

may focus on how your company operates—and how it should be operating, given the implementation of the SAP program. Remember, you will need to project into the future, and it must be both a desired and a feasible future.

Given that the primary responsibility of senior management is for performance and results, senior management should be posing themselves such questions as:

“What do we need to do to produce/improve upon results?”

You should not ignore the possibility that your organization may be doing a number of things correctly. In which case, you should also explore the question:

“Is there anywhere within our organization where we are doing X already?”

It may be that your mission is to practice what your organization is already preaching—perhaps, so far, unheard or unexecuted.

If not, then senior management will need to ask the following questions of line management and employees:

“What do we do that helps you produce the results that we all agree are our aims?” and “What do we do that hampers your producing these desired results?”

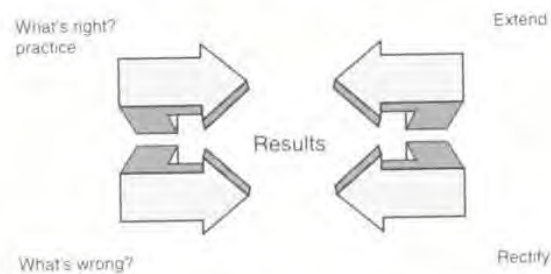


Fig. 33.1 This figure shows the examination of existing practice and the action that needs to be taken.

These questions should be answered as a primary task before formulating either mission statement or consequent strategy.

Your mission statement is your means of defining your organization's commercial rationale and identifying its markets and goals. You will need to ensure that your organization's mission serves as a focus of corporate cohesion—the values expressed are to be shared in pursuit of a common purpose.

These values might include such active qualities as a stronger emphasis on service and customer care. Whatever your organization's set of values, care must be taken that the mission incorporates these values.

Remember, you need everybody in the organization to adhere to certain standards and work to a common purpose.

Strategy goes hand in hand with your organization's mission. It is all very well to have a purpose, but you must have some idea of how that purpose will be achieved. Your strategy might identify new markets and how your organization will seek to establish a competitive edge in those markets.

Your mission must openly contain a message that challenges your staff. This may appear to be blindingly obvious, but it is surprising how often managers fail in this vital respect. Your organization has good team members, and you want to keep them. Remember, people want to work for a dynamic, thriving organization—nobody wants to work for an ostrich!

Remember, too, "purpose" and "strategy" are worthless words unless you put them into action.

Finally, your mission statement will only fulfill its purpose of creating a coherent and cohesive sense of corporate direction if you have identified the appropriate means and methods and requisite performance standards. These, once identified, must be clearly communicated to your audience at the launch of your mission.

Further, mission-related change needs to be reinforced by actions aimed at bringing about change in operating behavior. Here, you will find that training focused on changing or adapting attitudes, beliefs and behavior (as opposed to being solely focused on imparting information) is very effective.

One of your objectives is to help your organization become one that constantly learns, and hence constantly makes progress in line with social, economic and market developments.

Change is more easily accepted when it is incorporated into an organizational structure based on updating and improving existing skills and acquiring new ones. In a plethora of systems and procedures designed to move products and services, it is easy to forget that the main resource of any business consists of its people.

But first of all, you will need to design your plan of campaign.

Planning Your Change Management

Once you have clearly communicated the reasons for change, you must devote time and resources to ensuring that all stages of your change strategy implementation are agreed and communicated.

Before the new strategy can be implemented, you will need to agree and plan the following:

- The program for change
- The identification of change agents, for example, in the case of drawing up new job descriptions, personnel management, line managers and their teams

- Informing and consulting with those involved about the change process—shared ownership and an atmosphere of active collaboration should be established
- Identifying those who are unlikely to agree with the change program and persuading them of the benefits

Finally, if you need to set up a program of downsizing, adopt the following tactics:

- Proceed with great care, but announce your final plan openly.
- Wherever possible, seek voluntary layoffs—notably from among members of dissenting groups.
- Ensure that outplacement consultancy services are available—check these out first; use your networks to identify consultancies that will provide the quality service your organization gives, in this as in all other areas. These will serve to reduce stress among candidates for laying off and, as a result, among their colleagues.
- If valuable personnel are lost to your organization because of insufficient work for them to do, take steps to remain in touch with these people. Such people often become consultants, and their services may well be called upon by your organization in the future. New consultants often find, upon leaving employment, that their first customer is their last (most recent) employer.

Remember, layoffs hurt but they are rarely fatal. Most laid-off employees find work within six months of “Downsizing Day,” and most of the rest succeed in finding employment during the course of the year following “D-Day.”

Of course, significant—and increasing—numbers of laid-off employees opt for setting up independently of an employer. This may mean setting up a consultancy practice, a small business, or a franchise.

If your valued—and now lost—employees choose to take this route, it is always best practice to remain on good terms with them. As indicated above, it is surprising how many newly established small businesses and consultancies find that their first project is commissioned by their previous employer. Such relationships can be both highly cost- and time-saving, with obvious beneficial shortcuts (based on an established mutual understanding).

You must also bear in mind at this stage that it is always a mistake to try and change everything at once. Given the destabilizing effect of change we noted at the beginning of this chapter, you will be aware that everybody needs some element of stability—however vestigial that may be.

Change is best implemented in stages, progressively. So before you begin your implementation program, remember the following:

- Try to produce steady change.
- Management must avoid getting out of phase with the rest of the organization.

- Do not throw out perfectly good elements of your old systems, which have historically encouraged success; wait until these have been superseded.
- Avoid experimentation, especially when perceived as a fashionable, “academic” solution; opt for the practical and feasible procedure every time.

You will find that the implementation program itself is best broken down logically into discrete components. These are as follows:

1. Agree to the timescale(s).
2. Agree to the overall goals.
3. Agree to the strategy.
4. Agree to the interventions to be used.
5. Watch, observe and record the change process.
6. Evaluate the findings.
7. Take corrective action.
8. Identify and deal with any obstacles.
9. Publish the success.

These nine components are described in detail in the sections that follow.

Agree to the Timescale. The change implementation program must have a definite starting point. The program is the responsibility of line managers; it must always be perceived as being owned by management—consultants are best deployed in planning and/or training for change, or in assisting with corporate communications and internal and external monitoring.

You will find that the shorter the agreed timescale for change in your organization, the more likely it is that the change will be contained and controlled. This means that the results will necessarily have a greater degree of predictability.

Conversely, the longer the agreed timescale, the less predictable will be the results. However, you should bear in mind that a longer time frame, with less predictability, will allow for increased opportunism.

You should, of course, agree to the timescale that suits your business: its size, scope, and current conditions. The SAP system will assist you in determining the amount of time needed for streamlining business process reengineering, for example.

Agree to the Overall Goals. The goals must be agreed in advance and made public throughout the organization. These goals must be both understood by all and achievable. See the earlier sections on vision and mission: The goals have already been devised. The two will act as mutual reinforcement. Certain therapeutic regimes that include more than one drug are said to be more powerful in their effects than a single drug used alone;

the same is true of vision plus mission plus stated goals—when they are acting together, the combination is more effective than any one of them acting alone.

Your goals will be both qualitative and quantitative. To take an example, when formulating a marketing strategy you will be seeking to answer the following goal-related questions, among others:

Qualitative:

- Positioning—how to achieve a stronger position in the marketplace and among competitors
- Differentiation—how your organization differs from others offering similar products and/or services
- Segmentation—acquiring increased knowledge of the demographics and qualitative characteristics of your market segments
- Cultural—how to improve the sense of identity, quality and common purpose
- Stylistic—how to achieve an improved image for your organization that impacts positively on its culture
- Functional—what purpose or purposes your organization fulfills beyond its own needs

Quantitative:

- Budget—adequacy as well as constraints
- Costing methods and cost characteristics
- Price strategy
- Market share
- Growth rate

All the above commercial elements will be familiar to you. They are not limited to a strategy confined to marketing—they apply to the majority of corporate strategies.

The marketing strategy analogy holds good. Just consider how increasing segmentation in the market is a feature of the contemporary business world. The spread of increasingly demanding customers and increasingly sophisticated consumers serves to produce this effect, together with an increasing overlap between the various segments, and with the products and services devised to meet their demands. SAP is designed to help you meet these and other functional demands and their allied activities.

Agree to the Strategy. The strategy of implementation now asks the question: How are we going to produce/improve upon results? You will need to consider this, and may find the following list of prompting questions useful (you will probably be able to add to this list):

- Is the implementation plan going to be initiated entirely from the top—from senior management—or will it be generated via consultative processes from the lower levels within your organization? Or will it be a mixture of both—top-down and bottom-up? (Whichever option you select, make sure that it is one that suits the style and culture of your organization.)
- How do we consult with individuals, teams, departments and so on?
- What are we offering our staff and when do we need to know their responses?
- Will the change be made by division, by department, or at some other level?
- What degree of responsibility are we going to allow departmental managers in the decisions to be made?
- What methods of communication are we going to use to inform staff of what is happening? (Refer to Chapter 32, “Managing Communications Internal and External,” for some further tips on internal communications best practice.)
- What external assistance will we be likely to require, and when?
- What training strategies are we going to use?
- How do we measure success?
- What is this going to cost, and who is going to monitor the budget? (You must devise a way of drawing up a budget which takes into account the unpredictable, however anomalous this may seem. Change contingent upon SAP implementation is cost-effective within a given term, but the implementation of a change program should not itself be a matter for cost-cutting exercises.)

Agree to the Interventions to Be Used. You will need to use some forms of intervention to coach and motivate those concerned, and drive the change through your organization. These processes must be understood by everybody concerned. You should also take care to avoid expressing these methods in terms that allow your audience to perceive them as manipulative.

Examples of intervention procedures could be as follows:

- Further training
- Time off for hours worked, where goals have been achieved
- Recognition events (informal celebratory gatherings)
- In-house promotion of information about the change program via, for example, dedicated newsletters or open access to change program rationale and process on CD-ROM

Watch, Observe, and Record the Change Process. You will find that follow-up and reinforcement are necessary to keep your change program on track. At all stages you must be aware of levels of:

- Understanding
- Acceptance
- Progress

And, of course, you must be able to monitor performance in terms of results.

Change agents in the front line must feel part of the change process in order for them to:

- Feel in control of their element or elements of the program
- Maximize their contributions

Your change program should be flexible enough to allow for amendments by those driving it. Where possible, the work teams themselves should also observe and record the change process as it relates to them. These results should be fed back to senior management.

Note

Remember, no plan is going to be 100% accurate and successful; just try to aim at a target as close as possible to that figure, and give yourself and your team or teams a suitably metaphorical pat on the back if you attain a 70% to 90% success rate. After all, you will be performing a delicate balancing act in managing change, balancing the demands of entrepreneurial and developmental opportunism with those of planning and control. It is not easy!

Evaluate the Findings. You will need to determine:

- What has been done
- What effect this is having on the organization and the business

You may find the following evaluation methods useful:

- Local meetings and site/division visits, held by senior management
- Discussion groups and invitations to analysts to review the organization and business postchange will provide helpful feedback
- Customer visits and seminars to monitor external effects
- Brainstorming sessions among teams involved
- You may also find that some people need to air complaints (which is often a function of human nature rather than poor change management). If this is the case, then make time to allow people to complain. Do not let complaints fester—deal with them as quickly and as constructively as possible.
- Surveys by means of, for example, questionnaires (which may be transmitted via e-mail)

You will, of course, use these findings to adjust your change program accordingly. Be prepared to change the change program. Remember, you have designed it to be as flexible as possible, as you will be aware that change itself is not always entirely predictable.

However beneficial and positive your organizational change is, you should bear in mind that change is frequently perceived as, at best, unwelcome and unsettling, and at worst, a threat to the security, stability and livelihood of those on the receiving end.

This constituent of change, allied with your preparedness to cope with unexpected developments, means you are likely to discover at times a need for the subject of the next section.

Take Corrective Action. As you will have seen in the list above, your change program feedback will often lead to further corrective action. You must ensure that such action is immediate and effective. You should also ensure that it is properly publicized—you must give explanations of why an action was necessary.

Where possible, you should give feedback to corrective action teams, made up of those people doing the job where the problems are arising.

Note

Remember, timing is important, and speed of response is of the essence, but make sure you get your facts right.

When corrective action has been taken, it may be necessary to rework the evaluation of findings to determine what effect the action has had.

Note

Do not be too quick to take corrective action. You should first ensure that the stated problem has not been exaggerated and is not the result of a lack of training or understanding. Do not allow yourself to be panicked into a firefighting mode, as panic spreads faster through an organization than good news does, and the deleterious effects on morale are obvious. Poor morale always acts as a brake on the successful implementation of a change program.

Identify and Deal with the Obstacles. Any obstacles (and you will be living in a perfect corporate world if there are none) must be identified. These obstacles are often in the form of one or more of the following:

- Lack of commitment from senior management (which you should have obviated by means of vision and mission formulation and acceptance)
- Lack of involved responsibility—people waiting for somebody else to make decisions and make things happen

- Out-of-date working methods (that, for example, do not take into account the versatility and comprehensive nature of the SAP system)
- An inadequately trained workforce, unaware of the issues involved in the change program. Further training needs may be identified, and meeting them will prove invaluable in the medium- to longer-term.

The communications strategy contained within your change program should enable you to cope successfully with the majority of these problems. Remember, regarding these obstacles as opportunities for further, tangible (and measurable) change will help you greatly when you are incorporating them into the main body of your change program.

Publicize the Success. Your change program will not be just a matter of gaining commitment, promoting development, and overcoming obstacles. You will have successes to enjoy, as well. These successes must be publicized, making their celebration as visible and enjoyable as possible.

After all, you are promoting confidence and enthusiasm. You are also ensuring that the continuance of your change program is facilitated and its future success has a firm foundation.

You will know what to publicize. This may include such successes as the following:

- Meeting a key date ahead of or on the date designated by the time plan
- Implementing a change within budget
- The establishment of a successful new working method
- Achieving cost savings
- Receiving customer praise
- Good, positive press coverage
- Increase in customer base
- New product or service launch
- Corrective action team results

You will certainly find that all of the above—and more—will be possible with SAP. However, you will also be wondering how best to communicate your successes. You may do so via the following methods:

- Dedicated newsletters (produced in-house, exploiting your DTP package to save costs)
- Articles in corporate publications
- Group meetings

- Two-way communication channels, inviting feedback and suggestions (a success may provide opportunities for further successes)
- Notice boards

Your celebration of success (congratulations, by the way) should never ignore the possibility of eliciting useful feedback. As suggested above, opportunities can lead to further opportunities. You should be alert to this possibility, and ensure that everybody knows your program aims to build on success.

You will find—if you have not discovered this already—that publicizing success helps to maintain impetus and morale. So remember to keep everybody informed. And remember to celebrate each and every one of your successes in a style that is appropriate to your organization.

Change is never easy, but when the correct balance between planning and control *and* openness to unforeseen opportunities is achieved, change is highly stimulating to growth and development. It is also a means of maintaining a sense of belonging and of involvement among those engaged with implementing change and meeting its challenges. And that, of course, means everybody in your organization—everywhere.

Beneficial organic change will affect those within and without the bounds of your organization. Your customers and suppliers, too, will benefit, as will your shareholders and, in fact, all those with a stake in your organization.

Be sure to check their opinions in order to keep up the momentum of change and ensure that your direction is the right one for your organization.

Finally, a checklist of principal operative words and phrases:

- Agreed-upon aims
- Build on existing strengths
- Collaboration
- Commitment
- Common cause
- Communication
- Consultation
- Control
- Corrective action
- Flexibility
- High standards

- Openness to opportunity
- Readiness to act
- Speed of response

From Here...

In this chapter we have covered the issues of change that have to be dealt with when implementing an SAP system. In many cases the main reason for implementing SAP is to facilitate change, to make organizations more efficient, responsive, and profitable. Even though the process of change has become commonplace in the business world, it is frequently poorly managed resulting in the failure to maximize the potential benefits.

By recognizing the need for change and the practical processes necessary to successfully achieve it, you will be well placed to manage this important area of the SAP implementation process.

Chapter 29, "Overview of SAP Implementations"

Chapter 32, "Managing Communications Internal and External"

Chapter 35, "The Human Issues of SAP Implementation"

Chapter 34

Training for SAP

The delivery of training is usually subject to severe time restraints. Frequently, large numbers of personnel need to be trained within a short period of time. Training schedules need to be flexible, to allow for the real world of people not being available, courses being missed, holidays, and the system not being available.

Training material has to be relevant to the users and well written to ensure that it is easily understood. There are normally tight time constraints on the preparation of material. Whether training material is computer-based or documentation written for guides or courses, it should be created with care.

You need to create a training environment within the SAP system to use for training without disturbing the development or production system and also create a physical training area with training rooms, computer terminals, and other equipment.

Before training starts, there should have been a program of education and communication to gain commitment to the introduction of SAP and an understanding of the real issues. This is particularly important if the project involves significant business process reengineering.

Having spent hours working on your training schedule, you will want to monitor each individual's attendance and keep a record of non-attendance and adjust the plan accordingly.

Whatever the methods of training or the organization or facilities that are in place, the most important thing is the effectiveness of the training given. An important aspect of the training process is to monitor effectiveness at every stage. If what you have planned and prepared is not effective, you need to change it quickly.

The training requirement carries on well beyond implementation. People not on the original training such as new recruits and users will require training in the future and will need to learn about changes to the system. A long-term training strategy needs to be created to deal with all future training requirements.

In this chapter you will learn:

- How to train a project team
- How to define training requirements
- How to identify suitable training methods
- How to develop a training team
- How to prepare a training plan
- How to prepare a training schedule
- How to prepare training material
- How to create the right training environment
- How to control the training program

IX

Implementation Issues

This chapter deals with the training of the people who will be using SAP to perform their jobs—in other words, end-user training. However, before launching into this topic, we shall briefly consider the options for training your project team members.

We shall then look in more detail at the “life-cycle” of an end-user training program, starting by identifying the needs of the users. Our focus in this chapter will be on the functional or process-related tasks with which specific individuals or groups must be familiar in order to use SAP to do their jobs in the most effective way possible. However, please read Chapter 32, “Managing Communications Internal and External,” and Chapter 33, “Managing the Change in Organization and Job Functions,” as introducing SAP can have a significant impact on an organization and job functions. If there is no project-wide communications program, then the task of communicating the impact of SAP’s implementation to a particular user or group can default to the trainer. The section in this chapter “Communication, Education, and Training” explores this topic in greater detail.

Having identified the end-user training requirements, the chapter goes on to consider the various delivery methods available and how to assess them, how to build your training team, and how to plan and schedule your training within the overall project plan. We shall consider various approaches to providing training documentation and managing the training environment throughout the implementation.

Finally, this chapter will help you assess the effectiveness of your training and develop a long-term training strategy.

Project Team Training

More and more commercial companies will be offering SAP project team training in the future as the SAP market continues to grow, but currently the most reliable training is offered by SAP itself. SAP offers approximately 400 courses, although availability varies around the world. In the UK, SAP has a brand new training center at Heathrow. Details of companies offering SAP training can be found in Appendix H, “Companies Providing SAP Services.” Project teams will need to be trained in the project methods that are being used, project policies and procedures, and many other things.

Defining Training Requirements

It is a lot easier to define who needs training in what skills if you have already defined the organization’s business processes in an earlier phase of the project. In Chapter 29, “Overview of SAP Implementations,” we have looked at the importance of knowing your business and knowing your organization. Since this amounts to a prerequisite to a successful SAP implementation, let’s assume that this has been done. Your first step, therefore, is to match particular business processes to particular job functions—it is normally preferable to use job titles rather than named individuals—and to establish which modules and transactions each job needs to perform each process.

In addition, you will need to make sure that nothing has been overlooked. When a process is initiated in one department and then passed to another for completion or authorization, it can fall between the cracks. Neither department considers the process its responsibility and, therefore, neither department manager identifies it as a process. For example, let's say that sales users make a contract with an overseas customer. The business requires that cover is taken by Treasury to safeguard against fluctuations in exchange rates. This means that an exchange rate is fixed by a bank for transactions that will take place in the future. A mechanism is needed in the system to create a system message advising the Finance department that a new sales contract number has been created. It is only by this electronic system message that Finance knows to set up a new currency contract correctly in SAP. Until this is done, the Sales department will not be able to place orders against its sales contract.

Given the integrated nature of SAP, it is obviously very important to pick these things up. Two approaches to gathering all the information you require:

- **Interviews with Key Users:** Conduct structured interviews with key users and senior management who have a special interest in SAP's successful implementation.
- **Questionnaires:** Design a questionnaire for key users to complete to capture their thoughts on training requirements. Interviews can form a useful backup on completion.

Once you have gathered the data, enter it into some form of matrix, the details of which will obviously differ according to your organization's own particular requirements. However, it should show the relationship between business processes and functional work groups (for example, Accounts Receivable, Warehouse X, Retail Sales). You should now be able, with some confidence, to answer the question: "Who needs training on what aspects of SAP's functionality, so that SAP's introduction into our organization will be as efficient and effective as possible?" However, do not expect this first pass to be your last—you will need to be flexible to accommodate changes as the implementation progresses.

You will also need to address other questions, such as:

- What training methods will be most effective?
- What resources will we require to develop and deliver the training?
- Where should users receive their training (centrally or at local sites)?
- At what stage before "going live" should the users be trained?

These questions will be considered in further sections of this chapter.

Identifying Suitable Training Methods

You should carefully consider the method of delivering your training, as your decision will have a huge impact on the project budget. In this respect there is nothing unique

about an SAP implementation; the same options are open to you as with the implementation of any other computer system:

- Traditional classroom training, in which one trainer trains a homogenous group of users in a room set up for the purpose
- Individual coaching, where the user is trained one-on-one either at his or her workplace or in the classroom
- Computer-based training packages

The method or combination of methods that you use will depend on your own organization's particular circumstances, your budget, and to some extent on your personal preferences.

Classroom Training

You may or may not already have a training room set up. If not, there will be a cost involved in setting one up. The number of users you train at any one time will depend on a number of factors—how many PCs are there in your training room? How many people can the trainer “control?” How many people can be pulled away from their jobs at a time? Obviously, the more you can process at a time, the cheaper your training will become, but experience shows that a group of more than about 8 to 10 people is difficult to handle.

Individual Coaching

Unless you have a very small implementation, this method is unlikely to be cost-effective. However, coaching may be necessary to scoop up any individuals who have missed the main training program or who may have fallen behind and not learned enough in their classroom training.

CBT

There are a number of computer-based packages on the market. Some require skilled programmers to tailor them, while others are less complex and can be used by an ordinary trainer! However, there are certain advantages and disadvantages shared across the board:

Advantages:

- Trainees can train themselves at a time suitable to the individual and acceptable to the business.
- Other than explaining how to load the package and get started, trainers do not play much of a role. This reduces ongoing costs greatly.
- Any decent package includes a feature that monitors the trainees' progress, preventing trainees from going on to the next step if they have failed to grasp the principles of the current stage.
- Most packages have a function that records trainees' scores. You can use these scores to identify people needing extra help, so a human trainer can provide extra coaching.

- Training is consistent for each individual across the business.
- Training is available to new people coming in after implementation and for refresher courses.

Disadvantages:

- The upfront purchase cost can be significant.
- A large development effort may be required, depending on the package and the complexity of your implementation. One supplier quoted a ratio of 150 development hours to one hour's training.
- Lack of human contact means that questions may go unanswered and business issues unresolved.
- A CBT package is less "fun" than a warm, friendly human trainer.

Developing the Training Team

Having chosen your method of training, you can now go on to build the team that will develop and deliver the training.

The makeup of this team will vary depending on the method you chose. For example, if you chose the CBT route, you will need a large number of developers and very few deliverers. If you chose mainly classroom training, you may wish to have the people who develop the training materials deliver the training, or you may have a centralized development team that sends out the material for delivery by local trainers.

A further consideration is what type of people you want on the team: Do you want users co-opted on to the project team, IS people from the project team, or external consultants? Obviously, there are no hard and fast rules here but some points for you to consider:

Using Users

The advantages of using key business users include:

- They know how the business operates.
- They know their audience.
- They are cheaper than external consultants.
- They will be an immediately accessible source of help for other users after SAP has been implemented.
- The skills that they will have to develop will be kept in-house.

However:

- There is a significant learning curve required to learn SAP, expensive in both time and money if they are sent on SAP's own courses, for example.

- They will need training skills training and possibly some training on managing change if the implementation is to result in a major change of business practice.
- There must be total commitment from management to release the users on to the project or users will be impossibly stretched between its demands and the demands of their “real” jobs.
- In order to retain their skills in-house, users and their managers should consider and make explicit plans for career progression post-implementation.

Using IS Team Members

The advantages of using your own IS people as developers and deliverers of training include:

- They are already familiar with SAP.
- They are already familiar with the business’s use (or planned use) of SAP.
- It is cheaper than using external consultants.
- The skills they develop when learning the skills themselves prior to training will be useful to them personally in their future careers within the company.
- Making this choice leaves the users free to run the business.

However:

- The people chosen as trainers will need to acquire training skills.
- Their time must be carefully managed and you must get a commitment from the Project Manager not to pull them off training development when problems arise in other IS areas.
- Training IS people in SAP gives them a highly marketable skill. To avoid having your IS people lured away into the SAP contract market, give serious consideration to their career progression after the implementation.

Using External Consultants

The advantage of using external consultants is that they already have the SAP skills and the training skills to develop and deliver your SAP training. (If a consultant doesn’t already have these skills, why use him?) However, there are a number of considerations:

- They are expensive.
- They will not know your business, and so will need to spend some time with your key users to understand it before they can start to be productive.
- Users may be distrustful of outsiders telling them how to do their jobs.
- Some external consultants have ideas that may not suit the project.

Whatever approach you choose, remember that to gain the most benefit from your training program, you should identify and begin to involve the trainer(s) from a very early

stage of the project. It is unrealistic to wheel someone in the last few weeks before going live and expect them to deliver effective training.

Preparing the Training Plan

You should incorporate training in the project plan and budget from the inception of the project. Costs that some companies overlook include the “hidden” costs of releasing personnel for training—documentation costs, overtime, and the cost of finding someone to cover the users’ jobs while they are at the training.

A key decision is when to start. Starting early minimizes the overall project elapsed time (by overlapping development of training environment and materials with system testing) but may well generate substantial rework as system changes are made. It also complicates the coordination of system build and training activities for individual project team members.

Starting later reduces the need to rework the material, but unless resources are available for very intensive course development and delivery, you may need to extend overall project timescales to allow for training time. As a rough guideline, you should not release parts of the system into training development until they are at least 80 percent correct and complete. You can build decisions on the readiness of particular modules of functionality for training development into QA points—for example, at the end of build work, before system testing starts.

Given the dependency of the progress of systems build work and testing on the development of training materials there should be open communication between the project manager and the training manager throughout the project’s life. You can’t develop training material when the system is being built because you don’t know how it is going to work. Training development and delivery should be formally linked via precedence relationships in the project plan to agreed project milestones. For example, you could specify that training is not to start until system testing is completed. Therefore, if project milestones move, the impact on training schedules is apparent immediately.

You should also draw up a full training plan using the same planning tool and standards as the overall project plan. You must identify your own specific task lists, including:

- Course specification and design
- Quality assurance
- Creation of a training environment populated with valid data
- Production of training materials and user documentation (if a distinction is being made between these)
- Delivery (including delivery scheduling)

Preparing the Training Schedule

In the earlier section “Defining Training Requirements,” you learned an approach to analyzing training needs and answering the question “Who needs training in what?”

Now that you have identified your training course requirements, you need to specify the contents of each course and design it.

Once you have gone through that process, you should be able to make an estimate of how long each course will take to deliver. You can then do the simple calculation of dividing the number of users who need to go on each course by the number of individuals you have decided is optimal and then multiplying that result by the number of days of the course's duration. This gives you the number of training days you need to schedule.

This makes it sound simple, but scheduling can become extremely complicated. The business will impose limitations on your plans, so that you will need to work around:

- Business needs—for example, customer orders still need to be met during the training period
- Particularly busy periods for certain departments—for example, period ends for Accounting
- Holidays, vacations, and planned shutdowns
- Shift patterns
- Sickiness

There are some specialist software tools on the market that can help you schedule, but you will need to remain flexible. Not allowing people to be ill when they should be attending a SAP training course unfortunately does not work. You may also find it helpful to have a local site contact to advise you on the best times to schedule courses. Personnel departments may take on this role and may also help in monitoring attendance and following up on non-attendance.

Preparing the Training Material

The physical appearance of the training documentation will vary from organization to organization. If you have chosen the CBT route, paper-based documentation may consist only of a guide to getting started on the package and maybe some quick reference help cards. Others will choose classroom training backed up by screen illustrations and explanation. Still others may want to draw a distinction between Training Materials and User Guides.

As a general rule, users tend NOT to reach for their training documentation when they have a problem. They usually ask a colleague. If your training budget is tight, keeping your training documentation short and simple could help to keep your costs down.

In an ideal world, the development team should generate some training documentation. At the very least, they should supply a series of flow diagrams or "route maps" that break down each business process into a series of steps and link each step to an individual transaction in SAP. Some system development approaches could provide even more

material—for example, detailed business cases developed for acceptance testing could be recycled as training aids.

You can choose your training materials from the following list, putting greatest emphasis on the areas most important to your organization:

- Business processes and flow diagrams describing them
- Screen illustrations with text descriptions of key fields
- Introduction to basics of SAP (matchcodes, icons, and so on)
- Trainer demonstrations
- Trainee exercises and case histories
- Help (quick reference) cards

Other considerations include:

- Do you want to differentiate between business training (explanations of how SAP will affect procedures, responsibilities, organizational structures, and so on) and system training (hands-on operation of SAP)?
- Whatever form of documentation you use, spend some time deciding on standards so that it is consistent.
- It will take longer than you think for the documenter(s) to produce the materials!
- Don't forget to factor the lead-times required from external service suppliers such as printers, reproduction shops, laminators, and so on into your schedule.
- You may need to follow BS5750/ISO9000 procedures.

Note

There are many programs that enable you to capture screen illustrations. Lotus Screencam, for example, offers two very useful features. It captures still screens for inclusion in paper documentation, in file formats that you can import into nearly any word processor. It is also capable of recording a mini-video by capturing each key stroke in a process. With this feature, you can "film" any SAP process and then play it back as often as required.

Screencam is not a CBT program and its capabilities are too limited for you to consider using it to generate full-scale CBT instruction packages. However, its recording feature can be invaluable for passing along information from highly skilled developers to documenters who have very little knowledge of SAP. For example, the IS team can use Screencam to capture each process once it has been QA'd and pass it on to the documentation development team in this format. The documenter playing it back can see the process flow without needing to know how to use SAP.

Whatever form your training materials take, do not assume that they will remain static (see the section "Developing a Long-Term Training Strategy" later in this chapter) and build in a system of maintaining version numbers before you start.

Creating the Right Training Environment

“The right training environment” consists of two factors: The technical and the human. Let’s look at these individually.

SAP Training Environment

You need to set up a separate training client or systems environment that represents the latest development work and that can be refreshed on a regular basis. It needs to be populated with sufficient data to make the training demonstrations and exercises realistic, including tables, master data, and documents. I recommend that you agree upon a procedure for updating and controlling the system with the system manager as early in the project as you can.

Physical Training Environment

Although you are running an in-house training program, it will be more effective if you treat the trainees as if they were volunteers attending an external course. The training room should be made as comfortable as your budget allows, with sufficient (and sufficiently comfortable) chairs and tables to make the experience an enjoyable one. Some organizations prefer to have two trainees to each PC, so that they can work together and learn from each other. Having more than two trainees per PC is not a practical option.

If you are setting up a room from scratch, remember to specify plenty of power connection points and communications connection points for the computer terminals. Also pay attention to the lighting, being careful to avoid direct sunlight on monitors and to exclude natural daylight altogether if using liquid crystal display tablets (LCD).

There are, broadly speaking, two methods of presenting trainer demonstrations to a large audience. The first is something that projects the image from the trainer’s screen onto a large screen that can be seen by all. Examples include LCDs and BARCO projectors. The second is a mechanism that allows the trainer to control all the trainees’ screens by switching them so that they see what is on his or her screen. This is commonly referred to as “slaving,” and once under the “master’s” control, trainees’ keyboards become inoperable, thus removing the temptation for them to “explore” rather than working on the topic currently under discussion. In the UK, Ascot Systems supplies such a mechanism called the “Coursemaster.”

