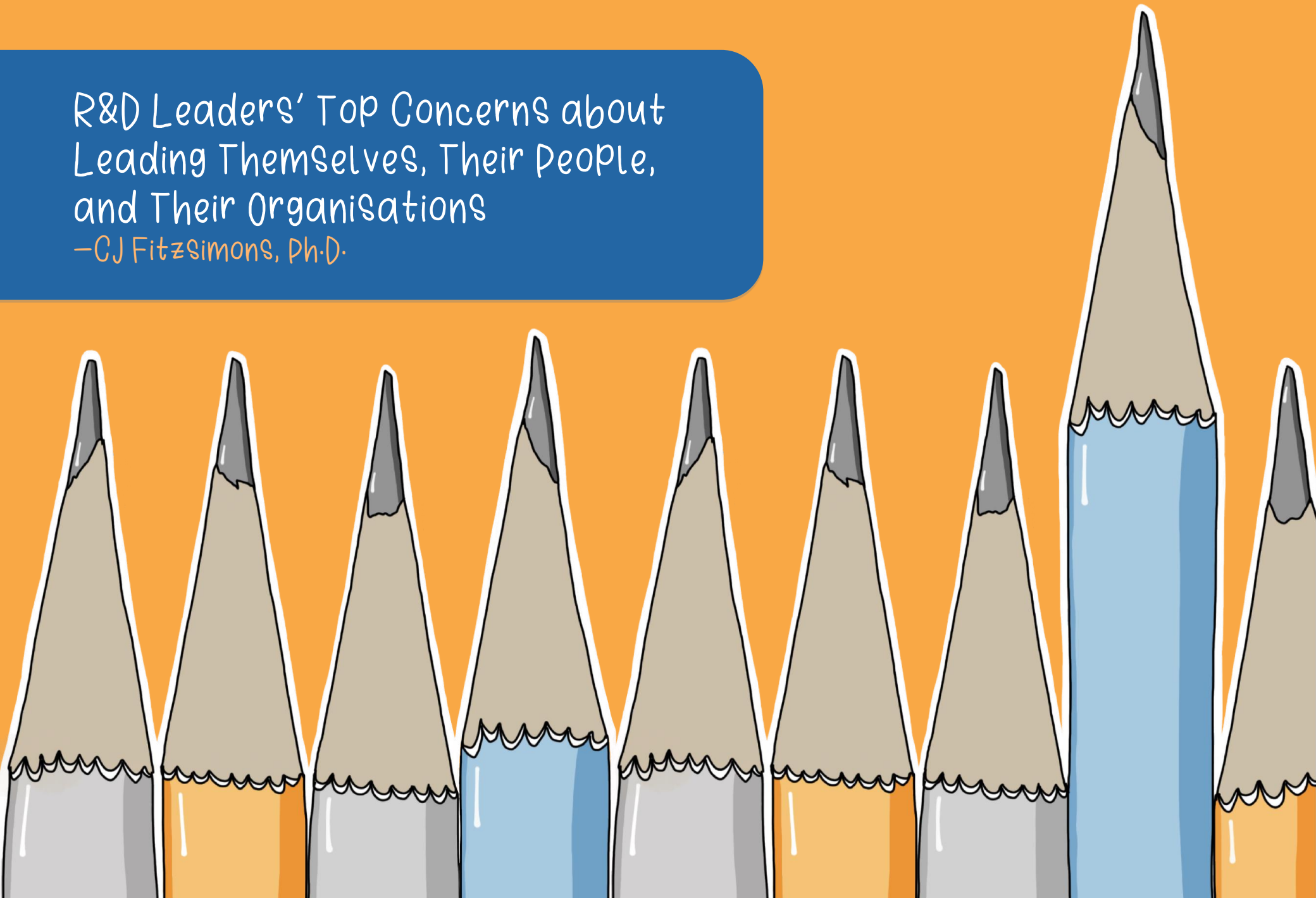


R&D Leaders' Top Concerns about Leading Themselves, Their People, and Their Organisations

—CJ Fitzsimons, Ph.D.



1. Introduction

Over the years, during my workshops and seminars, I have collected the main questions that people from R&D have asked me about how to improve their leadership – almost 400 in total. Although I know that these results cannot be considered scientific, I thought it would be helpful to share this data by pulling it into a report that does the following:

- Gives you some basic information about the five top areas that people ask about,
- Lets you see some connection to the challenges you face,
- Provides you with some tips and things to think about, and
- Outlines a concrete action step you could take, if you see yourself with some of these challenges.

