Career Development for Knowledge Workers

Facing the challenge

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1 The Career Challenges of Employing **Knowledge Workers**

This paper examines some of the issues involved in the effective career management of knowledge workers and specialists. We use the term 'knowledge workers' here for employees with professional or functional expertise necessary to deliver the products or services of the organisation, or to support the effective running of the organisation. We will often use the term 'specialist' to describe a person whose contribution to the business lies in doing high level professional or technical work themselves, rather than through managing other people who deliver this work. 'Specialists' in this sense are often at 'managerial levels' in the organisation but not in jobs which involve a lot of formal management responsibilities.

Knowledge workers, especially those with high level and specialised skills, are key to business performance in many sectors. They may be the main deliverers of the core service of the organisation (eg barristers and solicitors in legal services), or they may develop the core products and services (eg R&D scientists in pharmaceuticals or actuaries in insurance companies), or they can ensure effective business support services (eg scientists in quality control, accountants in financial control). They embody the capability of the organisation which is most difficult to replicate, takes longest to develop and is often in extremely short supply on the labour market.

Kochanski and Ledford (2001) examined the management of technical professionals in areas such as engineering and IT – especially with regard to retention. They emphasised the growing importance of these workers as a 'corporate asset' because of the increasing role of technology in product development, their scarce skills and the ease with which others can poach them. They estimated that the cost of losing a scientific or technical professional can be three to six times that of losing an administrative professional, such as someone working in HR or finance.

Roberts and Fusfield (1988) linked the management of specialist knowledge workers to the growing need for business innovation. Rejecting the notion that innovation is always led by managers, they saw crucial activities involved in innovation – such as

generating ideas, leading projects, and coaching other people – as being shared endeavours between managers and specialists.

So organisations have a strong motivation to attract and retain knowledge workers, especially their senior specialists, and to ensure that they are as productive as possible. Their productivity is likely to rest on good organisation and job design; ensuring that their professional or technical skills are enhanced and refreshed; and also that they are motivated to perform as well as possible. These three different enablers of high performance all need to be borne in mind when considering the purpose and methods of career management for knowledge workers. Organisations often think a great deal about ensuring knowledge workers are well skilled, but they often appear to pay less attention to job design. The role of motivation in organisational performance has to come to the fore strongly in recent years (Purcell et al., 2003) and is especially crucial for knowledge workers where much of their work is 'discretionary' in nature. Aspects of job design, including realistic workloads and reducing paperwork have been flagged as key to improved utilisation and retention of knowledge workers in the public sector (Audit Commission, 2002).

There is a large body of literature on how best to manage knowledge workers and what their particular needs are. Personal attention to career and development issues is often a priority for them. Recognition of their skills and contribution is also important, as is encouragement and a considerable degree of freedom in how to deliver their work. Knowledge workers are often seen as having a stronger loyalty to their field of work or professional community than to their employing organisation. This raises issues of career opportunities inside a single organisation versus career moves between organisations. The issue of managing and motivating knowledge workers is addressed more fully in Chapter 5.

A companion paper to this one by Suff and Reilly (2005) offers a fuller analysis of the nature of knowledge work in organisations and its economic importance; it also examines how policies and processes for reward and performance management are best deployed. This paper concentrates on the career management challenges posed by knowledge workers and how such challenges can be addressed.

The essence of the career challenge of knowledge workers is that they are people of high value to the organisations and often highly valued in external labour markets. However organisations do not always reflect this value in the kinds of careers knowledge workers have access to, or how these careers are managed. An example may serve to illustrate some typical career issues of knowledge workers.

A global pharmaceutical company has a well-developed career structure for the large groups of R&D scientists it employs at several locations round the world. There is a separate 'technical career path' for these people, who can reach very high grade and salary levels in the business. There are also small teams of quality control scientists in manufacturing plants. They have PhDs in Chemistry (just like their colleagues in R&D) and often fifteen or more years' experience of the manufacturing processes and products. However, they reach the top job in a quality-control team in their late 20s. Even though their decisions can affect the quality of drugs produced, the safety of many employees and a plant costing many millions to build, there really is no 'career' for these people beyond a grade equivalent to a first line manager. They are not often involved in strategic discussions about manufacturing new products. Although doing fairly interesting work and quite well paid, the quality control scientists feel unsatisfied with their career opportunities, and the chance they have to go on developing and to tackling new challenges. They also feel their expertise is under-valued by the company and that many of their skills are not used to best effect.

The list below generalises the typical issues arising in managing the careers of knowledge workers. We can present these as four main strands of career management challenge for the employers of knowledge workers and for these employees themselves. This report examines each of these challenges in turn.

Career challenges for knowledge workers

1. The job design and grading challenge

Do the jobs in the organisation reflect the business needs for knowledge work, especially at higher levels? What should senior specialists be responsible for? What skills do they need?

Are specialist posts at the right level in the organisation to reflect their value in both grade and money terms?

How is the paybill controlled if specialists are allowed to reach higher grades?

2. The career path challenge

Does the organisation need distinct career tracks for knowledge workers? For example should one type of career path lead to senior management roles and a separate path lead to senior specialist roles? How separate should such paths be and at what point in a career do they diverge?

Do the possible career paths for knowledge workers make sense in terms of skill acquisition and development?

What triggers and controls career progression for knowledge workers?

3. The career management challenge

How should HR processes - such as recruitment, early career development, promotion and talent management - be adjusted to facilitate specialist careers?

Who is responsible for managing the careers of knowledge workers?

4 Career Development for Knowledge Workers: Facing the Challenge

4. The motivation challenge

What do knowledge workers value, and what makes them feel recognised and rewarded? To what extent will better career paths motivate them more?

What aspects of management style do managers have to keep in mind when dealing with the careers of knowledge workers?

Key learning points are highlighted at the end of each chapter in this paper.

2 The Job Design and Grading Challenge: Specialist Roles that Fit Business Needs

It may seem perverse to start an analysis of careers for knowledge workers with a section on job design and grading. However, a critical first step in designing specialist careers is to clarify where – if at all – the business *needs* knowledge workers in senior roles. There is no point developing career paths which the organisation does not need.

2.1 What kinds of knowledge workers does the organisation need?

Some kinds of knowledge workers are so obviously central to the organisation that jobs for them are going to be built in. For example, a legal firm is going to have jobs for lawyers who deliver the core work. An engineering company is going to have jobs for engineers. Where areas of knowledge are key to the business but somewhat more peripheral to its operation, the identification of groups of knowledge workers can be more haphazard. This can also happen when the organisational structure fragments a particular type of specialist skill across the organisation. We see this clearly with IT functions which have swung between centralised and very devolved structures. In their devolved periods, jobs at local level can be based on a partial understanding of what is needed. It is also hard for individual employees in such structures to see the jobs which exist elsewhere in the organisation and which may be available to them in career terms.

Job families are one way of identifying the main functions of the organisation which map very often onto distinct bodies of knowledge the organisation needs (ie organisational capabilities) and professional groups (ie communities individuals may identify themselves with). Many large organisations have now expressed their main areas of knowledge and skill in terms of a limited number (usually 10-20) of job families which cut across divisional, profit centre, departmental and geographical boundaries. This idea is very useful in managing knowledge workers' careers as they will often wish to stay within one broad job family but move around the organisation. A public sector organisation employs specialists of many different kinds in delivering its services. Some of these specialists deliver well-defined services, some are developing new ways of working, some offer external consultancy to the private sector, and some (like accountants and lawyers) work in business support functions. As a first step to developing better career structures for these groups, it has proved important to find clearer definitions of what the main groups of specialists are. The easy ones map onto external professions (eg various kinds of engineer), but others have unique skills which can only be defined internally. Several cut across the boundaries of operating units. Considerable discussion with business unit leaders and functional heads has led to broad agreement on about twenty job families which will align to a significant extent with careers. Some of these families have enough skill overlap that career moves between them will be quite common. Moves between some other families will be very unusual. Before these discussions on job families, the organisation had only very long lists of jobs and skills - much too long to use for career management purposes and not very helpful for employees. Now the main job families will be used for designing specialist jobs, career paths and also technical skill frameworks.