Communication, Education, and Training

These are three different activities, all of which have their places within the life cycle of a project. Before training starts, there should have been a program of education and communication to gain commitment to the introduction of SAP and an understanding of the real issues. This is particularly important if the project involves significant business process reengineering.

You will need different approaches to communicate the impact that SAP will (or may) have to different management levels. Here are two approaches that have been successful in helping to gain commitment from the most senior people in the organization at the inception of the project:

- Illustrate how SAP will support your industry's accepted "Best Practices." There are a number of courses run that cover best practice (entirely independent of SAP). If you can find one appropriate to your board members, you can follow it up with an in-house presentation and discussion of how SAP will support them.
- Bring in a business "guru" to facilitate a discussion about the impact/benefits of introducing a fully integrated system.

To educate both senior and middle management, SAP runs a course that provides an overview of the business process flow (CAINT) and highlights the practical benefits of using a fully integrated system.

Once all the major decisions have been made, you must make all employees aware of what the impact will be. It is best to plan an ongoing communications program to ensure that employees have a chance to ask all the questions they want and receive answers to those questions as the project progresses. Tried and tested approaches include:

- In-house overviews emphasizing the need for change
- Roadshows/demonstrations of SAP functionality specific to the jobs of particular groups/departments
- Regular newsletters
- Online bulletins

Without effective education and communication, effective training is impossible. Instead of having a receptive audience willing to learn the functionality of SAP and knowing why they have to learn it, the trainer may be faced with a group of employees apprehensive about their futures and resistant to learning.

Controlling the Training Program

Having spent hours working on your training schedule, you will want to monitor each individual's attendance and keep a record of non-attendance. Another benefit of a successful education and communication program is that everyone will be aware of the importance of showing up for training when scheduled and managers will think twice before pulling people out of training for business "emergencies." However, there will be times when the business must take priority or when people are too ill to attend—or even when the trainer is too ill to attend. Therefore, it is important to keep records regarding who receives training so that additional training can be run if necessary.

Quality control is also an issue. You should define a post-course questionnaire to get as objective as possible feedback after each course. If there is consistent criticism of a particular aspect, this can be put right at an early stage of the program. Other considerations:

- Although in an ideal world, training should take place after testing has been completed, "bugs" and other problems may well manifest themselves during training. You should devise a formal method of capturing these and feeding them back to the development team before training starts.

- If there is an area that users consistently find difficult to master, you should plan to spend more time on that skill in class or develop a “help card” or similar tool to distribute.
- Experience shows that in order for people to refer to their manuals when they are using the system in a live environment, they need to have worked with them on the training course. Therefore, your training should include manual use.

Analyzing the Effectiveness of Your Training

Asking trainees to complete questionnaires after each course can provide some quality control feedback about the delivery method efficiency and the content of the course. However, the effectiveness of training—that is, how well it is preparing the trainee to do his job using SAP—is hard to gauge before going live. The trainers have a useful role here in feeding back their observations of skill acquisition during the courses themselves.

Analyzing calls to the help-desk in the first few weeks of implementation is one way of monitoring the effectiveness of training. Better still is one-to-one discussion with end users and their managers to get their feedback. This information is useful for:

- Establishing whether extra workshops/training sessions are required.
- Improving training for further phases of the project (if applicable).
- Improving training for new users.

Developing a Long-Term Training Strategy

In the euphoria of having successfully implemented SAP in your organization, you should not forget to put a long-term SAP training strategy in place. There are two main areas to look at:

- People not on the original training program who will require training in the future
- Changes to the system that need to be relayed to all users

Newcomers joining the company will obviously require training and the most appropriate way to cover this may be to build it into the standard induction program. Promotions and internal movement of staff may result in existing employees also requiring training. In addition, employees who originally thought they did not need to know about SAP may change their minds some time after implementation. This may be through a gap in the training needs analysis or through the individual feeling it would be “nice to know.” Your response to the latter requests will doubtless depend on the training resources you have available.

System changes may occur as a result of bug-fixing or from requested and approved enhancements. You will need to communicate with the system maintenance team to pick up any changes and, having documented them, you will need to relay them to your users. You may choose to do this by distributing updates periodically, but to ensure they

do not simply get shoved in a drawer you could run workshops to back up the updating procedure. Ideally, you should appoint a full-time training maintenance person, although your resources may not be sufficient to allow this.

From Here...

In this chapter we have looked at all aspects of training from developing a training team to training project team members and then users. We have looked at the importance of defining training requirements, identifying suitable training methods, and conducting the training. We have seen the importance of the training plan and the monitoring of the training schedule.

The infrastructure has to be created to deliver the training from training environments in the system to physical training requirements of workstations and work space for training team members. The training has to be controlled and evaluated and changes made if necessary. Finally, implementation of a long-term training strategy is needed to deal with new recruits and system changes, and so on.

Training is a vitally important area of a SAP project which has a great significance on the project's overall success.

- Chapter 29, "Overview of SAP Implementations"
- Chapter 32, "Managing Communications Internal and External"
- Chapter 35, "The Human Issues of SAP Implementation"
- Appendix H, "Companies Providing SAP Services"

Chapter 35

The Human Issues of SAP Implementation

Behind the amazing feats of reengineering with SAP or any other similar program lies many a tale of human insecurity as the world goes topsy-turvy and of management resistance as the carpet starts to move under their feet.

Indeed, James Champy, co-author of *Reengineering the Corporation* and chairman of CSC Index, the management consultancy that pioneered the development and practice of reengineering, emphasizes in his follow-up book, *Reengineering Management*, that “the only way we’re going to deliver on the full promise of reengineering is to start reengineering management—by reengineering ourselves.”

This then is the final hurdle, the need to reassess how we as human beings operate as individuals and in groups and evolve our learning and our behaviors if we are to willingly and whole-heartedly embrace the kind of change that SAP and its associated reengineering initiatives will bring in their wake.

The Effects of Major Change in an Organization

This section puts forward ideas which you can draw on to help your colleagues move through change successfully—even with alacrity! It offers you some guidance on how to build and maintain dedication of your colleagues through the process of rapid change and how best to provide them the required support.

IS—Today’s Number One Change Agent

“Change is the only constant,” said Heraclitus some 2,500 years ago, and the intervening years have not proven otherwise. Perhaps one of the most important recent changes as far as industry goes is a loss of confidence among workers in their job security. Undoubtedly one of the major contributing factors to this loss is the automation of processes. And the main contributor to automation has been the computerization of tasks hitherto performed manually.

In this chapter, you will learn:

- How to lead your organization through the process of implementation

You can make the road to SAP implementation a smoother one by employing some simple yet vital leadership techniques that have been well-proven.

- How to lay the foundation for cooperation and teamwork between members of the implementation task force

IX

Implementation Issues

Computers, or rather the applications that run on computers, have therefore been a double-edged sword. For it is the software programs that are bringing changes in the way we all work, especially those programs, like SAP, which automate every fundamental process within a company. Indeed, SAP throws the past out the window. The implementation of SAP effectively forces a company to consider every aspect of its operation.

Today, organizations are striving to be customer-focused machines and the implementation of new SAP systems is an important aid to effecting the necessary changes. But organizations are also repositories of people's hopes and aspirations and the stage on which they play out the major part of their lives. Changing a company's systems is akin to changing the plot and shifting the scenery and props of the play while it is in progress. It takes a dedicated actor to be able to give a good performance despite the changes. And it takes dedicated, well-guided and well-supported people in a company to thrive through the distractions that any radical system changes will entail.

But shouldn't people be used to change by now? What else can they expect? Well, the sobering reality is that the evolution of mankind is a slow process and the human continuum leads us to expect at a fundamental level that tomorrow will be the same as today.

Viewed against this backdrop, the implementation of SAP can be a potentially threatening event to some. People lose touch with the familiar, their usual work patterns, their colleagues or an area of work in which they feel proficient. In times of flux, people look for security. And security usually comes from the familiar. Centuries ago they found it among their own families and communities. As industrial growth led to the breakup of traditional communities, people transferred their handholds of security to their position in life, their job and their status within their company. Now it seems that the security of employment and status we have come to expect from the large companies (think of banks in particular) was only a passing phenomenon. There is no longer automatic security in employment.

This raises the question as to the role of management in all this change, and in particular the responsibilities that the project management team have when, through implementing SAP, they may seem to be the cause of it all!

Management's Role in Change

Management's role in change? Simple. Create the highest rate of change that the organization and the people in it can stand. Then manage the transition.

This begs at least two questions. First, change in what? And, second, how much change can your organization and people stand? The answer to the first question is a strategic issue which only experts within your field of business can respond to. The answer to the second is open to response from any human being, since we are all experienced at living through change.

Given this, you could do worse than ask your colleagues what helps them through change in general, and what in particular will help them through the process of change that implementing SAP entails. To find out their views, consider one-to-one interviews, group dialogues, surveys, or a combination of these methods.

The answers you will get—and there is no mystery to this since we all respond in a similar way—will include some of those listed out below. But do not be seduced into relying on this list to the exclusion of finding out what is true for your colleagues, for you will note that the first item on the list is also probably first in importance when it comes to help in riding the waves of change:

Consultation. You should ask the people affected by the changes for their views on the change process and get them to suggest ways in which change can be absorbed by the organization. Act on these suggestions—even if only to say why a suggestion will not be taken up. You will have much more success in getting your changes implemented if you work on getting everyone to understand the changes and let them feel a part of the change process.

Communication. People will begin grieving in anticipation of loss well before it happens—if in fact it does ever happen. This is purely a function of the human mind's tendency to throw up worst-case scenarios so that we are ready to survive them. The trouble is, we start taking evasive action in anticipation of a threat, and acting as if the threat were real. At this point the rumor machine gets to work and begins the same irrational pattern of fear that, in 1945, caused thousands of Japanese civilians to throw themselves off the cliffs of "Suicide Island" in fear of the approaching (yet benign) U.S. Army, causing otherwise sane employees to ascribe agendas and motives to the perpetrators of change that are pure fiction. The human mind likes to know what is happening and more than likely will create meaning even if there is no basis for it. The antidote to this is to communicate, communicate, and communicate.

Job Security. People will be worried about their job tenure, about their future with the company, and about maintaining their lifestyle. The only honest response may be that employment can no longer be guaranteed and that the best the company can do is to boost each person's "employability," i.e., to ensure they have skills which will be sought after in tomorrow's job market—especially the company's internal job market. Companies which pride themselves on their loyalty to their staff might balk at the notion of offering "employability," with its connotation seemingly of preparing staff for redundancy. But it is important to note that equipping employees so that they can "surf the job market" is, especially in larger companies, a good way to add the value to your staff that your company could use at some later date—and it is the accepted tool of succession planners. But if "employability" is not the word for you, choose another.

Change Management. There will be a natural concern among some as to how they will cope with the new world, with new systems, with new people in their lives and with new, unfamiliar tasks. Those to whom such scenarios present little threat are those who have retained the ability to learn, the ability to create relationships and to maintain a forward-looking attitude. But for every "around the world adventurer" who positively seeks out such experiences there are ten others for whom routine is the lynchpin of their lives. It is the latter group who may need some hand-holding. And experience has shown that if their confidence in relationships to others can be boosted, their ability and willingness to learn and accept change follows closely behind (see the later section "Creating Sound Relationships").

As an individual moves through change, the responses that have helped with the change process are logged, stored in the person's memory, and are ready to be used again. In the same way, an organization can learn from experience and capture those change reflexes that have helped and those that haven't. Commonly the human resource function will take it upon itself to store this information, and it remains for the organization to draw upon this fount of knowledge whenever change is in the offing—which, in Heraclitus's book, is all the time. In fact, the ability to successfully operate such a system lies at the heart of a company's claim to call itself a "learning organization." Consequently, it is incumbent on those leading change to ensure that the company's data bank is updated for the benefit of those who follow in their footsteps.

Barriers to Change—How to Overcome Them

The biggest barrier to change is not lack of money or lack of ideas or lack of market imperatives, but is most commonly the attitude that: "If the system isn't broke, don't fix it."

Paradoxically, by this same token the companies that are probably most at risk from change are those which are currently most successful in terms of the bottom line. They are bringing in returns now for their stockholders so there is every reason to maintain things as they are. Eventually, the "way things are done around here" becomes a creed and then simply the "way," as in the "IBM Way" or the "HP Way." IBM followed their own sweet "way" throughout the 1980s and far beyond its shelf life. The HP Way continues to bring success at the time of this writing. How is your company's "way" doing?

If you want to change your company's way of doing things, and the fact that you are reading this book suggests you are serious, then I hope there are signs that your "way" is flawed, that the system is broken. For if not, you have a major challenge, somewhat akin to those streetside doomsday soothsayers who receive no more than the lift of a wry eyebrow. Remember, by the time the car manufacturer Rover was taken in hand in the mid 1980s, they had little reason to cling to historical ways of doing things. They were fed up with the tales of woe. They were open to change. This is not the case with most companies.

So what message can you put on your "sandwich board" that is going to make a difference? Some ideas follow.

Case for Action. Come up with the secular version of "Ye shall all burn in hell!" In fact, people commonly talk about going around and lighting fires to encourage action, so the analogy is not so far-fetched. Your job is to stir up a bit of divine discomfort. How you do this will depend on the particular set of circumstances that you find yourself in. Use your team to help brainstorm ways of doing this. But be sure that if you are "setting fires," that you have the metaphorical equivalent of those fire escape signs of green men running posted on every wall. In other words, avoid panic. Engender purposeful activity by pointing the way to safety. Do this by offering up images of a more attractive future. If the word "vision" fits, use it. It is a term that most people seem to understand. If you choose to use this tactic, however, remember that you need to consider the personality of the individuals you are dealing with—some people will not react well (or will react in almost the opposite of your desire) to this type of tactic.

Vision. At the same time you are building a case for action, rehearse some future scenarios with your team. Enlist outside expertise in the form of “futurists,” people who make a point of anticipating the future and among whom you may find some expertise specific to your industry. The best kind of vision is expressed in positive terms and does not exist by reference to the past.

Leverage. To change anything, it helps to know a bit about the system. An organization is a machine, and just as every mechanical engineer will rely on a knowledge of the system to tweak at just the right place, so you need to discover the points of leverage within your company where the application of pressure will create the maximum effect. Knowing the system entails knowing whom to show your sandwich board to and knowing their agenda. How will your plans help them achieve their own? The synchronicity you create between your goals and those of the “movers and shakers” (e.g., the department “barons”) will determine the success you enjoy.

Managing Issues of Morale

Will the implementation of SAP mean downsizing, rightsizing or just a plain old rationalization? If so, it is said that those made redundant are the “survivors” and those people who escape the cull are the “victims.” The rationale is that depending on the way you have seen your colleagues treated, you are likely to fear for your own job once you have witnessed a few lay-offs. Morale can take a beating in such circumstances and if it does it can take a long time to restore that confidence.

When morale has taken a beating in history, lessons have been learned in how to restore it, and, rather than reinvent the wheel, it pays to learn the lesson that worked so well last time.

In 1943, General William Slim took command of the Fourteenth Army. The all-conquering Japanese had driven it out of Burma, and it now sat in India, licking its wounds.

Slim identified his main problem: To restore the Fourteenth Army’s morale. But how was it to be done? In *Defeat into Victory*, he recollected how he thought through the problem:

“So when I took command, I sat quietly down to work out this business of morale. I came to certain conclusions, based not on any theory that I had studied, but on some experience and a good deal of hard thinking. It was on these conclusions that I set out consciously to raise the fighting spirit of my army.

“Morale is a state of mind. It is that intangible force which will move a whole group of men to give their last ounce to achieve something, without counting the cost to themselves; that makes them feel they are greater than themselves. If they are to feel that, their morale must, if it is to endure—and the essence of morale is that it should endure—have certain foundations.

“These foundations are spiritual, intellectual, and material, and that is the order of their importance. Spiritual first, because only spiritual foundations can stand real strain. Next intellectual, because men are swayed by reason as well as feeling. Material last—important but last—because the highest kinds of morale are often met when material conditions are lowest.”

This example applies well to the change you are about to make in your corporate workplace. Although each worker's life is not at stake, major changes in the workplace can often be interpreted very personally. Some workers will interpret the changes as destroying their place in the corporation—or at least everything they have worked for in the past. Overcoming these preconceived notions is one of your biggest challenges.

I remember sitting in my office and tabulating these foundations of morale something like this:

Spiritual. Set a great and noble object as the reason for your changes.

The achievement of this object must be vital.

In order to energize your employees, your method of achievement must be active and aggressive, not merely passive, defensive, or reactionary.

You need to make sure each person feels that what he is and what he does matters directly towards the attainment of the object.

Intellectual. The objective you are aiming at must be something that everyone believes can be obtained. It is impossible to build and sustain high morale for reaching an unobtainable goal.

You must also show the employees that the restructured organization is an efficient one—and will be able to achieve the object in the best way possible.

The employees must have confidence in their leaders and know that whatever dangers and hardships they are called upon to suffer will be respected and appreciated. Most employees will feel that they have quite a bit at stake in the current organization, so changes in that system are important.

Material. As already stated, each employee is sacrificing a lot that was at stake in the previous system; they must feel that they will get a fair deal from the leadership and the new system so that they will not be worse off than they were before.

You must convince the employees that they will be given all of the materials they need to meet the objective—including the best working conditions possible.

"It was one thing," Slim continues, "thus neatly to marshal my principles but quite another to develop them, apply them, and get them recognized by the whole army. We, my commanders and I, talked to units, to collections of officers, to headquarters, to little groups of men, to individual soldiers casually met as we moved around.

"In my experience it is not so much asking men to fight or work with inadequate or obsolete equipment that lowers morale but the belief that those responsible are accepting such a state of affairs. If men realize that everyone above them and behind them is flat out to get the things required for them, they will do wonders."

Whatever the details of one's morale-boosting efforts, it seems that General Slim's integrated three-part approach is a sound template for commercial application—and indeed

such an approach is being “rediscovered” and used in earnest in industry today by leading corporate development strategists.

Demands on Management Time

Once a change program gets under way, its demands on the finite resource of management attention begins to be felt and something has got to give. Without exception, the extra workload and stress involved takes its toll on family life. And unless your company had the foresight to hire no one but recent college graduates, you and your colleagues have by now got families who are at risk of paying part of the price of your company's new obsession.

So what to do? Some suggestions:

For Ambitious Careerists. Take a word of advice from a man who rose from merchant seaman to chairman of British Airways: “If there is a job to be done, you must get on and do it. If that means setting aside personal things, so be it” (Colin Marshall, April 1996).

For the Rest of Us. Our “personal things” are likely to include our friends, our spouses, and our children. Accept the inevitable and negotiate with them. Trade some lost evenings for a weekend of your undivided attention at Disney World, or a Sunday picnic at a favorite location, a wild meal at Planet Hollywood, or a dinner for two at a romantic restaurant. Providing all concerned feel they are not getting the worst of the deal, peace and harmony will reign. By the way, brush up your negotiating skills.

As for ensuring people have a balanced life, well, this relies on management's sensitivity in the way they delegate, or rather negotiate, tasks and the readiness of people to say “no” in the face of an unreasonable workload. Both behaviors will be a function of your company's culture and your culture will be a function either of historical accident or, if you are fortunate, of conscious and calculated activity.

Introducing New Ways of Operating

Why the need to operate in new ways? The answer must lie in the changing complexion of competition in the marketplace. For instance, any manufacturer who is not facing the future head-on and actively considering the Far East as a source of competition or as a place to site its manufacturing operations must at least be nervously looking over its shoulder in that direction. Changes are upon us of such magnitude that if we do not continuously seek new ways of operating then we will be consigned to the margins of the world markets.

The implementation of SAP certainly entails operating in a new way. The systems you have are deeply embedded in your current way of doing business. So to change one entails changing the other, and before you know it you are reengineering the business from the ground up. If this is the direction that your project takes, then you must pause for thought. The clean slate approach of business process reengineering is an attractive proposition, for it has promised steep changes in business performance (see *Reengineering the Corporation* by Mike Hammer and James Champy), and yet, by its practitioners' own admission, fewer than 30 percent of projects achieve the results they were intended to.

The reason put forward is that business processes can only be successfully reengineered in tandem with the reengineering of management processes (*Reengineering Management* by James Champy). But that is still not the end of the story. For the master key to truly new ways of operating would seem to lie outside the realm of processes altogether, and instead has its roots in the way people think and behave in groups—or, in the terminology of today, in the “operating state” of the group.

The “operating state” of an organization refers to its members’ state of collective consciousness, their combined self-awareness, and by extension, their ability to initiate change from within. There are degrees of consciousness. Sleep is one level of consciousness. Being awake is another level. Beyond this there is the possibility of being awake to the extent to which one’s surroundings are a reflection of oneself. Then beyond this lies mastery of those skills needed to change one’s surroundings through personal and organizational transformation. An organization’s operating state refers to its ranking in this hierarchy of consciousness.

The condition of an organization’s operating state matters because it determines how smart it will be in shaping its future. And the good news is that an organization’s operating state can be coached upwards if its leaders and other moving spirits within the organization are willing themselves to acquire the “smart skills” needed. (“Smart skill” is a service mark of Harley Young.)

Such skills include:

- Conflict resolution
- Living in the question
- Listening for another’s reality
- Transforming experience
- Straight talk
- “Save-as” thinking
- Context reframing

Managing Project Team and Staff Motivation

The ability to sustain motivation is the fundamental skill of any successful project manager and the degree of team and staff motivation you enjoy will, to a large extent, determine whether your implementation plan is completed on time, within budget, and to specification. This section is concerned with various complimentary ways in which you can ensure your team remains motivated throughout. The most important thing to realize, though, strange as it may seem, is that it is not up to you to motivate your team. But if you have done your job of recruiting people to the team well, you will have taken on motivated people, i.e., people who *given the chance* will do whatever they do to the best of their ability. (In fact, the idea that they need motivating is likely to seem patronizing to them.)

Your task (and it's a demanding one) is to give them the chance to provide the conditions within which they are able to exercise their skills. To do this you must minimize those things that tend to demotivate, deflate morale, and get in the way of getting the job done. Your job is to remove obstructions from the path. And the notes that follow give some guidance in how to do this.

Maintaining Sound Relationships

The bedrock of success in any group endeavor is the creation and maintenance of sound (i.e., open and respectful) relationships. The following notes provide a reminder of how to promote openness and respect.

While the section "Building Team Relationships" (earlier in this chapter) relates the first steps in building sound relationships, this section is concerned with the attributes of sound relationships in business. In successful relationships each party has to be at least:

- **Authentic.** "Be yourself" is an overworked yet still valid entreaty. But it is easy to act natural when you are at ease; the difficulty is to be authentic when under pressure. And this is particularly difficult for those in management who equate being a manager to being something different than who they really are. People who display leadership qualities are those who are at ease with themselves.
- **Flexible.** The opposite of "flexible" in this context is "wooden," a word used to describe the kind of behavior that seems incapable of responding to events. It is important to be flexible or appropriate in one's style if rapport is to be built with others. This does not mean being inauthentic; it simply involves showing the facets of your character. So you would respond differently to a judge in court than to a child at playschool. Both responses are equally authentic, and both are appropriate to the situation. As project manager you may need to show different facets of your management style in response to your different team members.
- **Attentive.** There is a story, passed down to us by Hsun Tzu (500 BC), that chronicles the lives of some successful leaders, including a successful Chinese general. This warlord walked alongside his men, shared their living conditions, and knew their day-to-day concerns. The story tells of a mother bemoaning the fact that this down-to-Earth leader had sucked poison from the leg of her son, who was one of his soldiers. Her cause for complaint was that the general had performed the same act of kindness several years earlier for her husband, who had then never left the general's side, eventually dying in battle.

Strong stuff, and yet Hsun Tzu's writings are to be found on the bookshelves amongst the more familiar guides to management. Translate this into the modern idiom and you will find yourself making time to be with your team members individually. Perhaps you will come in especially early knowing someone is in the office with whom you feel out of touch, perhaps you will use the pub as a forum for refreshing relationships—there are many ways of showing the attention that people warm to.

In every encounter it will be your ability to listen to your team member's story, to acknowledge it sincerely, and to respond as if it were true (for to them it *is* true) that will make for a sound relationship.

- **Trustworthy.** The creation of "trust" derives from the willingness to speak the "truth". The words have the same etymology. The "truth" in this connection is not some objective body of knowledge that has to be learned. Rather, it refers to "what is so" for you, your truth. A person can always speak his truth, providing he is aware of it. So the ability to be true depends on a degree of self-awareness, and the courage to speak it.

In the workplace, this translates to your readiness to say how you feel about something, to declare what you think about some issue and to go to the source of the problem if something is troubling you (the alternatives are to remain tight-lipped, to gossip, or to play politics).

Trustworthiness is frequently put to the test in business when two or more people make an agreement. The most common agreement made is to meet on a certain date at a certain time. Someone who is habitually late may lose the trust of the others, his word will not be considered law, and this may have repercussions in how he is treated in general in the business.

- **Trusting.** This is the other side of the coin to being trustworthy. It demands an optimistic outlook, and a willingness to be vulnerable to the extent that you are placing something of consequence in the hands of another. Sometimes you will be let down. More often you will be rewarded by the extra effort that people make to show that your trust has not been misplaced.

Establishing Strong Leadership

Given the basic operating principles of openness and respect, the foundation of strong leadership then rests on the ability to provide a clear brief at the outset and clear feedback during the course of the project.

Preparation for Briefing the Team Members. Prepare the following information which you will need at your fingertips when briefing the team members:

- Roles and areas of responsibility
- The minimum that each will be held accountable for
- Command and communication lines relevant to them
- The facilities and resources available to do the job
- The information and reports that you require
- A schedule of individual progress meetings, training sessions, and project appraisal meetings

Briefing the Team Members. The context you set at the briefing meeting will color the relationship you have with your team members for the duration of your project. For this

reason it is vital to remember that all contexts work by common agreement. The degree to which contexts are set, understood, respected, and used will be the key to your success. With respect to each person reporting in to you:

1. Confirm purpose and length of meeting. Set the context for inviting this person in particular to take on this particular task, showing that you know how it would fit in with his career plan.
2. Explain your role and your relationship with the person for the duration of the task. Outline in general terms how you operate, your values, what you consider is negotiable and what is not.
3. Explain your immediate goal relating to this brief and how it fits within the overall company objectives.
4. Explain the person's role, responsibilities, and reporting and communication lines.
5. Clarify the minimum performance level (what they are accountable for). This should be measurable, and the more specific you are in terms of quantity and quality, the easier it will be for the person to understand and ultimately produce what is required.
6. List the resources and facilities available (e.g. people, support, offices, equipment).
7. Create a context for involvement and feedback.
8. Invite the person to take it on. Be prepared to negotiate. Treat your colleagues as if they are volunteers, for we all perform better when we act out of choice.
9. Arrange for the person to formulate a goal plan and to meet again with you to go through the goal plan, to agree to the nature and date of any reports you require, and to agree to the dates of checkpoints and progress meetings.

Offering Feedback. Feedback is traditionally saved up until the next scheduled performance review meeting, but this is a most unsatisfactory state of affairs and it is important to note that an appraisal system should not be used as a substitute for giving immediate feedback. Appraisal systems are a fall-back position, a long stop to ensure that feedback is given at some time, even if it is six months too late!

Besides, working in a project team probably places you outside the official performance appraisal system. Well, that's no loss, provided that when something needs saying within a relationship, you follow one of the two checklists described next.

The guidelines are very similar whether someone's impact on you is welcome or unwelcome. This is because the purpose in both cases is identical: To encourage what you feel is positive and productive behavior in this person and to keep your relationships fresh, alive and vibrant!

It is important to let your *current* thoughts and feelings resulting from the person's behavior be your fuel when responding. If it is appropriate to respond at the moment of impact, express *those* thoughts and feelings. If it is not till later that you are able to speak

your mind, express your thoughts and feelings as they are at that *later* moment. Don't try to recapture or fake the initial thoughts and feelings; they will probably have changed. Talk about them, if at all, as thoughts and feelings that you *had*.

Checklist for Welcome Behavior. Get in touch with how you feel now about this person's actions. Take no more than 30 seconds to:

1. Set a context for what you are about to say—include your own thoughts and feelings.
2. Praise the behavior, not the person, using clear, concise and specific ideas.
3. Now let them know how you feel about it.
4. Next reinforce the positive action—"Thank You" often is enough.
5. Use physical contact (if appropriate) at any point to consolidate the relationship.

Checklist for Unwelcome Behavior. Get in touch with how you feel now in relationship to this person's actions. Take no more than 40 seconds to:

1. Set a context—include both thoughts and feelings.
2. Tell them, with clear, specific, and concise ideas, what you think about the behavior, not the person.
3. Let them know how you feel about it. (Be real and let them have all your feelings straight, so you can let them off the hook!)
4. Breathe and pause—to let them appreciate the impact it had on you, and for you to let go of that feeling.
5. Now reinforce positive behavior. Describe something they do or could do well. (Make it real and don't patronize them.)
6. Ask a question to check their understanding of your point. This is not to invite a "reasonable" reply or excuse.
7. Use physical contact (if appropriate) towards the end to consolidate the relationship.

Synthesizing a Desirable Future

People look for inspiration in their lives. In the Middle Ages it was provided by the Church, which was then the dominant institution strongly influencing the way people ran their lives. Later it was also provided by the military, which had grown steadily in influence (so the first son would join the army, the second the Church) and many companies were run (and still are) on military "orders are not to be questioned" lines.

Today, inspiration comes as well from our place of work. To many people, a career is the most important driving force and the organizations to which we belong provide the vehicle for our aspirations.

Within this context, the implementation of SAP can be seen in two ways:

- To the project team charged with carrying it out, the implementation of SAP is a venture which will occupy their best efforts for quite some time. Team members will invest part of their dreams in what they do and therefore the project must be a worthy repository of their dreams. The project manager's role is to "synthesize" these dreams (i.e., weave them into a shared vision of the future) and articulate this vision in a way that is meaningful to the whole team.
- To the other employees who do not have a direct part in implementing SAP, it is likely to represent a threat to their chosen vehicle and as such may be resisted, if not consciously then certainly unconsciously. By way of forestalling such resistance, you must ensure that they too are able to appreciate the future that is being created. Success in this will entail taking the kind of action that has been covered earlier in "The Effects of Major Change in an Organization," in Chapter 29.

Getting Stakeholder Support

Anyone who has a vested interest in the SAP project can be termed a "stakeholder." So this will particularly include:

- Senior management
- Other employees
- Employees' families
- The local community
- Suppliers
- Customers
- Shareholders

Senior Management. One of the project manager's prime tasks (see "What You Should Require of a Project Manager?" in Chapter 29, "Overview of SAP Implementations") is to be familiar with the business case for implementing SAP. In the nature of things, especially in the fast-moving world of business, what yesterday seemed important today does not seem as urgent as the content of the last phone call.

Thus to maintain support for the SAP project, it is important at every opportunity to reiterate the business case to senior management and to stay alert to anything that may affect it and respond appropriately.

Other Employees. See the section "The Effects of Major Change in an Organization" in Chapter 29, "Overview of SAP Implementations." Of course, it helps to have a mandate from employees to bring about necessary change. Mandates can be created through carrying out surveys of staff, customers, and suppliers, providing that such surveys are used as the basis for benchmarking the company against the competition or against the

company's own aspirations. The results can then be used to reveal a performance gap to which the implementation of SAP may prove to be part of the solution.

In seeking backing for the project, pay particular attention to those people whose "empires" will be affected by the implementation of SAP. These may include:

- Department heads
- IT personnel
- Secretarial & Administration

Employees' Families. Employee families are a much underrated constituency and one which deserves due attention. In as much as a person's job impacts on his lifestyle, the family bears the brunt of any changes. As always the simple device of letting people know what is going on may elicit the understanding needed when it most counts. How you manage this communication depends very much on the relationship that exists between the company and employees' families.

The Local Community. How does your company impact the local community? How will the project you have in mind affect this impact? How can you ensure that the perception the community has of your company is a positive one? These are questions that need to be considered.

Suppliers. How will your plans impact on your suppliers? To serve you well they need to plan so that the earlier you are able to bring them into the loop the better.

Customers. Customers are the arbiters of your success. Naturally, they need to be involved at every stage and even included as part of the project team (see "Recruiting/Assembling the Right Team" in Chapter 29, "Overview of SAP Implementations"). This is the group which is most free to vote with its feet, so leave no stone unturned in canvassing their views. Methods to employ include:

- Survey questionnaires
- Group dialogues
- One-to-one interviews

Shareholders. The shareholders are left till last because if you do right by the preceding groups, your success will be ensured and this group will be in clover.