See if you recognize yourself in any of these typical scenarios, which are behind many of the questions leaders ask:

- *You got thrown in at the deep end.* Being a top-class scientist or engineer didn't prepare you for leadership. You need to complement your technical skills with the leadership tools that can help you to build and manage your team.
- *Your people don't match your level of commitment.* Some even find the time to keep their facebook page up-to-date. You wonder whether you can infect them with your passion.

- You notice that your staff or students don't respond to the style of leadership you were exposed to at the same stage in your career. Barking out orders doesn't seem to grow them to independence.
- No matter how many problems you solve, ten more turn up to take their place. Some days you wish that someone else would lead, so that you could get back to the science or engineering. Other days, you think about how you could get your people to take care of their own problems.
- Competitive pressures leave you without the resources you need to produce the results. Increasingly, you ask yourself, how you can balance the demands of your bosses with the needs of your people?

Such scenarios often indicate an underlying issue. When you resolve such an issue, you can expect to see changes like these:

- You learn how to express your own style of leadership. You'll be able to leverage the scientific and technical skills you've used for years so that you can apply a range of tools to sculpt your leadership approach to meet your business challenges.
- You clarify your professional vision and learn how to engage your team to reach it. And more.
- You deal effectively with conflicts, recognize their value and learn how to turn them into an engine for improved creativity and enhanced productivity.
- Your people learn how to solve their own problems. You'll acquire the tools to coach your staff to solve most of their own problems. This will free up more of your time for your work and also grow them to independence.
- You balance the conflicting demands of your superiors and staff. You will find ways to get the results you need under ever-tightening budgetary and time constraints, while retaining the commitment of your staff.

"In every block of marble I see a statue as plain as though it stood before me, shaped and perfect in attitude and action. I have only to hew away the rough walls that imprison the lovely apparition to reveal it to the other eyes as mine see it."

—Michelangelo

2. The Top Five Areas Leaders Ask About

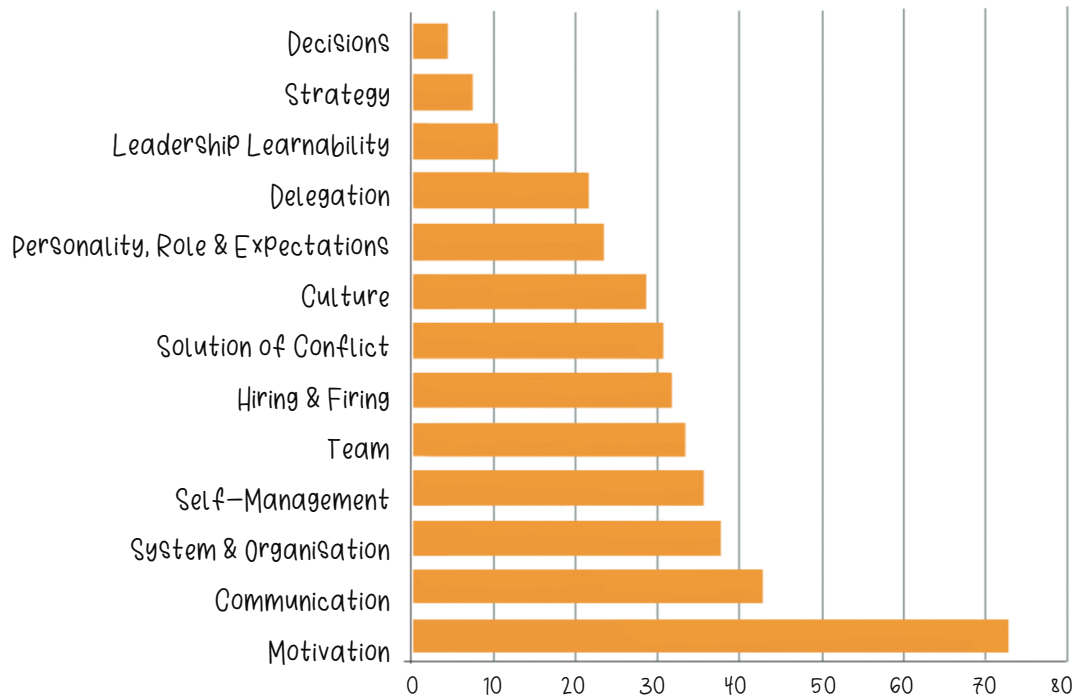


Figure 1. The Areas that R&D Leaders Ask About

I've been running leadership development workshops regularly for leaders in R&D since 2004. At the start of the workshop, I usually ask the participants what is the one thing they really want to gain insight on, before the end of the workshop. I harvested these from the photo protocols of the sessions – 392 topics and questions in all. (Some people ask no question, other ask more than one.) Figure 1 shows the results.