2.2 Levels of work aligned with distinct career stages

In conventional job and career structures, higher 'levels' of work are signalled by higher grades and pay. These most often reflect increasing levels of management accountability at higher levels. When we look at knowledge workers and their jobs, insisting on management responsibility as the main measure of job level is often the biggest barrier to good job design. It can lead to many senior specialists 'pretending' to be managers when their real contribution is through the professional work they do. So they are poor managers but good specialists, deriving their higher grade and pay from the bit of the job they are not really doing very well.

Another way of looking at the level of work delivered by knowledge workers is to use a very intuitive model based on the degree of autonomy at different levels in the organisation. Age-old systems of craft training were based on the shifts from apprentice to journeyman to craftsman. Dalton et al. (1977) proposed a similar kind of model, based on four stages of specialist careers. This was derived from studying professionals working in the US. The career typically moves from working under fairly close supervision and tuition (apprenticeship) to a much more self-sufficient mode of working (independence). From here people can progress further to taking responsibility for developing specialist skills in others (mentoring) and finally to having a strategic influence on the organisation.

Dalton's four stages of specialist careers

- 1. Apprenticeship
- 2. Independence
- 3. Mentoring
- 4. Strategic

Dalton (1989) found that significant numbers of professionals at level three hold specialist roles with little or no management responsibility, but that many will not get beyond level two (independence), especially if they do not have wider skills.

The great attraction of this simple model is that it acts as a bridging concept between several different HR and management systems:

- Job roles can be defined in terms of these types of responsibility ie job descriptions, both generic and particular, can talk in these terms. This can help to communicate simply but clearly what senior knowledge workers do.
- When posts are being created or reviewed, a strong model of this kind can help to ask questions about the main purpose of the post. Do we need someone to do competent professional work (level 2), to be more expert and able to take the work forward and support more junior people (level 3), or to speak for the whole organisation in their specialism (level 4)? What is the relative mix of work required at each main skill level? Of course, organisations may wish to have fewer or more levels. The point is that each level of work should be fairly clearly distinguishable.
- There is a link here to job evaluation systems and the kinds of factors they already tend to consider. This can make it easier to grade specialist roles appropriately.
- Skill frameworks can reflect what employees need in order to fulfil these roles. For example, senior specialist roles will require the skills of mentoring others as well as the 'pure' specialist skills of delivering one's own technical work. Organisations quite often record technical skills on a 1-4 scale rather like Dalton's model going from learner to professional, to able to advise others, to world class.
- In terms of communicating clearly about careers for specialists, both the role descriptions by level and the accompanying skill frameworks are extremely useful.

2.3 Different role types within each level

So job families or something similar define across the organisation which group of knowledge workers we are talking about. Levels of work, often linked to grades, define up and down the organisation how responsibilities and activities vary through career.

There is a third dimension to the jigsaw of knowledge work we also need to consider. Here we will use the term 'role type' to describe it. Jobs in the same job family and at the same grade level often vary by role type.

In its simplest form this concept can be used to distinguish between two main kinds of role at more senior levels in the organisation:

- specialist roles with responsibility for delivering complex technical work but without formal managerial accountabilities
- management roles with formal accountability for people management and budgets but with little or no delivery of technical work.

This distinction lies behind the simple 'dual career' model which we will examine in the next chapter. In practice, however, if is not clear that these two types of role best fit what organisations need.

Firstly, some organisations find they have more of a **continuum** from managerial to specialist roles than a clear cut divide. Jobs at the same level can combine specialist and managerial job elements in many different ways depending on their context and the needs of the business over time.

Secondly, 'management' can mean different things. When knowledge workers 'manage' something they are often doing what we might call 'functional management.' They are managing people who belong to a particular professional group and often they take decisions which require a considerable degree of technical understanding. This understanding is also needed to make sound judgements about the quality of specialist work, set its future direction and manage the performance of their subordinates. A number of large organisations have recently been re-balancing managerial with technical expertise, having found that managers with only general managerial skills make poor decisions about technical matters. Technical or professional skills are central to credibility in functional management roles. Even at very senior level – for example HR Director or Finance Director – one might realistically expect a head of such functions to be able to make sound judgements on matters of policy and key professional decisions. Aspects of corporate governance are strengthening the need for professional judgement in such senior functional leadership roles.

BP differentiates between functional management and leadership roles on the one hand and general management roles on the other. Most senior roles in the business are functional leaders. Only the heads of major multi-functional business units are seen as general management roles called business leaders in BP. So three types of job roles are identified at senior level: functional specialist, functional leader and business leader. Employees can move between these role types during their career, although moving between functional specialist roles and business leader roles would be very unusual. Movement between specialist and functional leader roles is quite common, as is movement in later career from functional leadership into business leadership.

In some organisations, 'managing' can be about managing large projects or **programmes** of work rather than the conventional functional leadership role of managing a fixed team and a business budget. These types of roles seem to be growing in importance in knowledge-based organisations where project structures can be created in many different ways within broader organisational structures.

Rolls-Royce identifies the need for Project Manager roles at a variety of grade levels, including some very senior posts. So the three types of role identified here are Specialist roles, Technical Manager roles (as described by functional leadership above) and Project Manager roles. The huge scale of some development programmes in this particular business, means that the career path which develops top project managers is an important one and some of the most talented engineers go this career route. They combine excellent engineering skills with the skills and experience to manage these very complex programmes of work, and complex project teams.

So the idea of varied role types occurring even in the same job family and at the same level is an important one in tackling specialist career issues. Each organisation needs to think about which role types are really essential for its business and how much one role type blends into another.

If there are a range of role types – not just the simple distinction between 'specialist' and 'management' roles – then there may need to be a wider range of career types too. The issue of multiple career paths is examined in Section 3.2.

2.4 Designing senior roles for knowledge workers

It is very tempting, when addressing the career issues of specialists, simply to design jobs round individuals and then grade them at the level required to satisfy these individuals and – hopefully – retain their skills.

This approach can work well where a small number of individuals need specialist skills at senior level. For example, a recruitment agency has one director who is purely a lead professional dealing with the most demanding clients and most difficult cases. He was part of the small group who set up the business and is simply not at his best in managerial roles, but has been most effective in building the credibility of the organisation. If he left, he would not necessarily be replaced in the same way.

In another example a major financial services company has found that its more specialised business streams (eg investment banking) need to be able to flex senior roles to accommodate key individuals with the capacity to shape the business strategy.

In general, however, designing specialist roles round individuals is dangerous for specialist groups of significant size because:

■ It distorts the grading, job evaluation and pay systems by assuming specialist roles do not need any real rationale for job weight.

- Skills are valued (inputs to the job) but not the way in which those skills add value to the business (outputs from specialist roles). So the kinds of specialists who do what they want to do and can behave quite poorly in terms of organisational values are rewarded with senior roles. Specialists who deliver high business value but do not complain about their grade or pay, may not have senior roles designed around them.
- Leapfrogging can easily result both within specialist groups ('I'm as good as she is') and between groups ('Our work is just as complex as theirs'). Increasing numbers of senior posts appear and the paybill inevitably increases.

A better place to start is by asking, both in general terms and on a job family basis, what work activities and responsibilities do we want our specialists at particular levels in the organisation to undertake?

The issue of what senior specialists really do is a most interesting one. Organisations and the media often characterise senior scientists as 'boffins': people with few social skills and little business understanding who sit in darkened rooms having brilliant ideas. When we look at what senior specialists are really required to do it is often very much focused both on business and on working with other people.

Pelz (1988) found that scientists do **not** do their best work when they do their own thing in a protected environment, but when they work with other people and need to balance science against other issues.