Maintaining Robust Communication

In today's globalizing companies, the job of keeping people informed and including them in the decision-making process, where necessary, is becoming increasingly fraught with difficulty. It is more than likely that you will have to rely on electronic communication as much as, if not more than, face-to-face communication. You may be accustomed to the new forms of communication, but others within your team may not be and will probably welcome some guidance in how to cope with the following:

- E-mail—Have a clear protocol as to who should have copies of e-mail. Attach a status coding to each e-mail so that the recipient is able to prioritize messages and therefore manage his time well. Use e-mail in preference to fax because it is usually easier to handle at the other end—but check preferences first.
- Voicemail—Institute a similar protocol for voicemail. Keep messages short. Respond immediately even if only to say that the message is being considered and you will get back by a certain date.
- Telephone and videophone conferencing—Already well in use, especially among larger companies, conferencing is acquiring a protocol along the following lines.

Preparing the Call. The chairperson, normally the person who calls the meeting, needs to be familiar with the correct procedures. The chairperson should:

- Communicate the objectives of the conference. Ensure the purpose of the conference is known to and agreed to by all prospective participants.
- Establish the duration of the call, stipulating start and end times.
- Where appropriate, circulate an agenda in advance and let individuals know if any preparation is called for.

Starting the Call. The chairperson should:

- Take a roll-call. Clarify at the beginning of the call who is in attendance, who is acting as chairperson.
- Ensure everyone's presence is acknowledged and that (for teleconferencing) each person says something to begin with so that voices can be recognized.
- Ensure that people who haven't met or spoken to each other before are formally introduced to each other and get a chance to say a few words to each other.
- Reestablish call parameters. Remind everyone of the purpose of the call and its duration.
- Remind participants of the appropriate ways of doing things, e.g., to get everyone else's attention when they want to speak.
- Acknowledge the fact that people may accidentally cut across each other.
- Check the level of preparation. Check that everyone has a copy of the agenda or, if the conference is less formal, that everyone is clear about the objectives which need to be reached.

During the Call. All participants should:

- Ensure full participation. Draw out all pertinent facts and opinions. Respond to sighs or hesitations or any other subtle suggestions that somebody may have something else to say. This will help ensure that the more reserved participants do get to fully contribute and that the medium is not "squashing" the message.

- **Sustain interest.** If there's a time delay, such as if you can't find the piece of paper you want to refer to, or anything else goes wrong or isn't going according to plan, make sure you let the others know what's happening; i.e., as a general rule, always explicitly acknowledge the obvious.
- **Acknowledge audibly.** If statements are met only by silence as people quietly nod or shake their heads, speakers may succumb to the urge to repeat themselves until they are convinced that the point has been taken onboard.
- **Encourage dialogue.** It can be helped along by the speaker seeking a direct response to the points being made via the use of an open question immediately afterwards, i.e., "I think we ought to do this, this, and this, what are your thoughts?", or even more direct, the speaker may request a response from a particular person, i.e., "Jill, what do you think?"
- **Stay on course.** If a point is raised that takes the conversation onto a different tangent from the agenda at hand, intervene; acknowledge the point being discussed and ask whether it should be discussed in another forum or if the existing agenda should be altered. Don't let themes carry on and either run out of time or get other agenda points squashed.

The chairperson should:

- **Watch the clock.** Alert the others to the amount of time remaining to ensure that the call doesn't run over and everyone gets their point of view across. If it appears as though the agenda isn't going to be completed then signal your concern as far in advance as possible.

Addendum for Video Conferences Only. Chairperson should:

- **Check visibility.** Ensure at the beginning of the call that everyone can be seen and that if necessary you ask that the lighting be altered if it will help people's faces to be seen more clearly. It's a good idea to ensure that the remote camera is focused on the face of the person speaking.
- **Check audibility.** Get both/all sides to check the sound levels for each individual at the beginning of the call so people are aware in advance as to whether the microphone needs to be moved or not.

Some Tips on Motivation

There is no shortage of research into the roots of motivation. The difficulty is to extract something that makes absolute sense and is immediately transferable to the workplace. Of all the ideas that have passed over my desk in the last decade, there are just a few that stand out, and these I relate here.

The Hawthorne Findings. Once upon a time long ago some tests were done in a factory in the USA. The management wanted to know how light levels affected productivity. So they began some scientific tests. First they raised the light level: production went up.

Then they lowered the light level: production went up again. Then they lowered the light level still more: once more production went up. Baffled they quizzed the employees about the effect of light levels on their work. The response? "To heck with the light, we just like the attention!"

Maslow & Herzberg—Hygiene Factors versus Motivational Factors. Maslow told us there is a hierarchy of needs. It is only when we have got our basic needs for air, water, food and shelter handled that we turn our attention to higher needs such as the need for community, self-expression and self-actualization. Nowadays, however, this message seems to be forgotten by managers as well as employees as each side searches for the grail: an amount of money destined to bestow ultimate happiness.

If only they had heeded Herzberg. This behavioral scientist proposed a simple model of human motivation that is particularly pertinent to these days of disposable income. It points out that whereas food is important to life, there comes a time when increases in quantity bring diminishing returns. He distinguishes, for example, the ability to satisfy one's hunger (a "hygiene factor") from the ability to realize an important goal (a "motivational factor"). Figure 35.1 presents the full range of factors.

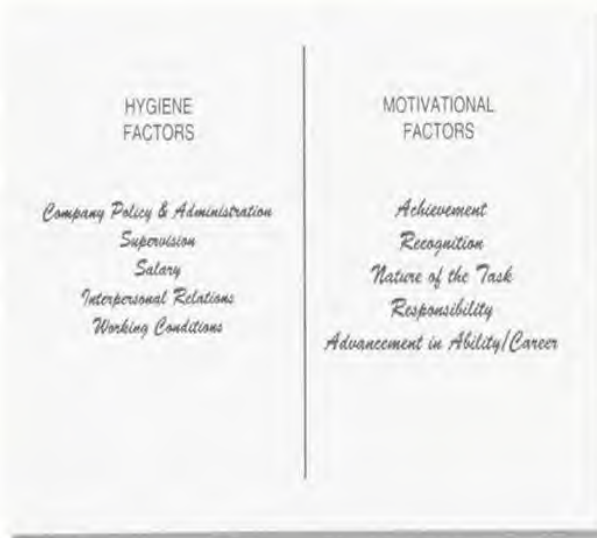


Fig. 35.1 The hygiene factors can de-motivate but not motivate; the motivational factors can motivate but not de-motivate.

Of course it is obvious to us that too much food loses its appeal after the second helping—but too much money? Too many holidays? Too large a car? Well, that depends.

The chart suggests, and many would concur, that the factors on the left have only the potential to de-motivate by their absence, but not to motivate by their presence, while the factors on the right have the potential to motivate by their presence and a questionable ability to de-motivate by their absence.

Managing Stress of Project Team and Users

In the early 1990s a survey was carried out by the National Association for Mental Health (Mind) of 109 British companies. It revealed that directors and managers believe stress at work, heightened by the recession and fear of redundancy, causes them more perturbation than any personal difficulties. In January 1992, a leading Japanese newspaper conducted a poll and found that one in every two Japanese admitted to fears of becoming a victim of *karoshi*, i.e. death from stress or overwork. In Britain 40 percent of absenteeism is attributed to stress-related illnesses by the Health and Safety Commission. And who knows how much "presenteeism" (i.e., unproductive busy-ness) is also due to stress. So what exactly is stress?

Stress—What is it?

What actually happens within a person's body to cause stress? Stress is produced in response to a person's environment. When a stimulus from your environment registers on your eyes or ears, it travels to your thalamus and then to both your hippocampus and your auditory and visual cortices, where you attach meaning to the stimuli. If the stimulus is threatening, your brain tells your adrenal glands to produce epinephrine and norepinephrine (otherwise known as "noradrenaline") which gear up the body for an emergency. But because this is apt to be a long-winded process (since it involves thought) evolution has equipped us with a short circuit that cuts out your frontal lobes. This mechanism is designed to have us react first then ask questions later. So if you hear a low growl behind you, your involuntary reflex actions would be to prick up the hairs on the back of your neck, quicken your heart rate, and prepare for flight, or in fact flee. All this happens in a second before your conscious mind has time to interrupt with the realization that it was merely a noise from the central heating.

Our emotional mind is the first to react and thus determines our response. What happens under stress is that the pattern of thought into which the sufferer has slipped triggers the same flight mechanism every time the thought surfaces. The body can only take so much of this, and soon begins to creak at the seams, giving rise to the symptoms described below.

Recognizing the Symptoms of Stress

"I feel a sort of general nervousness, with a feeling that if anybody said or did something to upset me, I would be likely to erupt like a seething volcano. I have a couldn't-care-less attitude towards what other people think of me and a deep desire to be left alone. My self-confidence has been shattered and I no longer feel capable of handling anything that is thrown at me. I have lost interest and enthusiasm. I feel disillusion, resentment and despair. A great lethargy and depression, like a dark cloud, hangs over my head, I feel squeezed dry." (From *Management Week*, 27 November 1991, "Highly Stressed and Underperforming")

Desperate enough, you would think, but this litany of angst taken verbatim from a manager is just part of the whole story, namely the internalized feelings or *psychological* symptoms. Another part is made up of the *physiological* symptoms. Stress suppresses the immune system by way of diverting resources to the (supposed) emergency at hand. The

result: insomnia, aches and pains including migraine and arthritis, hair loss, weight loss or gain, shortness of breath including asthma, irritable bowel syndrome, peptic ulcers, heart disease, cold sores, and lingering colds and flu. And finally there are the *social* symptoms. Victims become silent, cynical, and fractious—at home as well as at work. They are unable to enjoy others' success and may become increasingly dependent on alcohol or drugs. And as if this was not enough, sufferers become accident-prone!

For a fuller list of the symptoms that can be caused by stress I refer you to *Emotional Intelligence* by Daniel Goleman, who emphasizes that the research does not suggest that everyone who suffers stress goes on to develop a disease.

The only conclusion that follows from this is that stress is severely toxic. The challenge is to recognize the earliest symptoms of stress before they multiply and cause irreversible damage. There is *theoretically* a simple way of doing so and that is to be alert for any feelings of hostility to anyone within the working environment. If these feelings are not caught early and dealt with then it is likely that they will gradually mutate into feelings of agitation, then despair, and finally numbness, i.e., it is possible that the sufferer will, in the end, claim to be indifferent to the object of his initial hostility. From there the route to acquiring the full range of symptoms can be short.

The word “theoretically” in the paragraph above should be taken under advisement. Many people, and this includes senior managers, successful or otherwise, have difficulty recognizing what they are feeling. Even feelings of hostility may go unnoticed or unremarked. The solution in this event is to provide education in emotional literacy, which is covered later, in the section “Management’s Role in Alleviating Stress.”

Assuming, for the moment, an ability to recognize and articulate one’s feelings, the primary contributors to a stress-free working life are the ability and willingness to:

Accept responsibility for generating a particular feeling or set of feelings (i.e., it is not someone’s behavior that makes you feel a certain way, rather it is just the way you have learned to react in response to this kind of behavior).

Re-examine the thoughts that led to the feeling. So if the thought was “So-and-so is ignoring me,” recognize that your conclusion is no more than the result of your interpretation of someone’s behavior. Consider alternative interpretations such as “So-and-so is very self-preoccupied. Perhaps he is under pressure and needs some help. What can I do to help?”

Should efforts to reinterpret the situation fail, then check out your reality, your perception of what is really going on with the person in question. As soon as possible seek out the object of your hostility (agitation, despair, etc.) and follow the guidelines set out earlier in “Offering Feedback.” You will note that this skill is included under the head of “Establishing Strong Leadership.” This doesn’t mean you have to be the person’s “leader” to apply this skill; it simply means that within this relationship you will be taking the lead and showing leadership qualities.

Is there a Right Amount of Stress?

No. Not if stress is taken to derive from an inability to cope with one's environment. But what about the gap between one's goals and the current reality? Surely this creates stress? Yes, perhaps it does, but if it does, it is to be redressed and not accepted as a condition of being in management.

Peter Senge in his best-selling book *The Fifth Discipline* sums up the difference between destructive stress and what he calls "creative tension," or the force that brings vision and reality together through the natural tendency of tension to seek resolution. "The principle of creative tension," he writes, "is the central principle of personal mastery...Yet, it is widely misunderstood. For example, the very term 'tension' suggests anxiety or stress. But creative tension doesn't feel any particular way. It is the force that comes into play at the moment when we acknowledge a vision that is at odds with reality." How do you tell the difference between stress and creative tension? The former produces negative thoughts and feelings. The latter produces a rush of positive energy.

Management's Role in Alleviating Stress

There may not be a right amount of stress, but there is a right amount of creative tension. In General Slim's words (see above "Managing Issues of Morale") any person who takes on a goal "must be convinced that the object can be obtained; that it is not out of reach." Naturally management has an important role to play in this.

So there is a balancing trick involved. We each have a certain tolerance for taking on challenges. There are goals that we are confident about achieving and we talk of these as being within our "comfort zone." Then there are goals which go beyond what we have achieved to date. These lie within our "stretch zone." Finally there are goals that are way in excess of what we consider reasonable and here we enter our "panic zone!" Providing that goals do not enter this final domain and that appropriate support is given for activities within the stretch zone, stress should not be a problem. An athlete's training regime will, for instance, depend on staying within the stretch zone, and consistently expanding the zone into new territory.

What can management do to alleviate stress? There are a number of "tools" at their disposal.

Appraisal. It is important for a manager to consider each individual on his team individually and how that individual will react to the overall objective and to his personal goals in particular. Research shows that a person's proneness to stress is programmed into his brain. Some people (approximately a fifth of the population) have a neurochemistry that is far more sensitive than the average. As such they are more prone to stress. Look out for the symptoms of stress (see the earlier section "Recognizing the Symptoms of Stress") and catch them early, if not pre-empt them, by getting to know your people well and fine-tuning your expectations to their individual abilities and aspirations.

Know the part that you have in contributing to a stressful situation by providing the opportunity for at least two-way feedback, if not 360 degree feedback.

Empowerment. Studies of the British Civil Service have shown that the prevalence of stress within the lower ranks far exceeds that in the higher ranks. Part of the difference is attributed to the fact that those in the higher ranks have more control over their destiny and those below suffer from a lack of autonomy (recall the behavior of rats earlier in the sections "Management's Role in Change" and "Consultation"). Empowerment is a management tool that can be used by managers to devolve authority and, by their reports, take on that authority.

Relationships. Maverick troubleshooters still, it seems, have their place. Brought in to rapidly strip out layers of management, they are "uncluttered" by relationships with their victims and can perform their duty to the shareholders with a clear conscience. But once the organization has to be rebuilt, it is time for the kind of management that is able to coax the best out of people, that sets store on creating a strong matrix of relationships throughout the organization and takes the necessary steps to build them. See the section "Building Team Relationships" in Chapter 29, "Overview of SAP Implementations," for guidance.

Environment. There is an argument about how much of behavior is determined by genes and how much by environment. But everyone is agreed on one thing: the environment has a part to play. From the ages of approximately 18 to 65, one half of our waking life is spent within the work environment. The quality of our surroundings is determined by what is called the "social architecture," an area of science concerned with the effect that buildings and infrastructure have on people. Factors to consider include:

Location. Is it at a site remote from town center amenities? Is there adequate transport to the amenities?

Outlook. Is the area where the offices are situated uplifting to the human spirit or a cause for alarm? What alternatives are there?

Layout. Are people kept apart or thrown together by the way the office is laid out? Are there common areas where people can congregate?

Facilities. Are the basic requirements a person needs near to hand: Work station, catering, drink machines, rest rooms, stationery, library, communications, car parking, child care, airport, and so on?

Lighting. Natural daylight provides the best possible kind of light. Are you making the best of what's available?

Noise. Machinery, lighting, water pipes, and air conditioning all conspire to produce a background drone that can induce a dream-like state of unreality. What can be done to stop it?

Consider soundproofing and separating people from the things that cause noise. In the final analysis, should you move locations to a better designed building?

Air. Are you getting enough fresh air or is it endlessly recirculated?

How to Cope with High Pressure

Of all the factors that serve to help people cope with high pressure, quantity and quality of relationships must top the list.

By way of creating strong relationships and following through with the right actions, you would do well to ensure that you and your colleagues:

- Create a context for times of high pressure.
- Balance home and work life.
- Learn to say "No."
- Delegate work that helps others enter their own stretch zone.
- Break down goals into achievable chunks.
- Learn to act on hostility before it declines into the lower energy emotions such as nervousness, despair, and apathy.
- Learn how to give feedback and receive it.

Personal Coaching and Other Remedies

There is a true story of a managing director who, while showing a prospective client around the offices, entered the marketing director's office only to find the blinds shut, the room in semi-darkness and the silhouette of someone lying flat out on the desk apparently asleep. Quickly withdrawing, the embarrassed MD blustered some excuse to his guest and moved on hurriedly. Later he reproached the marketing director for his behavior, to which the reply was: "My title is Creative Marketing Director. I think best with my eyes closed and my feet up. This is what you pay me for!"

Every manager needs some time for thinking, time that is undisturbed, and, usually, our body clocks will tell us exactly when the best time is. For some it will be the period as we sink into sleep, for others it will be the state of semi-sleep we enter before fully waking up, for the man in the story it was the top end of the day. The ability to recognize the need for reflection, and to then reflect, is key to remaining beyond the grip of stress.

Other sources of assistance are:

Counseling—One-to-Ones. There is a growing tendency among high flyers to seek out opportunities for personal coaching, tailored to their specific areas for improvement. Of those candidates who are encouraged by their manager or the human resource department to undertake personal counseling, by far the largest group comprises people who are either stressed themselves or are causing stress among their colleagues.

Assertion Training. If steam builds up in a relationship and threatens to come to a head, there are ways that the relationship can be managed through to a point of satisfaction with the help of an experienced facilitator or qualified psychotherapist using techniques borrowed from and initially proven in prisons, where tensions often need to be defused.

Hospitals. There are institutions that offer a wide range of services including anxiety management, treatment for depression, relaxation therapy, assertiveness training, and psychotherapy. Some also run alcohol treatment programs. Patients learn how to cope with their responses and reactions to external events by participating in various group and individual therapies.

Transcendental Meditation. Transcendental meditation involves practicing some mental exercises twice a day for 20 minutes (e.g., yoga and the Alexander Technique). The effect is to alleviate the symptoms of stress and one research study has shown heart disease and diseases of the nervous system were reduced by 87 percent and tumors by 55 percent. Proof of the pudding may lie in the fact that U.S. medical insurance companies offer a discount on premiums to patients who meditate, because their health record is 50 percent better.

Religion. For many this is the first recourse if the going gets tough. If a person has a spiritual belief, there is much that his religion can do help him through difficulties. Religious officials have more experience than most in counseling people through the depths of feeling, especially bereavement, and they can be a constant and reliable source of support.

From Here...

This chapter sheds some light on the human cost of bringing about major change within an organization. It alerts managers to the impact that SAP implementation may have on employees. It describes the types of issues of which the manager must be aware in dealing with those affected. And it shows how to maintain morale despite the concerns that a change of systems can bring.

- For more information on the impact of SAP implementation, see Chapter 29, "Overview of SAP Implementations."
- For more information on managing the communication lines between employees and managers throughout the change, see Chapter 32, "Managing Communications Internal and External."
- For more information on how to deal with employees whose job responsibilities change during the system change, see Chapter 33, "Managing the Change in Organization and Job Functions."

Chapter 36

Overview of the SAP Employment Market

This chapter will give you a broad picture of the main characteristics of the SAP employment market, the most important trends in it, and some forecasts of growth.

SAP has been a hugely successful phenomenon, and the SAP world has unique and attractive characteristics as a generator of employment. It is also one that needs careful study if you want to get the best out of it, or to decide whether it's the right workplace for you. The earlier part of the book will tell you about the product, but that's only half the story. If you're reading this book with a view to create or develop a career in SAP, then you need to know your way around the diverse environment that is the SAP world.

Main Features of the SAP Employment Market

To understand the SAP employment market, you need to know how SAP finds its way from factory to user, because this is central to the whole success of SAP, and also to the nature of the employment market it generates.

SAP is brought to the user by an extended "virtual organization" of SAP AG and its subsidiaries, its network of business partners, and the users' own IT departments. Partnering to market software is not unique to SAP, but SAP has been particularly successful at it, and partners have integrated their activities without sacrificing their business independence more than usual in IT distribution channels.

The virtual organization has wider purposes than simply selling SAP products. It is also driven by the partners' need to sell services (as well as products sometimes). At base, it delivers solutions to the problems of business process re-engineering, and the software suite that SAP produces is only one component of this. The people who identify the problems, propose solutions, and

In this chapter, you will learn:

- To understand the key features of the SAP employment market.

You can gain a broad understanding of what the SAP world exists to do, the sort of organizations that play a part, and the employment opportunities they create.

- What the main trends are that will impact SAP employment over the next few years.

You can get a quick insight into the major influences and initiatives that will drive change in SAP employment.

IX

Implementation Issues

use the SAP software to implement them are also part of the sellable product. They have to work in close concert in teams that span more than one employer, and this dictates the need for many of the qualities demanded of the ideal SAP person.

The nature of the SAP user base also places special demands on SAP practitioners. Some 25 percent of the world's largest corporations use SAP (as of mid-1996), and they usually do so across multiple operations and multinationally. The SAP employment market is founded on these "blue chip" companies, and the equally prestigious management consultancies who service them. This, together with the nature of the SAP product, creates a market for the highflying type of individual who is comfortable talking about big issues with big clients. It also means that systems are large and complex, and that project timescales are long.

SAP's big company orientation has also had the felicitous (from the employee point of view) effect of keeping salaries for SAP-skilled people at or near the top of the IT league.

A person with suitable IT skills and experience of installing packaged software, or of business systems analysis, can expect to gain a premium of 25 percent or more by getting one year's SAP experience onto his or her CV. People with senior project management experience may gain more than this, provided they can handle the cultural, logistical, and technical complexities of large multinational projects.

The SAP world offers more than just high salaries (and indeed it is highly suspicious of anyone who appears too interested in just the money). As IT becomes a more and more pivotal part of companies' operations, and a company's systems infrastructure is recognized as one of its most important assets, the route to the boardroom opens up for IT professionals, especially those who think strategically about its application to the company's business. No one is better placed to exploit this route to the top than experienced SAP consultants.

If travel is one of your career objectives, then SAP will provide you with lots of opportunities to pursue it. Since many of the employers are multinational, and the systems are rolled out across many subsidiaries, you can build up a lot of air miles in the right position. You may find that to get the option of travel, you have to accept the obligation of it, however, and most people who think constant business travel is lots of fun haven't done too much of it.

In contrast, the majority of people who have actually lived abroad for any length of time wouldn't swap the experience. You can really experience a country only by living in it, and the expatriate life has many merits. SAP, with its lengthy contracts and enough skills shortfall to fuel international recruitment, offers the chance to get to know many fascinating parts of the world. But not all parts of the world are equally enjoyable, and if you want to travel, make sure you want the lifestyle you are taking on, and not just the money.

The high salaries in the SAP world are not totally due to SAP's big company background. The laws of supply and demand also prevail, and demand outstrips supply in the SAP

employment market. But if you are looking to cross-train into SAP, be aware of the true nature of the supply and demand imbalance. There is a shortage of fully trained and competent SAP consultants, but no shortage of applicants to train in it.

Even for experienced SAP people, the demand is only for the best. The SAP world is a competitive one, in which your performance is visible, and merit will prevail. It is stimulating (unless you're bored by business systems). It is non-hierarchic, and you won't be deterred by authority from taking the initiative. But it is also demanding—of your technical skills, your commitment, and your personality.

As you will have gathered from the earlier chapters (if you didn't know already), the heart of the SAP product is a set of high-level building blocks and the means of configuring them to re-engineer business processes. It is not a set of tools that you use after you have decided exactly what you want from the system, and then say, "Okay, now program that for me." The configuration process is inseparable from the whole process of defining strategies, analyzing business needs, and considering such issues as legacy systems and user interfacing. A pragmatic path has to be sought that optimizes the synergy between the functionality of SAP and the users' needs.

Most of the roles in the SAP world carry in their title the word "consultant," and whatever the area of specialty, all of them involve some competence in the traditional management consultancy skills.

These are not what many people imagine them to be. They are not mostly about "being consulted," or cogitating and pontificating from your superior knowledge and thought processes. The first skill in management consultancy is the ability to sell yourself. People use management consultants to keep in step with the latest mainstream thinking—as a knowledge conduit and as an insurance policy. They can get these benefits only from someone they trust and to whom they will listen.

This makes very little room for the pure technician, and it doesn't suit everybody. Many people in IT (almost all of them, to some extent) are fascinated by technology. You need to be fascinated by business and by people as well if you are to succeed in the SAP world.

If you're reading this as an aspiring entrant to the SAP world, you should be prepared to put some serious effort into it, and possibly lay a deeper plan than simply applying for SAP positions. SAP has lots of areas where requirements for other skills overlap or sit alongside the need for SAP skills. If you are skilled in UNIX-based networks, for example, you will have a much better chance of acceptance into a SAP user (present or prospective) who needs those skills if you don't emphasise your ambitions to cross-train into SAP when applying for a job. Be prepared to deliver productivity in your present area of expertise at first. Once you establish yourself as a valued employee, your prospects of getting cross-training are several hundred percent better than they are as an outside applicant.

Trends in the SAP Employment Market

Some major trends will impact the SAP market over the next few years:

The SAP market is still a young one, but as it matures, the number of installed systems increases relative to the number of new ones being sold, with a resultant change in the mix of implementation and support staff.

SAP is actively seeking to market into much smaller companies than have been its target in the past. It is also engaging more heavily in vertical marketing.

The range of platform and complementary product technology that sells along with SAP is increasing all the time, and opening ever more bridges into SAP for people with skills in these areas.

SAP has a large focus on making its development workbench tools easier to use. It expects this to help balance the supply and demand equation in SAP employment. It also changes the skills requirement for configurers.

Chapter 41, "The Outlook for the SAP Employment Market," explores some of these trends, and their effect on the employment picture.

There are two other trends worth noting here:

There is an increase in international recruitment, as the emerging markets seek to recruit the experienced people from the more established ones. This mostly means heavy recruitment from Europe for the Americas and Asian regions.

More employers are becoming aware that they will have to provide training in SAP, and that they can end up with better people as a result, because in the long term, a person's underlying attributes are more important than an extra year's SAP experience. Just in the period of producing this book, we have seen a modest but discernible increase in the number of employers opening the doors to SAP entrants of the right caliber.

Growth in the SAP Employment Market

SAP revenue growth, which is public information, forms the underpinning for employment growth. SAP was formed in 1972 by some ex-IBM engineers who had designed a real-time finance and materials management system for ICI, and subsequently acquired the rights to it. As a mainframe product, SAP R/2 was very successful in Germany, and made some inroads elsewhere, but it really took off in 1992 with the launch of R/3 as a UNIX client/server-based system. This was exactly the right time for such a product, and its combination of business process module orientation and client/server architecture was just what the large consultancies needed to implement the vision and change that they sell.

Since then, it has grown to be the world's fourth largest software company, and a huge success on the stock market. By the end of 1995, there were approximately 20,000 SAP consultants employed by SAP and its business partners combined.

Chapter 41, "The Outlook for the SAP Employment Market," contains some forecasts from around the industry of the growth that can be expected in the future.

The company is currently achieving around 40 percent growth. Europe achieved 19 percent and that market is several years more mature than the rest of the world. The Americas achieved 82 percent, and the Asia Pacific Region 82 percent.

The effect that this has on employment growth is to some extent mitigated by the better development tools that SAP is producing, but the market will expand to accommodate their extra throughput while it remains resource-constrained. It should also be remembered that employment growth is partly a function of the installed base, which continues to expand while SAP sales performance remains static (as long as sales don't fall to zero).

Forecasts for the increase in SAP employment over next year range from 20 percent as an overall figure, to over 100 percent from individual partners.

A view based on considering everything in this book would suggest that the number of SAP consultants worldwide will grow by at least 40 percent per year for the first couple of years from the end of 1995. How accurate this proves, you'll be able to watch for yourself, as SAP regularly publishes the figures.

People often pose the question for SAP employment as for many industry stars before it—when will the bubble burst? The answer is that it won't, because there is no bubble to burst. SAP is based solidly on the superiority of real-time processes in business, and SAP employment is based on understanding these processes.

The client/server platform, although it has been instrumental in SAP's phenomenal recent growth, is not crucial to its future. Indeed it is arguable that provided SAP saw a successor to client/server systems coming, it would profit hugely from it. Change is SAP's business.

Any real threat in the foreseeable future has to come from some competitor doing what SAP does but better. In the long term, it would have to be something that makes SAP's concept of real-time processing for the back office obsolete.

This would have to be a fairly drastic change in the whole concept of business, backed up by some superior technology. If micromachines are forecast (as they are) to circumvent the age-old problems of turbulence on the airplane wing, among a host of other problems, by approaching it in a totally different way, then why shouldn't the whole concept of business be changed with similar radicalism? Well, probably more for reasons of sociology, economics, and vested interest than anything technical.

All this says is that we're well into the realms of futurology before we can see a point for SAP careers to be under threat.

From Here...

In this chapter, you have learned about the main features of the SAP employment market, and gained an overview of important trends and forecasts that may affect future prospects.

The following chapters will explore the SAP employment market in a little more depth. They will also point you to ways in which you can expand your knowledge beyond the contents of this book, and you will also find the appendixes contain useful practical details that you will want to know when developing career options in SAP:

- In Chapter 38, “SAP Workplaces—The Structure of the SAP Working World,” you can learn more about how the SAP world is structured, and how to find your way around it. You can gain a better understanding of the roles that the different types of employers play in the overall process of delivering SAP systems.
- Chapter 39, “Employment Opportunities Working with SAP,” describes some of the functions you can fill, the skills they require, and the job titles that they carry in the SAP world. You can learn how to map your own skills to the needs of SAP employers.
- In Chapter 40, “How to Find Employment Working with SAP,” you can find some useful advice on getting into SAP, whether or not you have a special skill to offer; and Appendix C, “Sample SAP-Related Job Descriptions,” contains some example job descriptions that do not require previous SAP experience.
- In Chapter 41, “The Outlook for the SAP Employment Market,” you can learn in more depth about the outlook for the future in SAP employment, and where the new jobs will arise. You can also learn to evaluate how the major trends will change the nature of SAP jobs and how they will affect supply and demand.
- In Appendix A, “SAP Offices Around the World,” Appendix B, “SAP Business Partners,” and Appendix F, “Complementary Solutions,” you will find many useful contact addresses. These provide start points from which you can network out along lines dictated by your own special areas of interest.

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Chapter 37

Globalization of the SAP Employment Market

SAP has developed as a very international employment opportunity. This chapter will provide a brief guide to the global distribution of SAP, its internationalist culture and travel opportunities.

SAP Worldwide Presence

SAP has offices and partners in 53 countries around the world. The over 4,000 installations it had as of May 1995 were distributed as shown in figure 37.1.



Fig. 37.1 In May 1995, SAP installations worldwide numbered over 4,000, and were distributed as shown here.

Since those figures were compiled, SAP has experienced growth in excess of 50 percent, and in percentile terms, the Asian and American installations have grown fastest. This is part of an underlying, and perfectly normal

In this chapter, you will learn:

- How SAP installations are distributed worldwide, and which are the growth regions for SAP employment

- How the SAP Internationalist Culture has developed, and where it is going

SAP is becoming ever more international, and you can cultivate globetrotting opportunities if you want to. But consider the pros and cons first.

pattern—where there is more untapped potential, expansion is fastest. In Europe those countries with less penetration have grown fastest, although Germany still managed not far short of 20 percent.

If you look at the figures with even a rudimentary knowledge of geography (or the aid of an atlas) and of world economic trends, it is not difficult to see where the growth areas are going to be. All around the Pacific rim SAP will be growing fast for the next few years. The USA is the prime engine for this, and is recruiting SAP expertise as fast as it can. But also the “tiger economies” of Southeast Asia are taking off economically, led by the tiny but flourishing state of Singapore. At over ten SAP installations per million of population, Singapore challenges the Germanic countries for worldwide leadership in SAP usage.