Based on the results of this survey, the top five areas that I'm going to address in my report are: Motivation, Communication, Self-Management, Team, and System and Organisation.

If you have an issue that's not covered in this report, feel free to contact me and I'll see how I can help you with your question.

In the next section, I'll share some typical questions and discuss each area:



Giving you something
to think about, and



an action tip

3. The Most Common Questions in the Top Five Areas

a. Motivation

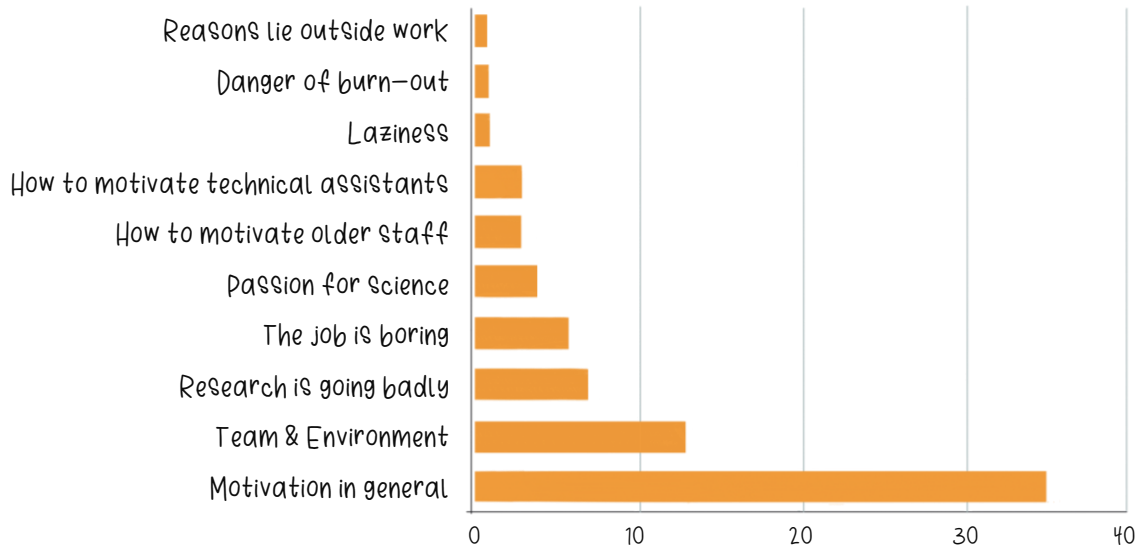


Figure 2. Motivation Topics that Leaders Ask About

Typical Questions

- How can I motivate someone?
- How can I motivate my team?
- Their job is boring: how can I motivate them?

Motivation is always a hot topic – leaders want to know how they can ensure that their people bring the same level of energy to the job that they themselves do. Figure 2 shows the range of topics covered by the motivation questions that were asked.

Let's get the bad news out of the way first: you can't motivate someone else to long-term high performance.

Most motivation seminars are really inspiration events and in the classical root of the word lies the clue: inspirare – to breathe in. The person on-stage is pretty enthusiastic and hopefully you may breathe in some of this and it'll carry you for a while. Unfortunately, you can't keep hiring inspirational speakers for top-ups.



Now for the good news: if someone in your team has any spark of interest for their R&D (and, if not, what are they doing in research?), you can help them to fan the spark into a flame. Modern psychological research shows that for people involved in R&D (or other similar professions), three factors are key to high performance. Get these factors right and life becomes a lot easier:

- Meaning
- Mastery
- Autonomy

If any one of these factors is missing or adversely affected, a person's commitment will eventually suffer. So, you don't need to motivate your people: You just need to make sure that they understand what they're doing and how it contributes to your bigger picture; you need to ensure that they have the skills they need to get the job done and arrange appropriate training or mentoring for skills they are lacking; and you need to make sure they have the resources they need to get the job done.

The rest pretty much takes care of itself.



