

serving agility

An emerging “hub-and-spoke” strategy complements ERP systems.



Flexible

CarboGen IT director Ron Lacy says they needed a product in which customization would be easy and low cost, because they knew they would have to customize to keep their competitive processes intact.

AS THE NEW millennium dawned, rapid growth was pushing applications out of sync at Swiss company CarboGen. “We needed to use significant resources to maintain the systems and make sure the information in different systems was the same,” says Alan Fischer, head of IT at the Pharmaceutical Services Division (PSD) of Solutia Inc. that includes CarboGen. “It was more and more difficult to keep them in sync. The island application approach didn’t work any more for us, especially with our planned growth.”

CarboGen is a subsidiary of \$2 billion chemical manufacturer Solutia, but its business is significantly different. CarboGen develops and produces first runs of active pharmaceutical ingredients for large pharmaceutical clients, but the most important service it provides is to document the processes so that the client can manufacture the

ERP

ingredients on a large scale.

The challenge faced by Solutia and CarboGen is a familiar one. As large companies gain more experience in enterprise resource planning (ERP), many are learning that what’s good for headquarters may not be good for the divisions. The strength of packages like SAP—that they force companywide standardization—is often anathema to divisions whose strengths might be well-honed proprietary processes. As a result, many enterprises are turning to a “hub-and-spoke” philosophy that lets headquarters leverage massive ERP systems, while selected divisions, business units, and regional offices turn to less expensive, nimbler solutions.

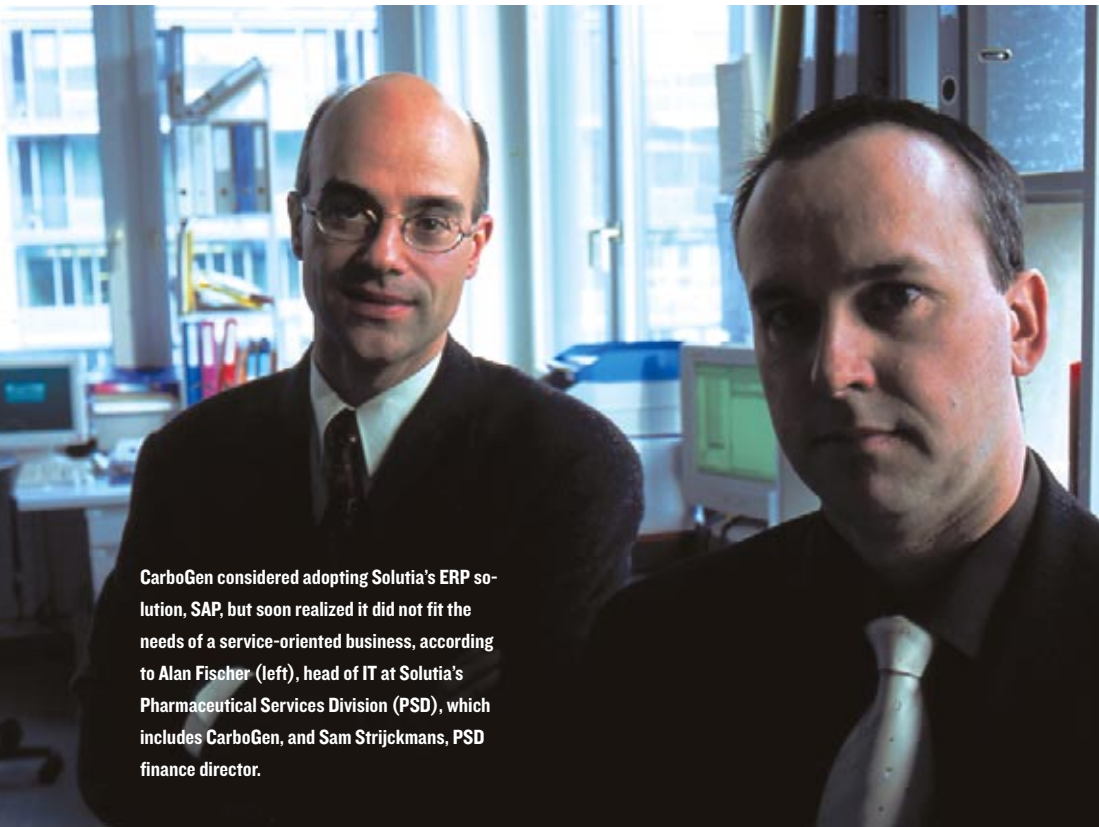
Hub and spoke

In the case of CarboGen, the subsidiary’s highly specialized, home-grown processes give it a competitive edge, but because its systems were not well integrated, different tools were handling planning, materials, human resources, and costs. It needed to integrate all the steps into a homogeneous system.

CarboGen’s parent company was using SAP AG ERP software as its own enterprise backbone, but what worked for the stable manufacturing company would not serve the agile subsidiary. “It was very important that the system we chose was really fitted for a service-oriented business,” says Sam Strijckmans, finance director of PSD.

“They needed the flexibility to react to changing business needs, and they needed the software to follow their processes rather than make their processes follow the application,” says Andreas Eigenheer, project manager at Columbus IT Partner Schweiz AG in Zurich, which partnered with CarboGen on the implementation.

No matter what solution they chose,



CarboGen considered adopting Solutia's ERP solution, SAP, but soon realized it did not fit the needs of a service-oriented business, according to Alan Fischer (left), head of IT at Solutia's Pharmaceutical Services Division (PSD), which includes CarboGen, and Sam Strijckmans, PSD finance director.

for testing, and the system went live with a big bang in January 2002. The package includes financial management, project management, and supply-chain management and runs on Microsoft Windows Server System, BizTalk Server, and SQL Server.