Singapore has built its success on the wholehearted and planned acceptance of high technology, where it leads Southeast Asia. Like Hong Kong, it has strong ethnic and linguistic links with China, and can be the catalyst that opens the emerging new style economy of China to SAP. Many other (and much larger) parts of Southeast Asia have high growth economies and are developing their business culture around the English language.

Other areas where modern business economies are likely to develop fast are the former communist countries of Europe and the improving economies of South America.

SAP can be expected to flourish in these sorts of situations, because it is an agent of change, but more importantly, it is the agent of change of choice for multinational corporations. These multinationals are the main transferors of business practice to modernizing economies. Global economic trends, notably the internationalization of business, has increased their influence enormously, and where they go, SAP goes.

In these emerging SAP markets, all sorts of infrastructure employment opportunities will open, in marketing, training, administration and so on, within partners, service providers and SAP subsidiaries themselves. But the largest and most critical requirement will be for the skilled SAP consultants and project managers that form the bulk of the SAP employment market anywhere.

Internationalist Culture

The globetrotting aspects of SAP employment have actually been less prevalent than you might expect, given its internationalism, but they are nonetheless exciting, and are increasing. Apart from the routine “short stay” business travel that is involved in working for international organizations, there are more substantial overseas relocation opportunities.

The internationalist culture that is growing around SAP has strong foundations:

The large management consultancies that are partners with SAP have a long history of operating internationally, and have propagated the SAP message worldwide.

Similarly, the SAP platform and technology partners are some of the largest in the world, and very international in outlook.

The partnership approach that SAP has adopted has allowed it to expand worldwide very rapidly without prohibitive investment demands.

The SAP culture of open communication and the transfer of knowledge and skills is highly palatable to operations thousands of miles from the home base.

SAP has adopted English as its first language from its early days, despite its German origins, and English is the global language of commerce.

International demand for SAP systems and the level of experience needed to implement them have meant that new markets have had to obtain this experience from more established markets, thus encouraging globalization of employment.

Building on these foundations, SAP has pursued an ethos which allows each SAP subsidiary to develop its own culture—at Walldorf, for example there is a “techno-academic” almost campus-style culture, while Philadelphia prefers a more typical modern US business culture.

The common denominator, to which all subsidiaries work, is to keep its structure non-hierarchical, non-bureaucratic and very partner-oriented, and to espouse “virtuality” in building its operations. By virtuality, SAP means that functional teams and organizations can be formed by people and resources working in partnerships, and not necessarily employed or owned by the same company.

SAP is extending the internationalism of its operations wherever it is practicable, not just in the appointment of partners and development of marketing subsidiaries, but also in the siting of strategic resources. While at present 95 percent of product development is done in Germany, this is changing. The USA is performing product development now, as is the UK, to a smaller extent, and some localized language versions of the product will be produced together with local partners. ICOEs (Industry Centers of Expertise) are also strategic resources and these are sited in far-flung locations. Worldwide special interest groups are encouraged, and are not necessarily located in Germany.

SAP has emphasized this trend by the recent restructuring of its alliance program management, which is absolutely critical to its partner-based marketing strategy. This will now be coordinated worldwide by SAP’s global partner management group in the USA.

To generate add-on business for partners from existing clients, the group early on proposed to focus on rolling out SAP systems internationally. There are a lot of clients with a lot of potential for this to happen.

Independently of SAP’s own efforts, the recruitment industry is advertising very much on an international basis. In Europe, SAP ranks among the highest IT specialties in terms of the ratio of international appointments to local ones. This trend can be expected to continue, and as the USA gets its SAP numbers up, it can expect also a significant “brain drain” to the smaller SAP markets.

For the time being however, the USA movement is mostly inward. The large US consulting companies are offering high inducements to take people to the USA, as well as to the Eastern Pacific. Contractors and employees moving to the USA can get good relocation perks as well as high earnings.

More of the international vacancies advertised are for consultants, module configurers and project leaders than for ABAP programmers, although ABAP does feature to some extent.

Good SAP consultants gain a reputation internationally and can ply their skills in most parts of the world. Those that relocate regularly for the duration of projects can find themselves in a “global village” culture like those that arise in the oil industry, diplomacy, international banking and other international activities.

If you are looking to join this community, and have the skills to offer to it, you should consider your options carefully and plan to locate where you really want to go. Not all the locations you can end up in are exotic and many are not suitable for taking families. On the other hand, expatriate life can enrich your life enormously. The keys to success are to evaluate carefully the location and the culture (you don’t have to go anywhere just for the money in SAP, and the location is probably the most important part of your employment decision), make sure you have the full support of any partner you’re taking, and expect it to be different from home. Expatriates who spend a lot of time whining about things the location lacks that they’re used to at home are not usually happy or popular.

Those who take the trouble to adapt to “culture shock” and value what other societies can offer are usually very happy, and only compromise their popularity when they get home by overdosing their friends with enthusiastic travelers’ tales.

From Here...

In this chapter you have been introduced to the internationalist aspects of the SAP employment world. You have learned something about SAP global penetration and potential for growth in broad geographic terms.

If you want to look more specifically at any region of special interest to you, you will find that SAP regularly publishes international lists of reference installations, partners and subsidiaries. You can get these by contacting your nearest SAP subsidiary (See Appendix A for addresses.) Meanwhile there are some other parts of this book that will be useful:

- Chapter 39, “Employment Opportunities Working with SAP,” includes a section on levels of pay working in SAP, with some examples of salaries advertised for positions around the world. The lack of variation by geography (relative to general wage scales in the countries concerned), and the fact that they all appeared in Europe, indicates the internationality of the SAP workplace.
- Appendix A, “SAP Offices Around the World,” and Appendix B, “SAP Business Partners,” contains contact addresses for all the countries where SAP operates.

Chapter 38

SAP Workplaces— The Structure of the SAP Working World

X

SAP Employment Market

If you are seeking to work with SAP, or are already doing so but looking for change, this chapter will help you decide how and where your own skills are most marketable. You need to know where the niches exist if you are to find the best one for you.

This chapter provides a guide to the sorts of organizations that employ people with SAP and associated skills. It also describes what these organizations do and how they interrelate in the processes of producing, marketing, and delivering SAP systems.

This chapter starts with an overview of the whole structure—how SAP and its partner companies are held together in a working organization to produce and deliver SAP end systems to users. Then it looks at each of the components—SAP the corporation, the different types of partners that get involved in marketing and implementing SAP systems, and of course the users themselves. Each of these “links in the chain” has its own place in the overall process, which is useful background information when assessing that part of the chain as a potential source of employment.

An Overview of the SAP Working World Structure

SAP could never have reached its market position by simply selling the SAP software as a package and providing just routine technical support. The real salable product is an amalgam of the SAP core product and the consultancy and implementation services that together deliver the benefits of SAP systems to users.

Had SAP tried to provide all these essential value-added services itself it would have been unable to progress beyond the status of a consultant/implementer—with a very good systems-implementation technology, but nonetheless constrained by people resources from achieving the kind of growth that we have seen.

In this chapter, you will learn:

- How the SAP extended organization works to deliver its products to the customer
- What is the role of SAP itself, and how is it structured
- What the different types of business partners do
- How SAP certifies complementary products suppliers
- The roles that ancillary suppliers play
- Who uses SAP

It was when management consultancies found a strong affinity with the product—saw it as a massive step forward in enabling technology for the vision and change management that is their prime offering—that the product really took off, and burgeoned internationally. The marketing resources that these consultancies have, especially their access to top management in major end user companies, were huge levers on the marketplace, and their position, at base, as suppliers of high order people skills, meant that what was to SAP a potential problem, was to them an opportunity—and vice versa. So a large industry has grown up around marketing and implementing SAP systems, without SAP having to face the investment and growing pains of trying to control it all directly.

SAP people like to refer to the whole infrastructure that creates, markets and delivers SAP systems to users as the “virtual organization,” and this is a quite apt description.

It involves many and various activities, and in the SAP world the people who carry these out may be employed (or contracted) by SAP AG and its subsidiaries, partners of various types, and the end users themselves. They often need to work in “virtual teams” that cross employer boundaries.

Many subsidiary virtual organizations form and reform, often at the project level, including some end user personnel who are seconded into the SAP world only for the project duration—they will return to mainline business management roles after completion.

SAP software is realized on many platforms—database systems as well as OS and hardware platforms—by vendors with whom SAP has partnership agreements. It also extends its capability by providing links with complementary software products, in some cases together with partners. All this means that “ownership” of the virtual organization is further extended.

In this situation, cooperation, rather than hierarchy or proprietorship, rules. Cohesion is achieved through influence, quality control, shared aspirations, communication, and so on, rather than by command. This non-hierarchic, project-orientated approach is popular in many consultancy environments, and it suits the SAP world very well.

The organization as a whole exists to market solutions built from these component products and services:

- The SAP software
- Platform hardware and software
- Complementary products
- Consultancy and implementation services

These are brought together into working SAP solutions at the individual customer level. They can also be combined at levels that mediate between their individual “factories” and the individual customer. For example, at the industry sector level a partner will create a value-added offering to target a vertical market sector.

The main lines show the flow in terms of product delivery. What motivates the parties is the common interest in delivering a product together, but the glue that holds the virtual organization together is more than that. The “binding agents” include:

- Business management
- Quality control
- Information flow
- Concerted marketing effort

SAP does not own the virtual organization in the way a single company owns its organization—nobody owns it in that sense—but SAP leads it, and has the central role in cultivating these binding agents. (Partners of course lead other “virtual organizations,” which they drive, and in which SAP is only one contributor, but they are not our topic.) SAP does this in four ways, which will be outlined in the following sections:

- Business management
- Quality control
- Information flow
- Concerted marketing effort

Business Management

Business management is the main difference between the virtual organization and a “real” organization (i.e., one owned by a single company). Within its owned organization a company can command policies, actions, and priorities not only through its statutory rights to do so, but also through financial controls—it holds all the purse strings. SAP has no such control over its virtual organization, so its business management outside its own company walls is exerted by negotiation and contractual arrangements. This is no different from any other company that has marketing partners, but because the partners’ value-added services are such a large and integral part of most SAP sales, the SAP partner program and the agreements it incorporates are absolutely central to its operation. The essentials of the different partner agreements are discussed later in this chapter.

Quality Control

Quality control, extending beyond the core product to all the value-added elements, is a major feature for many multi-owned virtual organizations, from IT marketing partner operations to franchised hotel and fast food outlets, and it is also important for SAP. The main planks in SAP’s direct quality controls over the extended operation are:

- The partner accreditation process, which accepts only partners who can meet and commit to maintaining SAP’s quality standards.
- Customer satisfaction programs. End user satisfaction is regularly monitored, and partners’ performance in this respect is visible.

- The complementary solutions certification program, which is designed to ensure that third party solutions interface properly with SAP.
- SAP consultant accreditation. This is a program which SAP is rolling out worldwide, to accredit individual consultants within partner organizations.

Depending on your definition, you might include quality improvement within the term “quality control.” Here SAP’s main policy is to seek improvement by encouraging the best practice and knowledge transfer, by providing conduits for open interchange of information, and also by providing a good example. SAP is unusual in its openness, and this has placed it in good stead.

Information Flow

SAP has been quick to espouse the “information superhighway,” and delivers its “SAP Infoline” service via the World Wide Web, Compuserve, Lotus Notes, and The Microsoft Network. As well as disseminating SAP news and information, the Infoline encourages discussion forums, provides a common medium for any participant in the SAP world to promote itself and share knowledge, and acts as a directory of sources of further information. You can learn a lot more about all these services yourself if you have access to e-mail, by using the Internet e-mail address **infoline@sap-ag.de**. Alternatively you can access the SAP Web page at its URL—**www.sap.com**.

A growing range of “knowledgeware” and general information in multimedia format augments this online information.

For SAP users, The Online Service System (OSS) goes further. SAP introduced it into its R/3 Service System in 1994, and accepted the ten thousandth user of OSS in 1995. OSS provides SAP users with a problem management system with interactive facilities that assist in the whole area of support, commercial facilities (such as course registrations, ordering of documentation), and information.

SAP also engages fully in the “traditional” marketing communications activities. For example, it produces a very informative house magazine, which is recommended reading for anyone seeking to keep informed about the SAP world (SAP “INFO”, around 60 pages, published quarterly and available from your nearest SAP subsidiary, which you will find listed in Appendix A, “SAP Offices Around the World”). SAP also participates in a full international program of events, seminars, conferences, and so on, and channels information through its marketing organization, focused in various ways—by product types, business sectors, and so on.

Good communications are crucial to the SAP operation, and none of the above activities would unify the virtual organization as well as they do without the interpersonal communications skills that the SAP world consistently seeks in its recruits.

Concerted Marketing Effort

From SAP’s own point of view, of course, the development of the extended virtual organization is in itself a major marketing effort, but SAP also has to lead the efforts to market the combined output of that organization.

SAP's primary role in this is to provide a broad framework of general marketing directions backed up by investment in strategic marketing resources and image creation. Partners add a lot of input to this process. SAP is not the font of all wisdom, and partner initiatives, stemming from their own experience, often determine strategic directions. SAP is the unifier and a major source, but not the sole source, of marketing creativity.

The drive toward industry-specific, or vertical marketing solutions, and the push into the volume market for mid-sized and smaller companies are examples of major directional thrusts, each of which has many subsidiary threads.

The partner organizations take their cue from these general directions, and build their own focuses to ride with the main thrusts and complement them.

While SAP still handles some end users itself, partners provide the majority of the sales (as opposed to marketing) effort. SAP sales involve high-level decisions, and consultants are well-equipped to influence these. As a SAP alliance manager put it, "Senior executives don't buy products, they buy solutions."

We have been talking basically about achieving marketing cohesion, and one factor that you should not ignore is the importance of the general spirit of cooperation that exists among SAP and its partners. The conduit provided by regular human contact and cooperation at project level is a major factor in creating a cohesive marketing force from the virtual organization.

The structure of the SAP working world, then, is a non-hierarchic, virtual organization. People working in it need to be self-reliant types. It's been said that your boss can be defined as the person who approves your holidays and your salary raises, but in many environments he or she also manages the projects you are working on from month to month. This is not true in much of the SAP virtual organization. Projects are often long and require a lot of commitment, and your project responsibilities are what you have to answer to.

The traditional boss is also a person you can use as a single source "supplier" to get things done or approved. In the virtual organization there is often no one you can use as a one-stop shop in this way. You are expected to use initiative and find the people who can help you get the job done. That's one of the reasons why good communication skills are so highly valued. It's also one of the reasons that people with the right attributes find the SAP world so satisfying.

SAP—The Company

SAP's corporate structure is less important than how well it manages the aforementioned activities, because its policy is not to over-manage the subsidiaries, but rather to put in place the standards and strategic policies, and then give the subsidiaries substantial autonomy to run the business within them.

The broad structure is as shown in figure 38.1. The individual subsidiary shown is that of the UK, which is a good example, as it is neither in the very top or the bottom rank in importance, penetration, or potential. Structures vary from country to country, but most of the functions shown will appear in one guise or another in most subsidiaries.

Bear in mind that the subsidiaries handle some direct end user accounts as well as support partner activities. The consulting groups have a major role in this, though they also combine in “virtual teams” with partner consultants. The motivation behind direct sales is to meet customer preference for this, where it exists, and to keep in touch with the battlefield. SAP charges for its consultancy services, but the objective of the SAP consulting group is not to generate revenue from consulting, but rather to maximize product sales.

It is worth expanding a little on one or two of the roles within the consulting group:

- **Project advisors** act as customer service managers, but at the project rather than the account level.
- **Product managers** are experts in particular modules. They “champion” these modules internally, and act as a conduit between SAP Headquarters at Walldorf and the client on anything related to those modules.
- **Application consultants** are the largest group, accounting for some 40 percent of a subsidiary's headcount. The applications they specialize in are “horizontal” ones—i.e., not so much industry-specific as function-specific, and they perform configurations to ensure that the required functionality is built into end user systems.
- **Basis consultants** deal with the underlying systems components and tools. They are concerned with such things as datacoms, operating systems, databases and ABAP programming.

If you are looking for employment opportunities in an SAP subsidiary, you will find in Appendix D several example role descriptions for the sorts of positions subsidiaries have, and these will give a good picture of the attributes required.

Essentially, SAP needs its own people to have all the SAP consultant skills in sufficient quantity to set the standards that it promotes among the partners. This applies both to technical expertise as well as interpersonal skills. In the early days SAP consultants came out of the development team, and SAP will rarely employ anyone in a consulting role unless that person has good SAP experience. The ideal is that SAP people should be able to solve problems that have escalated from partner and end user consultants. They should also be able to pass on their skills, so training capability is desired.

The area where SAP has found it beneficial to engage people from outside the SAP world is in marketing roles, where SAP has learned from the recruits as well as taught them.

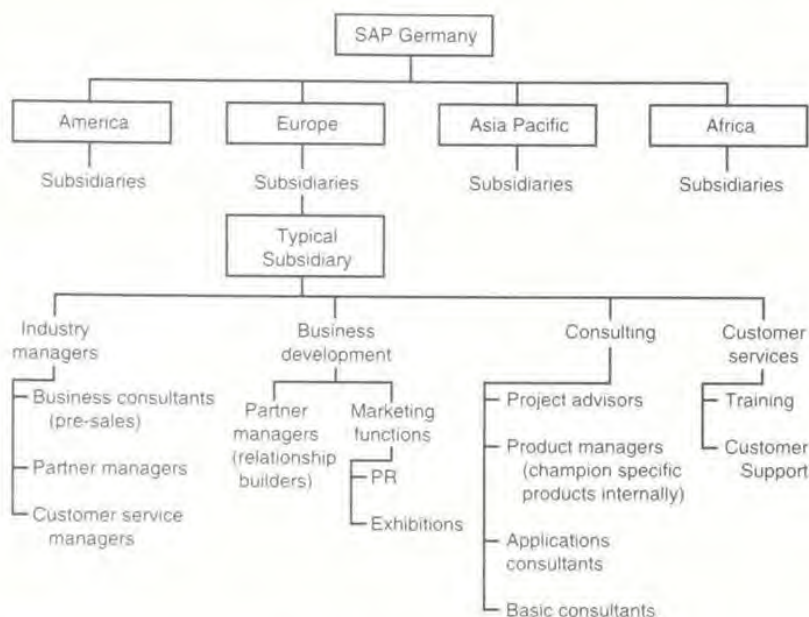


Fig. 38.1 The structure of a typical SAP subsidiary shows the roles it carries out and how people are organized to fulfill them.

SAP Business Partners

SAP has employed the partner program in the context of a global strategy (which has succeeded) aimed at making SAP the global market leader for standard applications. This has involved accreting a tremendous range of capability, quickly.

The program is founded on the philosophy that strategic alliances are a better way to develop and acquire new strengths than going it alone or buying up other companies. When individual companies bring their particular abilities into a partnership alliance, they get faster exploitation of the synergies without becoming wrapped up in the mechanics (or financial implications) of mergers, takeovers and large scale management change.

SAP believes that this approach can give a company a competitive edge, but an essential precondition for success is, as expressed in its partner handbook, "the planned creation and development of a superior ability to cooperate in terms of a cooperative and dependable approach on the part of employees and an organizational structure that encourages cooperation."

The philosophy further says that to make this work, everyone involved must constantly seek ways to cooperate and think in terms of the collective benefits, rather than narrow partisan advantages. They must constantly strive to develop a mutual understanding of each other's situations and aims.

If this sounds like a string of platitudes, don't be misled. It is a very real policy that works. SAP must be at least a contender for the title "Most Effective Marketer through Partnerships in the IT World." While a lot of that success is due to having a product that partners want, SAP's approach to the partner relationship has also been crucial, and its consistent pursuit of cooperation and communication at the individual employee level is the cornerstone of that.

The partner program is organized, in broad terms, as shown in figure 38.2. The relationship management aspects are handled via an alliance manager structure, headed in the USA by global alliance management, which manages the alliances with partners who have Global Logo status, as well as directs the activities of the SAP regional and national alliance managers, who have direct "line responsibility" to the subsidiaries or regions where they are employed.

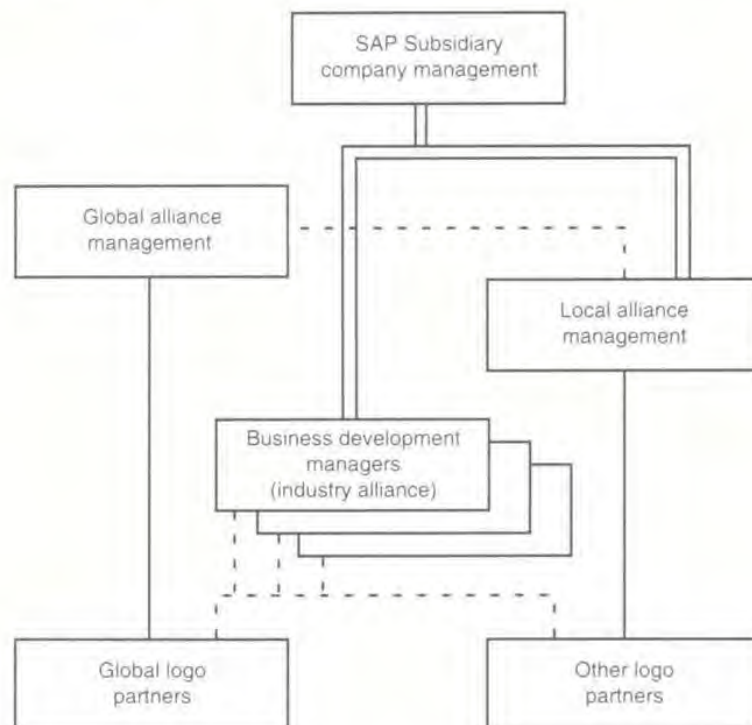


Fig. 38.2 Global alliance management works through locally employed alliance management groups, but directly manages the "Global Logo" partners.

The relationship management aspects are substantial. Partner companies usually restructure their own organizations to best realize cooperative potential, and the contractual rights and obligations are intended to secure commitment to clear strategic goals understood by both parties, as well as operational ones, such as customer satisfaction.

As well as the alliance managers, partners have direct access to the industry-aligned business development managers, who are their first port of call to keep coordinated with, and informed on, the activities of other partners and SAP itself within given industry

groupings. This is being instituted worldwide at the time of this writing, in line with the increasing verticalization of SAP's marketing.

The partner program has worked well so far for the partners and SAP alike. The partners have given SAP a better understanding of the "corporate change" market, market penetration and leverage, and extended resources. SAP has given consultants an enabling technology. Consultants sell "vision," and SAP is the enabling technology for realizing that vision, which is why the synergy between SAP and consultancy organizations is so strong. As SAP goes from strength to strength, and more end users become aware of its potential, it positively creates a demand for change (and therefore consultants) as well as helping to realize that change.

This provides the classic "win/win" scenario. SAP executives like to extend this, and talk of a "win/win/win" philosophy. In other words, an arrangement has to benefit the customer, as well as SAP and the partner.

The main partner types in the SAP world are platform partners, technology partners, consulting partners, systems resellers, and complementary products partners.

Platform Partners

Platform partner relationships are in place with the major hardware vendors who implement some form of UNIX operating system, and some Windows NT specialists. AT&T, Bull Information Systems, Compaq, Data General, Digital Equipment Corporation, Hewlett Packard, IBM, Sequent, Siemens Nixdorf Information Systems, and SUN are all SAP hardware platform partners.

The main requisite for platform partners is to obtain platform certification by SAP (or iXOS on SAP's behalf in the case of NT systems), but in fact the level of cooperation runs far deeper than that.

SAP sets up joint R/3 competence centers with its platform partners, either in Walldorf or appropriate subsidiaries, and these, apart from migrating R/3 to the vendors platforms, provide a nerve center for cooperation across a wide spectrum of activity—marketing strategies, sales team activities, events, and mutual training among them.

Some of the platform partners are also consulting, implementation, technology, and/or complementary products partners. IBM, for example has accreditation in all categories.

Part of the attraction to SAP in forming these relationships is the access it gives SAP to the far larger national and international sales, distribution, and support networks that these hardware vendors have, compared to SAP. This may be an attraction to employees also. Something like 20 percent of SAP vacancies in some recruitment outfits emanate from hardware vendors.

If you are a SAP consultant seeking a change of environment, this is a fruitful area to consider. Virtually any of the whole range of SAP skills may find a home. If you are seeking to gain your first experience in SAP and finding it difficult, you may find a platform supplier will open the door, if you have experience that it wants in a technology other

than SAP. The best route is to first get the platform partner to employ you, then wait until you are entrenched and valued before seeking to divert yourself into its SAP activities.

Technology Partners

Technology partners are mainly the big database players, together with a few hardware vendors. Partners include Apple Computer Inc., Hewlett Packard, IBM, Informix, Intel, iXOS Software, Microsoft, Oracle, Platinum Technology, Siemens Nixdorf Information Systems, and Software AG.

Each technology partner agreement is based on an individual contract, and the focus is to exchange knowledge and engage in common activities to optimize the use of SAP and the partners' products together. These agreements secure essential technological underpinnings, such as databases and systems tools.

SAP-based activities in technology partners are more specialized and less wide-ranging than they are in platform partners.

They are nonetheless quite committed. Microsoft has had a strategic cooperation agreement with SAP since 1993. NT is a strategic product for SAP and it has signed an agreement with Microsoft to jointly develop Internet strategy. Oracle has been involved since the development of R/3 in 1987, and claims that SAP implementations are based up to 75 percent upon Oracle. iXOS, as well as concerning itself with its imaging and archiving software, provides SAP with systems testing services, notably for the certification of NT platforms.

As an employment prospect for the experienced SAP consultant with technical leanings who is ideally skilled in some other area of relevance, you might find a high premium on your ability to bring SAP into the particular fold of a technology partner, while for the would-be SAP entrant, the story is much the same as it is with platform partners. You will need to have something to offer that meets a partner requirement, and use that as your ticket.

Consulting Partners

Consulting partners are also known as logo partners, and there are three levels, which are outlined in the following sections:

- Global logo partners
- Regional logo partners
- National logo partners

Global Logo Partners. A global logo partner operates in the same way in all SAP geographical regions, and maintains a consistent infrastructure for the support of globally active R/3 customers. The partner must qualify for regional logo partner status in at least two SAP regions, and the global partnership is managed by SAP global alliance management, based in the USA.

Each global partner is entitled to use the logo "R/3 International Consulting Partner/Global."

Global logo partners include the major management consulting firms Andersen Consulting, Coopers & Lybrand, Ernst & Young, ICS (Deloitte & Touche Consulting Group), KPMG, and Price Waterhouse, as well as such hardware vendors as Digital Equipment, Hewlett Packard, IBM, and IT specialists CSC, EDS, and Origin.

Regional Logo Partners. A regional logo partner operates mainly in one SAP geographic region, and maintains a regional infrastructure that corresponds with its SAP activities. The partner must qualify for national partner status in a certain number of countries, which varies by region—for example two countries in the Americas region, four countries in Asia, etc. The partnership is managed by alliance management at the regional level.

Each regional partner is entitled to use the logo "R/3 International Consulting Partner/Europe" (or /Asia, /Americas, /Africa as appropriate).

National Logo Partners. A national logo partner operates mainly in one country, and has to meet the requirements of that country's SAP national cooperation agreement, which would typically include a satisfactory business plan, a minimum number of R/3 consultants, and a regular audit. The partnership is managed by the local SAP subsidiary, normally via the national alliance manager.

Each national partner is entitled to use the logo "R/3 Consulting Partner/France" (with the SAP national affiliation on the end).

The logo partners are a prime source of employment opportunity, for those with the right skills and qualifications. Broadly speaking there are two opportunity areas.

First, your career as a management consultant is more important than the SAP involvement. The large consultancies especially like to recruit and develop people with longer-term aims. This is discussed more in Chapter 40, "How to Find Employment Working with SAP," where the general message is to think management consultancy, not SAP, when approaching the global logo partners. Some of the national and regional logo partners are entirely dedicated to SAP, so you need to find out how much of a SAP specialist a partner is, and how much a management consultant, before deciding how promising they are for you, and what your best line of attack is.

Most of the logo partners have SAP training and induction programs, and this trend is growing, so the route is good for new SAP entrants with good management consultant attributes, especially if these are backed up by some sort of IT expertise.

The second opportunity area with logo partners is for people with SAP skills to develop and widen their horizons. All of the logo partners will be interested in SAP experience.

A particular area as of mid-1996, and likely to continue for some time, is the drive by some global partners to recruit internationally to service the big SAP growth in the USA

and the Pacific Rim. The urgency of this is overriding the general recruitment priorities described earlier, and they are usually looking for specific SAP skills to fill an immediate need. If you have these skills, they can provide the entry into an environment which can lead to broader opportunities.

If you are reading this outside the USA and want to work there, here is a generalized profile for SAP people recruited overseas into the USA for a "big six" consultancy. It's not "written in stone," and other international recruiters will vary a little, but it provides a rough scoresheet to help you to assess your prospects.

- **Age**—28 to 35 is best. The large consultancies find it easier to induct younger people into their culture. Even within this range, nearing the top end you will be required to have more experience, particularly in project or module leadership. Above the range you will have to be exceptional, and there is a near disbarment for persons past their 40s.
- **Marital Status**—Single people are generally preferred due to their greater flexibility when it comes to travel. If you are married, or have other familial attachments, consider and be prepared to explain to the employer how they will deal with travel, any U.S. work interests, and so on.
- **SAP Experience**—The consultancy for whom this profile was prepared asked for a minimum two years of hands-on implementation experience, and experience in configuring SAP in a relevant area. (Sales order management and distribution, financial, and/or manufacturing were the relevant areas to this consultancy's immediate needs.)

You will need a sound understanding of the tables and transactions in your area of expertise, and a working knowledge of SAP module integration and the typical issues involved in interfacing with other systems.

R/3 experience is highly desirable. People who have functioned in an SAP consulting role are preferable, because they understand the professional services role better. Working in a project rather than a transaction environment is preferred. People with SAP experience only from a user perspective normally lack the ability to configure the system, and would have to provide evidence that they can do so.

- **SAP Training**—You should have undertaken at least four SAP courses in your area of implementation experience.
- **Intelligence**—People of high intelligence (which as a rule of thumb can be taken as meaning an IQ within the top 10 percent of the population) are required. This is considered likely to make you quickly learn the client's situation, be analytical, take broad perspectives but also delve into detail, think on a conceptual level but understand the practical implications, have a questioning mind, and always be looking to do things better.
- **Interpersonal**—You should be a good listener, like to work with others, be able to build good relationships, be empathetic, and function well as part of a team.

- **Communication**—English language skills are essential. Candidates must be able to understand and speak English well in a work environment. Equally important is that they can communicate ideas clearly and succinctly.
- **Motivation**—People who are enthusiastic, who take charge, have direction, plan and control their actions to meet deadlines, and in general are very results-oriented have a good opportunity.

The international recruitment drive is not only aimed at senior SAP consultants and project managers, but also targets people with more specific skills, such as applications engineers and module configurers.

Some logo partners are more specifically oriented towards IT and less toward general management consultancy. Indeed, as mentioned earlier, some are exclusively devoted to SAP.

These more “IT-based” partners, while still requiring the right personality type and the ability to deal with senior management concerns, tend to focus a little more on the traditional IT system house virtues. This extract from a job requirements statement is a good example. (The full version is in Appendix C, “Sample SAP-Related Job Descriptions.”)

Candidates should have:

Worked in pre/post sales support

Implemented several large IT projects in commercial organizations.

Worked in consultancy or with a specialist software house

Ideally have trained in R/3, have R/2 experience, and/or have comparable product experience

Have extensive knowledge of the appropriate application area (in the case from which this example was extracted, appropriate areas were financial accounting systems, logistics/material management, and/or manufacturing)

Overall experience of large commercial implementations would be expected to extend over five years

Implementation Partners

These are sometimes referred to as another case of consulting partners, and the cooperation agreement for implementation partners is regarded as the first step to becoming a logo partner.

The relationship does not include the intensive support and cooperation that logo partners enjoy, but allows a consultancy firm to gain access to the SAP marketplace and the SAP provided infrastructure (demonstration system, documentation, training facilities, and so on). The qualification process for a partner is less onerous, but the partner must maintain appropriate capability—for example, dedicated SAP consultants and demonstration capability.

You will find much the same employment opportunities in implementation partners as in logo partners, and some of them have put a lot of creativity into developing their SAP business.

R/3 System Resellers

System resellers engage in the promotion and sale of R/3 itself. They must develop value-added software themselves, and have a product of their own which might be complementary to SAP R/3 or be replaceable by it. They also must have sales, consulting, training, and support resources in place before being accepted as an R/3 system reseller.