One thing that comes out in many conversations is that leaders don't share their long-term vision with their people. Give yourself some time to think about your R&D vision and how you might explain it to your people.

b. Communication

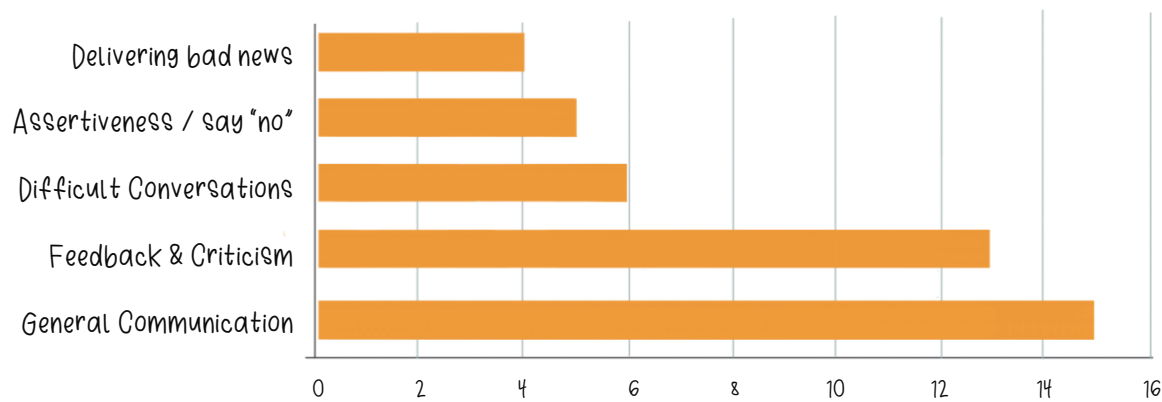


Figure 3. Communication Topics that Leaders Ask About

Typical Questions

- How can I criticize my people without demotivating them?
- How can I give feedback?
- How can I say "no"?

From the outside, scientific communication sometimes looks like a contact sport – people have to defend their work; reviewers and audience probe these defences for weaknesses; debate is robust.

This is all good fun in the right setting. However, when researchers begin to lead, they find that this style serves them poorly in non-scientific conversations. This is reflected in the sorts of questions about communication that they ask in my workshops (see Fig. 3 for topics).

To begin to answer typical questions, it is important to realize that communication takes place on many different levels, often at the same time. Researchers are good at communicating on the factual level, where it is helpful to talk about right and wrong. This style quickly reaches the limits of its usefulness, when they want to talk about things happening on the behavioural or relationship levels, where it is helpful to think in terms of appropriate or less appropriate.



Nonetheless, many leaders in research use the term feedback as a synonym for criticism. Such feedback conversations take place on the factual level. However, the topic that the leader wants to address is usually something like the impact of someone's behaviour on the research group, their audience at a seminar, or their attitude toward their work. These need to be addressed on the behavioural level. A productive feedback conversation works similarly to a bat in flight. We can use it to reinforce behaviour that we find helpful or to ask them to tone down that which hinders productively working together.



Another area that attracts questions is how to say "no". Further probing usually reveals it's less about how to say than when to say. Many people are not clear about their priorities and their boundaries. This means they only think about what the "yes" costs them long after the event. Take a little time to think about a recent event where you said "yes" and what it cost you. This will help to equip you with good reasons for saying "no" a bit more often.

When in flight, a bat sends out signals and receives replies from objects in its flight path. It doesn't think "the building is wrong, it should be somewhere else"; it takes the information it has received and adjusts its flight path accordingly.

"One cannot not communicate."
—Paul Watzlawick

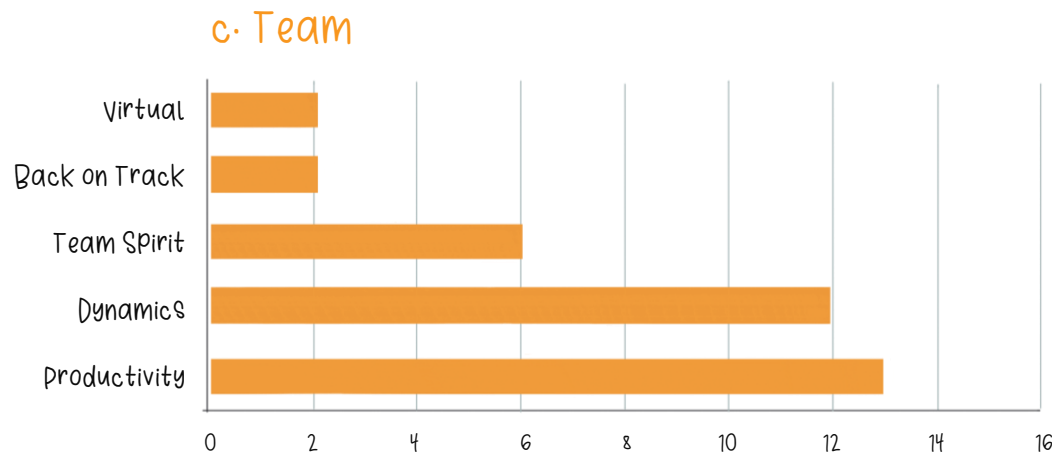


Figure 4. Topics that Leaders Ask About in Teams

Typical Questions

- How can I engender camaraderie?
- How do I lead an interdisciplinary team?

