



# LEADING TECHNICAL PROFESSIONALS 2006

**BLESSINGWHITE**  
Reinventing leadership and the meaning of work™

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# Introduction

Technical professionals are experts. These highly skilled individuals work in a wide variety of functional disciplines and industries. Some are clustered in specialized teams and secluded R&D labs; others are woven into the fabric of the workforce, interacting each day with colleagues across every department. They may be programmers, software developers, engineers, scientists, analysts, mathematicians, statisticians... the list goes on.

Organizations worldwide rely on technical professionals to keep every facet of their businesses running smoothly, to reach far-flung customers, to help manage information overload, and to rapidly transform new ideas into faster, better, cheaper, smaller, or easier products and processes.

## These Experts Require Expert Leadership

Nearly 20 years ago, BlessingWhite's ground-breaking research determined that:

- Technical professionals have motivators and needs that differentiate them from the workforce at large.
- Successfully leading these talented employees requires advanced leadership maneuvers — no small feat for managers who are often promoted because of their exceptional technical skills, not their people skills.

## This Report's Focus

Over a six-month period in 2005 and 2006, BlessingWhite surveyed 898 leaders of technical professionals to revisit the themes of our original study, build on our two decades of experience working with tens of thousands of these leaders, and gain additional insights into their current leadership challenges.

We wanted to explore questions such as:

- What are the most challenging issues faced by leaders of technical professionals today?
- What skills and strategies do these leaders believe are most important for success in their jobs?
- How effective do they think they are?
- What characteristics are common to the technical professionals they lead?

# Findings: Leadership Challenges

When we asked leaders of technical professionals to characterize 11 issues by the degree of challenge each issue represented, the responses were more similar than not across geographic regions, industries, organization size, job titles, gender, and functional disciplines.

## A Grim Reality: Fewer Resources

The top challenge cited was “delivering on projects with fewer resources.” 86% identified this issue as extremely or very challenging, 30 points higher than the runner-up response.

### How Challenging Are These Leadership Issues?

(% responding “extremely” or “very” challenging)



## Competing Priorities

56% of respondents described “balancing my team’s coaching needs with my own project responsibilities” as extremely or very challenging, suggesting that these leaders face tough decisions each day on how to fulfill the dual roles of “expert” and “leader.”

The issues that round out the top 5 challenges suggest an additional tug-of-war, one in which leaders of technical professionals appear to be juggling their own development with that of their teams. Respondents in Europe appear to be slightly more challenged in their personal development, with 62% (vs. 54% overall) identifying “keeping up-to-date on industry advances” and 62% (vs. 52% overall) citing “developing myself personally and professionally.”

## An Evolving Workplace

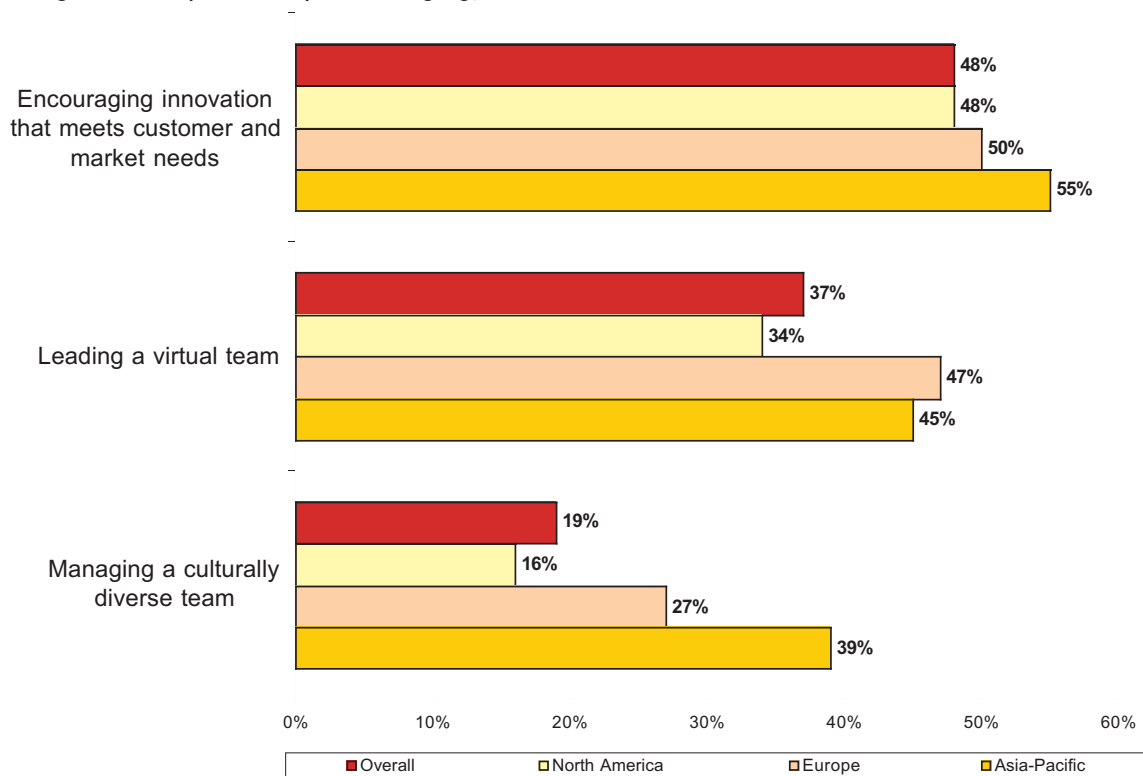
Our analysis of the data suggests that several issues represent greater challenges for leaders of technical professionals in particular regions or industries. In the context of other workplace studies and our experience working with businesses worldwide, we suggest that three issues in particular reflect emerging trends in today’s workplace.