By mid-1996 resellers were still restricted to a few companies, mostly operating in Germany and the immediate environs. It is not clear how far this is likely to spread beyond that.

SAP does not appear to have a strategy to pursue this selling route globally, but it is worth watching to see if one should develop, because it would open all kinds of new employment opportunities.

Complementary Product Suppliers

The design of the SAP R/3 system—its inherent modularity, and its position as the world's leading client/server product—makes it an attractive vehicle for many third-party software developers.

SAP has encouraged this by the interface technologies it has used in R/3: Application Link Enabling (ALE), Object Linking and Embedding (OLE), Remote Function Calls (RFCs), and Open Database Connectivity.

SAP certifies third-party products for connection to its various R/3 interfaces, and these are categorized as follows (the SAP interfaces are in parentheses):

- Archive Software/Imaging Software (SAP ArchiveLink *R*)

- Computer-aided Design (CAD)

- EDI Subsystems (WF-EDI)

- Plant Data Collection (PP-PDC)

- Product Data Management (CAD)

- Process Control Systems (PI-PCS)

- Machine Data Collection (PP-PDC)

- Laboratory Information Management Systems (QM-IDI)

Third party solution providers with products in these categories that are either certified or awaiting certification are listed in Appendix G, "Complementary Solutions."

These are mostly in Germany, in line with SAP's history, but some are in the USA and the UK, and more are expected to come from these countries and elsewhere, in line with its present and future.

As well as certified solutions, there are a number of complementary solutions that are not subject to certification. These are primarily used in conjunction with communications services. Both R/2 and R/3 systems allow access to these services directly from within the SAP system, and add-on product suppliers have developed in the following areas:

- Electronic Mail
- Fax, Telex, Teletext
- Sending and Receiving EDI Documents
- Telephony

Again, you can find addresses for product suppliers in these categories in Appendix G, "Complementary Solutions."

As a source of employment, the complementary solutions providers as a group offer a tremendously wide scope, although individually they are often highly specialized. They offer a "bridging opportunity" for SAP-experienced people seeking to divert from the mainstream SAP world and advance up to another area of specialty, and also for SAP entrants to go the other way, using another skill to move into SAP.

Those people more interested in technicalities than using interpersonal and business skills will have a better chance of progression in a complementary solutions niche than in most places in the SAP world.

Ancillary Service Providers

Ancillary service providers are independent companies that provide support services to the SAP market that contribute to the "SAP Virtual World." Details of companies offering ancillary services can be seen in Appendix C.

Employment Agencies/Recruitment Consultants

People are the most valuable resources in the SAP working world. It is therefore not surprising that there has been explosive growth in the number of firms specializing in recruiting contract and permanent SAP workers.

Documentation Specialists

Because each system is independently configured, there is a need to develop company-specific training and user documentation.

When the project teams have disbanded, the documentation produced offers a lasting record of what has been done and how the system should be used.

As most companies implementing SAP will be operating a quality management program, there is frequently a need to update procedures, guidelines, roles, and responsibilities. There are also disaster recovery plans and other kinds of system documentation that need to be produced.

Human Issues Consultants

SAP is inextricably linked with BPR and change. There are many human issues which need to be addressed from structuring the right project team to dealing with change, uncertainty and stress. Human issues consultancy is a field of activity which is evolving as a specialist area within the management change activity. Human issues consultants help to identify potential problem areas related to psychological responses to change, and propose strategies for avoiding them. They also trouble shoot and offer counselling and reconciliation services when problems have arisen. The objective is to retain morale and team spirit through potentially testing times.

Good human issues consultants will be worth their fees many times over.

Security and Control Consultants

SAP security and control is a specialist area that requires specialist knowledge. Any software system has its own characteristics from the perspectives of data and systems security, and SAP security and control consultants need to know SAP well from these standpoints, as well as being expert in the general field of security and control. They also have to understand any special security and control considerations of the particular platform and complementary technologies that an individual client may be using.

Internal and External Communications Consultants

Communications form a vital element in the running of an SAP project and managing the change in an organization.

Training Providers

Training is needed for project team members, management, and users alike. Some is available off the shelf from SAP itself and other companies, but there is always a requirement for company-specific training.

Company-specific training for users is normally required over a very short period of time, when sufficient system development has been completed and before the going live date.

Project Planning Consultants

SAP projects require the highest level of project management skills. The planning and control role is often best delegated to a well-focused professional team who can work with SAP's "Project System" as well as other project-management tools.

System Testing Consultants

Integrated and volume testing are the greatest indicators of project progress and readiness to go live. They create, however, a logistical nightmare, both in planning and execution.

There are companies which specialize in planning test programs and arranging the resourcing.

Career Management Specialists

This is a new service that is being pioneered by Rivermead Associates in the UK. (You can reach this service by e-mail at rivermead@globalnet.co.uk.) It is a career

management service acting as an agent for SAP consultants wishing to operate as a business in consortium with others. It claims this will maximize consultants' earnings and options while providing a secure career path.

SAP Users

You can consider the end users as part of the SAP virtual organization because of the way that they merge into virtual teams with SAP's and the partners' people.

End users employ a range of skills that extend further down the scales into support roles and business analysis roles. They also make more use of ABAP programmers than other parts of the SAP world, because ABAP is mainly used to make minor systems adjustments, rather than in the main installation phase of a project. They also employ or contract higher level SAP skills—from senior SAP consultants to configurers. This varies from user to user, some passing almost total responsibility to their SAP partner/installer, and others choosing to resource their own team, recruiting individual employees or contractors themselves.

There is usually a strong input, often including the project manager, from end users' own business management and IT teams. People seconded across to the SAP project are intended to return to the mainstream after it is completed, and usually find they have enhanced their career prospects because of their experience in the SAP world.

Some (usually from an IT background) don't return to the their employer's mainstream, but instead divert to a SAP career—consultants and SAP itself recruit many of their people from end users. End user management finds this easier to bear when the defector goes to SAP itself or the installing partner, because at least the person's knowledge is not totally lost. Cases have been known where employers have deliberately encouraged SAP to recruit key people, as the lesser of two evils, knowing of the impending possibility of those people being recruited to work halfway across the globe.

If you are a systems person and your company is looking at installing SAP, you are in the right place at the right time.

If you have key project management or configuring skills in SAP, you can command a premium, in terms of cash or career progression, with installing end users.

If short-term cash is your goal, then contracting is probably the best answer, whether you organize it yourself or go through an agency. Employers can pay contractors what it's worth to the project, which they can't do with employees without upsetting corporate paycales. Because SAP contracts can be so long, contractors have the chance to get the best of both worlds—getting paid for taking the free-lance contractor's risk without actually taking much of it.

If you are more interested in building a career in management, you'll find it better to commit yourself to an employer. Not only will this give you the chance to use the project to lever yourself up the particular employer's management ladder, but it will also look much better on your résumé for future purposes.

Profile of the User Population—Who Uses SAP

SAP's customers include many of the world's largest "blue chip" organizations, among whom it is the predominant standard application software. It has now started to make inroads into mid-sized companies (roughly speaking, those with less than \$100 million turnover).

From its origins in the chemical industry, it has spread over a vast range of industry, as figure 38.3 illustrates.

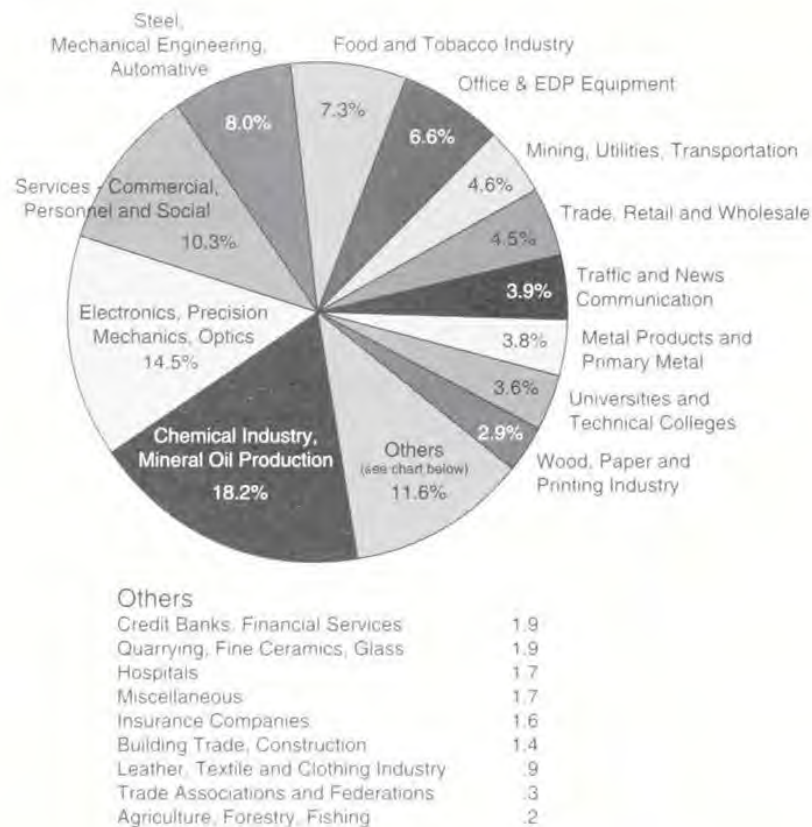


Fig. 38.3 The distribution of SAP installations by industry in mid-1995 still bears some evidence of SAP's origins in the chemical industry, but a strong presence in a wide range of industries has developed.

The figure shows the distribution of installations across industry sectors as of May 1995, based upon SAP's published list of reference installations (after excluding partners and consultancies). Installations were spread across 53 countries all around the world.

SAP has enjoyed massive growth since May 1995, so the overall volume will have increased significantly, but the distribution by industry will not have changed so much, and studying it will give you a good insight into the industries where SAP employment is to be found.

Emerging User Marketplace—The Next Generation of Users

The two main market thrusts which will affect the customer base are:

- The drive into middle sized and smaller companies
- Vertical marketing initiatives

These are discussed further in Chapter 41, "The Outlook for the SAP Employment Market," but it's worth mentioning here that SAP has currently earmarked banking, hospitals, oil industry, retail, public sector, publishers, and utilities for special attention. These are mostly areas where SAP already has a good foothold, and they are fairly broad areas.

Partners are picking up on the vertical market thrust and looking for niches in more specific areas, such as the beverage industry, estate administration, laboratory systems, and so on.

The next generation of users can be expected to be smaller, and more specialized, and they will not expect to bear the extended installation times and costs that the giants have. You can also expect them to be engaging in intercompany systems access with the larger companies in their own vertical supply chain, many of which will already be using SAP. It may well be that this development, which combines elements of both the mid-sized company and vertical marketing drives, will be a dominating feature of systems fashion in the next few years, and will have a profound effect on the pattern of employment in SAP.

From Here...

In this chapter you have learned about the way the SAP world is structured, and what the various players in it do. You have also learned broadly what that structure means for it as an employment market, and gained an insight into where particular kinds of employment exist.

- In case you haven't already read Chapter 37, "Globalization of the SAP Employment Market," you can learn a bit more there about the geographic disposition of SAP employment, and the prospects for international travel that it offers.
- In Chapter 39, "Employment Opportunities Working with SAP," you can learn how to map your own skills to the needs of SAP employers. This chapter will give you some more detail about some of the functions you can fill, the skills they require, and the job titles that they carry in the SAP world.
- In Chapter 40, "How to Find Employment Working with SAP," you can gain some useful advice on the actual process of finding employment in SAP, which will be particularly useful if you haven't worked with SAP before. Appendix C, "Sample SAP-Related Job Descriptions," contains some example job descriptions which do not require previous SAP experience.

- In Chapter 41, “The Outlook for the SAP Employment Market,” you can learn in more depth about the outlook for the future in SAP employment, and where the new jobs will arise. You can also learn to evaluate how the major trends will change the nature of SAP jobs and how they will affect supply and demand.
- In Appendix A, “SAP Offices Around the World,” Appendix B, “SAP Business Partners,” and Appendix F, “Complementary Solutions,” you will find contact addresses for many organizations. These are classified (by partner type and so on) so that you can see where they fit into the structure you have learned in this chapter.
- Appendix C, “Sample SAP-Related Job Descriptions,” provides some real-life examples of job descriptions.

Chapter 39

Employment Opportunities Working with SAP

Chapter 38, “SAP Workplaces—The Structure of the SAP Working World,” looked at how the SAP world is structured, and some of the general prerequisites for entering different parts of it.

This chapter will help you match your skills and aspirations to the activities and roles that exist within the SAP structure. It will then give you some guidance on what it takes to succeed in SAP terms, and what you can expect to earn by doing so.

Table 39.1 lays out the essential functions that have to take place in bringing SAP systems to the customer, and some of the special skills that are brought to bear on them. It uses a generalized set of function and skill descriptions that will be understood by everyone. This is so that you can map into it, on the one hand the skills that you have (or would like to develop), and on the other the various job titles and activity descriptions used by potential employers. In other words, it serves as a common language interface.

Table 39.1 Special Skills and Experiences Required for Each SAP Function (Scale: Blank = Not Required, 1=Beginning, 2=Intermediate, 3=Advanced).

Function	Vertical Business Sector Knowledge	Business Function Knowledge	Special Knowledge of the Technology	Systems Analysis Skills	Programming Skills
Developing the SAP Core Product	2	3	2	2	3
Extending Platforms and Interfaced Technologies			3	1	3
Extending the SAP Product with Solutions	3	2	1	3	3

(continues)

In this chapter, you will learn:

- The essential functions that the SAP world carries out, and the skills it needs to do so
- How to classify your own skills and recognize their usefulness to the SAP world
- To familiarize with the language of the marketplace and recognize how service-providing partners describe what they do.
- What some frequently used job titles mean
- What it takes to succeed in the SAP world.
- The levels of pay you can expect working in SAP.

Table 39.1 Continued

Function	Vertical Business Sector Knowledge	Business Function Knowledge	Special Knowledge of the Technology	Systems Analysis Skills	Program- ming Skills
Management Consulting	3	3	1	2	
Project Management	1	3	1	2	
Business Analysis	2	3	2	3	1
Fitting Business Needs with SAP	2	3	1	3	1
Modeling, Configuring, and Testing	2	3	2	1	1
ABAP Modifications	1	3	3	2	3
Installing "The User" (Documentation, Support, and Testing)	2	2	2	3	
Ongoing Technical Support		2	3	1	2
Systems Administration and Management	2	2	2	2	1

The functions and the skills mapped out on Table 39.1 are worth a little closer examination.

Functions—In Producing, Selling, Implementing, and Using SAP

Developing the SAP core product is the prime job of the development group at Walldorf, together with the smaller development group in the USA and other outposts. The core product includes the modules programmed in ABAP using the development workbench and the workbench itself. Some localized foreign language versions are being developed with "country partners," for example in Korea.

Extending Platforms and Interfaced Technology

SAP developers work together with platform partners to port SAP onto new platforms and thereby add value in the shape of special platform benefits. Complementary solution

providers create interfaces to SAP, which SAP tests and certifies thus extending the SAP capability to embrace the special benefits of each complementary solution.

Extending the SAP Product with Solutions

SAP produces some vertical market modules, such as Industry Solutions—Oil and R/3 Retail, as part of its development activities. In addition, some consultancy partners are adding value in the shape of vertical market solutions. This whole vertical market product activity is a growth area. Complementary solutions providers are not usually vertical market solutions, but more technical ones, such as data storage or data communications systems. A company has to have a marketable solution in place before it will interest SAP, so to the complementary solution partner it is more a case of adding SAP to the solution, rather than the solution to SAP, but it extends SAP's capability nonetheless.

Management Consultancy

SAP partners, especially the larger logo partners, are heavily centered on management consultancy. Their contribution in strategic vision, change management, and BPR is a significant part of the virtual organization's overall business. SAP subsidiaries also perform management consultancy for their direct accounts, and the Walldorf development team gets involved in this with German customers.

Project Management

Project management may be provided by all levels in the SAP supply chain, from SAP itself through all partner types to the end user. End users may choose to appoint their own project manager, and resource the project without handing over implementation responsibility to a partner.

Business Analysis

When we refer to business analysis here, what we mean is analysis of business needs at the individual project or client level. (Elsewhere in the book you will see mentioned a marketing role of "business analyst" which is not quite the same thing. As a marketing role it is concerned with analyzing the needs of a whole marketplace.) All consultants, employed anywhere from Walldorf through the whole subsidiary, partner, and end-user chain, need to have some business analysis skills, and each project requires them in a pertinent industry.

Fitting Business Needs with SAP

This is an activity that demands a combination of SAP knowledge and business knowledge. It fits the business needs (identified by management consultancy and business analysis) with the configurability of SAP, to arrive at an optimum solution. The optimum solution is one that gets as close as possible to the ideal working system for the user, without imposing excessive or avoidable demands for customization of SAP modules.

Modeling, Configuring, and Testing

Configuring is the really crucial skill that can only be acquired with SAP training and experience. It is right on the critical path for SAP's business development. SAP is putting considerable investment into providing tools to lighten the task, but the complex nature of the product suite means that skilled configurers will always be in demand.

ABAP Modifications

ABAP programmers are often employed by end-users directly. They are usually engaged in making minor modifications after implementation. (The majority of implementations are done without ABAP programming up front.) Less usually, a substantial module modification will be specified at implementation time, occasioning an ABAP design effort. Some partners do employ ABAP programmers, and supply their services to clients for all purposes; this is also a fruitful area for contracting houses.

"Installing the User"—Documentation, Training, and Support

Hardware and software do not make a working business system by themselves. The people who use the system, provide input, and operate it are important components, as are the surrounding manual systems that they use. Helping to train and support the users is often part and parcel of a systems analyst's work, but special roles may be created to handle these tasks in some companies.

Ongoing Technical Support

First level technical support is usually provided by the implementing partner to the end user, who in turn receives second level support from SAP. SAP provides first level support to its direct end-user customers.

The SAP Walldorf development team gets involved in support, providing guidance on maintenance levels, release procedures, etc., and the support activity overlaps with marketing to some extent in the SAP subsidiaries.

Systems Administration and Management

End-users normally keep responsibility for ongoing systems administration and management, and involve their mainstream management in the function (although they can also outsource the function from partners). From the users a so-called "super-user" will often emerge, who understands how SAP "thinks" and knows how to get the best out of it, and ensure that it meshes with the surrounding procedures and objectives. This person can be very useful in making systems run smoothly, and may progress into SAP consultancy.

Apart from the general capability to carry out the above functions, some special skills are required which cut across the functional lines.

In Table 39.1 these are grouped into broad skill types and cross-referenced to the main functions, according to what level each skill is required to carry out the function well. They are worth exploring a little further.

Skills Required to Perform Functions

Vertical business sector knowledge is needed at all levels, to a greater or lesser extent. SAP has developed by gaining practical field experience, taking it back up the supply chain, incorporating it into the product at "factory level" where possible, and distributing it with the product back down the supply chain. This practical field experience includes vertical market experience.

Business Function Knowledge (Module Application Knowledge)

Again the need for this arises at all levels. The product is based around a defined set of business functions and the modules aligned with them. The remarks made on vertical business sector knowledge apply equally here.

Special Knowledge of Other Technology

Apart from the platform technology development arena, a need for knowledge of particular technologies can arise at the individual project level, because of the variety of platform systems and interfaced systems that users may have. Where such a need does arise, both end-users and partners will seek to recruit special technical skills. The job specifications in Appendix C, "Sample SAP-Related Job Descriptions," show examples of this.

Systems Analysis Skills

These are the essential skills that interface on the one hand, user management—its operational objectives, constraints, and priorities with—and on the other hand, SAP and the implementation process. They are valuable in virtually all functional stages, but especially from the stage where SAP implementation is agreed upon.

Programming Skills

As with many other 4GLs, the ABAP programming and the analysis/design skills often reside in the same people. Where this is not the case, then the analyst needs an appreciation of programming and vice versa. But practical programming skills are only a strict necessity when the systems analysis yields a requirement for ABAP programming.

There are many specialities within each of the above skill types—as many as there are permutations of vertical markets, business functions, other technologies and areas of systems and programming experience.

How SAP Partners Describe Their Services

Similarly, the function titles in Table 39.1 are boiled down from the kaleidoscopic variety of descriptions the SAP world uses to describe its activities.

That boiling down makes analysis manageable, but robs the descriptions of their variety and "color." You can only get that by looking at examples. Table 39.2 shows a (far from exhaustive) sample of ways that partners describe the SAP-related services they perform. Each partner will include anything from 6 to 20 or more of these in its brochure. Looking at them all together, and mixing the superficial descriptions with the more detailed ones, gives a clearer picture of the activity spectrum, and what the descriptions mean, though the sample does not aspire to be a glossary.

Remember that service suppliers in the real world are more concerned with differentiating themselves, and suggesting special benefits of their particular offerings, than they are with fitting neatly into your paradigm.

Even if you can't really classify all of the real-life descriptions, you'll find that just being aware of them helps when reading literature produced by SAP employers. You will be more comfortable with the terminology and better placed to probe confidently.

- ABAP programming from customer specifications or as part of project
- Act as either project manager or prime contractor
- Activity plans with date and effort control mechanisms
- Assessment of migration impact
- Assume full responsibility for R/3 projects and the integration of complementary products and services into a complete customer specific solution
- Basis consulting
- BPR consulting
 - Define specific improvement objectives.
 - Redesign business operations in ways to help achieve the objectives.
 - Define the new business processes to support the new operations.
 - Manage the implementation of the solution and drive this through into SAP implementation.
- BPR consulting
 - Business Change Management Consulting.
 - Assess degree of change requirement.
 - Design framework for change.
 - Identify components of change program.
 - Develop detailed plans for change.
 - Drive through into changes/enhancement requirements of the SAP systems.
- Business operations analysis
- Business Reengineering
- Business Workgroup Performance Consulting:
 - Align workgroup process with business improvement objectives.
 - Define operation of workgroups to enable objectives to be met.
 - Assess information required, expertise of workgroup members, training and tools needed.
 - Plan and manage the improvements.
 - Software and technical training

- start-up support
 - maintenance, fine tuning
 - development of additional applications
 - help desk, FM services
- Change management
 - Client specific module expansion/modification
 - Concurrent Transformation (concurrently reengineer your processes with SAP R/3 installation)
 - Configuration design
 - Configuration management
 - Contingency planning and disaster recovery
 - Conversions
 - Customization
 - Database workshops
 - Data migration and co-existence management
 - Data transfer or supply of interfaces to link up with remote systems
 - Data Warehouse consulting
 - Dbase design and programming
 - Design and establish new IT infrastructure
 - Design of framework for change
 - Develop individual applications with R/3
 - Development of common standards and architecture for SAP projects
 - Development of industry templates, prepackaged configurations, and tools
 - EDI integration services
 - Estimation of implementation effort
 - Evaluation consulting
 - Hardware and Network configuration, design, implementation, and management
 - Hardware services
 - Implementation
 - Industry solutions

(continues)

- Integration Advocacy programs
- Integration of R/3 business processes
- Integration with legacy systems
- Logical and physical Database design
- Long term support provision
- Management of backups, recovery, scheduling, and output for R/3 systems
- Migration change control
- Monitor production environment
- Monitor R/3 project status
- Needs analysis
- Network integration services
- Network security administration
- Optimize balance between Business/organization needs and R/3 functionality
- OPMS (Online Project Management System)
- Optimize systems availability
- Performance analysis
- Performance optimization
- Planning, management, and implementation of migration tools
- Private lessons on-site or remote
- Process alignment
- Process improvement to an optimum
- Produce conversion and interface link programs for legacy systems
- Production handover & training
- Project Management
- Provide integrated performance support software environment
- Release upgrades
- Remote development facility linked to SAP R/3 Workbench
- Remote R/3 preventative maintenance and diagnosis
- SAP concepts Education Workshop
- Service level agreements



- Software and technology selection
- Structured methodology
- Submit back-up/recovery concepts
- System and Network management
- Systems cloning (e.g., split R/3 for demerging companies)
- System configuration checking
- Systems Integration
- Systems performance monitoring, control, and improvement
- Technology consultancy
- Training on EDI integration within SAP R/3
- Transfer of procedure models into prototypes
- Tuning guidance and implementation
- Tuning of individual ABAP programs
- Tuning of R/3 systems
- User and technical support and help desk
- Win NT Services

To add further variety some partners develop applications, development tools, or market platform and complementary products. Such partners have their own special product focuses which are not reflected in the above "function-based" descriptions.

Both your employment prospects and your understanding of them will increase the more you get familiar with the terminology that potential employers use.

To assess where the employment opportunities lie from your own perspective, you need to profile your experience in terms of the functions you can handle and the special skills you have (in terms of specific vertical markets, business processes, and so on, not just the general skill types), and investigate where the employment market is generating jobs with a good match.

You don't, of course, need to seek a perfect match. You will probably want to extend your capabilities to some extent when making a job change, but you need to have as many of the requirements already as the employer can reasonably hope to get. Your best opportunities to develop often come not when you're changing employers, but rather through moving across your employer's spectrum of activities.

When pursuing a career in SAP, as in many other fields, remember you have to constantly negotiate an unwritten compromise between your desire to develop yourself (a desire shared to some extent by your employer) and your employer's need to get productivity by re-using your existing skills (a need shared to some extent by you). How well

you fare in this negotiation will in large part determine the return you get on your efforts over your career. Good negotiation happens when both parties get a fair deal. If you keep your eye on the “ball” of your own advancement and also address your employer’s needs fairly, you will build a solid career and a good reputation.

Job Titles in the SAP World

The job title consultant appears in a lot of SAP world jobs, and different employers have different terminology. A cross section of full role descriptions is shown in Appendix C, “Sample SAP-Related Job Descriptions,” showing the requirements of applicants as well as the roles they are expected to carry out.

Appendix C includes a number of examples of positions that occur in the SAP development group and in SAP subsidiaries. These are worth reading if you aspire to the development, marketing, or special consulting roles that are particular to SAP itself.

But SAP itself is not where the bulk of employment opportunities lie, so we will concentrate here on job titles that occur more widely.

You will often see the title “SAP consultant.” This catch-all title means a lot of different things, and you have to look at the details to see what the job entails. It usually means that SAP expertise (of whatever kind) is the prime requirement and is more important than industry or other ancillary knowledge.

Here are some examples of more specific job titles that occur in the SAP world, in recent advertisements and job descriptions, and what some of them mean (or at least have meant in example cases):

ABAP Programmers

In end-users, the ABAP programming role involves mainly modifying systems that have been configured from SAP modules. Only occasionally will a fairly major functional addition be programmed. ABAP is a high level 4GL, and so there is not always a division of labor between programmer and analyst (Though some companies still preserve the traditional programmer/analyst split, the trend with modern development tools is away from that distinction). In SAP itself, of course, the development team uses ABAP for major module development tasks, and so do some developmental partners.

ABAP openings are very often associated with specific SAP modules, so knowledge of that particular module, or the application for which it is designed, is pertinent.

ABAP Designers

Those more significant developments that take place in ABAP, whether in end-users or elsewhere, have to be designed to integrate with the rest of the system, as well as to provide the required functionality. ABAP designers are expected to have knowledge of ABAP programming, and engage in systems analysis and design at a little more detailed level than SAP configurers, because although ABAP is a high level “language,” it is still a lower level “language” than module configuration.

ABAP Developers

This title often appears in advertisements, and depending on the advertiser, it can mean programmers or designers or programmer/designers. The demarcation lines are not always clear, and agencies who advertise usually have several positions to fill anyway. By using this “catch-all” title they can attract candidates for a number of them.

Application Engineer

Partner employers have used this title to describe people who take their brief from the business requirements as defined by the R/3 implementation analysis, and use R/3 configuration tools to meet these requirements. They may then follow through to provide remote and on-site support to completed implementations.

BASIS Consultant

This title is often suffixed with a vertical market specialty in advertisements—e.g., “BASIS consultant—correction and transport,” and sometimes with a functional specialty, e.g., “BASIS consultant—security/support,” or a platform technology skill, e.g., “BASIS consultant—HP-UX support” or “BASIS consultant—Oracle.”

BASIS consultants engage in “deep configuration” and have to understand the R/3 architecture and supporting BASIS technology.

Business Analyst

Typically a business analyst has to define the needs of the business and understand its processes, interfacing management and user needs to the SAP capability. Depending on the other strengths in the employer’s team, the business analyst may need a technical background (not always just in SAP but sometimes in relevant technologies such as Oracle, Networking, UNIX, and so on).

Commercial Analyst

This is synonymous with the term “Systems Analyst” (described later) but particular to “commercial” systems. A commercial system can be any system that is concerned with transacting business. The term excludes systems for such purposes as technical design, process control, or scientific analysis. Depending on the organization, commercial systems may include financial systems.

Financial Analyst

This is synonymous with the term “Systems Analyst” (described later) but particular to financial systems. Financial systems, depending on the organization, may include anything from investment management down through financial planning and accounting systems, and even billing, payment, and collection systems in some companies’ terminology.

Industry Module Consultant

This title will include the particular industry module when it is advertised—e.g., “IS-OIL consultant,” or “R/3 Retail consultant.” A module consultant configures the particular module and also needs the business and industry knowledge to discuss its benefits and

limitations at the senior management level. In addition he/she needs sufficient technical knowledge of the module, and of the integration issues surrounding it, to resolve problems.

Integration Managers

This title often implies duties very similar to those described later for “Module Configurers.” It does not always imply any extra responsibility for interfacing with other technology.

Junior Module Consultant

Occasionally, the term “junior” will appear in a title. This offers you the opportunity to get into that area to expand your general experience and possibly to gain your first SAP experience after training.

MIS Manager (Management Information Systems Manager)

This position is of strategic importance to some end-users, and often reports directly to the managing director. The role includes responsibility for strategy, budgets, vendor negotiations, resource allocation, project prioritization, performance and security issues, SLAs (service level agreements), and the corporate interface. It’s mentioned here because SAP experience is considered increasingly important in the role.

Module Configurers

Although, as the title suggests, configuring SAP is an essential function, this is never done in isolation from the exploration of needs, and the role overlaps with business and systems analyst roles. As a typical example, one employer specifies module configurer responsibilities as: “Working closely with clients to assess their requirements in finance, materials management, sales and distribution, production planning, and human resources.”

Project Leader

Often an end-user will employ a project leader as the steward of its interests, employing someone, usually from its existing staff, with more knowledge of the user’s business than of SAP. Such a project leader would need to develop SAP knowledge, but would have more experienced SAP consultants available in the team.

Project Manager

The scope of a project manager depends entirely on the project, but many SAP projects are large and wide-ranging. (See also “Senior Consultant.”) These people are often *de facto* project managers. The different “project leader” role described in the preceding section can also be designated project manager by some end-users.

R/3 Business Consultant

This title in consulting partnerships has been used to describe a consulting role with a high pre-sales content in promoting R/3 (in one example specifically alongside Siemens Nixdorf’s LIVE approach, but other consulting partnerships would have other value-added focuses). The job includes typical pre- and post-sales support activities of an IT consulting partnership or specialist software house, and experience in these activities is as important as SAP knowledge.

SAP Analyst/Business Analyst

These titles have been used to describe a role that involves having capability as a "Business Analyst," but with a greater orientation towards SAP. The person would be championing the use of SAP, advising on its functionality and configuration, and solving integration problems.

Senior Consultant/Analyst

How senior is "senior" depends a lot on the employer, and sometimes its pay scale policies (it has to call you senior to justify what it has to pay in the SAP market). But usually it will imply responsibility for coordinating SAP introduction across a wider range of functional areas and geographical locations, including other SAP consultant activities, and for integrating these into a cohesive strategy. A senior consultant in the SAP world is often in effect a project director.

Systems Analyst

This title can stand alone or be incorporated into titles such as "Commercial Analyst" or "Financial Analyst," which specify the business process areas in which the analyst will work.

Systems analysts can expect to define processes and requirements, engage in detailed design, configure SAP systems, and follow through to perform documentation and user training. Some degree of project management is involved, as is planning and implementing systems cutover. Expertise in appropriate business areas is valued, sometimes to the extent that it will override lack of SAP experience, and provide an entry into SAP.

Technology Manager

This title designates the person responsible for international rollout of network technology, including R/3 systems. He/she manages the technical, installation, and testing aspects and interfaces with the application design team.

In addition to the above and their derivations, you will also see advertised titles including the sort of special activities that are self-explanatory, such as security, auditing, and testing, which are performed around SAP systems.

