



Paul Tooms, Global Head of Subsea Discipline, BP



Paul Tooms is global head of Subsea Discipline for BP. He started his BP career in drilling 27 years ago, initially working as a subsea engineer on a drillship in western Australia.

Before joining BP, Tooms worked briefly in diesel engine manufacturing. Since then, he has worked around the globe in the Amazon jungle, Canadian Rockies, Kuwaiti desert, North Sea, deepwater Gulf of Mexico, and Russian Siberia. Before assuming his current post, he headed the drilling organization for TNK-BP across the whole of Russia.

One of the high points of Tooms's drilling career was leading the project that drilled the world-record-breaking 10-km horizontal well at Wytch Farm on the southern coast of the UK. He has also worked in exploration and supply chain and has led a subsurface project in the Middle East. Tooms graduated with a degree in mechanical engineering from Imperial College, London.

What in your early life led you to choose a career in the E&P industry?

I think I was destined to be an engineer as a child; even when I did not fully understand what engineering is really about, I just had to keep taking things apart to see how they worked. I did not start my career in the E&P industry. I joined a manufacturing company called Perkins Diesel from university, but the job wasn't quite what I expected. The pay was not good, and there were no international career opportunities when I joined, which is what I really wanted. I had a friend who had joined BP, and he told me what a blast it was to work in the North Sea. I was hooked. I joined BP in 1980 as a junior drilling engineer, and within 3 months I was posted to western Australia to work on a drillship in 4500 ft of water, which was pushing the limits of the industry at that time.

What was your impression of the industry when you joined it? How has your view of it changed?

My first impression was "this is brilliant." I had been a bit apprehensive, as the stereotypical rig worker then was a person who should be muscular and physically strong, and I was a skinny little thing (hard to believe now)—but I survived. It was just a great experience. Even though I was working 3 weeks on and 1 week off, I was given a lot of responsibility immediately, which made it more interesting and fulfilling.

I believe the industry has changed and is still changing, with a lot of emphasis on safety and risk assessment—unlike when I started—which is good. Organizations and individuals now take safety quite seriously. People also are calmer in relation to work, where before it was like having an army sergeant-major shouting orders at you on the rig floor and even sometimes in the office.

What are your most memorable career experiences since?

I have 27 years of brilliant memories. It's very difficult to single any out, but the first that comes to mind are

- Working in the Amazon jungle
- Leading the project that drilled the world-record-breaking 10-km Wytch Farm well
- Running rigs onshore in Alberta
- Visiting Iran in the 1990s

- Meeting the queen

Actually I could just go on and on.

What do you enjoy most about your job?

I enjoy leading people and also being in a position to create a better future for people. I like to make people understand why they are doing what I asked them to do, rather than just following instructions. The most satisfying thing is to put together a team of diverse individuals that complement each other and turn out to be a really high-performance unit.

What advice would you give to professionals in the early stages of their E&P careers who are seeking a technical path?

Become strong in your professional discipline and develop your expertise. Know the importance of what you are doing, enjoy it, and focus on being good in whatever role you find yourself. You need to be grounded in the technical aspect of your work and be confident so that your colleagues can respect your opinions. I think it will be a mistake to get a little of everything too early.

It seems that many young professionals, almost two-thirds, hope for a career in management. Would your advice change for these people?

I think it is quite understandable that professionals want to move into management; after all, this is how you can have broader influence and make a bigger mark in the world. But my view is that you need to get real experience first and be competent in your area. Otherwise, it will be hard to earn respect from those around you; it will be hard to make those tough decisions and make the right call. So don't be in too much of a hurry. My own experience is that worrying too much about getting to the next job can spoil the enjoyment of the current one and lead to unnecessary stress. Once you learn to relax a bit, things happen.

Who has helped you the most in your career, and what lessons did you learn from your mentors? Who has been most influential?

A lot of people contributed to my career. My wife is the main one; she keeps me on the ground and brings a heap of common sense.

The Way Ahead Technical Leader interview invites senior figures who have become pioneers of innovation and technical excellence within the E&P industry to engage in a conversation exploring their careers, advice, and vision, while uncovering lessons learned that have made each of these individuals true technical leaders.