Many leaders grapple with the question of whether a research group can be considered to be a team. In some ways it is simpler to manage, when each person in the group has their own project, their own area of research. At first glance, the interpersonal dynamics are turned off. However, only at first glance. When two people in a group are researching in closely related areas, either real synergies in the research are missed or unhealthy competition arises at some point; results or ideas are withheld. The papers that never get written because of this attitude highlight the cost of this laissez faire approach. As Fig. 4 shows, questions about productivity and dynamics dominate.



Although it is uncharted territory, coming to terms with the dynamics in a group helps to mould the group into a team. The first step in this direction is to help people understand how their work (a tessera or tile) fits in to your overall mosaic for the research (your vision). This links to the factor Meaning already mentioned in the Motivation section. In turn, this makes it easier to engender an atmosphere where people are willing and able to cooperate with each other, to celebrate each other's successes and to commiserate with each other's failures.

“Who asks, leads”

—German saying



Some research leaders face a dilemma when it comes to teams: they need to move outside the very scientific and technical comfort zones that have contributed to their current success. Research on intercultural differences shows that to reach top performance, a team needs to leverage these differences effectively. As research becomes increasingly interdisciplinary, these differences encompass not only background but scientific and technical training. Something to think about: what helps you to move beyond your role of expert and learn from your people?”

d. Self-Management

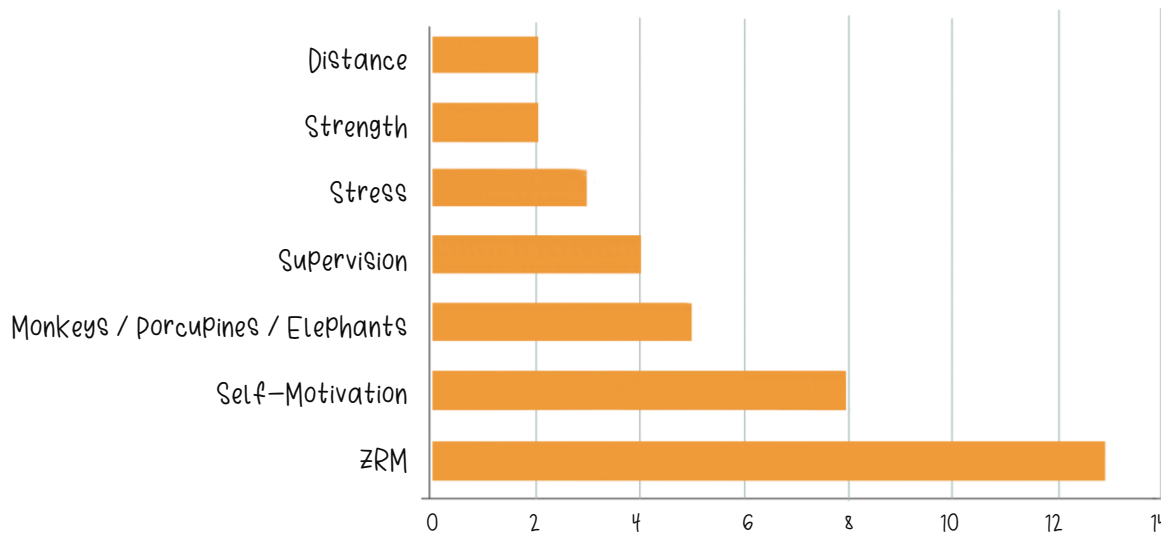
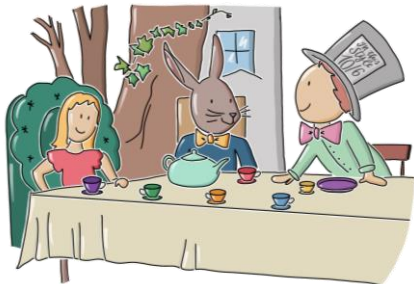


Figure 5. Topics that Leaders Ask About in Self-Management

Typical Questions

- How can I set priorities and let certain things drop?
- How do I reserve time to spend on creative thinking?



People often ask me how they can better manage their time. At his tea party, the Mad Hatter pointed out that we cannot manage time – we need to make friends with it. If we worry about losing, wasting, taking or not having it, we miss out on a lot in life and at work. As Fig.5 indicates, the pre-occupation with time is common enough. In their struggle to meet deadlines, answer mails, attend meetings, solve problems their people bring, a degree of clarity and creativity for leaders goes a begging.