If we look at a very different sector – specialist financial services in the City – we see a different but equally distorted picture. The cartoon image here is of the monster – someone who is so intent on the deal that he or she works all hours, takes every drug on offer, has no respect for colleagues or customers and is only motivated by huge bonuses. As with the boffin, there is *some* truth in the image but it may not be a desirable one to encourage. Several large financial companies have been bankrupted by senior specialists who were not properly accountable for their impact on the business and other people, and who were not properly managed. Part of the move towards corporate values is to encourage certain behaviours towards other people. These are as important for senior specialists as for other groups of employees.

So wise organisations are designing senior specialist roles with care and ensuring they are only created where they meet a real business need. Dalton's four stages of professional development can clearly be seen in the kind of responsibilities such organisations are giving to senior specialists – especially the mentoring of junior colleagues and strategic capability building.

What organisations build into senior specialist roles

- Delivering technical work of a complex and exacting kind which has a significant impact on the success of the organisation
- Developing new approaches to such work, bringing in good practice from outside, and setting standards
- Developing the capability of the organisation in their specialist area by coaching and mentoring their less experienced colleagues
- Giving strategic advice on decisions related to their specialist expertise internally and/or externally

In addition to ensuring that the organisation is getting real value from its senior specialists, building such demands into senior roles for knowledge workers is quite helpful in terms of the relationship between the employer and the employee: what is often called the 'psychological contract.' If some people with specialist skills are to be given significantly higher pay than others, then maybe just 'being good' at their technical work is not enough to merit this. If the organisation asks for clear additional contributions (for example in developing other people) then these more easily merit higher rewards. The additional responsibilities may not be things that all specialists wish to do. In their case it makes it possible to choose to stay at a lower level of responsibility and still concentrate on interesting technical work. For such individuals, a slightly lower grade and pay can be a fair exchange for declining wider responsibilities.

Setting clear responsibilities for senior specialists may also usefully add pressure for the organisation to use them better. In relation to strategic advice, for example, if board members know they have appointed a high level specialist with strategic advice as part of his or her remit, maybe it makes it more likely that they will see this person more often and get to know what they have to offer.

2.5 Aligning specialist with managerial roles

A key issue in designing specialist roles, especially at more senior levels, for knowledge workers is clarifying how they line up in grade and pay terms with conventional managerial roles.

Dalton's four professional levels	cialist and managerial roles by level Specialist roles	Management roles
4	Senior specialist/strategic adviser	Senior manager
3	Senior professional/specialist Middle manager	
2	Fully fledged professional Junior manager Junior professional	
1		

A simple model of this might look like Figure 2.1. In practice, such alignment is often quite contentious. For example, how big a team does a functional leader need to be managing to be seen as a 'middle manager' in terms of this diagram? And in the specialist column, when does a role start to demand the 'senior professional' attributes of mentoring others? At higher grades, can specialist roles carry quite some way into the senior management structure, or only align with the more junior end of senior management? Such distinctions may seem to be a matter of detail but they condition whether the specialist posts in the organisation really represent parity of esteem between knowledge work and management work. Creating a very small number of specialist posts at middle management level but not beyond can be seen as a token gesture. It can leave in place a very limited career ceiling for all but a handful of specialists.

2.6 Grade mix and the pay bill

Clearer job design is an important step to ensuring that offering better careers for knowledge workers gives the business value.

We also need some way of fixing the relative numbers of specialist posts at each grade level and in relation to management roles to fit the work which needs doing. For management jobs, parameters like spans of control have been used to examine how many managers are needed in relation to staff at the next level down. For specialist roles, this judgement is more difficult. It is always easy to argue that more senior specialists would do a better job. But they cost a lot more and also can shut off the pipeline of technical talent coming through the business if they block too many jobs or create an ageing demography.

We will see in the next chapter that organisations use two very different methods to control the promotion of specialists. They can promote people when they meet the role criteria (sometimes called the 'push' method) and then use this process firmly so that promotion to very senior levels is sparingly used. Alternatively, they fix the numbers of posts by grade level in each job family (agreed by the heads of the business units concerned) and only promote people into vacant posts which can be paid for (the 'pull' method). The pros and cons of these two approaches will be examined in the next chapter. From a pay bill point of view what matters is that effective control is operated, whichever approach to promotion is taken. This means linking the management of specialist job structures with business planning and budgeting.

2.7 From roles to skills

Once the organisation has thought through what it wants from knowledge workers at different levels (ie role definitions) then it is much easier to express what skills and competencies knowledge workers will need to carry out these roles.

Rolls-Royce, for example, has defined some roles and titles for senior specialists, most often engineers. Employees fulfilling these roles at two different levels are known as Associate Fellows and Fellows respectively. The criteria for the awarding of these Fellowships are a mix of skills, achievements and obligations. These, for example, are the criteria for Engineering Associate Fellows.

- Candidates will be recognised by the company for their technical expertise.
- In their own country, they will be recognised and active outside the company in their technical field.
- They will be active in promoting their technology.
- They will be seen to behave in line with company values and behaviours.
- Candidates will normally have achieved Fellow status or equivalent in the appropriate professional institution or society.
- They will have demonstrated commitment to their own continuing professional development.
- They will demonstrate commitment to developing other people in their subject of expertise.

Clarifying the generic skill demands of the roles of knowledge workers in this way has three benefits:

- 1. It communicates to employees and line managers what an individual has to be able to do to be an effective specialist at various levels in the organisation. Looking at successive organisational or grade levels shows the development an individual needs in progressing along a specialist career path. This highlights where new skills (such as mentoring others or strategic influencing) come into play and avoids the trap of knowledge workers thinking they can progress on their technical skills alone.
- 2. It reinforces the behavioural aspects of organisational values as discussed in Section 2.4. This emphasises what specialists have to do which is the *same* as the requirements for everyone else, rather than always seeing specialists as 'different' or 'other'.
- 3. Many HR processes, such as promotion, job filling and training, use skill frameworks to provide their underpinning parameters. We will be looking at some of these in Chapter 4. It is important that these processes look at the generic as well as the technical skills of knowledge workers, and a clear framework of generic skills reflecting the real roles specialists do is therefore important.

Some organisations present both generic role descriptions and skills in a joint framework which covers all the jobs in the organisation, as in Figure 2.2.

In organisations with several distinct role types, additional columns can be used. In organisations with more of a continuum of roles, jobs will mix and match roles and skills from more than one column.

Figure 2.2: Role and skill descriptions

Generic role and skill descriptions for Level 'X' roles

This type of grid is repeated for each main grade level in the organisation to show progression in both responsibilities and generic competencies

	Generic contributions	Technical contributions	Managerial contributions
Role description	The activities/ responsibilities relevant to everyone at this level eg taking responsibility for own professional development	The activities/ responsibilities typical of specialist roles at this level eg advising the board on technical matters, developing others in specialist field	The activities/ responsibilities typical of managerial roles at this level eg financial control, performance management of direct reports
Skills/competencies	Core or generic competencies for this level eg wide understanding of the business context and how own work and decisions will impact the business; team player	Skills, experience or competencies relevant to specialist roles at this level eg recognised externally as leading expert in this field, ability to influence board members on technical decisions	Skills, experience or competencies relevant to managerial roles at this level eg ability to motivate staff through performance feedback and coaching

Once the generic framework is fairly clear, each job family can show more specific examples of real roles and the skills they need. At this level, the skill frameworks can list job family specific skills as well as the generic skills which apply across job families. Some organisations reflect role variety by using processes which choose the competencies from a wider list which are most applicable to the particular role.

2.8 Key points about specialist roles

- A useful start point is identifying key areas of specialist expertise within the organisation in terms of groups of jobs (eg job families) which will map onto specialist careers.
- Specialist work usually exists at a number of levels which align reasonably well with broad career stages. Dalton's four career stages of apprenticeship (being supported by others), independence (a fully fledged professional), mentoring (helping others acquire skills) and strategic (major impact on the organisation) are a useful way of thinking about levels of professional work. Organisations have choices about how they align these levels of knowledge work in grade and pay terms with levels of management work. This is really a choice about the relative value of specialist work as against formal management responsibilities.
- Although organisations often talk in terms of managerial roles versus specialist roles, there may be several role types for knowledge workers at the same

organisational level. Functional management roles often combine technical expertise with management responsibilities. Project or programme management roles may also be needed.