Tim Crumrine, Technical Leader Section Editor
Anthony Onukwu, Technical Leader Section Editor



to the table. Then, each and every one of my bosses has helped one way or another; I've nearly always managed to develop some rapport with them. And the training that I have had during my career (both technical and leadership) has also helped greatly. I don't think people always place enough priority on getting the right training.

What issues do you care most about in your work and your life? With these in mind, what advice would you give young E&P professionals?

For me, I want to be respected for what I do; I want to be fulfilled, and I want to feel I am making a difference. So my advice is simply to work hard and respect the people you come across, no matter who they are. You don't need to be liked to command respect, and you don't need to be powerful to command respect. Balance between work and home life is very important in this industry; you need to create time to get a life outside the day job. The old adage of "work hard and play hard" seems to be a good life philosophy. Having said that, we all spend a huge amount of time working, so you must enjoy it. If it is a real drag to come to work every day, then you need to find something else to do.

How has subsea technology helped in building the future of this industry?

Subsea is relatively in the early stages. It is definitely going to be highly important in terms of hydrocarbon extraction in future; 20% of BP North Sea net production is generated from subsea, and this is growing, which shows the importance of subsea technology. A lot of oil that has not been accessed initially is now being reached via subsea tiebacks, especially in remote areas. Being subsea is a big challenge. It is relatively costly; you have to get it right first time, and intervention is difficult—hence, decision making and system reliability are crucial.

Most young professionals will like to know how these complex systems are simplified into manageable pieces. What are the challenges in building and managing subsea systems, and what are your thoughts on their standardization? What role will standardization play in delivering these systems in the short lead times required by today's high hydrocarbon demand?

The systems may well look complex at first. However, as with most complex systems, they tend to be made up of a collection of relatively simple parts. It's just a case of looking at each part and understanding in very straightforward terms what it is meant to achieve and how it does that. It's often amazing how obvious things are once you've managed to understand their essence. One of the biggest challenges of building and managing subsea systems, in my view, is dealing with competing needs and arriving at the right compromises. The best engineers do indeed manage to keep systems fairly simple and avoid over-engineering. Standardization is the only way to go if we are to maintain deliverability of subsea systems within the required lead time because the industry is stretched for resources in all areas. The more we can use the same components and standards, the more easily the industry will be able to create the necessary capacity. It won't be easy, but standardization will drive quality and reliability. The other thing is that, in my experience, working with standardized components can paradoxically create more scope for innovation.

BP has had impressive growth in deepwater west Africa. What has contributed to this success, what challenges did BP face, and what is the future of subsea development in this region?

Good seismic technology is essential in finding oil. Integrity, reliability, and trust were the key factors in the success of this growth. Also, people, process, and technology contributed immensely to development in the region. There were a number of challenges—geographical location, logistics for equipment delivery, local infrastructure, and local shortages in experienced personnel, to name a few. However, the relationship between the government and BP helped a great deal; we have worked well with the government to develop infrastructure and the human resources from the host country. Today there are many opportunities, and the potential is growing.

This issue of TWA is focused on "old school" vs. "new school"—looking at the future of the industry while understanding how learning from history plays an important role in building that future. What advice can you offer young professionals about learning from the past in this industry? What are your thoughts on going back to the basics when trying to solve a technical problem?

I believe that experience counts a lot. We should try to learn from the experiences of this industry. Talking to people who have previous experience in what you are doing is very important. Try to find out what they did and why they did it. If I had only one piece of advice, it would be to strive always for understanding—asking "why" is a great tool. I think the best way to transfer lessons that we've learned is through personal contact. It's sometimes very difficult to get the true meaning from a written document because it lacks context. It is always good to go down the root of any problem before proffering solutions. Most tough technical problems have been solved by going back to the basics.

How did you get involved in SPE? What has your SPE membership meant to you?

SPE is very important. It readily provides an unbiased technical view of the most challenging issues in the industry. It has been a source of technical knowledge and information for me. It is always good to participate in SPE's activities.

What three changes would you make to the way our E&P industry develops people?

1. Give young professionals hands-on practical and operational experience early in their careers. You learn faster when you are faced with challenges.
2. Give people more responsibility sooner. I would like to put them in positions where they have to make decisions that affect the business. That's how you really learn fast and build confidence.
3. Well-structured training programs for young professionals earlier in their careers. This where as an industry we are falling behind.

None of these is easy to do straight away, but I think we must push ahead if we are to bring people through quickly. **TWA**