Grow your people
and grow your time.



In order to set your priorities, it is helpful to be clear about your overall vision and goals, as well as any deadlines that need to be met. That's not as easy as it sounds, since research demonstrates that both the conscious and subconscious minds need to be in agreement on these goals. Negotiating this agreement is part of my Leadership Sculptor approach. Once you are clear, the activities and meetings that help you to advance towards your goals will normally receive priority. Only normally, since they need to be balanced against your boss's priorities and those of the system around you. All that needs to be balanced, in turn, against your priorities outside work. This means that you won't complete certain activities: either find someone else to do them, strike them off your list before they give you a guilty conscience, or learn to say "no" from time to time.



A lot of people ask me to recommend a time management system. My experience is that no system will save you; at best it will help you to suffer on a higher level. If you are clear about your goals and priorities, then it becomes much easier to tailor a system so that it is you-friendly.

Many people wait to be inspired, while others deliberately set aside time for creativity and inspiration. Those who set aside the time tend to generate a lot more ideas, about 150% more (as creativity research shows). I'd love to hear from you about how you set aside time regularly for generating ideas and how you use that time. I'll write up your responses on my blog, so that we can share these ideas with the community.

e. System and Organisation

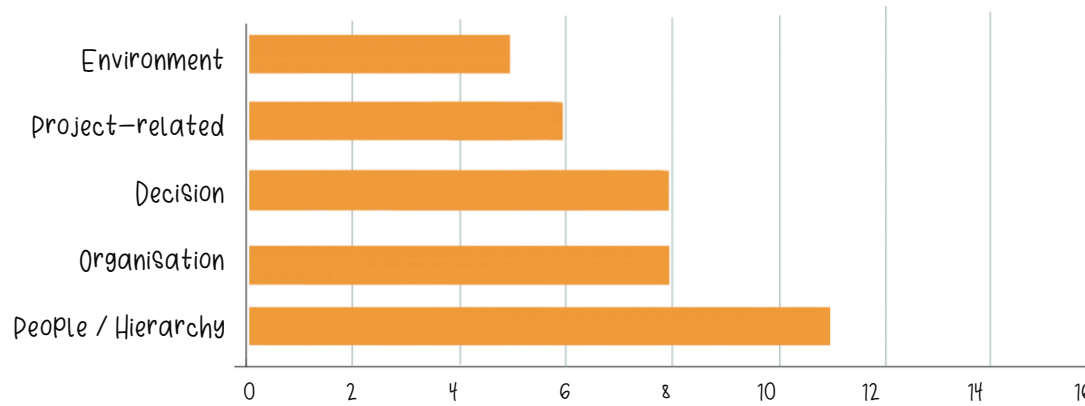


Figure 6. Topics that Leaders Ask About in System and Organisation

Typical Questions

- How can I overcome the challenges the organisation puts in my way?
- How can I protect my people from external attacks?
- How can we take effective decisions?

The fifth topic is about the interaction between the leader and those around them, including: their team, others within their organisation or in their research eco-system (e.g. colleagues, sponsors, funding agencies, conferences).



When having to think about complex problems that are new to us, many people look for patterns with which they are familiar, or with simple cause and effect relationships. My experience working with leaders shows that it is extremely beneficial to consider the context within which their leadership is taking place as a system. For example, if two people are in conflict, we need also to consider how they interact with others in the department and how their conflict is affecting the others and the work.

Fortunately, there are many ways to map these systems and to learn how to navigate them. These approaches require being open to experiments, to being wrong from time to time and to observing system behaviour carefully. The good news is that these are qualities that researchers have in abundance!

A particular form of this interaction with the system is when your people are being attacked by people outside the team or when the organisation is going through some turbulence. It is important to act as your people's umbrella in both cases, since most researchers need to be able to focus on their research in order to do good work. I've seen it many times: when people are worried about whether their research project will still be funded next month, then they can no longer focus on their work. They spend their time worrying about what might be. And in most cases, the idea to change research direction is shelved and people have been unnecessarily disrupted. It's the leader's job to filter these external disturbances and ensure that his or her people can research.



People often ask about how to take effective decisions. They're looking for the magic bullet. Which, as scientists, they must know deep down, doesn't exist. My clients learn to improve their decision-making in three ways: first, by tapping into their own experience and training their intuition. Second, by learning when to recognise who they need to involve in what way in making the decision, so that people accept and implement it. And third, by getting familiar with a range of approaches to identify and evaluate decision options. A simple way to improve your decision-making skills is to evaluate how the decision turned out. Do this consciously and you'll surprise yourself at how quickly your hunches improve.