- It is important to be able to control the numbers of senior specialist posts which will be created. Too few and there are no real career opportunities for the best professionals. Too many and grade drift results.
- Knowledge workers obviously use skills particular to their field, but even in roles without management responsibility they need strong generic skills. Senior specialists often require influencing skills, broad business understanding and the ability to develop less experienced colleagues.

3 The Career Path Challenge: Articulating Paths and Controlling Progression

Once the vital first step of specifying specialist roles has been undertaken, the issues of how these translate into careers is much easier.

3.1 Dual career paths

Grady and Fineham (1990), in a study of an Australian R&D lab, showed some of the problems which occur when the career path open to specialists is seen as inferior to the one for managers. Although this organisation had very specialised staff in its lab, R&D was seen as a career dead-end.

Researchers who stayed within R&D had to become department managers to improve their salaries, despite the fact that many were more skilled at running experiments and inventing creative solutions to technical problems than managing people or projects.'

In addition to addressing some of the challenges of managing specialists, they recommended dual career paths for scientists and managers with 'equal opportunities for status and compensation.'

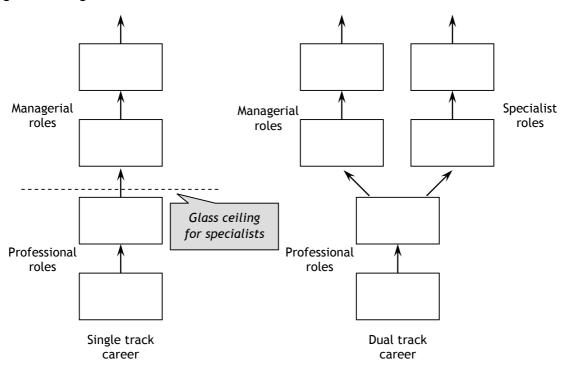
The idea of a 'dual career path' has been around for many years and is often advocated by specialists who are frustrated by a lack of career progression. They call for a 'technical or specialist career path'. What they have in mind is something like Figure 3.1 – a shift from a purely managerial career path which blocks the progression of specialists, to two sets of jobs with two distinct career paths showing upwards progression on each path.

If, as discussed in Chapter 2, the business identifies senior roles which add real value but without taking managerial responsibility in conventional terms, then the glass ceiling for knowledge workers is potentially broken.

However it is still important to think through what kinds of career path are going to work both for the individuals concerned and for the business.

The most obvious solution to careers for knowledge workers, as shown on Figure 3.1 is to articulate two career paths which fork at a certain point, often at senior professional level. Beyond this point, one path is the 'conventional' managerial route in which jobs increase in terms of people and budget responsibilities. The other path – the specialist career path – leads to roles increasing in terms of technical complexity of professional work but also of the additional responsibilities discussed in Chapter 2 – the development of other professionals and strategic advice.

Figure 3.1: Single and dual track careers



Source: IES

Although in general the idea of a 'dual career path' is a sound one, a few issues need careful examination:

- Are there just two career paths specialist and managerial or more than two?
- At what level in the organisation do the career paths diverge?
- Can people move between these paths or is there a fixed 'fork in the road' where they have to choose one way or the other?
- How specialised are the roles for knowledge workers, and how long might it take someone to develop these skills? The longer the time to grow the skills needed, the stronger the case for a career structure which accommodates specialists.

3.2 Career path options and issues

3.2.1 Dual or multiple career paths?

We have already seen in Chapter 2 that there may be just two broad role types for knowledge workers at a given level in the organisation (specialist versus management roles). We have also seen that some organisations find it more useful to consider further role types which reflect other business needs.

Figure 3.2 shows how the three broad senior role types in Rolls-Royce for engineers translate into three broad types of career path. These are shown as overlapping triangles, each leading to a different 'top job'.

Engineering **Directors** Chief Engineers **Fellows Technical** Specialist managers Project managers Professional Project leadership leadership

Figure 3.2: Career paths for engineers

Source: Rolls-Royce plc, 2004

The overlapping presentation of these career paths is intended to show that they are not rigidly separate and that many people will move during career between these different role types. However, the triangles do provide a very helpful language for talking both about overall career direction ('I see myself primarily as a specialist') and specific jobs or career moves ('I feel I need some experience of a project management role').

3.3 Where do career paths diverge?

It can be tempting to see the career paths of those who will follow a more specialist route as separating from the management path as soon as management roles appear ie at first line manager level. However this may not be a good idea for a variety of reasons:

 Some specialists may be intimidated by the thought of management responsibility and to shy away from it by seeking specialist roles from very early in career. However, they may be making this decision in ignorance of the nature of

management work and their aptitude for it. Some exposure to managing people early in their career, positions knowledge workers better to make informed career decisions. Roberts and Biddle (1994) found that technical and managerial aptitudes were more similar than often thought. The better technical performers in this longitudinal study became at least as good at managerial jobs as the less good technical performers. So it did not seem the case that people were good either at technical work *or* managerial work.

- Many specialist roles at both middle and senior levels involve managing small teams of people, even if not large departments. If people management experience is not acquired early on, it can be harder to become an effective team leader in a specialist role later on. The senior specialist roles require formidable people skills in terms of developing others, working collaboratively and influencing. Early experience of being a team leader is an ideal way to start developing these skills.
- There is a danger that specialists do not understand business constraints especially financial constraints – as senior specialists may not control large budgets. However, they often do take decisions, for example in relation to large programmes of development work, which can have huge financial implications for the organisation as a whole. Early experience of managing a team budget embeds business understanding.
- Some specialists may decide after quite lengthy careers in specialist roles that they would like to move into a functional leadership role. This is especially likely in careers, such as scientific R&D, where the early career stage is lengthy and employees might be happy for ten years or so just 'doing the science' and not thinking too much about their later career options. If they have not had credible people and financial management experience early on as some kind of team leader, it is very hard to redirect their career in a more managerial direction in their thirties.

It is for all these reasons that many organisations try to keep career options as open as possible at least up to, and including, the senior professional/team leader level. ICI, famously and as long ago as the 1950s, demanded that all their graduate chemists had early career experience of supervisor roles in production environments, even if they were going to work mostly in R&D.

3.3.1 Flexible or separate career tracks?

The issue of when career paths diverge is closely related to the degree of flexibility between specialist and managerial careers which will suit the organisation and the kinds of people it employs.

Specialist and managerial roles may not be at all clear cut in practice, as we have seen in Chapter 2. It follows that specialist and managerial career paths may not be all that separate either.

Arnold (1997) gives a helpful overview of some of the issues about separate career paths or ladders for specialists. He proposes that, in modern organisations, separating managerial and professional work into different jobs done by different kinds of people is not at all straightforward. It is:

'not clear whether it is even possible let alone desirable to keep specialist work sufficiently distinct from managerial work to justify a separate career ladder'.

Whenever one considers alternative career strategies, it is necessary to examine their pros and cons from the perspective both of the organisation and of the individuals involved. Clearly separate specialist career paths have considerable emotional appeal to significant numbers of specialists, because they look like a way of gaining progression and increased pay without having to take on the aggravation and distraction (as they sometimes see it) of management work. They can also appeal to organisations as a way of retaining and motivating their best specialists and using their specialist skills to best effect.

The arguments for more flexible career paths are mostly about the changing nature of work on the one hand and capacity to respond to change on the other:

- As we have already seen many jobs (which we are calling here functional leadership) combine specialist skills with team leadership. So sharply separated career paths do not reflect the real nature of knowledge work in organisations. Project working is further blurring this divide in both role types and skill needs between specialists and managers.
- Although specialists may like the idea of avoiding management work, it may limit their employability in the longer term. They may wish to move to an organisation with less clearly articulated specialist roles. Their area of specialism may become less important either within their organisation or in general, and they may need to make a sideways step into a slightly different area of work. If all they have ever done is specialist work in their own field, their employment options may be very limited. Similar arguments apply to the employing organisation. More flexible career paths, especially in early career, may make it easier to redeploy specialists if business needs or organisational structures change. Such redeployment is a way of keeping potentially valuable expertise within the organisation, albeit in a new role.