### Innovation

“Encouraging innovation that meets customer and market needs” was identified as extremely or very challenging by just shy of half the respondents overall (48%). Those working for pharmaceutical or biotech firms and manufacturing companies ranked it even higher (54% and 63% respectively). As the chart below illustrates, it also appears to be slightly more of a challenge for respondents in Asia-Pacific (55% vs. 48% overall).

### Emerging Trends

(% responding “extremely” or “very” challenging)



## Virtual Teams

Only 26% of survey respondents indicated that *all* of their team members worked in the same location as they did, suggesting that virtual teams have become commonplace. A bit of a surprise to us: There were no significant differences in the responses of leaders who had most, some, or none of their team members on-site. However, as the chart on page 3 illustrates, 47% of respondents in Europe and 45% in Asia-Pacific identified this issue as extremely or very challenging — compared to 37% overall.

## Multicultural Teams

Multicultural teams are no doubt becoming a fixture in today's evolving global workplace. As the chart on page 3 indicates, "managing a culturally diverse team" appears to present a slightly larger challenge in Europe (27% vs. 19% overall), and a significantly larger challenge in Asia-Pacific (39% vs. 19% overall).

## Market Forces

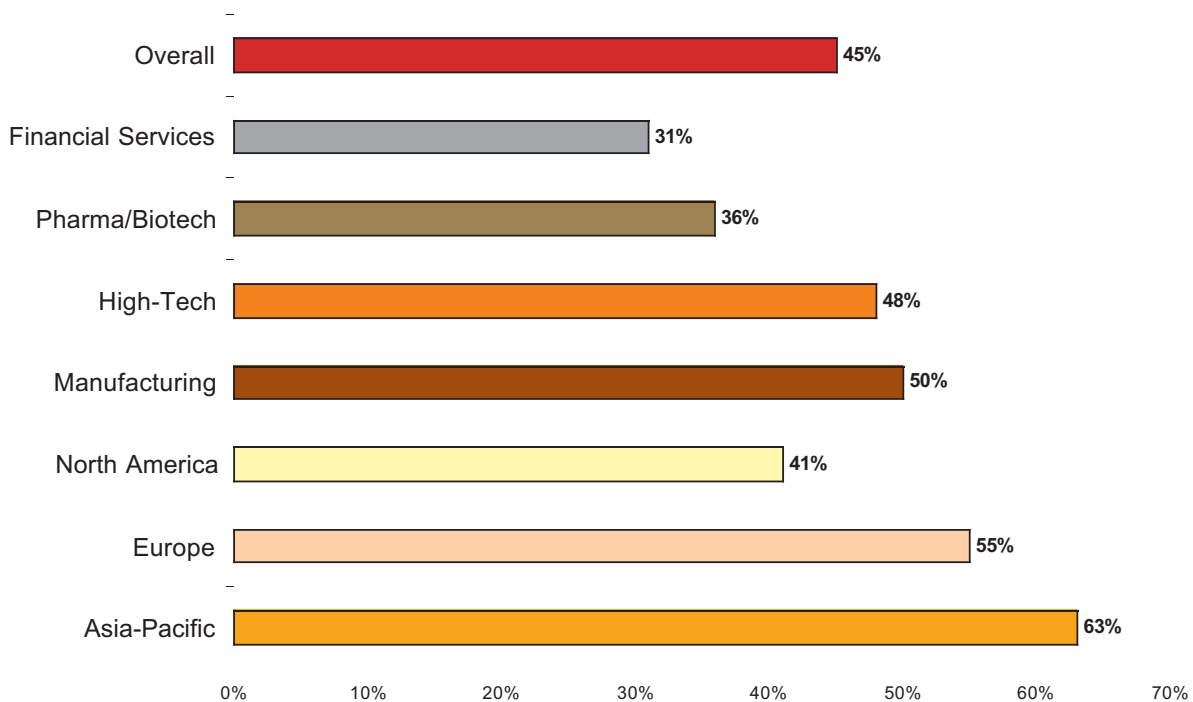
It appears that some challenges faced by the leaders may reflect the more cyclical fluctuations of particular industries and local economies. As a result, some respondents are grappling with these issues now; others will no doubt get their turn soon enough.