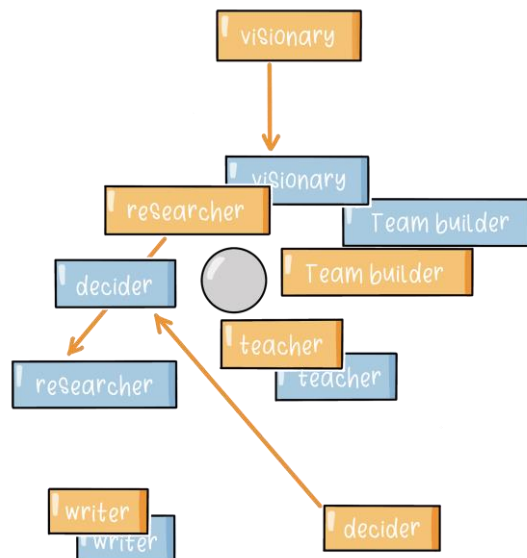
"You think that because you understand 'one' that you must understand 'two' because one and one make two. But you forgot that you must also understand 'and'."

—Sufi teaching story

4. The Next Step

Having read this far, you're probably itching to do something. Before launching into a new research project, you would take stock of what is known about the topic and which skills you have, or need, to tackle the research question. In leadership it is no different: you need to know about your strengths and potential derailers, so that you can take the next step in improving your own and your team's productivity.

Typically, one of the first steps I take with a client is to help them explore all the facets of their position by using an exercise I call the Role Atom. They form the nucleus, and each of their sub-roles is an electron. For example, Diana was moving into a position where she would have to negotiate research agreements and contracts with suppliers. She was pretty daunted by this responsibility. Some of her atom is shown in the figure below.



- Consider yourself as the nucleus and your sub-roles as the electrons
- Write one sub-role per card
- Place the cards close to or far from the nucleus to reflect
 1. How comfortable you feel in the sub-role
 2. How important it is for your job
 3. Its importance from your boss's perspective
 4. Its importance from a team member's perspective
- Evaluate the differences: if something is far from the nucleus in 1 and close in 2 – How can you leverage strengths to make it more enjoyable?

When we looked at her atom together, I asked her to analyse it by taking a number of steps. First, she arranged the electrons around the nucleus – the closer the electron, the more comfortable they feel in that sub-role. In this case, the sub-role of Negotiator was pretty far from the nucleus. Then she rearranged the electrons to reflect how important each sub-role was for her job, first of all from her own perspective (also shown in the figure) and then from her boss' perspective (omitted for reasons of legibility).

Taking all three arrangements together, Negotiator was a clearly a potential derail in her new job. So we discussed what level of comfort would be needed in this role, so that she could do a good job. Once that was clear, we looked for ways to help reach this comfort level. It quickly transpired that, in the sub-role of Perception Changer, she had a lot of the basic skills needed to negotiate. So she began to think about ways she could leverage her skills in empathy, reframing ideas and finding ways to help people move from entrenched positions when in a negotiation. In addition, we identified a suitable training in negotiation techniques offered by her employer.

When you go through the Role Atom exercise yourself, you'll find it easier to further hone your own leadership style and skills.

5. Summary

In this report I have outlined the main questions and challenges from the almost 400 that R&D leaders have shared with me over the years. Although I know that these results cannot be considered scientific, this data offers some insight into the main areas that are on peoples' minds:

- The main topic leaders ask about is **motivation**. Their challenge is to understand that they cannot motivate their people; they can do some simple things so that motivation levels don't sink.
- Next in popularity is **communication**. One challenge is to understand that how we talk about science needs to be different to how we talk to people about how we perform the research.
- The third category is about leading **teams** and how to increase productivity by turning a group into a team.
- This is followed by **self-management**. For people who spend a lot of time in meetings, it's important to develop strategies on how to up their effectiveness and develop strategies for dealing well with the rest of the working day.
- The final set of questions deals with **system & organisation**. Here it's important to learn how to map the system within which you operate and learn how to use tools that help you to navigate this.

Working through your own answers to these sets of questions will allow you to clarify your own professional vision and show you how to engage your people to reach it. You will find way to deal effectively with conflicts and help your people learn to solve their own problems. You will also find ways to express your own leadership authentically and find ways to get the results you need.

I know that sounds easier than it is in practice, when you're extremely busy. That's why I've put together a special consultation package for readers of this report that you can read about on the next page.

