Model reached its current form—P, C, O, and I, plus S.

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