## Retention

As illustrated in the chart below, although less than half of our respondents overall (45%) described "retaining key technical professionals" as extremely or very challenging, 55% of respondents in Europe and 63% of those in Asia-Pacific did so. In reviewing the responses of leaders in the four industries most represented in the survey population, it also appears that retention worries are most prominent in high-tech and manufacturing organizations.

### Retaining Key Technical Professionals

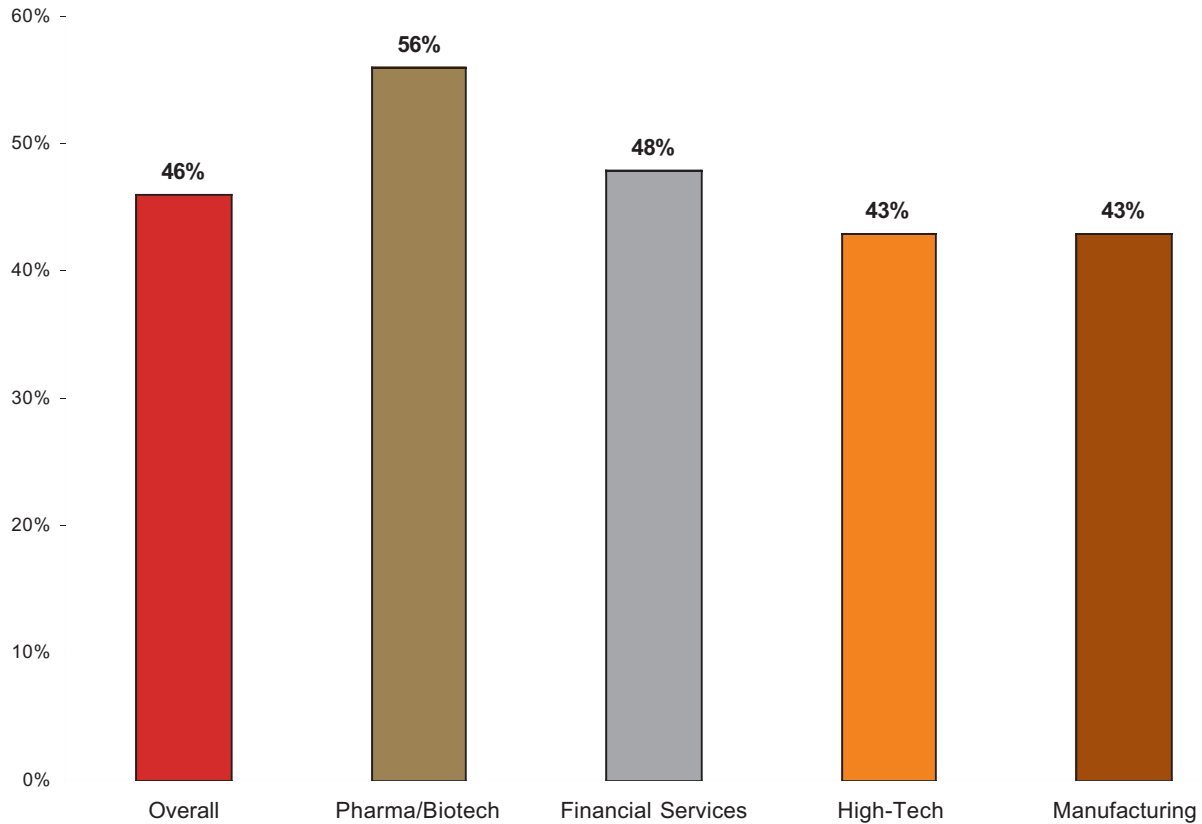
(% responding "extremely" or "very" challenging)



## Organizational Change

Whereas 46% of respondents overall described “leading my team through organizational changes” as extremely or very challenging, 56% of leaders of technical professionals in pharmaceutical and biotech firms did so, suggesting that the acquisitions, litigation, and other major changes in their industry have added complexity to their jobs.