6. Are You Ready to Sculpt Your Leadership?

If you are willing to reflect on how you lead and are interested in maximizing productivity and reducing conflicts, so you can more easily achieve something important with your life, you are the type of leader I want to work with. So I'd like to offer you a 50 point assessment, which takes about 10-15 minutes to complete, followed by a confidential one-hour consultation. I would normally charge €500 for this type of consultation, but I offer a limited number of appointments at no charge and no obligation to my subscribers each month.

This self-assessment will help you to identify your strengths and derailers as a leader in R&D in four key categories:

- Leadership style
- Leadership of self
- Leadership of people
- Leadership of organisation

The private, 60-minute consultation will give us the opportunity to get to know each other, debrief your leadership assessment, and help you get a clear idea of how well you're doing and pinpoint anything that might help you to raise your performance. If appropriate, we may even do some on-the-spot coaching so you can get a taste of what it's like to work with me.

About the Author

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I work with research leaders who operate in a competitive environment and want to maximize productivity and reduce conflicts, so they can more easily achieve something important with their lives. My approach is uniquely effective because I hone their leadership edge, using their scientific skill set to enhance their emotional intelligence.

I want to make sure you leave the meeting satisfied that it was a worthwhile investment of your time, whether or not we choose to work further together.

I have faced these and similar leadership challenges myself over the years. After completing my Ph.D, my professor, John Miller, asked me to stay on as his institute's technical director. Responsible for our contribution to two European projects, I quickly found out that research usually got held back by problems in communication, conflicts, petty jealousies, and embarrassment. As my career developed and I moved first to a research centre and later to ABB, I realized that these challenges pop up everywhere. One example helps to illustrate what I learned about meeting leadership challenges:

After three years in aerodynamics modelling at ABB power Generation in Switzerland, the head of R&D told me that, if I wanted to have a career here, I'd need to get my hands "dirty". He threw me into the compressor design group, where I was given responsibility for designing some blade rows. On my first day, I was faced with making a decision about which I had no clue: how many blades would be in each row. Meeting challenges like this forced me to hone my question-asking. It also taught me that when I don't know, it's important to say I don't know, and to reach out for help. And that sometimes goes more smoothly, when you take the trouble to learn the local language (that's when I started to learn German seriously). — Three critical lessons for any leader to learn.

Based on my own experience and my work with hundreds of leaders in R&D environments, I've come to understand that leadership is determined by three factors: the person's role in the organisation, its culture and their personality. From this, I have designed a systematic approach (Leadership Sculptor®), the details of which are tailored to each person. This approach helps people sculpt their own leadership, by helping them recognise the contours of their leadership profile and equipping them with the tools needed to allow it to emerge.

When you use this approach you can expect to see desirable changes in your leadership and your team's productivity and commitment.

- You will learn how to express your own style of leadership. You'll be able to leverage the scientific and technical skills you've used for years so that you can apply a range of tools to sculpt your leadership approach to meet your business challenges.
- You will clarify your professional vision and learn how to engage your team to reach it. And more.
- You will deal effectively with conflicts, recognize their value and learn how to turn them into an engine for improved creativity and enhanced productivity.
- Your people will learn how to solve their own problems. You'll acquire the tools to coach your staff to solve most of their own problems. This will free up more of your time for your work and also grow them to independence.
- You will balance the conflicting demands of your superiors and staff. You will find ways to get the results you need under ever-tightening budgetary and time constraints, while retaining the commitment of your staff.

"He helped me with the tools, but much more importantly I now understand that these issues around time management were just symptoms pointing to some deeper challenges. Meeting these has brought a big shift in my leadership. I now understand that power is not a burden, but much more a lever to give me the freedom I need to do the research I want to. In addition, I now have pragmatic tools that help me to delegate and to help my people to learn how to solve their own problems. His approach to get me to observe and collect data about my own behaviour and thoughts has been invaluable. Getting used to viewing issues from a new perspective opened up new solutions quickly. The coaching also helped me to calm down and to complete the majority of my project proposals on time without burning the midnight oil."

—Prof. Katja Schmitz

Clemens Schöpf Institute for Organic Chemistry
and Biochemistry TU Darmstadt



Further Resources to help you meet these challenges

I have a variety of resources that can help you to meet these challenges:

- **Newsletter / Blog** On <http://www.leadershipsculptor.com/blog> you will find a collection of articles and notes that I update regularly. I'd love to hear your questions and comments, so feel free!
- **A Free Consultation** Each month I offer a limited number of free consultations to help leaders understand their challenges better and see what their next steps might be.
- **Coaching Packages** I offer a range of coaching packages that are tailored to you and your needs. <http://www.leadershipsculptor.com/services>

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