The SAP world is unusual in the width of applications and ancillary technology knowledge that it embraces. This is because of its nature as a standard applications suite built on core business processes, plus the way that a wide range of platform and technology partners have espoused it.

This chapter can only give you a feel for its richly varied employment openings, especially the ones that crop up in this book, and you can enhance that by looking at the job specification examples in Appendix C.

Again, if and when you start looking at the SAP job market in earnest, you can expect to come across lots more job titles not covered here. But don't be fazed by that. They will boil down to something not too different from the titles we have covered here.

What It Takes to Succeed—The Personal Attributes

Success is many things to many people. It's not anyone's place to tell you what you should want out of life, so we'll limit ourselves to addressing success within the limited definition of achieving a "goal" position—a point where you have maximum career options.

The goal position is to achieve the status of "Senior Consultant" described earlier, with an international reputation for managing large and complex projects.

We're not saying that this should represent your life's ambitions, but only that from there you're on your own. Options are open from there to climb on up the management ladder, go it alone, or simply enjoy a comfortable lifestyle.

You are in a position which many people would consider as having achieved success. Senior positions are now in your range, in consulting partnerships, large end user organizations, or SAP itself. Beyond this point you are dependent on your management skills. SAP experience will have helped you up the ladder, but it won't by itself take you much further. You may, like many before you have done, choose to operate your own consulting partnership or "take the money" and go for the top priced contracts that are available to you.

Before reaching that goal there is a key "switchpoint" on your progression, and it occurs when you have gained solid experience as an SAP consultant, and are beginning to aspire to gaining "senior consultant" experience. The switchpoint is a good time to consider widening your experience by moving across into another employer type—from end user to partner or SAP, or vice versa, or between SAP and partner.

To reach the goal, you obviously must have the basic qualifications to get started (see Chapter 40 "How to Find Employment Working with SAP"), and develop the skills to do the job along the way. But given these basics, excellence in certain personal attributes show up time and time again as being what sets the high achievers apart in the SAP world. They are:

- **Self starter attributes**—Initiative, enthusiasm, and the ability to organize yourself, plan and achieve your own goals, be proactive, and find better ways of doing things. This may seem paradoxical given the emphasis on teamwork, but it's not. A good team member is someone the other members can rely on.
- **Intellectual ability**—A high level of intelligence is indispensable to really succeed in the SAP world. The abilities to think broadly and conceptually while handling details well and to merge an analytical approach with pragmatic realism require high intelligence as a prerequisite.
- **Ability to work under pressure**—Deadlines are important in the SAP world, and delays are very expensive.
- **Interpersonal communications attributes**—The ability and inclination to communicate openly and honestly, and a generosity in sharing information and

transferring knowledge, as well as the ability to communicate and make good relationships at all levels, be empathetic, be a good listener, and adopt team-building attitudes.

- **Credibility**—Communicating in a friendly way is not enough by itself when large investments hang on your advice. You must also cultivate credibility. In part, this arises naturally from your work record, and also some people have a natural *gravitas* that inspires confidence. But good preparation and care with the acquisition and preparation of facts will help you make the most of what you have with the hand you have been dealt.
- **Commitment**—Requirements for motivation, flexibility, and a willingness to travel are likely to place demands on your commitment if you want to excel.
- **Leadership skills**—The ability to motivate others and get the best out of them. If you have the qualities mentioned so far, then you are well on the way.
- **Enterprise-wide business understanding**—Knowing the logistics and culture of enterprise-wide software solutions, how and where integration and standardization should prevail over local priorities and vice versa, and the ability to co-ordinate projects across a very wide range of activity and cultures.
- **Vertical business sector understanding**—An in-depth knowledge of business issues in one or more vertical markets will help bring you a breadth of vision and increase your credibility and value.

These qualities create the team-building, wide-visioned manager around whom successful project teams are created, and who are in such high demand in the SAP world.

Although this section is not about specific SAP skills development, one point is worth mentioning. As you are making your way in the SAP world, you will have consistently wider options if you have the ability to configure SAP and understand its architecture thoroughly. You should take the opportunity to acquire this knowledge as early as possible.

Some of the above attributes you can cultivate, others are not so amenable. You either have them ingrained from your infancy (and in part, some would say, your genes) or you don't. Take a realistic view of how far you have these attributes, and how far you can, or want to, change yourself to gain them. Then set your career goals accordingly. Don't be seduced by financial prospects into taking a route that's unsuitable for you.

Having said that, the financial rewards throughout the SAP world are good.

Levels of Pay Working with SAP

SAP is in the premium-bearing band of IT employment. Comparing SAP positions with the general run of non-SAP ones (of similar seniority and skills requirement) shows that SAP confers a premium of the order of 25 percent. People skilled in its closest competitors such as Oracle and Peoplesoft also command premiums, as do some other software specialty areas that are in demand. But as of mid-1996 SAP heads the league.

The positions where SAP people enjoy the greatest salary premiums are at the top end. Those people with the capability to manage large multifaceted projects with several major projects in their CV are most in demand, and least likely to have their premiums eroded by the improved systems development tools that SAP is turning out.

Configuration skills are also much sought now, but the general view in the recruitment and contracting market is that, while the jobs will last, the really heavy premiums for this skill will not. It is more possible to balance supply and demand in configuration by training and productivity tools than it is at a more senior level. Configuration skills will still remain highly valued, though, and in demand.

If your primary interest is in fast earnings then, provided you are highly competent (whether or not you have yet reached "top end" status) you will do best by "contracting," either via a contracting agency or directly onto a project team. At the time of this writing senior consultants who are able to place themselves directly can get rates as high as \$8,000 (US) per week, while those who go through an agency can command a salary in excess of \$5,000 (US) a week.

This is around twice the rate for permanent employees of a similar caliber (taking into account employee fringe benefits), and represents the reward a contractor gets for taking risks. However, as SAP projects are so long, and the demand is so high, the risks are minimal, and contracting is the way to the highest earnings in the shortest term.

Long-term earnings are a different matter. Contracting is not the best way to climb the management ladder in a large company. Played for the long term, SAP offers a route into positions of strategic importance that can lead to the boardroom, where salaries, executive perks and share option schemes may yield the sort of serious money that makes even SAP contracting rates look puny. To equal that by taking the contracting route means investing your extra early earnings wisely. If you are career planning for maximum overall financial benefit, you have some interesting comparative arithmetic to do.

Meanwhile, back to the present. Table 39.3 shows some examples of permanent positions being advertised internationally in mid-1996 (with all salaries translated to US dollars). These were all advertised in the European computer press in early 1996.

Table 39.3 Job Positions and Annual Salaries

US\$	Location Specified	Position
150,000	USA	Senior Consultant MM,SD
150,000	Texas, USA	Project Manager
140,000	USA	Project Manager
125,000	City of London, UK	Senior Implementation Manager
110,000	Singapore	Senior Consultant FI,CO
60,000 to 150,000	Europe	Implementation specialists, Module Consultants, BASIS consultants and ABAP analyst/programmers
to 110,000	Australia/USA	R/3 Module Consultants
95,000	Sydney, Australia	

US\$	Location Specified	Position
45,000 to 110,000	UK	SAP BPR Consultants
to 70,000	Australia	Module Consultants
to 85,000	USA	Implementation Consultants
75,000	Europe	Project Manager
75,000	UK	SAP Business Analysts
to 70,000	UK	ABAP Developers
70,000	USA	R/3 Module Configurer
70,000	Germany	BASIS Consultant
70,000	Saudi	BASIS Consultant
62,000	London, UK	ABAP Programmer
60,000	Germany	Project Manager
60,000	South East Asia	Project Manager

These absolute figures will raise a smile, no doubt, in a few years, as the value of money changes. That's an occupational hazard of quoting the price of anything in a book, but for the time being they give a fair picture of where SAP salaries sit.

From Here...

In this chapter you have learned a way of looking at and classifying the SAP employment market, and what it does that will help you match your skills and interests to it. You have also learned to expect and cope with some widely varying terminology from the marketplace.

- If you haven't yet read Chapter 38, "SAP Workplaces—The Structure of the SAP Working World," you can learn more there about how the SAP world is structured, and the roles that the different types of employers play in the overall process of delivering and supporting SAP systems. These roles embrace the functions you have learned to recognize in this chapter.
- In Chapter 40, "How to Find Employment Working with SAP," you can get some practical advice on how to set about the actual process of getting into SAP, and Appendix C, "Sample SAP-Related Job Descriptions," contains some example job descriptions which do not require previous SAP experience.
- In Chapter 41, "The Outlook for the SAP Employment Market," you can look at the outlook for the future in SAP employment, and see how the emphasis on different skills and functions might change. You can also learn to evaluate how the major trends affect supply and demand, and consider what effect that will have on levels of pay.
- In Appendix A, "SAP Offices Around the World," Appendix B, "SAP Business Partners," and Appendix G, "Complementary Solutions," you will find many useful contact addresses. You can obtain literature and advice from most of these sources that will help you develop your fluency in the language of the marketplace.

- Appendix C, “Sample SAP-Related Job Descriptions,” provides some real life examples of job descriptions, which will fill out the understanding you have gained from this chapter.

Chapter 40

How to Find Employment Working with SAP

X

SAP Employment Market

This chapter is aimed first and foremost at those seeking to break into SAP.

If you already have SAP experience, you will know that you have lots of employment options. You are on the right side of a supply and demand imbalance, and your main concern will be to make the best choices, from the many open to you, in order to direct your career towards achieving whatever your life goals are. This chapter may help in that process by widening your choices, and perhaps suggesting some new avenues through which to exploit your advantage. It is potentially useful reading.

If, however, you are on the outside looking in, then options are not so plentiful, supply and demand does not work in your favor, and the chapter is not merely useful but essential reading.

In mid 1996, recruiters in the SAP industry are forecasting growth of between 50 percent and 100 percent in the number of people working in SAP, either for SAP itself or with partners. And such people presently number close to 20,000. That is without counting end-user employees. The shortfall in SAP skilled people is a prime topic anywhere SAP is discussed.

It can be frustrating to hear all this talk of shortfall, and then when you offer your services to help meet it, you find only closed doors. Why does this happen, and how can you get round it?

Well, there's bad news and good news. Lets get the bad news out of the way first.

Whereas for experienced SAP people there are more openings than qualified applicants, it is the other way round for new entrants to SAP. Supply and demand is against you.

In this chapter you will learn:

- Why it is worth persevering if you want to break into SAP
- How to assess yourself and your prospects for working in SAP
- How to prepare yourself to gain a foothold in SAP
- How to locate the sources of job opportunities
- What to read next

A typical recruitment agency dealing in SAP jobs internationally, reports that at least 50% of the “overtures” it receives for SAP employment are people who are seeking to get their first SAP experience. This is true whether they are responding to advertised vacancies or making unsolicited inquiries. In contrast, less than 10% of the vacancies advertised are for new entrants to SAP. This is about par for the SAP-recruitment world.

SAP itself receives thousands of unsolicited resumes. In Germany, as well as in the subsidiaries, these may outnumber vacancies by a factor of 20 to 1.

All this really means is that if you don’t have SAP experience, the employers won’t come looking for you, because they do not need to, and they can afford to be selective when you go looking for them. It does not represent an insurmountable barrier, provided you have some useful expertise outside of SAP (more of that later).

Console yourself, also, with the thought that the apparent “closed shop” that thwarts the inexperienced has always existed somewhere in computing (and indeed very many other careers). SAP is just today’s prime example.

Also, isn’t the fact that it’s a privileged club at least part of your reason for wanting to join it? Certainly it’s the reason why the salary levels are so good, and Groucho Marx had a point in his oft-quoted assertion that “I wouldn’t want to join any club that would have someone like me as a member.”

So, on to the good news:

However they do it, and wherever the new people come from, the fact is that the industry as a whole must train and accept in excess of 10,000 people per year worldwide as SAP consultants. No amount of movement by existing SAP people between employers can obscure that. In the USA alone, an estimated 2,000 new SAP consultants are coming on-stream per year.

Given some of the developments in the marketplace, these figures may turn out to be gross underestimates.

The supply and demand situation looks likely to remain as it is for some years yet, with high premiums being paid to very experienced SAP people. At the same time, SAP is pressing on with lots of developments (discussed in Chapter 36, “Overview of the SAP Employment Market,” and Chapter 39, “Employment Opportunities Working with SAP”). Many of these are designed to make installing SAP easier and, to some extent, reduce the need for manpower, but new departures always offer opportunities to the newcomer, because the “sitting tenants” have less advantage—“everybody’s a trainee.”

The move into the market for smaller companies is proceeding apace, and these companies may provide a good route into SAP. The smaller companies simply cannot afford the huge budgets that the giants are spending on business systems reengineering, so they will have to accept less experienced people. SAP is moving towards more “load and go” type systems for this marketplace, and these should place less of a premium on experience.

Although SAP experience is considered vital, there are many other skills involved in realizing SAP systems—that is in the nature of the product. Knowledge of special application areas, business processes, platforms, and complementary technology all need to be welded to SAP skills in some part of the SAP activity spectrum. This provides a lot of potential entry tickets. If you have some of these skills, you have something to bring to the party, and the right employer could consider it worth developing your SAP skills to complete the set.

Despite the premium being placed on experience, it is interesting that recruitment specialists, partners, and end users alike express the view that SAP knowledge is not the most important predeterminant of success in implementing SAP projects. Some measure of it, of course, is essential, but the emphasis placed on other qualities, skills, and experience offers you, the novice, the chance to be a special candidate. Previous SAP experience is not everything.

In summary, if you have something to contribute, don't be deterred by the SAP experience barrier. As an absolute fact, thousands of people are going to break through it in the next year. Some of them will do it by chance—by being in the right place at the right time. This chapter can help you to do it by design.

Although there is competition for the openings, many of your competitors will take a passive approach—looking at advertisements, perhaps mailing their resumes to agencies or known employers. Few will mount a pro-active, planned and concerted campaign, and if you do so, you will have put yourself into a select group already.

The fact that it might take application and persistence to break into SAP is not a reason to give up. There is only one reason for giving up, and that is because a rational assessment leads you to believe you would not succeed and be happy at it, once inside. This is not the same thing as being deterred by the difficulty of getting there.

Self Assessment—Know Your Realistic Options

The first year of SAP experience will transform your prospects in the SAP world enormously, but what are your realistic options for getting that experience?

The answer to that will depend on a matching process between you, the individual, and the requirements of the various roles that can provide an entry.

Roles and Requirements

Let's consider the various roles in which it is possible to spend that vital first year. Those that exist in any real quantity fall into four main categories, or at least they do for present purposes. These are:

- Management consultants
- Analyst/implementers

- Project managers
- ABAP programmer/developers

Other categories, such as trainers and salespeople, are on the borders of SAP specialization. A trainer might want to move into training in SAP, and it's not unheard of for trainers to move across into support and consultancy in most software environments, so there is no reason to suppose it won't happen in SAP. However, for the most part, trainers are not assumed to be seeking an entry into a career based on their SAP skills.

Similarly, sales and marketing people do not rely primarily on their technical skills, and, in any case, the role of the pure salesperson is not central to the consultancy centered process that sells SAP installations. So while there are important sales and marketing roles, notably in SAP subsidiaries and headquarters, these are rather special cases.

SAP acknowledges, however, that it has learned to be more commercial and sales-oriented by importing experienced marketers from backgrounds in major systems, large scale software, and consultancy. If you are in this category, there will be opportunities around SAP, and some example of marketing job description are included in Appendix C, "Sample SAP-Related Job Descriptions."

Greater opportunities could arise in the traditional sales executive role as penetration of smaller companies proceeds. It is arguable that the whole process will have to become a bit less wed to management consultancy, and more like a typical solution sale, if SAP is to realize its full potential with smaller companies.

That said, neither training nor sales and marketing roles are considered as a major category.

Specialist documenters also fall into the "special case" group, although one company at least—Documentation Associates—has built a large business out of documenting SAP based systems, and there are specialist opportunities for individual documenters at SAP headquarters for programmers, business analyst/implementers, project managers, technology. Another outfit—Documentation Consultants (UK) Ltd.—is currently building its team and looking for top-class documenters. Both of these are listed in Appendix I, "Companies Providing SAP Services."

Reiterating, the four main categories we'll be looking at are management consultants, analyst/implementers, project managers, and ABAP programmer/developers.

For any of these roles you will need to have something of an outgoing confident personality, and be good at teamwork and at organizing yourself to meet goals and deadlines. A glance through the example job/role descriptions in Appendix C, "Sample SAP-Related Job Descriptions," will show how regularly such qualities are demanded, in one guise or another. Some of the roles described demand a lot more of these attributes than others, but all require a fair amount.

The nature of the SAP product means that it reaches out, communicates, and integrates, and the SAP world expects its people to do the same.

There is very limited scope for the backroom computer whiz who likes to withdraw into machines and technology. The SAP core product development team is the place which could most easily tolerate lack of personal communications skills in order to gain brilliance in software design. The recent advertisements on the Internet for developers in SAP's development team in Walldorf, Germany, place at least as much emphasis on technical skill as on personality, though they do stress the need to work cooperatively, and the general culture is one of easy communication. The difference, at least in some of the roles, is that you would be less required to communicate with business management than in most other places in the SAP world. The core product development activity is tiny, though, compared to the vast opportunities out in the field, consulting on, designing, and implementing SAP systems.

Among end users there are some who need ABAP programmers simply to be good programmers, because these employers maintain the old distinction between analysts and programmers. But even there, if your aim is to progress from ABAP programming up any of the worthwhile career paths to which it could lead, you're going to need the typical SAP personality traits.

So if you lean towards the reclusive rather than the outgoing, then however brilliant your technical ability, you might be better to apply it in some area other than SAP.

On the other hand, if you like personal responsibility, teamwork and partnership better than hierarchical command structures, you are likely to fit in well and be happy working with SAP.

The second prerequisite quality is a minimum level of intelligence, providing the ability to think logically, analytically and constructively. In this regard it is little different from working with other software, although SAP probably places a higher premium on the ability to take a broader perspective—to marshal high level options, and puts less value on brilliant invention, relative to many other software environments.

Given these two things—the right personality type and the right intellect—you have the ability to perform well in the SAP world, provided you can acquire the necessary training and experience.

To get that training and experience, you will almost certainly have to have some other advantages going for you. Some of these you either have or don't have, and if you don't, there's not much you can do about it. Others you can cultivate, if you really want to.

So much for the common prerequisites. What specific ones do you need in each category?

Management Consultants

The large management consulting firms provide a major entry path to SAP for those who can meet their demanding standards.

All of them have a large commitment to developing people, in SAP as well as in other areas, but Andersen Consulting is the first (and by mid 1996 the only one) of these to have acquired the license to deliver SAP accreditation, so their view is worth exploring.

Andersen policy is not to recruit in response to specific project demands. Rather it has a supply side and a demand side, and the supply side tries to forecast and foresee demand, and develop capability to meet it. This is on a more strategic basis than simply meeting the needs of the moment. Andersen wants people it recruits to have a career potential that goes well beyond the lifespan of the current SAP dominance.

The central message is that meeting the "Andersen profile" is much more important than SAP experience.

In the words of a senior manager "People get too hung up on the dearth of SAP skills. The success of projects has a lot less to do with SAP skills than with project management skills. The most important skills are in handling big projects with complex structures, across multifarious cultures"

Andersen takes people in at all ages from early twenties up. Basically, there are two types of intake:

- The fresh graduate (including those with small experience)
- The experienced manager/consultant

There has been a shift in recent times toward the older, more experienced, recruit.

As a fresh graduate, you will need:

A good degree (3.5 or higher, in US terms), ideally with postgraduate qualifications. The subjects studied are not very important.

The right personality type. An executive directly concerned with recruitment summed this up in these terms:

- Self confident
- Professional
- Comfortable dealing with directors
- Has drive/motivation—is a self starter

You will need to pass muster on all of these fronts. A combination of intellect and personality is required. A brilliant first class degree holder would not be hired without the right personal attributes.

As an experienced manager/consultant you will need:

A similar education to the fresh graduate, though there is less emphasis on this, the more advanced in your career you are.

The same personality type as for the fresh graduate, though there is more focus on relevance of skills and experience. "Cultural fit" is important, and you are most likely to have that fit if you have worked in another consulting firm or in management with a large "blue chip" organization.

Most important are very good skills in some of these:

- Business skills
- Industry skills
- Project/change/strategic management
- Appropriate technology

The majority of experienced people taken are in their thirties, but can be up to any age, provided they have commensurate experience. The older you are, the better experience you need.

If you are recruited as an experienced person, you have to be ready to be put out in front of clients and be useful to them very quickly.

The first year induction process into the SAP team is to take a SAP course, and then work on a project either uncharged or at reduced rate (to the client). You would be in a team with experienced people and be expected to pick things up quickly.

Andersen uses modern information tools to harness and disseminate experience. Lotus Notes, discussion databases, and expert networks are all used extensively.

Most of the foregoing holds good for all the leading management consulting firms, and for lesser management consulting firms unless they are totally focused on SAP.

These consulting firms represent a prime opportunity area to top class entrants to SAP looking for a career rather than to make “a quick buck” out of SAP, and their stated policy is not to evaluate purely on SAP experience.

Whether they can avoid having to chase ready-made SAP skills from time to time is another matter. Price Waterhouse, for example, has been mounting a massive campaign to recruit SAP expertise from around the world for the USA, and many consultants find themselves obliged to fill gaps by using contractors.

The general recruitment policy, nonetheless, provides a very good pathway into SAP.

Business Analyst/Implementers

This is a very large employment area in SAP. Opportunities exist with the implementation partners, contractors and end-users. Each of them would much prefer people experienced in SAP, but supply and demand dictates that some of them have to accept the training responsibility sometimes, or leave jobs unfilled. For the partners and contractors, an unfilled post means loss of profit, and for the end user worse—loss of development and gain of pain.

SAP itself, in its subsidiaries (from where the SAP product is sold and supported), is not an employer of new entrant SAP people. It has to have top quality people to fulfill its role there. It is a great starting point for information (more of that later), but if you want

to start out in SAP with the producer itself, then check out how you match the requirements of the development team, as described under “ABAP programmer/developers” later in this chapter.

A contracting agency will be more likely to help you break into SAP if you already have a good working relationship with it. Contracting houses are geared to delivering people who are the finished article, immediately useable—that’s why their clients use them, so developing people is a minority activity. Because of the extreme shortage of SAP people, however, some of them have helped convert their existing contractors to SAP, and may even help convert new applicants—but you will have to offer some other immediately useable skill. The skills in demand can easily be assessed by looking at advertisements by contracting houses in the computer press. A good background in client/server systems, UNIX and 4gls (fourth generation language) are often cited as key requirements. You should be prepared to accept a reduced rate while you learn SAP and find an agency you can do a deal with.

The end-user route has the problem that most large SAP users have staff of their own that they can retrain. This problem is exacerbated by the fact that business reengineering with SAP is likely to cost jobs in the user organization. To overcome this, you need to find the opportunity to match some special requirement that can’t be filled from inside.

End users will, from time to time, find a particular skill is so important to them that they will provide SAP training in order to get it. Sometimes the skill can be application- or industry-related, and sometimes it is in some other technology—specific OS, database, or platform experience. The examples shown later related to ABAP programmers are just as pertinent to analyst/implementers.

To break into SAP as an analyst/implementer there is a general specification that you will need to meet. It is not hugely different from one employer type to another. It is described by different employers in different ways, and each has its own emphasis, but if you have the underlying personal qualities described earlier, and score well against the following requirements, then you’ll be a good candidate:

- Experience in installing package based solutions in a large commercial organization. This is a different process from designing systems from scratch.

- Demonstrable ability to think in depth about systems—their effect on the organization, and how they are integrated

- Good analytical skills—the typical systems/business analyst skill set

- Experience in client server systems (although there is still a lot of activity in R/2 systems, R/3 is where the growth is)

In addition, you will have a great advantage if you have a more specific hook on which to hang your application. This could be either one or both of the following:

- In-depth knowledge and working experience of a particular business application or process in which SAP may be applied

In depth knowledge and working experience of a complementary technology—platform OS, database, interfacing technology, and so on

These will have to match the specific needs of the particular employer. It is quite possible that you are interested in broadening your experience, but if you want to make the change to SAP, you'll find it much easier if you play to your strengths in other respects for the time being.

It is obvious from the above that this type of role in SAP is not the best place to cut your teeth in computer systems. If you need to do that, and you don't qualify for the graduate entry points in development or management consultancy, the only way to do it with SAP is to get into a company which is using SAP, in a user role.

There are cases of people who have started off on the shop floor in quality control, or in fairly routine clerical positions, who have become what one employer describes as "superusers"—people who understand how the system "thinks," and find their way around problems with it. From there they have obtained SAP training and gone on to a wider career as SAP consultants.

To be honest, though, they have usually "been in the right place at the right time." Could this be achieved by design? It might be possible to engineer the situation if you are willing to do a lot of research and have lots of determination.

Project Managers

"Project manager" is a term meant to include all very senior versions of analyst/implementers.

The "real diamonds" as one employer describes them, are people with good SAP experience, and the ability to manage projects with a wide sweep, appreciating all the strategic possibilities and implications, and how business processes integrate to form the organization. These projects amount to reengineering the business, and the description "project manager" might not do them justice.

These are the people who are attracting the large salaries, or fees, as the case may be, whether they are called senior consultants, project managers, or whatever.

They probably have in their background most of the characteristics of the analyst/implementer, but have progressed beyond that level and have the full project management skill set.

The actual SAP experience is not necessarily the most differentiating asset these people have. In other words, they are probably more different from an average SAP consultant than they are from an excellent non-SAP consultant/manager.

If you demonstrably have all the other assets described, except for SAP experience, then you will find a move into SAP could be highly profitable. To get the first years experience, you may have to take a drop in position, but probably not in earnings, and the rewards after the first year in SAP would be substantial.

All the employer options discussed above for analyst/implementer are available to you, and similar considerations on the value of "relevant though non-SAP" experience apply.

Options described for "management consultants" may also be available to you, depending on meeting the educational requirements.

ABAP Programmer/Developers

At the peak of the pyramid for ABAP programmer/developers is SAP's own development team. This is mainly based in Germany, at Walldorf, near Heidelberg, but development activity is increasing in the USA, and a small amount is carried out in the UK. German language is not a prerequisite, but English is, and being multilingual will score points.

The development team provides the best opportunities for ambitious programmer/developers to get SAP experience, and also its activity areas and skill requirements provide a template for what to expect in the other parts of the SAP world.

The best way to keep in touch with this is via the Internet. SAP publishes a number of job opportunities there.

A cross section of examples from early 1996 is included in Appendix C, "Sample SAP-Related Job Descriptions." Reading them will give you valuable insight into what they are looking for, and how you might fit, but they are only a current cross section. If you're looking seriously in that direction, watch that Internet space regularly.

Development is done using ABAP/4, and development tools such as active Data Dictionary, Screen Painter, and Dialog Manager.

Education is important, and good degrees are valued, but they are not always absolutely essential. Here is a sample of stipulations for different development jobs:

"First class degree in computer science or business/economic studies with computing"

"A good university degree in Medicine/business with computing, computer science mathematics, business/economics or natural science"

"A university degree"

"Information technology with business management, preferably a university or higher technical college degree"

"No education specified (for senior professionals in retail systems development)"

SAP needs to bring in expertise from many different business areas, and very good experience in those areas can overcome shortcomings in formal education. The scope of SAP is vast and expanding. Applications and industry solutions currently enjoying attention are:

- Human resources
- Payroll administration
- Retail systems
- Oil industry
- Medical records
- Retail systems

The utilities industry is forecast to be a major growth area.

Your own industry and application area, even if not among those mentioned, may very well be on the agenda in other months.

Technical backgrounds which appear as requirements or “desirable extras” for SAP developers are equally varied. The sample which follows is culled from just the current batch of vacancies.

“Programming skills, experience of PC applications”

“Basic professional experience in similar application area”

“C, 4GL programming, databases, PC software products”

“Database administration, preferably Oracle, system administration in UNIX”

“IBM 370 architecture, MVS, CICS and VSAM in IBM 370 Assembler programming”

“Hands-on programming in C”

“In-depth technical knowledge of different UNIX systems (BSD and System V)”

“Excellent knowledge of the UNIX environment”

“Excellent knowledge of TCP/IP-based network programming”

“Experience of designing complex distributed software applications in C”

“Experience in development of error-tolerant software”

“Knowledge of current databases(e.g. Oracle, Informix, Microsoft SQL Server)”

“Knowledge of Windows, Windows NT, Windows 95”

“Knowledge of C, C++ and particularly Visual Basic”

“Experience in Windows 6/32 bit environments as well as OLE2 Automation and OCX”

Any of the examples in Appendix C might ask for one or more of the above experience sets.

Outside SAP itself, the complementary, or “interfaced” skills requirement is just as varied. There are numerous modules in SAP, and its range will be apparent from other parts of this book. Provided you have some area of expertise, it’s just a question of finding where your expertise is most needed. For ABAP programmers, the bulk of opportunities lie with contracting agencies and end users, so that is the place to look, even though both groups pose problems for the inexperienced.

Contractors’ attitudes to ABAP learners is much the same as it is to the inexperienced SAP analyst/implementer.

End users are important employers of ABAP programmers, because ABAP is mainly used for relatively minor modifications to systems that have been configured with very little use of ABAP, and this tends to be the sort of work that goes on long after the project is “completed,” as the system is “tweaked” to match user needs.

For the same reason, ABAP programming does not figure largely in the priorities of the partners who undertake implementations, so the partners are not an opportunity area for the ABAP entrant.

Preparation to Gain a Foothold

Having decided that SAP might provide the right workplace for you, the next step is to prepare yourself to maximize your chances in the process of finding the opening. Get the product right before you try to sell it, if you like to think of the exercise in marketing terms.

The main ways open to you to do this are training courses, self development and preparation for interviews.

SAP Training—Is it Worth Getting First and How?

Some people in the industry express the view that training without experience is worthless, and certainly not worth buying with your own money.

A more measured view, and one shared by many employers of SAP skilled people, can be summed up as this:

“A training course will only be an advantage if all other things are equal”—in other words, when recruiting people without previous SAP experience, their general potential will be more important than whether or not they have taken a course, but in a tie-breaker situation, the course could make the difference.”

A course will rarely get you considered alongside experienced people for a position where experience is asked for, though some cultural differences exist from country to country. The highly “qualification-oriented” view in much of mainland Europe means your SAP education carries greater weight there, and this is probably true in much of Asia, while in USA and most of the English speaking world, experience is valued more highly.

Wherever in the world you are looking for work, your course will be an asset of sorts, but in most situations, you should approach the task of obtaining SAP employment as suggested for inexperienced people, regarding your SAP education as an advantage up that pathway, rather than as a ticket to the routes available to those with SAP experience.

You may, of course, have already taken a course, but if not, is it worth buying your own course?

The idea of buying your own course has become more acceptable. SAP has recently started an accreditation process which will maintain quality as more organizations acquire the ability to deliver SAP courses. These organizations and their courses are a far cry from some of the computer training courses which got self-funded computer education a bad name in earlier times. You will be required to demonstrate prerequisite qualities before being accepted on them. To date, most of the people using them have been practicing computer consultants and contractors adding SAP to their capabilities.

But how valuable is having a course anyway, without the experience? One point about having an employer pay for your course is that you can be pretty sure he has plans to use your knowledge on a project.

The answer to this depends where you are coming from, and where you are looking for the opening.

If you are in the "graduate entry" class, there is not much point in buying an SAP course, since the major consulting firms are more interested in your wider career potential than your usefulness in SAP, while SAP itself in recruiting graduates for its development team is looking for raw potential and excellence in computer science. Graduates from German universities are likely to have had some SAP education, as it happens, but SAP recruits from outside Germany as well.

For the "man in the street" class (someone with little IT experience, and not qualified for the graduate entry route) there are two major problems.

Firstly, you may not meet the prerequisites for the courses, or you could find difficulties in keeping up, because you don't have prior knowledge that the course assumes.

Secondly, your path into SAP will be more tenuous, quite probably involving a spell as a user, so there is a greater risk that you will gain little return on your investment in a course.

If you are absolutely sure that you have the basic attributes, coupled with the desire to break into SAP and a dogged determination to do so, and if you can easily afford the course, then consider buying one, but don't do so hoping it will provide an automatic entry.