Flexibility a key

The system includes customizations for baseline planning, quotation breakdowns, lot tracking, label generation, and control of records and reports. The team also developed a customized molecule-tracking database that mirrors the way CarboGen manages projects. It contains chemi-

cal information on all the molecules handled at CarboGen, including names and substance identifications; physical properties; safety and handling information; and a structural picture of the molecule. "They have now integrated all the steps of project planning and tracking of material, resources and costs, as well as simulation of project costs, dates, and milestones," Eigenheer says.

The flexibility to do that kind of tailoring was a key component of CarboGen's decision to opt for a hub-and-spoke approach, according to Fischer. "Axapta is so much easier than SAP to reconfigure, put in custom code, and maintain that code across software updates," he says. Bob Anderson, an analyst with Stamford, Conn., research firm Gartner Inc., says this sums up the advantages of hub-and-spoke.

Hub-and-spoke gives CarboGen the needed integration with less complexity and lower implementation costs, as well as lower ongoing costs. Most important, CarboGen maintains the flexibility essential to maintain its competitive edge, while gaining the functionality of a real ERP solution.

When integration with other Solutia systems has been necessary, CarboGen has used Microsoft BizTalk Server. For example, Solutia introduced a sales-force automation system to enable cross-selling among its divisions. Because it used a proprietary hierarchical database, integration with other systems was "a bit of a challenge," Lacy says, but BizTalk Server handled the translation.

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resources

Additional resources, including the following, are available at www.microsoft.com/executivecircle/carbogen:

- A case study on CarboGen's Axapta implementation
- The Microsoft Business Solutions home page
- Research firm Gartner Inc.'s focus on small and midsize business

TCO advantages

The low cost of ownership is expected to be a major benefit in hub-and-spoke systems. "Maintenance is low cost," says Lacy. "The [Microsoft] SQL Server database just runs; you don't need to

touch it or do much maintenance.” The flexibility to customize Axapta has turned out to be equally important as time goes by. During the first year alone, the business required 30 modifications to the system to adapt to needs for new reports, user interfaces, and functionality. “The flexibility of being able to change the system at relatively low cost, and the ease with which changes can be developed—that means low cost of ownership,” Lacy says.

Training users is easy because the look and feel of hub-and-spoke packages tends to be familiar, “so people can be productive a lot quicker than if they have to learn a whole interface,” says Bill Pollie, a vice president at Microsoft Business Solutions.

A hub-and-spoke program can provide ERP integration while allowing independent divisions the flexibility to play to their strengths. “Microsoft Business Solutions produces systems that

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—RON LACY, IT DIRECTOR, CARBOGEN

allow clients to focus on using their competitive advantage rather than conforming to how the software tells them to do business,” Pollie says.

Regional solution

Another example is the experience of Boehringer Ingelheim. Based in Ingelheim, Germany, this \$8.7 billion pharmaceutical giant employs 32,000 people in 60 countries. Boehringer managers sought to provide a common ERP solution for its operations in the Nordic nations, one that would integrate well with SAP and other third-party solutions in the head office. The business goal was to enable real-time planning and decision making across sales, marketing, purchasing, and financial operations.

Boehringer considered several business technology options before settling on Axapta, hoping this solution’s functionality would facilitate the connectivity and collaboration Boehringer wanted with its customers, partners, employees, and trading community. What it got was a solution that, at less than half the projected price of a pure SAP solution, produced immediate improvements in planning and forecasting.

Notes Jens Nielsen, CFO of Boehringer Ingelheim Denmark A/S, “Microsoft Axapta has given us the flexibility, ease of use, customization possibilities, and functionality combined with the low cost of ownership that we, as a subsidiary of a multibillion dollar corporation, need to succeed.”

Boehringer is following up the Nordic implementation by deploying the Axapta solution set throughout Europe.

Because nimble divisions often need to make quick changes, total cost of ownership can be a big consideration, especially in remote areas, according to Pollie. In such areas, he says, it can be extremely difficult and expensive to find workers trained in proprietary ERP languages. On the other hand, people trained in the common packaged applications and languages that make up hub-and-spoke solutions are relatively plentiful. “When you look at the cost of the programmers, the difference is huge,” he says.

Hub-and-spoke solutions can give large companies the best of both worlds: efficient roll-up of financial and other data at the hub, with flexibility at the spokes. The bottom line is choice, Pollie says: Enterprises “can choose to simplify and standardize,” he says, “or they can continue to implement one-off or complex solutions that drive higher costs and reduce the flexibility required to run a diverse business.” ☼

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The right ERP:

Clarity, clarity, clarity

The business and technical people at Swiss company CarboGen, a subsidiary of chemical manufacturer Solutia Inc., learned many lessons during their search for the right enterprise resource planning (ERP) system. Here are some of the most valuable:

- ▶ Be very clear on your basic business processes.
- ▶ Consider whether you want to reengineer your processes or match your processes. If you want to reengineer, find process experts first, software later.
- ▶ If your processes are on track, look for software that can mirror them or be adapted with the lowest total cost.
- ▶ Make sure you have very clear user requirements. Take the time up front to get that right.
- ▶ Involve users at all levels and departments, especially people from the shop floor who will run the system and interact with it.
- ▶ Think about how the business will change over time, and be sure the system can cope with that change.
- ▶ Never assume you have communicated enough.
- ▶ Don’t get carried away with new functions. There is a limit to what people can absorb. Take it a step at a time.
- ▶ Choose your partners wisely.
- ▶ Consider the cost of ongoing maintenance in money and human resources, and make decisions based on what you’re willing to live with.

—Kathleen Melymuka