### Leading My Team Through Organizational Changes (% responding “extremely” or “very” challenging)

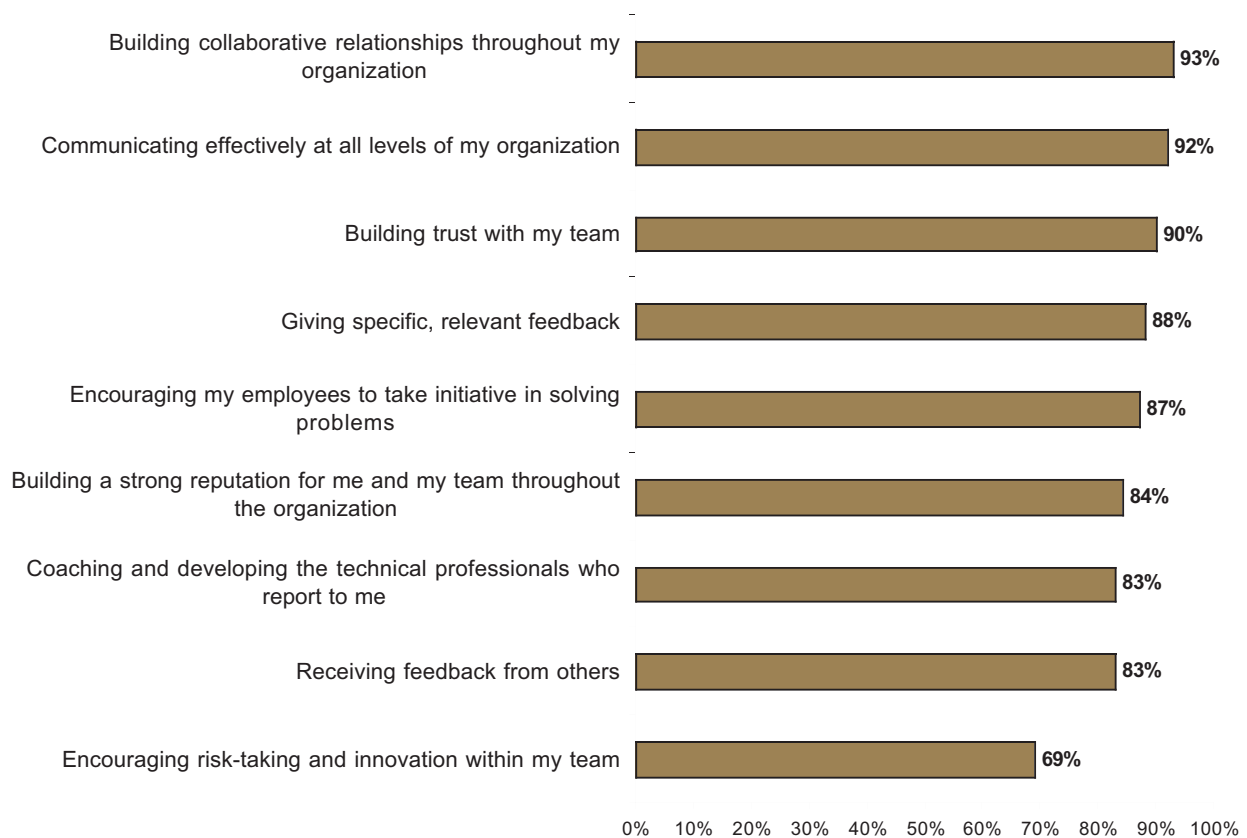


# Findings: Leadership Actions

When asked to rate the importance of 9 leadership actions, respondents from all levels of organizations across all regions overwhelmingly agreed that 8 of the actions were extremely or very important.

## Leadership Actions: Importance

(% responding "extremely" or "very" important)



## The Innovation Puzzle

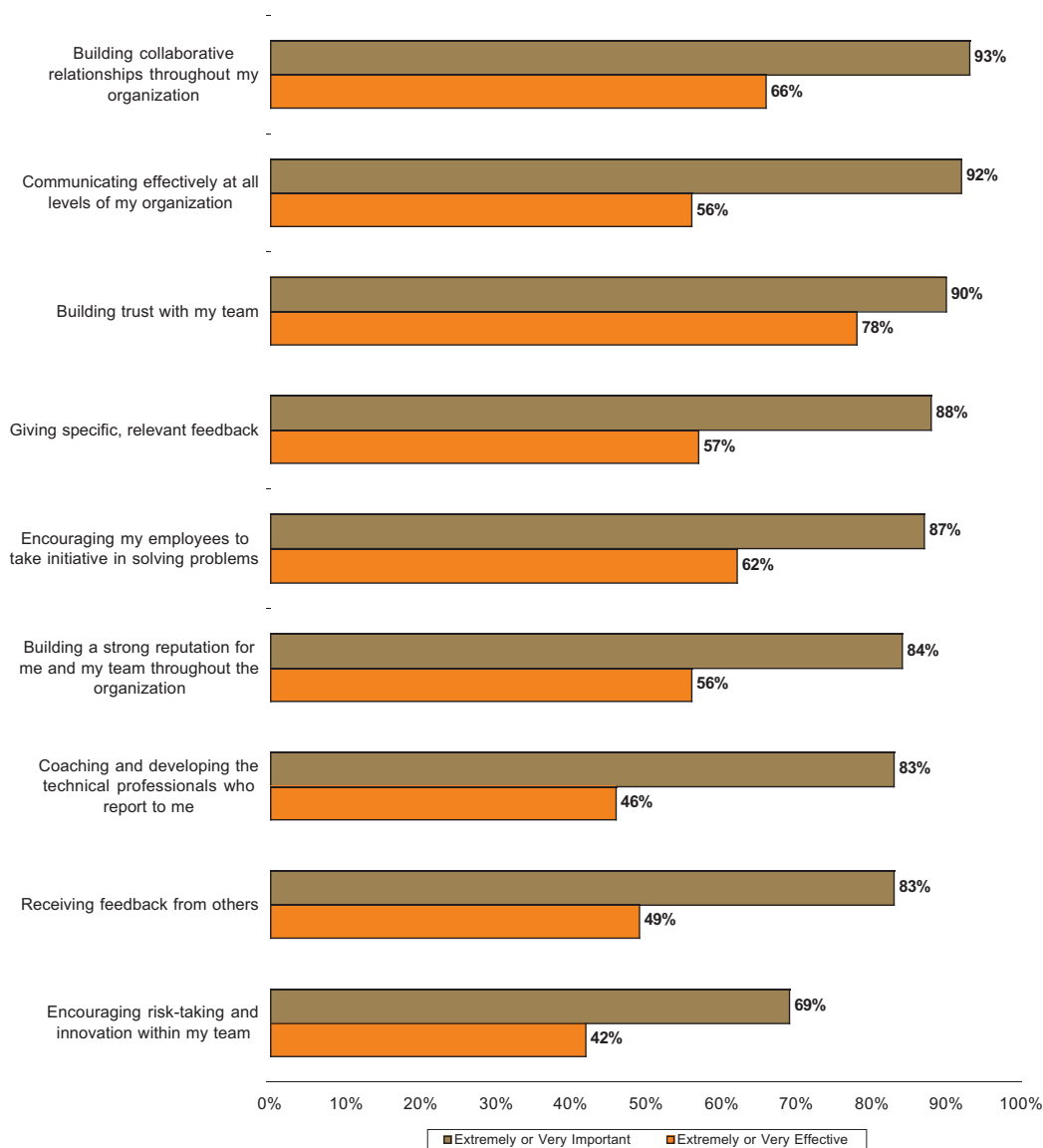
“Encouraging risk-taking and innovation within my team” garnered a significantly lower response, with 69% describing this action as extremely or very important. (74% of respondents from Asia-Pacific rated it this way, slightly higher than their North American and European counterparts at 69% and 64%, respectively.)