Along with the graduate entry class, the group of recruits the SAP world will most readily accept without SAP experience are those who match the specifications described earlier for analyst/implementers, project managers, and ABAP programmers. If you fall into one of these groups, then a course could be a good investment for you.

Anyone can buy a place on a standard SAP course from SAP itself, and third parties are offering intensive courses for much less cost. Some sources are shown in Appendix I, "Companies Providing SAP Services."

The best advice is to make sure that buying a course is part of a clear plan of how to market yourself, rather than a hopeful leap before looking. Also, the workings of the accreditation program should be watched with interest. What effect it has on the salability of non-accreditation-bearing training, and what accreditation is available to the private course purchaser could be crucial.

Self Development

You have taken at least one self development step by reading this book. How far can you usefully go under your own steam?

As far as SAP skill experience is concerned, it is, like any technical subject, much easier to acquire by attending a course, and at some time or another you will need to do so. But if your strategy does not include buying a course, then your aim has to be to get an employer to provide one. If you do so, of course, you'll have killed two birds with one stone, because you will also be assured of the work experience to follow it.

However, it is possible to learn a great deal about SAP without going on a course. SAP, as a company, is very open with information.

You can't create experience out of thin air, but if you can't be experienced in an area, next best is to be well informed. Talking to people in SAP who come from a similar background to your own will help you build a special insight, but the main message is simply to start building your own knowledge base. Remember that any outstanding student gains most of his knowledge by self-organized reading, not by sitting in the classroom.

Think about the wider issues of corporate integration, and absorb the approach to it that SAP offers. Many recruiters say the real key skill is that ability to see the big picture. They say that it tends to dawn on SAP people after they've implemented one or two modules. You can develop that way of thinking about business processes by conscious application. There's nowhere anyone can go to really acquire the mind-set that's any better than your self-training plan.

If you do this, then even if you never get involved with SAP, you'll still have gained knowledge that will stand you in good stead for your career in business and information technology.

But it may very well help you to get involved, because it will show that you have potential to develop, and that will help justify the employer going to the trouble of training you.

Finally, don't forget the underlying attributes. Since the SAP world places a high premium on interpersonal communication and self organizing skills, isn't it worth giving some thought to how you might develop these?

Personal presentation skills will most directly help you get the job, as well as help you do it. It is one area where you get the chance to give your prospective employer a sample of "the product." You don't have to tell them, you can show them.

Communicating well is something which some people do more naturally than others—that is undeniable. But at whatever level you start, it is possible to learn and improve. Trained salespeople and other professional communicators of all sorts know this.

Not everyone thinks that these personal communications qualities are vital in life, and throughout history, some people without them have been happy and successful and have enriched the world. In the SAP world, though, they are important, and if you are not totally happy with your endowment of them, then consider what you can do about it.

Preparation for Interview

Whichever route you take to finding work in SAP, at some stage or another you are likely to be attending interviews. As a newcomer to SAP, you are in a highly competitive contest, and when the employer does the post-interview evaluation, the decision will often be more finely balanced than most interviewees ever realize. Even if you are an experienced SAP professional with lots of options, the job you most want is likely to be the one you have to stretch for. In all cases, the edge you can get from good preparation is worth having.

There are more books on the subject of how to perform well at interviews than there are about SAP, and they can teach you, or at the very least remind you, of some basics that will increase your chances. These represent a whole body of useful knowledge which is ignored by a large percentage of interviewees.

The point here is not to offer our own alternative to these, but to suggest, at risk of being obvious, that you read at least one, especially if you haven't been on the interview round recently. An hour or two browsing in your local library or bookstore is guaranteed to prompt some useful thoughts. You could dismiss 90% of what you read as banal or inappropriate and still get very good value out of the exercise from the remaining 10%.

There are a couple of points worth making directly here, though.

Surprising though it is, many candidates show up at interviews with very little knowledge of the company they are looking to join. This gives an immediate advantage to anyone who has taken the trouble to do a little research.

The more you can bone up on the company and its operations, the better, for a number of reasons.

An attribute probably overvalued by most interviewers is the ability to come up with good reasons for why you want to join the company. This ability might really prove no more than that you know how to prepare for interviews, but it leaves a strong impression on the interviewer. The research you do for this question might also help you really decide if you do indeed want to join that company.

If you are offering experience in a business process, industry application, or technology area, it will help your case if you have considered in advance how your experience might “map” across to the activities of the potential employer, especially those where SAP is being applied.

Any common ground that you can find between you and the employer, however irrelevant to the job, tends to “flag you up” in the interviewers mind. You have a much better chance of finding such common ground if you’ve thought about it in advance.

The knowledge you have gained will enable you to ask informed questions, engage in intelligent discussion, and generally help make the interview flow. You, of course, won’t need telling not to use your knowledge to cut off, contradict, or otherwise embarrass the interviewer, or to unload your knowledge and tell the company how to run its business!

Many companies inviting you to an interview will send you out some sort of information pack, and the main message is to study it thoroughly. But if you are taking the initiative, and not applying for advertised positions, you may have to ask for a pack, or indeed you may have got it already, as part of your “market research.”

One source of information on the company’s broad objectives and direction that you should always try to get is the annual report. This is usually available on request, along with an information pack from a press officer, corporate communications officer, or similar person.

You will not normally have to be very original to get the information you need, but if you have to be, it is effort well spent.

Sources of Job Opportunities

Where to look for the most open doors, or at least the less closed ones, is a question that you will want to answer, if you are seeking the quickest way into SAP.

Proceeding from the obvious to the not so obvious, let’s look at a number of sources, from the point of view of the new entrant to SAP.

Advertised Vacancies

We pointed out earlier in the chapter that less than 10 percent of advertised SAP vacancies were open to people without previous SAP experience. This, of course, is much better than zero, so it is worth keeping watch for them.

A perusal of previous such advertisements gives some picture of what to expect:

They are usually for people with good computer experience—in UNIX and C based systems. Advertisers regard experience in installing package-based systems involving process change as a good advantage, as they also regard experience in the client's particular industry. Beyond that, experience in the particular hardware or OS are plus points, and, of course, advertisers often seek the more general systems analysis, implementation, and project management skills.

The clients are usually end-users, some of whom are willing to provide training in return for the large savings they can make in salary. Sometimes they have corporate pay scales that prevent them from paying more for experience, even if they would like to, say their agencies, while others may be driven by the sheer unavailability of SAP-experienced people.

Leaving aside the major management consultancies, the partner consulting firms also intake and advertise for a small proportion of their SAP consultants as new entrants to SAP. They are driven by the need to build their organizations. There are perceived to be a lot of large SAP contracts awaiting fulfillment, held up by the lack of resources to fulfill them within consulting partners.

The major management consultancies will rarely advertise for new entrants to SAP; neither will SAP themselves or contracting houses.

Details with brief job requirements for some advertised positions not requiring prior SAP experience are included in Appendix C, "Sample SAP-Related Job Descriptions."

If you have taken a SAP course, you may have some success in applying for jobs where minimal experience (say 6 months) is required. Certainly some people with one year's experience are going for, and getting, jobs where the advertiser stipulated two years, and with six months they are picking up those where one year is stipulated, so perhaps the syndrome might work back as far as the newly trained person getting a job advertised for someone with six months experience.

Recruitment Agencies—Can they Help Proactively?

You can look at recruitment services as being broadly in two categories, though there is a fair degree of overlap.

The project-based agency works closely to a client brief and mounts a campaign to solve a client recruitment requirement—usually with high profile advertising. This type of agency usually offers executive search—so called "headhunting" services.

The data-base oriented agency keeps large lists of candidates, and frequently circulates known recruiters with details of candidates on file. They are a "matching" service, essentially.

In neither case are they really geared to doing a hard sell to help you into new areas. The database agencies will put out your resume where they think there is a chance, but it will sit with a lot of others from inexperienced people.

Some of the more project-oriented agencies, when asked how to get SAP training, will advise applicants to talk to SAP, or approach end-users directly, and try to find those who would rather train than pay large premiums.

You have to accept, as a would-be entrant into a lucrative field, that you've got a little self-marketing job to do. The recruitment industry is paid by the employers, not by you, and its job is to meet their objectives. So the agencies are not geared to doing a big selling job on your behalf. You are—or should be.

Contracting Houses

Contracting houses are only really interested in selling the finished article, although, as discussed earlier, extreme supply and demand situations can cause them to be more developmental. Realistically, you'll have to work on building some confidence in your capability before a contracting agency is likely to help you develop into a new area as sought after as SAP. Provided you can do that, you could certainly help your case by thinking about the agency's problem, which is how to make sure it gets a return on its effort, and coming up with some concessions that might solve it. In other words, talk sensible business and there might be a deal to be done.

An interesting new development, not quite describable as a contracting house, is detailed in Appendix I, "Companies Providing SAP Services." This outfit—Rivermead Associates—aims to provide career management and marketing services to potential high earners in software and consulting, and has targeted the SAP world for early attention. It claims to have novel approaches to the vital first-year conundrum.

Self Marketing

If you really want to take control of your own destiny, then the way forward is to devise and carry out your own marketing plan. You are a good product, in which you are an expert, so why not?

There are lots of ways of conducting a marketing campaign, and one of these—a "scatter-gun" approach, mailing out the same message to lots of people—is most used by job-seekers. It is easy to produce vast quantities of resume copies, and you only feel the pain of rejection at a distance. Unfortunately, it is the wrong technique for the purpose. Mailshots can be very effective for selling lots of similar articles to lots of similar buyers, but is that the kind of marketing we are engaged in?

Other kinds of marketing are more suitable to the "big game hunter"—someone who is trying to make only a small number of big and important sales. You are the ultimate big game hunter. You only need to make one sale in your whole campaign.

The technique recommended here is one which has had proven success in that sort of marketing campaign.

Start at those points where information is easiest to get, and from there build as big a "database" of prospects as possible. SAP itself is a useful starting point, because the company is very open with its information. You will not find it difficult to compile a list of all the SAP users in your locale. Other useful start points are employment agencies and contractors. This book provides you with lots of partner names. Don't forget to "network out" as you go along. In other words, ask any contact for other contacts.

Their purpose at this stage is to provide as many names as possible of companies involved with SAP in your area of interest. You are looking for market information, not direct openings. If you approach the exercise in research mode, you will gain far more from it.

Having widened out the "prospect base", you now want to narrow it down, by eliminating all but the most promising cases for you.

Before you start, devise a simple questionnaire that will remind you what information you are seeking from each group. This should include information that will identify characteristics that match well with your USPs (unique selling points), as well as information which will subsequently help you prepare a sales call, including the name of the decision maker on SAP recruitment.

Do as much of this narrowing as possible by desk research and telephone contact with people other than those who will ultimately make the hiring decision. The decision makers should only be approached when you are a little better armed.

When you have narrowed the target group down to prime prospects only, you can prepare your sales effort for each prospective employer individually, with a resume that highlights experience relevant to that employer, and a prepared approach.

At this stage you are ready to contact the decision makers in your target group. If you can, you want to talk to the "problem holder" rather than personnel managers. Telephone each of them, seeking an appointment to discuss how you might be able to help him or her.

This is a plan that a professional salesperson might use to address the task, and there's no reason why you shouldn't be equally professional. A properly conducted, research-based self-marketing campaign will not only give you the best chance of finding the right opening, but will also make you much more knowledgeable about the SAP world. This will increase your credibility and broaden your options throughout your career in SAP.

From Here...

In this chapter you have learned how to assess your suitability for the various work opportunities in the SAP world, and how you might prepare yourself to take advantage of them.

You have also acquired some ideas on how to locate SAP jobs, and how to set about undertaking a self-marketing plan.

You will find these other parts of the book useful in preparing for and carrying out your search for SAP employment:

- In Chapter 41, "The Outlook for the SAP Employment Market," you can learn more about the outlook for the future in SAP employment, and where the new jobs will arise. You can also learn what major factors impact supply and demand in SAP employment, and how they will change the nature of SAP jobs.
- In Appendix A, "SAP Offices Around the World," Appendix B, "SAP Business Partners," Appendix I, "Companies Providing SAP Services," and Appendix G, "Complementary Solutions," you will find many useful contact addresses. These provide starting points from which you can network out along lines dictated by your own areas of special interest.
- In Chapter 39, "Employment Opportunities Working with SAP," you can learn more about the way the whole SAP world is structured, so you can approach your job search with a better appreciation of the environment in which your prospective employers operate.

Chapter 41

The Outlook for the SAP Employment Market

This chapter is designed to help you look ahead in the SAP employment market and to provide some ideas on what to watch for in forming your own view of the future of SAP.

Most independent forecasters paint a rosy picture for SAP in the foreseeable future (starting mid-1996), and these are echoed in the forecasts made by various parts of the SAP “virtual organization”—that is, SAP itself and its partners, some of which are drawn on here.

Although you might argue that the “SAP-interested” sources drawn on are not entirely unbiased, they are in fact among the most reliable.

Why? Because they incorporate independent research, often from several research outfits, together with their own unique, internal insights, before they make their forecasts, and because they have to stake cash, effort and “opportunity cost” on being right. Their money is where their judgment is.

Nonetheless, you will want to form your own view, which is ultimately the one you have to back with your own time and effort. Also you may want to focus on your own special areas of interest within the overall SAP employment scene.

To do each of these things, you need to look at the factors that will drive or hold back growth—both the underlying factors, and the initiatives under way or planned. These will dictate not only the amount of growth in SAP employment, but also the directions that growth will take.

The second part of this chapter discusses some of these factors—but first, some forecasts from the SAP world.

Growth Forecasts and Indicators

The SAP group is enjoying revenue growth of 40 percent per year based on the latest published figures at the time of writing (mid-1996), which compare first quarter 1996 with first quarter 1995.

In this chapter, you will learn:

- To estimate the growth in SAP employment
- What are the main factors that will impact supply and demand in SAP employment and how they will affect your prospects

In particular you can learn:

- How the maturation of the SAP market will change the mix of skills required

If you look at the geographical disposition of this growth, there is every reason to suppose that it can continue fairly close to this for several years. Those parts of the world where SAP is growing fastest—the Americas, which saw growth of 82 percent and the Asia Pacific region, which achieved 68 percent—have a huge untapped potential.

Europe grew at a relatively modest 19 percent, but that is good going for a market so well penetrated already.

Consider the actual values achieved—Europe DM 380 million, Americas DM 233 million and Asia Pacific DM 64 million. If the much younger American and Asian markets continue to grow at the present rate, together they will soon outstrip Europe and will have a greater influence on the overall growth rate. Figure 41.1 illustrates the effect, though it is not a forecast as such.

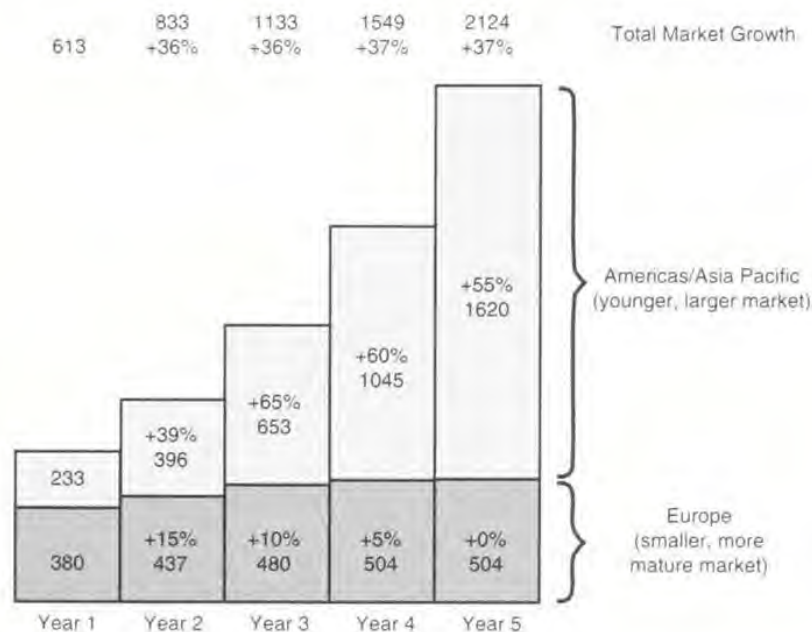


Fig. 41.1 The younger and potentially bigger SAP markets overtake the more mature ones, while still young, thus lowering the average age and raising the average growth rate of the total worldwide market.

Remember we are looking at growth in sales here. If you want to look at growth in installed base, you have a different, though no less promising progression.

SAP's revenue growth, of course, is not exactly mirrored by growth in SAP employment, and indeed SAP is at great pains to contain the need for SAP skills and prevent it from growing as fast as the product revenues. SAP is having some success in this, with the introduction of various productivity aids, but nonetheless revenue growth is obviously a vital underpinning for employment growth.

Indications from various SAP statistics are that a 40 percent growth in revenues has incurred about 30 percent growth in SAP's own head count, and SAP believes that it can improve revenue per employee further with the improved development tools it is rolling out. It also believes these tools will help partners meet the resource gap without massive expansion in employment. SAP sources forecast that the total number of SAP consultants required (in the "virtual organization" of SAP and partners combined) will increase by about 20 percent over 12 months.

Partners, in the main, make higher forecasts for SAP employment growth — or at least, each intends itself to grow faster than that.

Partners' forecasts more directly address personnel growth, because consulting is a large part (in some cases all) of the salable product of most partners, whereas to SAP the software sale is the goal. Although SAP charges for its consulting, it is not pursued for profit but, rather, to enable sales of software.

The following are some indications and forecasts from a short cross-section of partners large and small:

- Figure 41.2 charts the actual (up to 1995) and forecast (beyond 1995) growth of SAP-skilled employees at Intelligroup Inc., the New Jersey-based SAP implementation partner. These are shown together with non-SAP employees. The growth in 1996 is forecast at 80 percent, and drops only slightly to 70 percent for 1997.

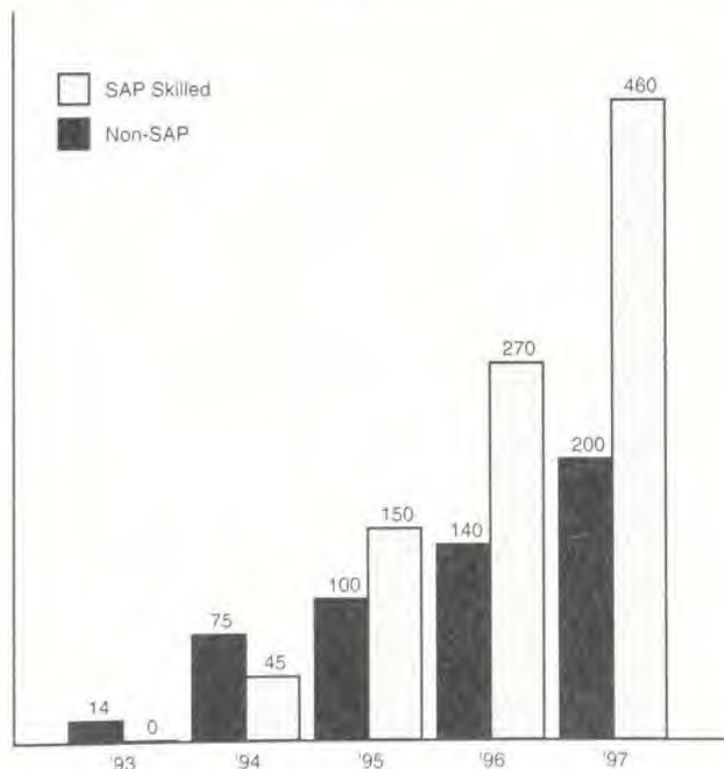


Fig. 41.2 Intelligroup, a SAP implementation partner, forecasts imminent growth in SAP-skilled employment will far exceed that in other areas.

- iXOS, the German technology partner, now also operating in Prague and in Belmont, California, has grown from 30 employees in 1990 to 130 in 1995, and is forecasting a growth of 23 percent to 160 employees in 1996.
- Clarkston-Potomac, one of the smaller U.S. implementation partners, more than doubled its complement of SAP consultants in 1995 and plans to double again in 1996, from just over 50 to over 100.
- Atlanta-based Bureau Van Dijk has grown from 50 SAP specialists in 1990 to 170 in 1995, and expects to grow by 47 percent to 250 in 1996. The company became a U.S. national implementation partner in 1995.
- Siemens Nixdorf was reported in the December issue of "SAP Info" to have designated R/3 a separate business division in its own right, with over 750 employees. It expects to recruit 600 to 1,000 new consultants in the next two years—which is growth compounding at between 34 percent and 53 percent. All Siemens Nixdorf consultants in the division will be required to earn SAP certification.
- IBM, at year-end 1995, claimed over 2,100 SAP consultants worldwide and plans to increase that by 2,000, or just over 95 percent, by the end of 1996.

A look at some of the activities that IBM has under way lends credence to its forecast (and indirectly to the general partner forecasts). At the end of 1995, IBM had over 20 joint development projects with SAP.

These include the following:

Industry solutions, such as Finance Advisor, I/S Retail, Factory Automation and Electronic Commerce

Across varied platforms—RISC System/6000 and SP, AS/400, PC Server/NT, MVS Open Edition (R/3) and MVS Sysplex (R/2)

Service and support offerings such as integrated SAP/IBM support, migration (R/2 to R/3), outsourcing, business recovery services, IBM Global Network and added-value tools and templates

Technology implementation projects, including HAC MP (high availability), MQ Series (message queuing), ADSM (storage management), DB/2, Print Services Facility/6000, Systemview (Netview for AIX), Lotus SmartSuite Integration and Lotus Notes Integration

IBM has declared its SAP consulting and services primary growth areas to be the following:

- Roll out AS/400-based offerings to medium and small customers
- Expand outsourcing options for new and existing SAP clients
- Lead the development of SAP education and training offerings

- Provide migration support for SAP R/2 customers through IBM's extensive R/2 to R/3 Migration Factory (platform independent)
- Capitalize on IBM's industry alignment and expand into global industry-focused SAP practices
- Leverage IBM's Complementary Software products
- Business recovery services

The other partners in or near the IBM league, such as Siemens Nixdorf, Digital and Hewlett Packard, have comparable commitments in scale with their size.

The large consulting partners continue to build SAP expertise at an undiminished rate, while many of the smaller, more SAP-specialized consulting firms have quite specific plans and programs for the growth they anticipate.

In the U.K., for example, one of the "Big Six" accounting companies, Andersen Consulting, plans to train 24 new SAP consultants every three weeks, while Surrey-based SAP implementation specialist Diagonal has invested heavily in developing its own SAP R/3 training schedule and, perhaps more importantly, its consultant development and SAP skills transfer methodology.

These are no more than a small sample, and most other partners could justify a mention if space allowed. You can keep up to date with partner activities very easily by accessing the Internet or asking your local SAP office for details of relevant publications.

The point here is to show that there is some substance to the thought that the SAP partners are backing their forecasts with commitment and planned activity.

We have not forgotten, by the way, that end users are also employers of SAP skills and their employees are not considered in any of the above forecasts, but it is reasonable to assume that their growth will run alongside the growth in partner staff.

In summary, there is some divergence between the SAP view and the partners' on the quantification of growth. It is not our function here to adjudicate. It is possible to argue that the partners have their ears closer to the ground. Some perceive that there is a large raft of big SAP projects waiting to be had and held up only by the lack of resources, that is, SAP-skilled people. In other words, whoever can put the team together can get the business. The view of some recruitment specialists, though, is that some big potential projects are being "double-counted" (or more than double) in these perceptions, because several partners are forecasting to win the same business.

Also it is possible to argue that SAP is more aware than the partners of the impact of its productivity tools.

What is agreed all round is that growth will continue, and it seems likely that supply and demand will continue to favor the SAP-skilled employee, while SAP's efforts and those of its partners will prevent the balance from getting totally out of hand.

Factors in the Supply and Demand Equations

As we have said, it is a good idea to consider the underlying factors that will impact on supply and demand before arriving at a personal view of long-term SAP employment prospects.

To do this really means taking a view on the whole SAP marketing strategy and the market influences with which it has to live. In the case of SAP, this is a very wide set of considerations, and it would be presumptuous to pronounce the “final word” on them in one small chapter here.

We can, though, look at some of the marketing considerations and the most vital planks in SAP's strategy from the standpoint of their effect on employment.

The main features we will look at are the following:

- **Market maturation**—Markets are said to mature as they approach saturation—the point at which almost everybody who needs the product has bought it, roughly speaking. Although the SAP marketplace is a long way from being mature, it is, like anything else, *maturing* all the time. The ratio of installed base to new installation potential increases with each sale that is made.
- **The volume market in mid- and small-sized companies**—SAP has built its success mainly by selling to large and ultra-large companies. It now has definite strategies to increase its penetration of mid-sized companies and possibly smaller than mid-sized.
- **Vertical marketing moves**—A strong current thrust in SAP is toward industry-specific marketing and product development. This offers new and different ways of adding value to the product.
- **Expansion in the range of platforms and interfaced technology**—The range of platforms on which SAP can be installed is increasing all the time, giving new options for both downsizing and upsizing. The range of other software products with which SAP will work and communicate is also expanding.
- **New productivity tools for designers and implementers**—SAP has a number of developments that are designed to make installing SAP systems more efficient. These tools form a central part of its strategy for balancing supply and demand in the SAP skills market by keeping demand from getting out of hand.
- **Training initiatives**—The other side of the supply and demand equation, of course, is supply, and the key SAP strategy for this is to improve it by developing training capacity, both internally and via partners.
- **Underlying market trends**—Finally, SAP, like every other company, is dependent on the infrastructure that the wider world provides. The SAP success phenomenon has arisen in large part through being the right product for its time. Will times change, and if they do, how well-placed is SAP to adapt?

Each of these factors has an effect on the people requirement, both in terms of the overall quantity and the mix of skills required.

They are worth looking at in a little more detail, as follows.

Market Maturation

There is a lot of steam left in the SAP boiler, evidenced by the forecasts from the SAP world and supported by judgment based on the underlying factors. Forecasts and judgments alike indicate that the market for SAP will be buoyant for several years to come. SAP skills will continue to be in demand to create brand-new SAP installations.

The demand from established users will eventually overtake that from new installers, though, as the market proceeds towards maturity. As market penetration proceeds, and the percentile growth in new users slows down, so the ratio of existing to new customers will increase.

Figure 41.3 illustrates this graphically.

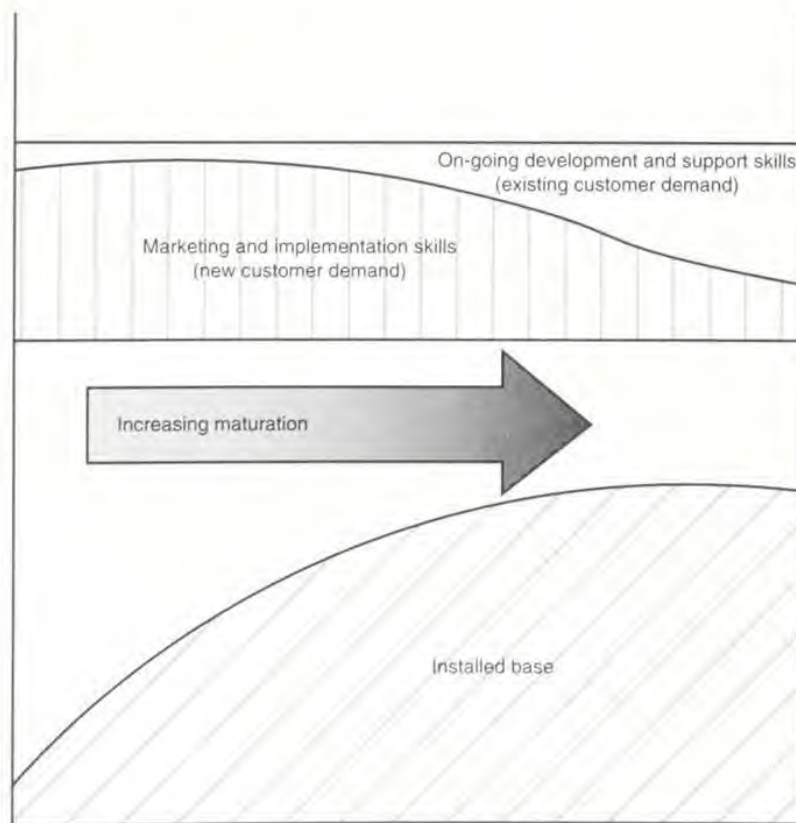


Fig. 41.3 As market penetration proceeds, so employment in existing SAP installations increases relative to employment in installing new SAP sites.

SAP users continue to need SAP skills long after the initial implementation. That ongoing need generates employment not only with the end users themselves, but also within partners and SAP itself.

SAP is expecting partners will generate business from existing customers in the following areas:

- Providing increased functionality:
 - Installing additional modules
 - Adding functionality within modules
 - Extending systems to include supplier and customer database interchange and interaction
- Extending the geographic reach of systems:
 - Roll-out into other countries
 - Roll-out through other divisions
- Incorporating new technology:
 - As new technologies assume importance, SAP systems need to be adapted to work with them.
 - Migration projects—at present this means migrations from SAP R/2 to SAP R/3

The “secondary development” areas listed previously are of most interest to the partners as a source of business from existing customers. Secondary developments of this sort will still require many of the skills used in initial systems implementation, although some of the activities place less emphasis (than do new implementations) on the wider skills of business process reengineering.

Each of these opportunity areas will demand a slightly different mix of skills, and there is clear potential for new specialization in the whole spectrum of “add-on” activities.

Unlike the partners, SAP itself does not always see special requirements as opportunity areas pure and simple. The company is finding that large customers are looking to SAP to provide more functionality and relieve the pressure on their own IT departments, and this places demands on SAP that can sometimes run counter to the needs of the mass market that it wants to address. Large customers will continue to demand the functionality, though, and this will sustain the need for SAP skills as the market matures.

In both the partners and SAP itself, ongoing systems support roles will grow in number relative to developmental ones as the market matures, and will offer opportunities across a wide range of specialization. These support roles may diminish in status and benefits, however, as the trend towards remote and automated support continues.

End users, of course, are where the demand for ongoing SAP-skilled employment originates, and they will meet some of it by employing people directly. End users most frequently undertake with their own staff the following post-initial-implementation functions:

- User support (as opposed to specialized system support)
- Minor systems modifications, often carried out with ABAP/4
- Systems administration

Up to now, recruitment companies have reported slightly less demand for ABAP programmers than for SAP systems people, but the mix is likely to change as the market matures. ABAP programmers are likely to be needed for longer, as ABAP is mainly used for small-scale changes, which continue to take place long after implementation.

What we have been discussing is essentially the market for SAP R/3, and it is still quite a young market. No one is anywhere near forecasting what its successor might be, but it is hard to think there will not be one when the SAP R/3 market matures. It is equally hard to believe that SAP R/3 skills will not be valuable in whatever migration process might take place then, just as SAP R/2 skills are valuable in a market dominated by SAP R/3.

Sooner or later, of course, even the most dominant of software products may be overtaken by a competitor development, but the people who work with such products do not become immediately obsolete. Rather, they move gradually to being more of a niche resource, or they cross-train into some successor technology.

The SAP product, interfacing as it does with so many other technologies, is always likely to provide an escape route if you see yourself primarily as a "systems technologist," even when the product passes its peak.

If you are, or become, one of the large body of SAP consultants who are essentially management, business process or systems consultants to whom SAP is simply a tool, you have developed skills that you can apply with or without SAP. It may be that SAP skills are what allowed you to progress and acquire those other skills, but you are not dependent on them, and certainly the large management consulting-based partners will seek to develop you as a more versatile resource than just a SAP specialist. You would be more at risk from any diminishment in the whole management consulting industry (unlikely though that may be) than from the demise of SAP as the industry darling.

The Volume Market in Mid- and Smaller-Sized Companies

SAP has established some penetration in Germany and neighboring countries among what Germans refer to as the "*Mittelstand*." It refers to a stratum of small- and medium-sized businesses—component and subassembly suppliers, flooring and ceiling specialists, garden furniture and tools manufacturers, and a host of others, mainly in manufacturing, owner-managed, and fairly specialized and skills-based.

The *Mittelstand* is particularly strong in Germany because of Germany's localized banking support and other infrastructure factors, but it has its equivalents in mid-sized businesses around the world.

To appreciate the potential here, and the likely success of SAP's strategies, it is worth taking a brief look at the story so far.

The potential market worldwide among such companies is huge, and SAP's initial idea for addressing it was to develop a version of SAP that would be tailored specially for this marketplace.