BP employs a high proportion of knowledge workers, and has adopted a fairly flexible model of careers to meet their business needs. Figure 3.3 shows the main career routes between graduate entry and the top of the organisation. In addition to the three broad role types and career paths for specialists, functional leader and general managers (called business leaders), a small proportion become top level executives in the largest general management roles. Figure 3.4 emphasises the fluidity of these career paths with movement between functional roles and generalist roles, showing the most specialist roles on the left hand edge of the diagram.

Figure 3.3: Varied leadership career paths Top Level **Executives Functional Functional Business** Leaders Leaders **Specialists** Experienced **Professionals** Hires Graduate **Entrants** Source: BP, 2003

3.3.2 Career paths between organisations

Employers of knowledge workers need to bear in mind that such people can often easily take their skills to other organisations. The mobile nature of many specialists gives rise to a number of characteristic career–related questions for their employers:

- Should we openly acknowledge their career opportunities outside the organisation when discussing careers?
- Should we make it easy for employees to come back to us again after a period elsewhere?
- Should we bring in highly skilled people in mid-career from outside?

The answer to all three of these is usually 'yes'. Employers may feel it is safer not to talk about career opportunities elsewhere, but knowledge workers usually know a lot about their labour market. An employer with a poor understanding of specialist labour markets does not look like good place to work. Good people will move around and a career structure flexible enough to accommodate such coming and going will on the whole be of benefit.

Some organisations use secondments as a more positive way of helping knowledge workers to experience other environments. Many keep in touch with their 'alumni' of former employees and encourage them to return when suitable opportunities arise.

Professional/ Functional **Business** Leadership Leadership Distinguished Business Stream Advisor Unit Functional Leader Leadership Site Functional Senior Delivery **Business** Advisor Manager Jnit Resources Commercial Management Manager Generalist Functional Advisor Team Manager Leader

Figure 3.4: Flexible career paths

Source: BP plc, 2003

3.3.3 Entrepreneurial careers

Knowledge workers in a number of fields invent products or services which they then take to the market as entrepreneurs. Some large organisations have tried to provide such opportunities internally. In other cases clusters of small firms have arisen, often around universities or bigger firms, led by people who have themselves been specialists. The high-tech industries around Cambridge in IT and biotechnology are an especially good example of this.

Some knowledge workers in small firms find their careers grow as the firm grows. They may make a successful transition into general management or negotiate a more senior specialist role in the growing organisation or leave and start again somewhere new.

3.4 Are proposed career paths practical?

This report started by looking at the possible need for specialist roles for knowledge workers. It is not always the case that creating a few specialist roles adds up to a coherent career path.

3.4.1 Are career moves possible in skill terms?

Sometimes very senior specialist roles are created, but there are no intervening roles in which individuals can grow the specialist and technical leadership skills they will need.

A Civil Service organisation created a small number of very senior posts for Capability Leaders. These were to be specialists without line responsibilities advising the board on strategic technical decisions, identifying the strategic business need for technical capability in their field and taking responsibility for the workforce planning and development activity necessary to ensure that technical capability would be there to meet future business needs. In one or two cases existing Heads of Profession could fill these new roles as they were real leaders in their fields and also used to operating at senior level, and did not have line responsibility for large departments. In other functional areas, the people who had in-depth expertise were far lower down the organisation. This meant they were both too narrow (operating in a very small field not across a broad enough capability) and also had never experienced the strategic planning and influencing skills they would need in the newly created roles. They had little or no contact with key customers either internal or external and so little chance to understand what the business needed from their area of expertise. The idea of Capability Leaders made sense in role terms but not in career path terms, and some of the jobs were never really filled in a satisfactory way.

3.4.2 Career ceilings and career expectations

One of the drivers for specialist career structures is to give knowledge workers recognition and reward for their contribution. It is tempting when looking at dual career structures to look at how high the very top jobs go in the organisation. Indeed this does send important signals about whether knowledge work is really valued and whether the most senior knowledge workers will be influential in business decisions.

However, it is probably more important to ask the question: What is the likely career ceiling for the majority of specialists who perform their jobs well? For knowledge workers to feel they really do have parity of esteem in career terms, the normal career ceiling on the specialist career path needs to be about the same in terms of status and pay as the normal career ceiling on the managerial path. In many organisations a reasonably competent and career-orientated manager expects to reach at least middle management level and perhaps even the lower levels of senior management. Good quality employees taking the specialist career route might reasonably expect to reach similar levels of pay and status. In practice, this is not often the case and organisations

to point out that only very few specialists actually reach senior levels.

are not entirely honest when they proudly explain their dual career structure and fail

Achieving some sense of 'fairness' between specialist and managerial career paths is a delicate balancing act. Make the technical ladder too narrow and hard to climb and it seems like a token gesture. But make it too broad and attractive and employees will feel that 'managers are mugs' taking on all that aggravation for no more money when they could just as easily sit tight in purely professional roles and achieve the same status and pay and have more interesting work to boot. So leaning too far away from valuing management is also dangerous.

3.5 How is career progression controlled?

So far we have talked about several building blocks of an effective career structure for knowledge workers:

- clear identification of the areas of expertise key to business success
- posts of different role types often including specialist posts which reflect real business needs at different levels in the organisation
- simple, generic role and skill descriptions for such types of post
- career paths which link roles in such a way as to develop the skills needed by the business and provide realistic career steps for individuals.

The next critical component is to decide what will trigger the move of a knowledge worker to a post at a more senior level and/or a higher salary.

Three basic models of managing career progression:

- 1. Post-led (or 'pull'): promotion is only into a pre-defined and vacant post.
- 2. Person-led (or 'push'): promotion occurs when the individual meets criteria.
- 3. Recognition award: person awarded role title against criteria, more loosely linked to grade and/or pay.

Under any of these models the award of higher level posts, grades or recognition titles may be temporary or permanent.

Under the post-led model, the numbers of senior specialist posts are set in relation to business needs and then people compete for these jobs. This puts the business in control of grade mix for specialists and in theory grade drift is less likely. Posts of varied role types can be defined at the same level (as explored in chapter 2). Different job families can have different grade mixes to reflect varying balances of work required.

Under the person-led model grading and promotion are based on evidence of capability, so people can normally apply for promotion when they feel they are 'ready' and can demonstrate they meet the criteria.

Recognition schemes give individuals special titles (such as Fellow or Adviser), normally through a process of nomination and approval from very senior management, against a set of criteria. Such criteria can be a mix of what the individual has contributed (eg contribution to innovation), the behaviours or competencies they demonstrate (eg team player) and evidence of how they are seen by the outside world (eg recognised as world class in own field by relevant professional bodies or academic communities). In theory, recognition titles can operate independently of grading, although most link across to grading and reward in a loose way. Recognition schemes do not exactly define new posts, but often they imply a shift of role. Typically, a greater contribution to corporate issues and specialist talent development is expected from those given recognition. Sometimes they are given time within their job to undertake more corporate responsibilities. Significant numbers of large science and technology companies have some kinds of recognition scheme for technical specialists – BP, IBM, Rolls-Royce and Dstl are just a few examples.

In IBM, for example, the highest levels of technical recognition - Distinguished Engineer and Fellow - are equivalent to the top executive levels in the company. These titles are used very sparingly for world-class technologists, but they do make very visible the top end of a specialist career path and give high international recognition and reward to the very best (Lambert and Hirsh, 2004).

These three models for regulating career progression have different advantages in different settings. The person-led grading approach rewards skills but does require very clear grade criteria and a clear and fair promotion process. It can lead to grade drift if too softly or poorly implemented – or to frustration and an illusion of a dual career if too rigidly implemented.

The post-led approach works well if a small number of clear senior posts can be defined. It is easier to control, but only rewards expertise if there is a reasonable flow of vacancies and the courage to create some specialist posts at senior levels. If not, aspiring specialists can be blocked by 'dead men's shoes'.