At a time when innovation remains a buzz word in boardrooms and the media, this finding was a surprise. Do the leaders we surveyed think innovation is someone else’s job? Do they interpret it as a responsibility for creating the “next big idea” for their organization — not a concept that can be applied to their team’s daily interactions? Or are they a bit reluctant to release the creativity and ideas of their talented teams for fear of having to deal with the failures that accompany increased risk-taking?

## Room for Improvement All Around

When asked to rate their own *effectiveness* in the same leadership actions, respondents were consistent in their less-than-stellar self-assessments.

### Leadership Actions: Importance vs. Effectiveness

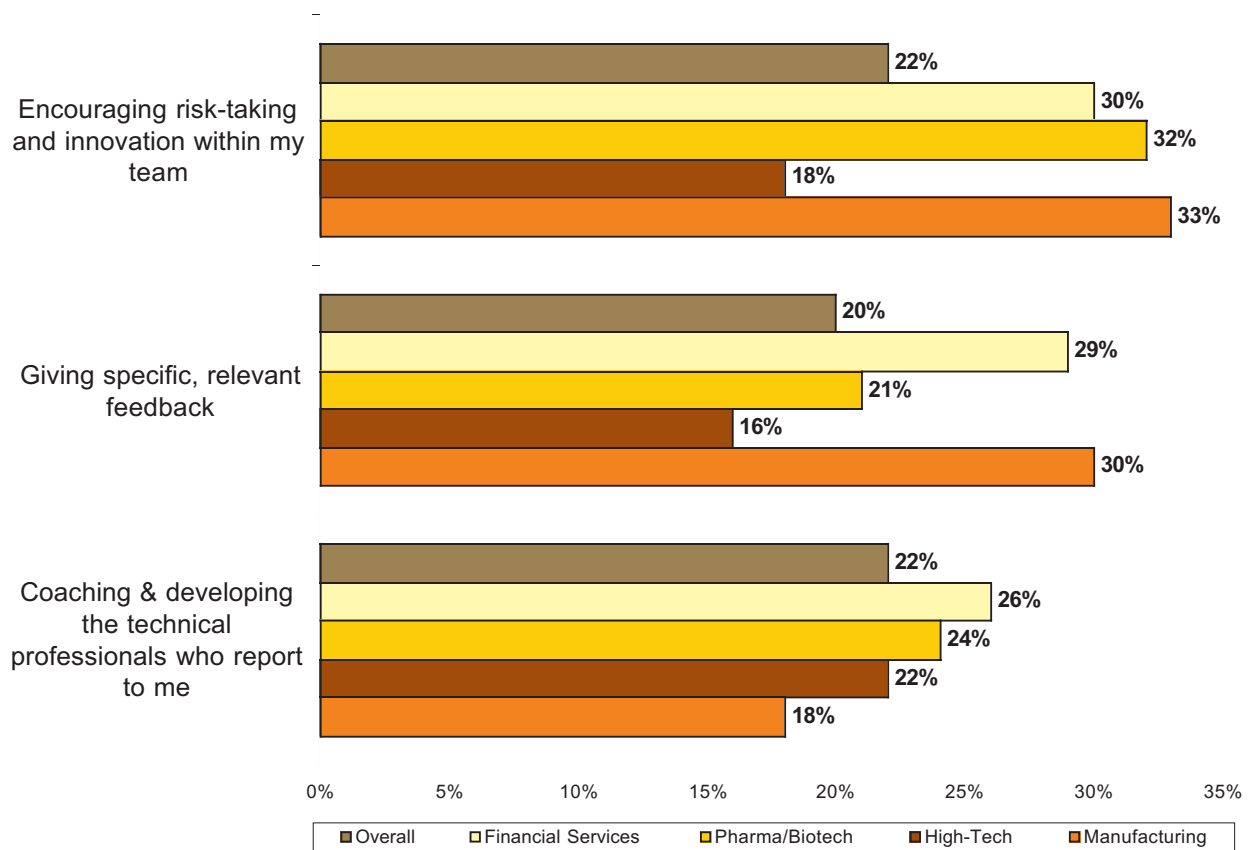


As illustrated in the chart on page 7, respondents appear to be struggling to be effective in the skills they believe are critical to their success. Only two actions were identified by two-thirds or more as extremely or very effective: "Building trust with my team" (78%) and "building collaborative relationships throughout my organization" (66%).

In fact, nearly a quarter of respondents indicated that they were *somewhat* or *not effective* at "giving specific, relevant feedback," "encouraging risk-taking and innovation within my team," and "coaching and developing the technical professionals who report to me," as illustrated in the chart below.

### Least Effective Actions

(% responding "not" or "somewhat" effective)



These findings, though disappointing, were not a total surprise to us in light of BlessingWhite's experience working with leaders of technical professionals. As noted earlier, many of our survey population rose through the ranks because of technical expertise, not people skills. Their personal development, therefore, has been focused on acquiring specialized knowledge. Their responses may also reflect our findings on their leadership challenges. If leaders of technical professionals are being pulled in two directions ("expert" and "leader"), where are they most likely to spend their time? In the comfort zone of projects and tasks?