Its early experiments in the U.S. were designed to establish the market requirements for this version, but yielded instead a rethink of that whole approach.

The exercise reminded SAP that mid-sized companies are not really very different from large companies. They often need more functionality, rather than less, in each business process they operate. Being more specialized, they usually have less of these business processes, but it is not always easy to say which ones will not be used, and they will vary from industry to industry and, indeed, from company to company.

The upshot of this is that SAP has decided it is not a practical proposition to write a special SAP version for smaller businesses. What a smaller company needs is the full-specification SAP with the ability to bypass the processes it does not use.

There is no major cost problem in delivering the whole system. From a pricing strategy point of view, the "per-seat" pricing policy that SAP adopts makes for a natural adjustment to the price, which runs roughly alongside the client's size and consequent ability to pay, without offending larger users. From a practical point of view, it actually costs SAP less to deliver the whole thing than to cut down the functionality. Also there is very little additional "platform space" (increase in computing and storage resources) involved, because inactive SAP modules do not carry much of a penalty.

The real problem is to save the user from grinding through a myriad of irrelevant options. That is the key to ease of use, and SAP has gone for "down-configuration" as its strategy for achieving it.

How well this works will be a major determinant of its success with the mid-sized and smaller companies, and SAP has developed a concept for its realization, which it calls "configure to order" (in line with the "assemble to order" concept), within an overall strategy, which it calls "Delta Customizing." You can learn more about the assistance this provides configurers later in this chapter, in the section on "New Productivity Tools for Designers and Implementers."

Other moves—toward more vertical marketing and platform downsizing—will have important enabling roles in penetrating the mid-sized companies. They too are described later in this chapter.

The SAP attention to the mid-sized company marketplace has stimulated activity from the partners. For example Clarkson-Potomac have announced their intention to create a strong presence in the middle market. The company claims to have been working closely with SAP to prepare for this, and has plans to add value in the area of easy configuration tools.

IBM, as mentioned earlier, sees one of its primary growth areas for SAP as being to roll out AS/400-based offerings to medium and small-sized customers.

The smaller, more SAP specialized partners look likely to be better able to exploit the middle market than will the large "Big Six" type of operations, with their background in accountancy and management consulting. This is because the sales and installation process seems likely to become more like a typical software solution sale than it has been in selling to the large companies. It is possible that new partner types will emerge, or at least distinct "middle-market divisions" within existing partner types.

The mix of skills and the total number of person-days required "per seat" to sell, design and implement systems are going to change when each system contains fewer seats. Figure 41.4 shows the sort of effect to be expected.

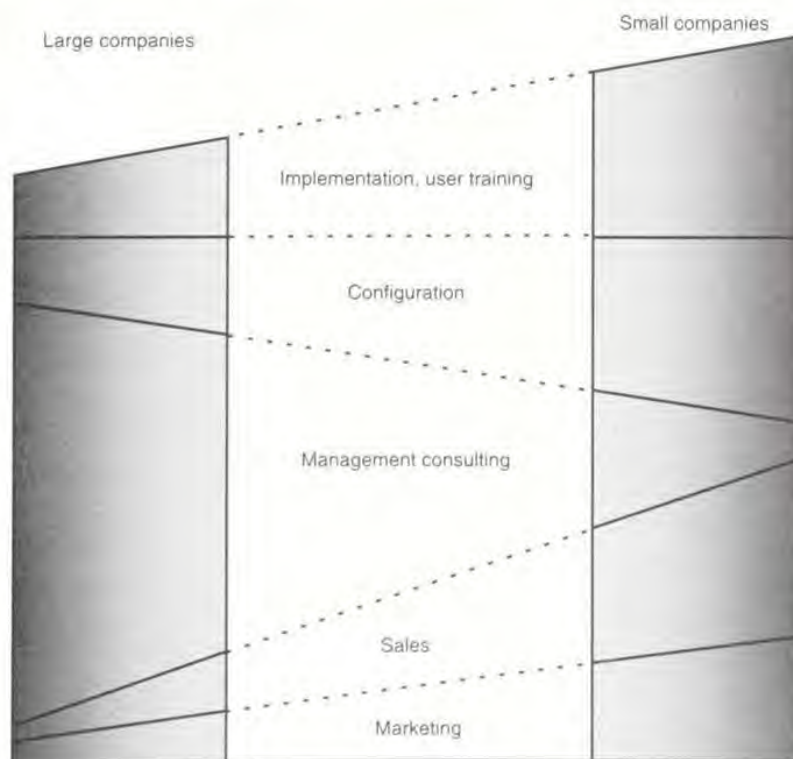


Fig. 41.4 As each system contains less seats, the profile of the installation and support effort changes.

If this market takes off as expected, look for emerging employment opportunities not only in specialized “configure to order” skills, but also in those sales roles traditionally associated with computer solutions and so far largely absent from the SAP world.

Vertical Marketing Moves

SAP has built a successful product by pinning down key business processes and providing for them with real-time interaction between configurable modules that encapsulate “best practice.”

These modules have always been to some extent aligned with industries—or at least industry groups. The original SAP product sprang from the needs of “supply chain driven” organizations, such as the chemicals producers, and from the essential processes involved in meeting those demands.

This is not the same thing as producing a vertical market package. Off-the-shelf vertical market packages are largely the preserve of smaller specialist software houses. There are many thousands of these packages, most of which sell in only small numbers. Your author worked on a planned directory of vertical market packages in the eighties that was abandoned because the number of packages was so vast that it was impossible to describe their features in enough detail to be useful.

SAP is not in the business of producing that kind of product, but it is moving more towards vertical marketing of the SAP product, where its architecture of configurability layered on top of well-engineered central processes is a great asset. Any industrial category big enough to be worth addressing will have a lot of divergences within it.

Underlying Vertical Marketing Considerations. In the IT world, vertical markets are often defined in terms of shared functionality and therefore shared systems characteristics—for example, all wholesalers or all manufacturers can be looked at as one, to some extent. But there are other issues to consider as a vertical marketer: as well as producing for the market, you want to have convenient ways of reaching it. Manufacturers, wholesalers and retailers of food, for example, have very disparate systems, but they have a common interest in the food business and share some media readership, event attendance and so on.

It is becoming more and more important to look at verticalization in this way rather than by systems characteristics, for the following reason.

In the next decade, it is most likely that we shall see a big increase in intercompany systems access, fueled in part by the Internet and intranet developments, and also by the expanding range of tools for linking applications. To persist with the food industry example, the whole process of getting food from farmer to consumer can be viewed as one supply chain, with participants along the route linked into each other's systems.

Some parts of industry, of course, have long provided shared systems between supplier and supplied on a committed basis, but the developments anticipated will advance the

options and allow more free-ranging links to be formed. SAP the product provides a very good platform for building the systems that will facilitate this, and SAP the company is already promoting intercompany systems linking.

All of this means that broadly based “industry skilling” is the key to successful vertical marketing in the SAP world. This requires elements of expertise in the marketplace combined with understanding of the business processes, across several types of operation. It has to be married to the ability to configure and modify SAP modules to produce “industry solutions,” modifiable at individual customer level.

All of these skills will only rarely be found in the same person, but partner organizations will be building teams to incorporate them all. SAP itself will be a part of this, with its industry-skilled people involved in the kind of “virtual teams” that are central to the SAP partnership philosophy.

SAP Vertical Marketing Initiatives. SAP’s industry focused activity has the following two main threads:

- The partner program has been reorganized along industry-specific lines. In the SAP world the partners are the most significant sales resource, so this is a highly significant move. The organization is described more fully in Chapter 38, “SAP Workplaces—The Structure of the SAP Working World,” but the key point here is that the pivotal interface between partners and SAP marketing resources becomes the business development manager (BDM), and BDMs are dedicated to particular industry groups. This means that the main marketing delineation for the “virtual organization”—the communications channels that extend through SAP resources and into partner’s resources—is vertical.
- Both SAP and the partners are developing more industry-specific solutions.

SAP has currently earmarked a number of sectors for SAP product development attention, including the following:

Banks—risk management, statutory reporting, controlling
 Hospitals—patient administration and accounting, hospital control systems
 Insurance companies—securities, loans and real estate
 Oil industry—exploration, transport, distribution
 Retail—product structure, distribution logistics, point of sales systems
 Public sector—financial budget planning and management
 Publishers—subscription management, advertising management
 Utilities—device management, house connections, meter readings processing, billing

This list is expanding all the time, and other sectors are being singled out for marketing attention, often at individual SAP subsidiary—that is, country—level. At subsidiary level, it is likely to prove more flexible for the SAP marketing team to promote “vertical value-added” product development via the partners.

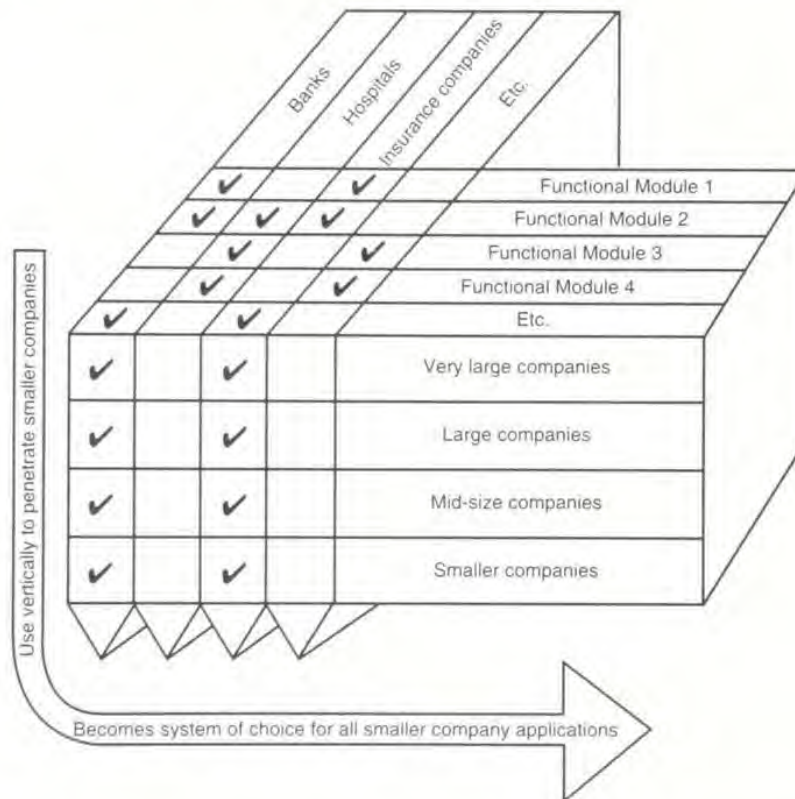
Partners are already promoting solutions in categories such as the following:

- Airports
- Automobile industry and suppliers
- Banking and insurance
- Beverage industry
- Construction industry
- Energy supply
- Estate administration
- Export, shipping and customs handling
- Financial services
- Hospital systems
- Laboratory and analytical systems
- Media management
- Mining industry
- Plant construction
- Production process data capture
- Transportation industry
- Warehousing, transportation and storage

Verticality and Smaller Business Penetration. The term “vertical market” has become almost synonymous with industry-specific marketing. It was originally coined to describe markets that are, well, vertical. That is to say that you can move up and down the company size strata, and customers of all sizes can be fitted into the same category.

This feature applies to a greater or lesser extent in many of the SAP industry targets, and vertical focus will provide direction in the efforts to market to smaller companies. It is a way of relating SAP’s experience in giant corporations to its target audience of smaller companies. Smaller companies specially value specific industry knowledge and experience.

Once a partner has used this vertical market knowledge to penetrate the smaller company strata, "horizontal" marketing direction can be used to spread into other industry areas in that strata. Figure 41.5 illustrates this graphically.



X

SAP Employment Market

Fig. 41.5 Vertical marketing provides a route into smaller companies for a supplier such as SAP with its track record in larger ones.

Because SAP has organized itself further toward industry-specific marketing, it is possible to forecast a massive proliferation of "virtual teams" marketing and delivering to vertical markets.

The SAP product has brought real-time processing to the back office, and it is hard to think of any industry where companies cannot benefit from the extra efficiency and responsiveness this can bring. But they have to be shown how SAP can do this for them, and they are most likely to be convinced by vertical marketing.

Partners will seek to gain an edge by differentiating themselves and exploiting any specific industrial expertise they have, new partners will enter the SAP arena specifically to exploit some vertical market strength, and SAP will reach out into ever more industries.

Expansion in the Range of Platforms and Interfaced Technology

Of all the factors that make an IT product successful, perhaps the most important historically has been to catch the right technology tide. SAP itself is an instance of that with SAP R/3, which was ideally positioned for the growth in client/server systems.

Today there are many strands of technology seeking to prosper in the client/server environment, and SAP needs to ensure that it "covers any moves" that technology fashion takes. It is very well placed to do this, because its now-massive R&D capability coupled with its capability to build partnership relationships means that it is able to cover virtually all likely moves.

This capability to build partnerships is greatly assisted by the nature of the product, which provides a fount of applications solutions. Technology providers recognize that applications software is a key requirement to drive and facilitate sales of their products. Hence the major technology players need SAP just as much as SAP needs them.

The following sections give a few examples of the technologies that are currently extending the SAP marketplace and a little insight into SAP strategy, so that you can take your own view on their likely success and the impact on employment prospects.

Windows NT as a Platform. The most strategic direction that SAP has taken since the introduction of SAP R/3 is its adoption of Windows NT as a platform. The first SAP system on NT went live at the Swiss company, Bally, in August 1994, and by October 1995 around 650 such installations were in place.

The company now sees itself as having evolved from a mainframe-focused company to one whose primary focus is on PC networks. Windows NT is a central feature in this change of focus. A few of the reasons for this are as follows:

- Windows is the industry standard GUI. The vast majority of SAP R/3 users are familiar with it from their desktop systems and have developed Windows skills. With the server operating under Windows NT these skills are exploited, and systems consistency produces efficiency in many areas.
- The consistency of the Windows user interface reduces training costs.
- SAP R/3 users on NT have experienced substantial savings in cost of ownership per seat, compared with those running on UNIX servers.
- Windows NT provides an operating environment rich in the sort of services needed to build distributed and integrated computing environments.
- SAP regards Microsoft's OLE (Object linking and embedding), as a key technology, which allows customers to leverage their investment in desktop applications, such as Microsoft Office, when using SAP R/3.
- Windows NT is the fastest growing operating system for the midrange and above server environment.

Joint developments between SAP and Microsoft continue unabated. For example Microsoft's SQL Server 6.0 has recently been implemented primarily to target mid-sized installations running in homogeneous client/server environments.

You can expect to see a continued expansion in the number of hardware platforms running SAP R/3 on Windows NT. iXOS Software GmbH has set up a SAP R/3 NTC competence center for SAP to run a certification program specially for NT platforms. Products from companies such as AT&T, Compaq, Data General, Hewlett Packard, IBM, Sequent, Siemens Nixdorf, and Zenith have already received this certification.

Windows NT client/server systems will often be wedded to other (notably UNIX-based) technology. Data General, which is both a SAP platform partner and a Microsoft solutions partner, was the first to combine an NT-based operating environment with the choice of an NT or UNIX database. This extended the benefits of Windows NT into enterprises with very large databases and user counts.

Data General's AViiON range can support both NT operating systems, and SAP R/3 can run under NT while supporting databases on either NT or DG/UX.

Major Platforms and Technology. The Windows NT thrust is additional to, rather than instead of, expansion in the UNIX world and beyond.

Release 3.0 of SAP R/3 is compatible with most of the leading hardware and operating systems, including Digital Alpha AXD and UNIX, IBM AS/400 and AIX, SNI SINIX, SUN Solaris. It is also compatible with the leading database platforms, such as Informix, Oracle and Adabas.

Its list of platform and technology partners alone assures it of a foothold in any major technology directions. These partners include the following:

- Apple
- AT&T
- Compaq
- Data General
- Digital Equipment
- Hewlett Packard
- Hitachi
- IBM
- INFORMIX
- Intel
- iXOS Software

Microsoft

Oracle

Platinum Technology

Siemens Nixdorf

Recent moves with IBM provide ample evidence that SAP intends to continue extending its capability with large systems: it has taken steps into the fast-growing world of scaleable parallel computing with the announcement that SAP will now operate on IBM's RS/6000 POWERParallel System (SP), using Oracle's parallel database, ORACLE 7 parallel server.

Also IBM would reportedly like to see SAP R/3 running on its mainframe platforms, and is looking at the possibilities of using the mainframe as a database server and possibly an applications server.

Complementary Technology. Less central to SAP's existence, but very important in its expanding influence and applicability, are the many third-party solutions that interface with SAP.

Numbers of products are certified or awaiting certification under SAP's Complementary Software Program, in the following categories:

Archive software/imaging software

Computer aided design (CAD)

EDI subsystems

Laboratory information management systems

Plant data collection/machine data collection

Process control systems

Product data management

In addition, several categories of communications services are encouraged, though not certified.

Complementary solution providers are listed in Appendix F, "Complementary Solutions," together with their solutions. The complementary software program is expected to result in many more solutions being added over the next few years.

The technologies that develop around SAP not only will influence SAP's continuing success, but will also extend the width of skills that are involved in the SAP world. A glance at the small sample of job specifications in Appendix C, "Sample SAP-Related Job Descriptions," illustrates how different technology skills are welcomed into the SAP camp.

Opportunities to use experience in complementary and platform technology alongside SAP skills (or as a ticket to get an opening into SAP) exist at all levels—not just with SAP itself and the technology and platform partners, but also with the other partners and end users who are implementing systems that combine SAP with these technologies.

New Productivity Tools for Designers and Implementers

Independent industry analysts' ratings of SAP for ease of implementation and flexibility are in sharp contrast to their rating of its product generally. Its ability to deliver and support a full range of modern client/server applications, for example, puts SAP well ahead of the field, while it is rated near the bottom of the league for ease of implementation.

This means that there is a lot of room for improvement here, which SAP has already started, with the release of SAP R/3 3.0, and plans to continue. Ease of implementation will be a focus for its advertising as it seeks to redress this perceived weakness, and the words are being backed up by action. SAP spends around one million dollars per day on R&D, and a substantial part of this is going into productivity tools for systems designers and implementers.

No one is yet putting firm figures on the impact this will have on SAP employment, but it is a central part of SAP's strategy and will certainly have some effect in mitigating demand.

Bear in mind, though, that in many installations much of the project time attributed to SAP implementation and customizing is in fact spent on redefining customer requirements, which are often ill-documented and unclear. The consulting business time that goes into this area will not be impacted much by improved implementation tools.

Some of the initiatives taken by SAP to ease implementation will affect employment qualitatively as well as quantitatively. Skills in using the new tools will become important, and some configuration skills will become, while not exactly redundant, at least at less of a premium.

It is worth understanding the following main areas of focus in recent improvements:

The ABAP/4 Development Workbench has been given significant productivity improvements:

- Simplified database analyses
- Simplified dictionary maintenance
- Integration of the data-modeller
- Repository information system—a central storage system for all development objects that describe the application
- Open repository interface

Enhancements to the SAPGUI;

Computer aided test tools (CATT).

SAP R/3 Customizing Tools have been considerably enhanced:

A new procedure model is aimed at providing transparent management of the implementation process.

IMG (the implementation guide), an interactive procedural model based on SAP R/3 implementation experience, will now provide project-specific views. You can determine the relevant functions from your business processes, and make the necessary settings guided by your own specific IMG with graphics support. The settings are automatically recorded ready to simplify production start-up.

ALE (applications link enabling) functions are embedded in the customizing facilities, making design, implementation and maintenance of distributed applications simpler.

Scenarios can be modeled with a methods-based procedure that maintains consistency and traps errors while obviating the need to perform a myriad of actions. The scenarios are transferred to implementations in the constituent systems.

The **Business Engineering Workshop** now enables SAP R/3 to be a true "configure to order" application suite:

It includes a business process repository (which acts as a master blueprint for SAP R/3 system capabilities), graphical process models, and scenario-testing customizing tools.

Once complete, the customer's unique, "living" business process model can be stored within the business engineering workshop and used to engineer ongoing changes.

The most important overall thrust is toward the concept that SAP calls **Delta Customizing**.

In this, all models—data, business and process models alike—will be shipped along with the SAP system, and SAP wants implementations to be based increasingly on these models.

Figure 41.6 illustrates the process graphically.

Delta Customizing is a stripping-down process that can leave as little as a few percent of the shipped system operative. Ideally the system will guide the user through this, providing instructions each time he or she wants to activate a function.

Dr. Hasso Plattner, SAP-AG Vice Chairman, has characterized the ideal as being able to run a complete SAP R/3 system on a laptop and configure it in an airplane on his way to see a customer—and being able to add any function he had forgotten in a few minutes in the customer's office.

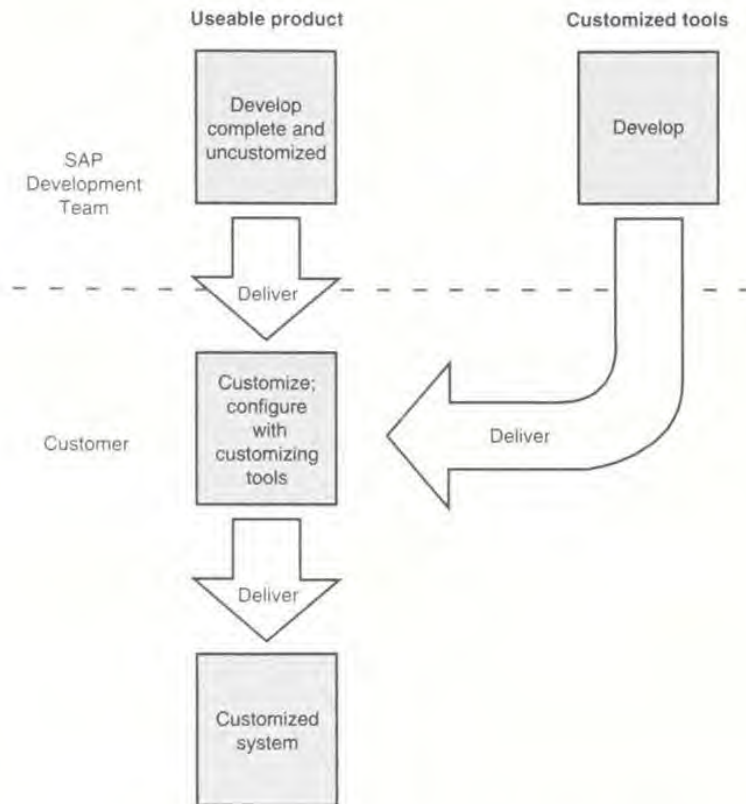


Fig. 41.6 In Delta Customizing, the whole SAP product is shipped, together with the tools that enable the customer to down-configure it.

This ability to customize the system by “computer aided downsizing” is expected to reduce consulting time significantly, because of the reduced need to pore over irrelevant documentation: you look only at the bits the system tells you to.

The Delta Customizing concept is not directed only at mid-sized and smaller customers, but it has particular relevance for them.

SAP is working on a model designed to speed up implementation at these smaller customer sites. This model involves mapping out procedures for the first three weeks of implementation. SAP marries this approach to a sales concept tailored to the special needs of this marketplace. Paul Wahl, Head of Marketing at SAP AG, has said that the aim is to achieve more fast implementations and fewer customer-driven ones.

This lighter process will modify the increased demand for SAP employment as SAP surges in the mid-sized and smaller market (discussed earlier in this chapter). Remember, though this is largely a new market anyway, and additional to growth in SAP’s traditional large company marketplace, so we’re talking about holding down the increase in demand, rather than reducing it.

SAP's own efforts to improve implementation tools are not the only ones being made. Partners are always seeking to gain an edge by their ability to implement efficiently and many of them have developed their own productivity tools, which are expected to yield reduced implementation times in the future.

Overall, increased productivity will certainly play a part in keeping demand within supplyable limits. It will also have an effect on the mix of skills required. One feature of this is that it will swing demand more and more toward "personal interfacing" and business skills, and away from "lower-level" SAP skills. As tools become more user-friendly and powerful, the ability to work the tool becomes less of a factor compared to the knowledge of what you are trying to do with it.

Training Initiatives

SAP has learned from its market research (and from the partners themselves) that its partners have been "resource-constrained" in meeting the market demand for its products. The partners also required more business process orientation and enhanced skills in the area of module integration.

SAP is trying to solve this with a worldwide training approach that is business process-oriented and hands-on, and an early example of this is provided by the Consultant Academy operated by SAP in the U.K.

Academy courses are designed specifically to meet the needs of consultants working in SAP itself and in the partner organizations. The academy opened in September 1995 and had processed 120 consultants by the end of that year; in 1996 its target is 500 consultants.

The academy teaches the major building blocks and is much more process-oriented than the standard courses. It seeks to show consultants how to find their way around SAP—to teach them what they need to know and where to find what they do not know.

The three-week introductory course does not assume any previous SAP knowledge but requires a good background in business processes and IT. It is not suitable for new graduates with little or no business knowledge.

All SAP's own U.K. consultants and product managers will attend and most are expected to teach at the academy, the principle being that "it takes a consultant to teach a consultant."

Participants are expected to carry on after the introductory course to take standard courses. These are more concerned with functional detail and less with cross-module integration than are the academy courses.

The academy approach is well targeted and should help to induct into SAP more of those broad-reaching consultants with good understanding of business processes that the SAP "virtual organization" needs.

If you meet that specification and want to use this route to induct into SAP, you will have to get into a partner organization first, because, outside SAP employees, the scheme is open only to partners.

The initiatives that SAP is taking are not limited to classroom training; SAP has a number of other strategies, as follows:

An accreditation program, not dependent upon attendance at SAP's own courses but based upon the ability to satisfy examination requirements, will enable SAP to exert quality control while allowing partners to expand their training activities.

Knowledgeware, in the form of digestible chunks of information on CD-ROMs or other suitable media, will be increasingly produced as a cost-efficient way of reducing classroom time.

Night schools for ABAP programming and links with universities are other ways in which at least some SAP subsidiaries will be seeking to boost training throughput.

Perhaps the most important of these will be the accreditation program, which sends a signal to partners that they can engage much more heavily in training. SAP is giving positive encouragement to partners to do this, and there are signs from all around the partner spectrum that the challenge is being accepted.

IBM has declared one of its primary growth areas as leading the development of SAP education and training offerings.

Andersen Consulting was the first and, at time of writing, the only partner to have acquired the right to deliver SAP's standard courses, but a growing number of other consultants are now looking to develop and train SAP skills. They are producing rational programs to induct people carefully into SAP, and that involves having the right framework to introduce them into projects with customer concurrence.

The overall drive to produce more SAP people will go a long way to satisfying demand for people with "some SAP skill," but the senior people, around whom you can build a team and provide a framework for inducting "SAP apprentices," will still command a premium that the training efforts will not affect for several years—until the new intake become senior figures themselves.

Underlying Market Trends

If it is true that "no man is an island," it is even more true that no company is, and SAP's prospects depend upon how well it is adapted to its environment. You could divide the main underlying conditions that define SAP's wider environment into three main areas:

technology, corporate practice, and socioeconomics. Trends in these areas are very much interwoven and interdependent, but the division provides a convenient way of looking at things.

Technology trends have been touched upon earlier in the chapter. Client/server systems growth has provided the main technology groundswell that SAP has exploited with SAP R/3. All forecasts are that the client/server market will continue to grow, and the convenient vehicle it provides for many of the other technology trends mean it is very hard to see it failing to do so.

The other key trends are concerned with applications connectivity. The Internet will provide an increasing impetus to this, as will the many connectivity tools that are constantly being developed. SAP has a good foothold in this area, provided by the strategic relationships it has built with partners and complementary solution providers in the connectivity arena. SAP the product, of course is well placed to benefit from and contribute to the trend.

SAP is already taking some very positive steps in Internet use, developing information and support systems for access by the World Wide Web, CompuServe and the Microsoft Network, as well as facilities within SAP R/3 to allow the development of intranet and intercompany systems directly from within SAP R/3 applications.

CPU and storage technology developments, unless of a profoundly revolutionary architecture, will not affect SAP's progress, as they provide a lower-level platform that will find a place however they are configured into broader systems' architectures.

It is hard, all in all, to see any serious threat from changes in underlying technology for the near and medium-term future. The eventual threat to SAP is likely to come from directly competitive technology. SAP found a "better way to build mousetraps" and the world beat a path to its door (well, nearly). Until someone finds a better way yet, SAP will predominate.

But changes in the underlying technology will offer new options, and it is when these occur that a competitor will have the best chance of creating an alternative to SAP that will oust it as the foremost applications solution. So it is worth keeping an eye on base technology developments, but not too anxiously.

Corporate practice has become much more internationalized, and multinational corporations have been very important to SAP's growth. All the signs are that this trend to multinationalism will continue, and it favors SAP and its partners. Many international corporations, while extending geographically, want to reduce the diversity of their applications and espouse open systems. They also need their suppliers to have a global outlook, and most SAP partners are geared to service this need in one way or another. Not only will this trend help enhance the SAP employment outlook in general, but it will also maintain and extend the opportunities for travel and emigration in the SAP world.

Running almost parallel with SAP's history, socioeconomic conditions in much of the developed world have become more monetarist at the same time as unfettered free-marketism has been espoused. The effect of both together has been to cause companies to seek efficiency by reductionist means—such as the oft-heard retreat into “core business” and the ploughing of investment into takeovers and mergers rather than organic development. This has caused a shedding of labor, which in theory should be available for use in new enterprises.

The investment community, however, in a monetarist world, has found the opportunity to take up this spare labor and invest in it less attractive than the activity of stripping down businesses to shed it. Hence much of the business process reengineering that SAP has been used to effect has been concerned with reductionism.

It is not our brief here to pass judgment on the economic value or social ethics of these forces, but only to say that the fashion (which is prevalent mainly where Western-style mobile capital controls events) will pass eventually, and to look at the effect of that on the outlook for SAP.

There is no reason to think that any reversal of the trend will disadvantage SAP. SAP is an agent of change in business processes. It happens that the business changes during its lifetime have been reductionist in the main and arguably short-termist (ironically, given its German origins. Germany has a far more long-termist investment structure than most in the West), but SAP is equally well-equipped to help business creation, when that once again becomes the prevalent driver of change.

Summary of SAP Employment Outlook

SAP, and especially SAP R/3, is a product still on the rise, and employment prospects surrounding it look undiminished for a number of years to come.

These pages should have conveyed some idea of the rich tapestry of activities into which SAP is woven, and only if you are bored by business and business technology should you fail to be excited by the opportunities it offers.

Certainly very few people are bored by the prospect of high earnings, and the tales of huge contract fees and salaries for SAP consultants could very well be one of the reasons for your having read this book. Supply and demand will continue to favor the employee in the SAP world, although strenuous and promising efforts are being made to prevent staff shortages from hindering SAP's growth.

But high short-term earnings should not be the overriding consideration. The SAP world is wary of consultants out to make a quick buck, and is seeking to encourage people who have a genuine interest in what the product can do for business and an empathy with the SAP way of working. Many recruitment and contracting professionals forecast that the SAP jobs boom will last longer than the very high salaries.

SAP projects tend to be long, and this can provide security and job satisfaction, as well as lucrative assignments for contractors—but it cuts both ways, and locking yourself into a project for a number of years does not suit everyone.

If you are the sort of person the SAP world needs, then SAP will continue to provide a secure source of employment for many years and a first-rate platform for building a career in business and information management.

From Here...

In this chapter you have learned what growth to expect in SAP employment, the main changes in it that current initiatives might bring about, and the underlying trends that affect it.

You have also learned about some key SAP strategies, and why they are important to anyone working in the SAP world.

You will find these other parts of the book useful in furthering your understanding of topics raised in this chapter :

- If, as many people do, you have started by reading the last chapter first, and want to learn more about the employment market, read Chapter 36, "Overview of the SAP Employment Market," and the earlier chapters in Part X, "SAP Employment Market," next. You can learn lots more about the way the whole SAP world is structured, what jobs exist in it, and how to set about securing them.
- In Appendix F, "Complementary Solutions," you will find examples of the complementary solutions that are expanding the width of skills required in the SAP world.

Appendixes

- A SAP Offices Around the World
- B SAP Business Partners
- C Sample SAP-Related Job Descriptions
- D SAP Glossary of Terms and Concepts
- E Migrating from SAP R/2 to SAP R/3
- F Complementary Solutions
- G Bibliography
- H Companies Providing SAP Services

Appendix A

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This appendix lists SAP's offices around the world. They can deal with product sales or other enquiries.

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