The recognition schemes visibly value excellence, especially of individual contributors. A looser fit to grading structures gives the company more flexibility, but the nature of the psychological contract can also be a bit confusing. Apart from a fancy title, is the individual really getting anything? It is for this reason that recognition awards do very often trigger a pay review, even if they don't link precisely with a certain grade. Some organisations have three or even four levels of professional recognition to reflect progression up a dual career path.

Recognition schemes can lend themselves to temporary or fixed-term awards of a special role title. Because not all the employees at a particular grade will have the recognition title, even those within the population in specialist roles, it is easier to use recognition titles to reflect people who are making key technical contributions for a period of time. Someone could cease to carry the special title but keep their grade and pay.

More traditional promotion presents some problems for organisations where an individual's technical specialism or even the project they are doing may be very important but only for a while. In post-led structures, what happens to the individual if the specialist post is no longer necessary at that grade? In person-led promotion, what happens if someone moves into an area of work where they are not so exceptional? Although in theory specialists can be promoted for as long as their work is of special value, this is very difficult in practice. Organisations are simply not accustomed to someone dropping back in grade and pay terms when they have been performing well in their role. This problem of the possible skill redundancy of specialists is a reason to consider broad enough promotion criteria to facilitate a reasonable degree of internal employability (see Chapter 4).

Organisations can mix all three of the progression approaches to meet their business needs. For example, BP uses both post- and person-led approaches in different parts of the business and uses recognition titles too for some of its specialists. Post-led approaches work well in business areas needing only very small numbers of specialists, where grade drift could easily get out of control. Person-led approaches can work well in areas such as R&D labs with large populations of specialists and an on-going need for senior specialists. In these larger groups it is also easier to establish clear criteria and standards for judging readiness for promotion and technical contribution. IBM uses both grading structures and separate recognition awards to recognise excellence, so that 'ordinary' team members can be given public recognition of their technical contribution for a period of time.

3.6 Key points about career paths

- The idea of 'dual' career paths is well known. In this model those who become managers have one kind of career path and those who will remain as specialists without managerial responsibility can progress along a different career path.
- Organisations may need more than two types of career, for example a career in functional management, a career leading to general management, a career in project or programme management, as well as a specialist career path.
- It can be better to make such career choices after individuals have had some experience of team leadership, both to add to their skills and make a more informed career choice. It may also be helpful to retain career flexibility between specialist and functional leadership roles for those who can do both effectively.

- Career paths for knowledge workers need to accommodate the likelihood that such people often move between organisations and may wish to leave their employer and return some time later.
- Career paths must be practical in terms of the opportunity to acquire the necessary skills through a series of roles with manageable jumps between them. It is also important that the career ceiling for good professionals (as opposed to those who will be world leaders in their field) is acceptable in pay and status terms.
- Promotion knowledge workers can be prompted by job vacancies against predetermined numbers of posts or by the individual reaching a certain standard. Career progression can also be signalled by recognition schemes which are more loosely linked to pay or grade. Each of these three approaches to career progression can be helpful in particular circumstances and organisations may use all three.

4 The Career Management Challenge: HR **Processes and Career Responsibilities**

4.1 Adapting HR processes to accommodate the careers of knowledge workers

Careers in large organisations are facilitated by a wide variety of HRM frameworks and processes. These define the way employees are brought into the organisation and how they move from job to job within it. So we are talking here primarily about recruitment, selection, promotion and deployment processes. Career development is also intimately linked with training and development, and is reflected in grading and pay systems.

If all these HR processes have been designed with conventional, managerial careers in mind, then they will not work effectively for knowledge workers, especially those filling specialist roles (as illustrated in Chapter 2) and following alternative career paths (as in Chapter 3). In this section we touch on just some of the common tensions between HR processes and career progression for knowledge workers.

Competency frameworks are widely used to specify generic (often called' core') and leadership competencies. The behavioural definitions of competencies normally include formal managerial behaviour beyond a certain grade level. Sometimes additional leadership competencies are added for the top levels in the organisation (as for example in the Civil Service). Such frameworks may need adjusting to describe the more varied types of leadership behaviour which specialists need to show. So they may not need to manage people in formal terms, but often do need to develop staff who do not work for them. Organisations use two types of solution to the problem of ensuring that competency frameworks apply to specialists as well as managers. Formal managerial behaviours can be removed from the generic framework, so that the 'core competencies' can really apply to everyone at a given level, even doing jobs of varied role types. Alternatively, as shown in Figure 2.2, slightly different versions of the competencies are shown for people in different types of role, for example a slightly different list for specialists and managers.

Some organisations use more of a menu approach to generic and managerial competencies with a subset being picked as most important for a particular post. This can work well for vacancy filling, but may not ensure that individuals promoted into roles have a broad enough skill set to be deployable into other possible jobs.

Technical skills frameworks may help to define objective criteria for judging how well people perform in their functional or professional work. They also help more systematic development of technical skills, especially early in career. Many professional bodies have frameworks of skills and experience which have to be assessed before professional membership is granted. Such frameworks are helpful alongside generic competency frameworks in assessing knowledge workers for promotion, performance etc. For high level knowledge workers, very detailed frameworks become less useful as their skills are often wide ranging within their own field, but their technical skills do need to be reviewed. It is important that technical skill frameworks are 'owned' by technical leaders, not invented by HR.

Recruitment and promotion criteria need to be based on:

- an appropriate mix of generic and technical skill requirements, and potential for technical leadership if appropriate
- evidence of the quality of technical performance as well as more general aspects of performance
- consideration of the *breadth* versus *depth* of the professional skills of the individual.

Badawy (1988) sees specialists as often having poor interpersonal skills, difficulty in delegating and making decisions. Grady and Fineham (1990) emphasise the need to recruit technical people with good interpersonal skills and a commercial orientation. Attention to these wider skills and discussion of future career interests should play an important part in the selection process for knowledge workers. The development of these skills should also be seen as important in groups of knowledge workers both during their studies and in early career.

Shell recruits some of its graduates into a corporate scheme, selected at the last stage of the process through an assessment centre. For graduate entrants with science and engineering backgrounds, selection criteria have to be carefully balanced between technical skills and orientation on the one hand, with signs of future leadership potential on the other. If people leadership is too heavily prioritised in the process, then there is a risk of rejecting excellent scientists, much needed by the business. If technical skills are too heavily weighted, recruits may not be suitable to take up management careers if they later wish to. Of course one difficulty is that individuals do not know at this early stage how their career aspirations will be shaped once they are in employment. A separate assessment centre is run for scientists and engineers to try and get this balance between leadership and technical capability right.

Source: Barber et al., 2005

Especially in the case of promotion, it is important to think about what job the person might be able to do at the higher level if the particular post they are about to enter disappears. If someone is so specialised, that they can only do one very specific job, then some kind of temporary or fixed term appointment/promotion might be better.

There are cases when recruiting or promoting someone only really suited to a very specific role is worth the risk because the work is key to the organisation and the person's skills are most unusual. However it would be responsible in such cases to discuss with the individual the possibility that there employment in this role may not last forever.

Early career development for knowledge workers also raises issues of breadth versus depth, and how to prepare people for a range of alternative career paths. It can be useful in early career for individuals to get quite a wide base within their chosen function or profession before specialising or moving into managerial positions. This breadth may occur naturally in some organisations, but not in those where projects last a long time or where knowledge workers can become 'stuck' in one small department or team within a much wider operation. Systems of job rotation or facilitated career movement can be used alongside formal education and training to equip knowledge workers with a solid professional base. Work shadowing, mentoring etc. can also give access to people working on different technical problems. It is also healthy to encourage knowledge workers to form strong external networks in early career through, for example, active membership of a professional body. Such networks are important to the habit of CPD throughout careers and also to the need to look externally for new ideas and good practices.