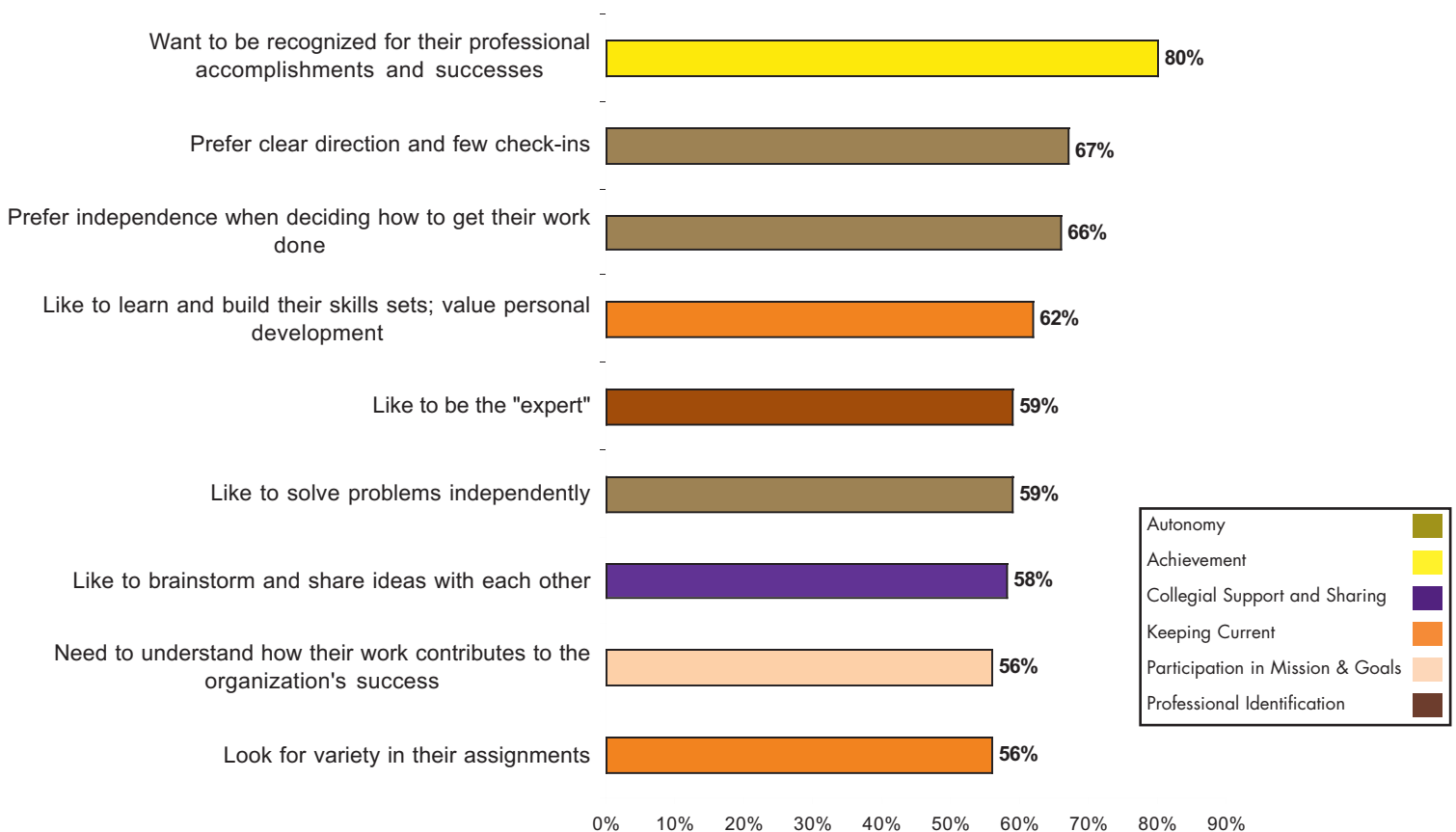
# Findings: Technical Professionals

## Unique Characteristics

Three-quarters (75%) of respondents share the belief that the technical professionals on their teams have needs and concerns that are different from the non-technical professionals within their organization. This response was consistent across regions, job titles, functions, and organization size. 88% of respondents working in pharmaceutical and biotech firms responded this way. More than 50% of respondents also agreed or strongly agreed that 9 of the 19 characteristics presented to them describe their team members. The chart below color-codes each item to reflect its tie-in to the needs of technical professionals identified in BlessingWhite's 1988 study.

## Most Common Characteristics of Technical Professionals

(% who agreed or strongly agreed that "the technical professionals on my team...")



These findings are consistent across regions, industries, and functional disciplines, suggesting that the six categories of unique technical professional characteristics identified nearly 20 years ago are relevant today.

## Needs of Technical Professionals

*The descriptions below reflect BlessingWhite's foundation study and our experience working with tens of thousands of technical professionals and their leaders.*

**Autonomy:** Technical professionals crave self-management and independence. They are motivated by the very nature of their work, and prefer a high level of discretion and control where work conditions, pace, and content are concerned. Their need for autonomy is often accompanied by a desire to shape work-related goals and determine the best approaches for achieving them.

**Achievement:** Technical professionals are natural problem solvers. They like challenge and are driven to accomplish goals that require considerable skill or effort. They also want their work to make a difference. Putting their skills and knowledge to the test, in a way that contributes to significant organizational goals, stimulates their commitment and enthusiasm.

**Keeping Current:** Technical professionals want to be at the leading edge of their fields. Obsolescence is unacceptable to them (and is, in fact, a danger to their career). They want to know the latest, have the inside scoop, and be the first to try new ideas or gadgetry. They demand continuous learning and crave variety and challenge in their work. If their skills are underused or tasks feel too routine, these talented employees can disengage.

**Professional Identification:** Technical professionals tend to identify with their fields of interest or their profession first and their organization second. As a result, conflicts can arise when their professional goals and affiliation needs don't align with the objectives or priorities required by their manager or the larger organization.