A recent study of careers for HR professionals (Tamkin et al., 2006) found that HR professionals need experiences of both 'generalist' and 'specialist' roles, and in both strategic and operational settings in order to progress their careers. Some organisations are encouraging close working and/or career moves between shared service centres and centres of expertise in early career to equip people for either senior specialist roles or business partner roles later on. It is quite difficult for individuals to make these cross-boundary moves in HR without the active support of the employing organisation. An individual applying for a developmental move in response to an internal job vacancy might not normally be seen as having all the competencies required for a type of work which is new to them.

Having some opportunity to experience formal management responsibility in early career can position knowledge workers to make more informed decisions about their career direction later on. This can be done through managing a small team of professionals in the same field, or managing projects.

Job filling and deployment processes are obviously key to career development. The norm in most large organisations is now a system of open internal job advertising through which employees apply for career moves into vacant roles. In specialist workforces such a system often needs to sit alongside more positively managed early career job experiences (as described above) and also short-term or project-team deployment processes which use specialist skills to best advantage. In practice subtle mixes of procedures for moving employees from one job or set of tasks to another may be needed to both deploy and develop workers effectively.

Succession planning and talent management is a key HR process in relation to securing the talent pipeline for executive roles. Some organisations are also defining one or more talent pools to grow the pipeline of people who can lead key technical areas of the business in the future, through occupying senior specialist roles.

Supporting career choice can be important if dual or multiple career structures are implemented for specialists. In such structures there are important transition points at which knowledge workers need to think about whether they wish to pursue a relatively more specialist career path or a more managerial one. These points exist even in structures where some flexibility will persist. A good time to consider career direction is often at senior professional level by which time the individual will have considerable understanding of their technical field and may also have had some experience of management. One-to-one career counselling or a discussion with a mentor or head of profession, or a career workshop with a small group of people at similar career stage can be very helpful.

In this section we have illustrated how some of the HR processes most relevant to career development may need to be adapted to cater for the careers of knowledge workers. Suff and Reilly (2005) examine performance management and reward for knowledge workers. Their report emphasises the need for performance management systems to encourage innovation and knowledge sharing, and the likelihood of needing a mix of rewards to satisfy knowledge workers, including non-financial rewards, such as time for professional activities.

4.2 Who manages the careers of knowledge workers?

Most organisations consider the individual employee to have primary responsibility for their own career development. In this they are supported to a greater or lesser extent by their line manager. Employees seen as especially valuable to the organisation (such as senior managers and 'high potential' employees) are developed more proactively by the organisation and this often includes a stronger role for the organisation in planning their careers and facilitating career moves – now part of 'talent management' (Hirsh and Jackson, 2004).

This general approach to careers raises some questions in relation to knowledge workers:

 Are any groups of knowledge workers considered valuable enough to the organisation to merit the more proactive career management often given to those destined for senior management posts?

- If positive career development is going to be a feature of working life for some specialists, who is responsible in the organisation for identifying and developing them?
- Where should specialists get career advice in the organisation, especially if their line managers do not share their professional background or have significant understanding of their technical work?

In response to such questions, many large organisations are strengthening their senior roles with accountability for developing key groups of knowledge workers. In some cases, this responsibility lies naturally with the head of function or profession eg the Finance Director for accountants. Sometimes there is no clear head of a function because the people concerned are scattered across business units. In such cases, the professional lead can be taken by a senior specialist who may have no line management authority over their community. Various names are used for this kind of role including Head of Profession, Skill Owner, Capability Leader etc. – we will use the term Head of Profession here for simplicity.

These roles most often combine the 'demand' side of planning for knowledge workers (ie looking at current and future business needs) with the 'supply' side of developing the people. It is their job to look at the balance of supply and demand at different career stages and ensure that the 'pipeline' of people coming through the career structure is of a size, and overall quality to meet future business needs, and that people are developing the right generic and technical skills for that future.

Typical responsibilities of a Head of Profession

Articulating the current and future business need for the capability they cover in terms of numbers, skills and sometimes grade mix

Defining technical skill frameworks and accountability for technical training and development for their community

Facilitating networking and events to build a strong 'community of practice' leading to innovation, knowledge sharing and high professional standards

Influencing graduate recruitment and forming links with key university departments

Planning and facilitating career moves where appropriate

Giving career advice to individuals in their specialist community

Identifying specialist potential and leading succession and talent management for their functional community

Heads of Profession need to work closely with heads of business units and/or geographical areas over the career development of their people. Given the need for career flexibility, as discussed in Chapter 3, Heads of Profession also need to work

closely with each other to facilitate sideways moves between functions to broaden career experience or help people who need to change their career direction.

Heads of Profession need appropriate support from their colleagues in HR and to work closely with them on workforce planning, recruitment and development.

4.3 Key points about career management processes

- If an organisation has senior roles for knowledge workers where they work as specialists rather than managers, then a range of HR processes may need adjustment. Skill or competence frameworks, selection, promotion and development systems all need to recognise that movement up the organisation may not just be about acquiring managerial responsibility and skills but also about acquiring specialist expertise and exercising professional leadership.
- Specialist careers are more likely to be well managed is a senior person in each main area of expertise acts as a 'Head of Profession'. Such a role does not always involve the line management of this community, but does take responsibility for looking at the demand and supply for knowledge workers in their area and ensuring a healthy pipeline of people to sustain this area of knowledge in line with business needs. This responsibility frequently cuts across the boundaries of business units, and so Heads of Profession need to work closely with business unit heads. The HR community needs to support Heads of Profession, especially in workforce planning and delivering development.

5 The Motivation Challenge: Setting the Right Tone in Career Development

In addition to having an appropriate career structure in place, and adjusting HR processes to facilitate the career development of specialists as well as managers, we need to consider the way in which knowledge workers need to be treated in these processes. This is mostly not a matter of HR policy but of management style or 'tone'. It rests on understanding what motivates knowledge workers and then handling career issues in a way which plays to these needs.

The effective career management of knowledge workers has a power to motivate them through giving them certain sorts of management attention which they may value more than most groups of employees.

5.1 What motivates knowledge workers?

There is a very substantial research literature on what motivates knowledge workers, especially those in specialised roles. Much of this research comes from examining scientists and engineers, especially in R&D functions. A second major strand of literature comes from professional services organisations in finance and law.

Arnold (1997) reviews the evidence on the 'special needs' of specialists. It is clear that 'job challenge' matters a great deal to people who choose to pursue specialist work as the main feature of their careers. In other words, it is the work itself – and especially how demanding and interesting it is – which really matters. Arnold finds the evidence on the importance of working conditions less conclusive. On balance, intrinsic rewards seem more important than extrinsic ones.

Hoppe (1993) looked at the work goals of international R&D scientists. The top four were challenge, freedom, a good relationship with their manager and co-operation. The lowest in this study were working for a prestigious organisation, employment security, and good physical working conditions, although maybe this particular sample took some of these factors for granted given the kinds of employers they worked for.

Kochanski and Ledford (2001) examined the management of technical professionals in areas such as engineering and IT - especially with regard to retention. They found that opportunities for career progression 'yielded more significant predictors of retention than any other type of reward.' Job title and job security mattered less to the scientific and technical group than to the workforce as a whole. Job responsibility and skill variety were also very important to specialists.

Suff and Reilly (2005) explore Newell's (2000) model of six key requirements of knowledge workers. These are: autonomy, achievement, keeping up to date, professional identification and participation in missions and goals.

Researchers have also been interested in the career allegiance or career identify of knowledge workers. Several of Schein's career anchors (1993) relate readily to the work values of knowledge workers, especially Technical/Functional Competence, Autonomy/Independence and Pure Challenge. These can be seen as conflicting with loyalty to an organisation or interest in business results. Gouldner (1957) way back in the 1950s explored the possible tensions for professionals between commitment to their organisation and to their profession. Wallace (1993) sees these two types of commitment as possibly existing together rather than competing. Still organisations cannot take for granted that their knowledge workers place organisational allegiance high up their list of work values.

5.2 How do knowledge workers want to be managed?

One might expect that specialists need little management, being very skilled people who apparently value their freedom and autonomy. However, the literature powerfully contradicts this view. A collection of useful, largely American, books looks at the particular challenges of managing professionals – mostly in scientific or professional service firms. McKenna and Maister (2002), in their book First Among Equals, give a useful treatment of this topic. They highlight the dangers of undermanaging professionals who may 'do their own thing' and pay insufficient attention to the needs of the organisation as a whole. However, over-managing them is equally deadly, as their enthusiasm and creativity can easily be crushed by over-control. The senior specialist may be highly skilled, but may often be thin-skinned.

McKenna and Maister see *encouragement* as the key to managing specialists effectively. In practical terms, this means managers should act as coaches and deal with specialists as individuals – especially in terms of their emotional needs for support and encouragement. They conclude that:

Because managing professionals is complex, it requires more attention to management, not less.'

McKenna and Maister see the effective career management of specialists as part of this same management style. It is characterised by individualised attention to career issues

and a personalised career and personal development plan. This emphasises what is special about each person in their labour market – their expertise in a particular technical or industry area, types of work task, problems or clients, for example. The aim of career management is to help each specialist make choices about which skills and experiences to concentrate on.

Other authors make related points about how best to manage knowledge workers:

- Chiesa and Manzini (1997), in examining R&D within pharmaceutical organisations, emphasised the need for good communication and the stimulation of creativity through knowledge-sharing.
- Kochanski and Ledford (2001) suggested a recipe for effective retention including better and more interesting jobs, flexible work patterns, more money and recognition for the very best, coupled with care for all the others.
- Grady and Fineham (1990) suggested that effective management of specialist researchers should include managers who get to know them personally, conscious development of talent, 'open door' communication, and activities of a social nature at work to increase informal interaction. Some managers who have been specialists themselves, may not naturally adopt such open and engaging management styles.

In summarising what we know about motivating knowledge workers, the box below gives a few key points to remember. There is a fine balance to be struck between giving them the freedom they feel they need but also giving personal management attention. There is considerable evidence that personal attention to career and development issues in particular is a priority for them. The 'first among equals' approach to reward and recognition is also slightly paradoxical. On the one hand equality is often seen as important. However, specialists can readily see who is really good at their technical work – a sort of pecking order within a technical community. So positive development and fast-tracking are often welcomed. But woe betide a company that fast-tracks people in a technical community who are not the ones that colleagues would see as the best.

Motivating knowledge workers

The work itself - challenge and variety

Freedom in how to approach work

Flexibility in hours and patterns of work

Relationships with colleagues in collaboration and knowledge-sharing

Encouragement from managers

Individualised career attention and tailored development opportunities

A 'first among equals' approach to reward and recognition

5.3 Implications for the tone and style of career development

Just as specialists will resent managers who try to over-control them, so they will reject any HR processes which seem too mechanistic or which stray too far from placing importance on the work itself. Figure 5.1 offers some practical dos and don'ts for career development.

Figure 5.1: Setting the tone for career development of knowledge workers

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	DO have		DON'T have
✓	Personalised career attention and development solutions	×	'One size fits all' or overly-bureaucratic HR systems
✓	HR processes contextualised to the work specialists do	×	HR systems which use 'management speak' or HR jargon, or which do not easily apply to specialist roles
✓	Encouragement and recognition of technical excellence in areas critical to the business	×	Assumption that all technical people will progress at the same speed
✓	Parity of esteem between technical specialists and managers	×	Adversarial or 'managers know best' culture between managers and specialists
✓	Understanding that knowledge workers learn continuously and often informally through their daily work	×	Learning interventions which make people go on courses they do not see as relevant
✓	Technical people judged by those they respect professionally	×	Technical specialists assessed by people who do not understand the work they do
✓	Encouragement of the natural sense of community in specialist groups and their external networks	*	Too much emphasis on loyalty to formal organisation in opposition to professional community, but don't let specialist silos become too separate from each other
✓	Involvement of senior specialists in key business strategies and decisions where their know-how is important	×	Exclusion of specialists from key meetings or decisions about their work because they are not on the appropriate management committee

5.4 Key points on motivating knowledge workers

- Knowledge workers are not just sensitive to career opportunities, but to the way in which their careers are managed. Much of this is about using a management style in dealing with career issues and processes which is consistent with the cultural preferences of knowledge workers.
- Such a style needs to recognise the very strong interest knowledge workers have in the content of their work and a frequent preference for fairly high autonomy. Knowledge workers – like other people – respond to encouragement from their managers and so need quite close relationships at work. They are often especially sensitive to recognition of their skills and achievements. Their specific skills require tailored and personalised approaches to skill and career development within the broader frameworks explored in this paper.

6 References

- Arnold J (1997), Managing Careers into the 21st Century, London: Paul Chapman
- Audit Commission (2002), Recruitment and retention, A Public service workforce for the twenty first century, Audit Commission
- Badawy M K (1988), 'Why managers fail' in Katz, R (ed), Managing Professionals in Innovative Organizations, Cambridge, Massachusetts: Ballinger
- Barber L, Hill D, Hirsh W, Tyers C (2005), Fishing for talent in a wider pool: Trends and Dilemmas in Corporate Graduate Recruitment, IES for IES/CIHE, Report 421
- Chiesa V, Manzini R (1997), 'Managing virtual R&D organizations: lessons from the pharmaceutical industry', International Journal of Technology Management, Vol. 13, Nos 5/6, pp. 471-485
- Dalton G (1989), 'Developmental views of careers in organizations' in Arthur, M B, Hall, D T and Lawrence, B S (eds), Handbook of Career Theory, Cambridge **University Press**
- Dalton G, Thompson P, Price P (1977) 'The four stages of professional careers', Organisational Dynamics, Vol. 6, No. 23, pp. 19-42, Summer
- Gouldner A W (1957) 'Cosmopolitans and locals: toward an analysis of latent social roles', Administrative Science Quarterly, Vol. 2, pp. 282-292
- Grady D, Fineham T (1990), 'Making R&D pay', The McKinsey Quarterly, No. 3, pp. 161-175
- Hirsh W, Jackson C (1994), Managing Careers in Large Organisations, London: The Work Foundation
- Hoppe M H (1993), 'The effects of national culture on the theory and practice of managing R&D professionals abroad', R&D Management, Vol. 23, No. 4, pp. 313-325

- Kochanski J, Ledford G (2001), 'How to keep me: retaining technical professionals', Research-Technology Management, Vol. 44, Issue 3, pp. 31-41, May
- Lambert A, Hirsh W (2004), Managing Senior Technical Specialists, London: Careers Research Forum
- McKenna P, Maister D (2002), First Among Equals, New York: Free Press
- Newell D (2000), 'How to retain technical professionals', People Management, 8 June
- Pelz D Z (1988), 'Critical tensions in the research and development climate' in Katz, R (ed), Managing Professionals in Innovative Organizations, Cambridge, Massachusetts: Ballinger
- Purcell J, Kinnie N, Hutchinson S, Rayton B, Swart J (2003), Understanding the people and performance link: unlocking the black box, London: CIPD
- Roberts E B, Fusfield A R (1988), 'Critical functions: needed roles in the innovation process' in Katz, R (ed) Managing Professionals in Innovative Organizations, Cambridge, Massachusetts: Ballinger
- Roberts K, Biddle J (1994), 'The transition into management by scientists and engineers: a misallocation or efficient use of human resources?', Human Resource Management, Vol. 33, pp. 561-579
- Schein E H (1993), Career Anchors: Discovering Your Real Values (revised edition), London: Pfeiffer and Co
- Suff P, Reilly P (2005), In the Know: Reward and Performance Management of Knowledge Workers, HR Network paper MP47, Brighton: Institute for Employment Studies
- Tamkin P, Reilly P, Hirsh W (2006), Managing and developing HR Careers: Emerging trends and issues, IES for CIPD
- Wallace J E (1993), 'Professional and organizational commitment: compatible or incompatible?', Journal of Vocational Behaviour, Vol. 42, pp. 333-349