**Participation in Mission and Goals:** Technical professionals can be reluctant to commit to mandated goals unless they understand how they and the organization will benefit from their efforts. They welcome involvement in setting goals and expectations to ensure that their knowledge and talents are maximized. Because they have high achievement needs, unexpected changes in direction or obstacles in reaching those goals can fluster or demotivate them.

**Collegial Support and Sharing:** Competitive spirit is strong among technical professionals, who are generally confident, ambitious people. Yet because they identify so closely with each other and share a desire for personal development, they value idea sharing and networking. They also welcome learning from experts outside their field of expertise. Not surprisingly, technical professionals prefer that their leaders establish supportive, collegial (not directive) relationships with them.

# Implications for Leaders

Could a perfect storm be brewing for leaders of technical professionals? That is, a situation where multiple elements, which might not be very significant on their own, come together to create an out-of-control, disastrous situation?

Perhaps. Our findings suggest that:

There is tremendous pressure on these leaders to produce critical results with fewer resources...

*And...*

These leaders recognize that they are not very effective in fundamental leadership skills...

*And....*

The highly skilled teams they lead have unique characteristics that require expert leadership.

As a result, we believe that leaders of technical professionals need to:

- Be leaders of people, not managers of projects.
- Understand what makes technical professionals tick.
- Be just enough of an expert to lead, not do.
- Increase their influence outside of their team or department.

## Be Leaders of People, Not Managers of Projects

Success will elude the leaders of technical professionals who try to work more efficiently or redouble their own efforts to move projects out the door. They must learn to rely on their team members, not their own know-how, to deliver results.

- They need to overcome their inclination to micro-manage even when they feel they know the best way to do things. That means more delegating and coaching.
- They must invest in *conversations* — setting goals, explaining the “why” behind the what, handling resistance, and giving performance feedback. Otherwise their team members won’t have the information or motivation they need to take initiative.
- They also have to inspire team members’ discretionary effort and leverage team members’ unique talents and expertise. Leadership, not supervision, is the ticket for doing that.
- It’s about excelling at many of the leadership actions that our survey findings suggest may be the most difficult for this population: motivating, inspiring risk-taking and innovation, coaching, managing change, and developing their people.

## Understand What Makes Technical Professionals Tick

Technical professionals across industries and disciplines may not speak the same technical language, but they do share similar characteristics. This expert slice of the workforce exhibits a high need for achievement, autonomy, collegial support and sharing, keeping current, professional identification, and participation in mission and goals.

As a result, leaders of technical professionals need to apply leadership skills *strategically*. This challenge goes beyond the fundamentals. It requires, for example:

- Setting and supporting goals without impinging on their team members' desire for autonomy.
- Delegating responsibility in a way that involves their team members in the decision-making process and connects the work with a larger organizational goal.
- Providing development and networking opportunities so that their teams can keep current and feel supported.
- Creating a work environment that fosters creativity and individual achievements while focusing efforts on team goals and organizational priorities.
- Increasing their comfort with innovation and risk so they can better support their team members' desire for challenging work (and their organization's mandates for faster, better, cheaper, etc.).

## Be Just Enough of an Expert to Lead, not Do

The majority of individuals who lead technical professionals rose through the ranks because of their technical expertise, not their people skills. They like being experts. Their current job is about delivering results through others, so they need to figure out how much knowledge is "just enough" to be able to lead a team of experts. Our findings suggest they struggle with finding that balance. They need to make equipping their team members with the latest knowledge and skills a priority, and they need to be selective about their own development.

## Increase Their Influence Outside of Their Team or Department

Our research indicates that leaders of technical professionals understand that they need to be less insular. They recognize the need to build collaborative relationships and communicate effectively at all levels of the organization. Most also recognize that they don't do this as well as they need to.

- These leaders need to be able to translate their team's core capabilities, ideas, and accomplishments for non-technical colleagues. They need to be able to "influence up" to secure resources or promote innovative ideas.
- And whether they like it or not, a lot of them are being pulled into conversations about business strategy, as their teams are vital to product development, delivery, and support. So broadening their understanding of their organization's business is a key development need.

# Recommendations for Organizations

Our findings suggest that leaders of technical professionals already know what's important to their success, but they realize they are not as effective as they need to be. Many are juggling project and leadership roles, as well as whatever business or workforce challenges afflict their industry or region at the moment. Fortunately, they, like the technical professionals they lead, are highly motivated to succeed. At the same time, like their team members, they want to be seen as "experts" — so they may not actually raise their hands for help.

Organizations need to take the initiative to ensure that leaders of technical professionals have access to ongoing tools and development opportunities for becoming *expert* leaders. Investing in this critical population promises a major pay-off, as these leaders hold the key to unleashing the drive, guiding the energy, and focusing the unique talents of the organization's most highly skilled and valued employees.

# Background: Survey Methodology

Over a six-month period in 2005 and 2006, BlessingWhite surveyed 898 leaders of technical professionals. A link to our online survey was emailed to leaders in more than 30 organizations in a wide range of industries, across 4 continents, representing more than 10 functional areas in which technical professionals and their leaders work.

## Respondent Profile

- Almost three-quarters (73%) are male.
- 44% hold the title of manager, 19% are directors, 11% are vice presidents, 9% are team leaders, and the remaining 17% hold a variety of titles (such as supervisor or project manager).
- Nearly half (49%) are veteran leaders, with more than 7 years' experience leading technical professionals. 28% have 3-7 years' experience, and 24% have less than 3 years' experience.
- 79% reside in North America, 11% in Asia-Pacific, and 9% in Europe.
- 11% indicate they are 34 or younger, 43% are 35-44, 28% are 45-54, and 9% are 55 or older.
- 31% work in organizations of fewer than 500 employees and 56% are employed by organizations of more than 10,000 employees. The remaining 13% fall in between.
- 55% indicated that all or most of their team work at the same location, with 10% responding that no one else from their team works on-site with them.
- Nearly half work (46%) in the Information Technology function, 25% in Research and Development, and 8% in Engineering.
- More than half (57%) work for organizations in the High-Tech industry, 16% in Financial Services, 7% in Health Care, Pharmaceuticals or Biotech, 4% in Manufacturing, and the rest are scattered across a wide variety of industries, not-for-profits, and the public sector.
- 48% have worked for their employer for more than 7 years, 32% have tenure of 4-7 years, and the remaining 20% have worked 3 years or less for their employer.
- 82% hold at least a college degree. 30% hold an advanced degree.

## Our Foundation Research

During BlessingWhite's original landmark study we observed, interviewed, and surveyed more than 300 technical professionals and their leaders in 19 organizations over a three-year-period to determine the strategies and behaviors that distinguished successful leaders. The population included engineers, scientists, and IT professionals in a range of industries (high-tech, pharmaceutical, chemicals, manufacturing, telecommunications, aerospace, and consumer products).

# BLESSINGWHITE

Reinventing leadership and the meaning of work

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