WOMEN
IN GREEN
SHIPPING

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"I TRULY BELIEVE THAT GENDER IS JUST ONE ASPECT OF IDENTITY, AND THAT DIVERSITY—WHETHER IN GENDER, CULTURE, OR PROFESSIONAL BACKGROUND—IS A STRENGTH..."

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Please share something about your background: your studies, your early career ambition(s), any jobs you had before you started to work in shipping.

I have a PhD in Mechanical Engineering from RWTH Aachen University, building on an MSc in Automotive Engineering and a BSc in Mechanical Engineering. My early career ambition was rooted in academia—driven by a passion for sharing knowledge and advancing clean propulsion technologies, I actively participated in conferences and supervised students during my PhD studies. I initially envisaged becoming a professor, and that path remains open for the future. However, my curiosity and desire to create real-world impact led me into the automotive industry, where I gained over 12 years' international experience in combustion systems, alternative fuels, and emission control. Before moving into the maritime sector with WinGD Ltd, I worked at FEV GmbH in various roles from Project Engineer to Global Cybersecurity Team Leader. This mix of technical depth and cross-functional leadership prepared me to take on new challenges, especially in supporting the energy transition through innovative engine technologies. That was why in 2022 I joined WinGD Ltd as a Project Manager, to lead the development of ammonia engine technology for the new X-DF-A engine family.

How did you come to work in the alternative fuels shipping industry?

Climate change has always been a strong personal and professional motivator for me. During my PhD, I even chose it as the topic for my off-topic speech "A Global View on Climate Change: Where do we stand?". That focus on sustainability shaped my academic path, where I studied the combustion behaviour of alternative fuels using both experimental and numerical approaches, with particular attention to emissions. Later, in the automotive industry, I worked directly on combustion systems using alternative fuels such as methanol, hydrogen, ammonia, liquefied natural gas (LNG) and hydrotreated vegetable oil (HVO) in both passenger car and heavy-duty engines. As my expertise evolved, transitioning from small- and medium-bore engines to large two-stroke engines in the maritime sector felt like a natural progression—especially given the urgency to decarbonise shipping. Joining the alternative fuels shipping industry allowed me to scale up my impact and apply my knowledge where it's most needed.

What is it about working in this sector that makes you want to get up in the morning?

What motivates me every morning is the curiosity to see how the technology we're developing—such as the X-DF-A engine—will shape the future of the maritime sector. I truly believe this work has the potential to make a tangible impact on decarbonising shipping. What I find especially rewarding is that the maritime industry is actively implementing alternative fuels. It feels meaningful to apply my expertise and passion in a field that's driving change toward a more sustainable future.

What is your current role? Please describe what you do.

My current role is as Project Manager in the development of ammonia engine technology at WinGD Ltd, overseeing internal R&D efforts and supporting the delivery of the first commercial pilot projects for the X-DF-A engine platform.

What are the biggest challenges or compromises in your job? How have you tackled them?

One of my biggest challenges as Project Manager is to coordinate people and ensure that there is clear, effective communication—especially when you're not the direct line manager of the team members involved. It's essential to create alignment around the project vision so that everyone feels ownership. I address this by staying flexible, adapting my communication style to suit different stakeholders, and maintaining momentum across the engineering and development teams.

What are you most proud of having achieved in your role?

Another major challenge is how to manage risk when working on highly innovative technologies like alternative fuel engines. With fast-evolving market demands and uncertain technical boundaries, it's crucial to develop flexible yet robust solutions. I tackle this by actively involving the team in failure mode and effects analysis (FMEA), design reviews, and risk workshops, while continuously monitoring key risks and implementing mitigation plans. On a broader level, I'm committed to continuously improving—not just technically, but also in my leadership and project management skills.

Beyond project-level challenges, the pace of change in propulsion technologies, green fuel production, and infrastructure development is not yet in sync, creating another layer of complexity. Navigating these challenges requires collaboration across disciplines and sectors, and that's where I believe strong project leadership can really make a difference.

The world's first 2-stroke approval in principle for an ammonia-fuelled engine in September 2023 was a major

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achievement by the whole project team. Getting there was complex as it involved several cross-functional activities to optimise the built-in safety features within our X-DF-A engine design.

How do you see your career developing in the future?

My dream is to develop an Alternative Fuel Competence Centre where the cross-functionality of expertise needed to characterise a fuel and develop engine components and combustion concepts capable of flexibly adapting to conventional and alternative fuels will be under scope.

How do you feel the maritime sector has embraced the talent and value of women?

I've been part of this sector for a few years, so my view might be limited, but I don't see a high proportion of women in leading positions here, especially in the technical ones. Achieving gender parity in the maritime industry remains a work in progress in my view, requiring continued commitment to inclusiveness and equal opportunities. That being said, my company is moving in the right direction on this, though there are still relatively few women in technical roles in mechanical engineering-dominated fields.

What more could it be doing to attract women to work in the industry?

More women should be invited to industrial and academic events where recruitment happens, and they should have more visibility and proactive participation in technical conferences - key notes/chairing sessions etc.

The industry is making an effort overall to be more diverse, but have you felt that being a woman has had a negative impact on your career in shipping? Or perhaps a positive one? If so, please describe this impact and how you've addressed it.

I haven't felt disadvantaged by my gender—rather, I felt challenged to prove that I was fit for the job on technical teams, especially in the beginning. After the initial "storming" phase, I found my place. However, I often feel that, compared to my male peers, my work is less visible.

That said, I don't believe there are any preconceptions about me as a woman. Rather, I think that women and men may naturally have different communication styles or working approaches. A greater representation of women would help to highlight the complementarity of these differences, rather than letting them lead to misunderstandings.

I truly believe that gender is just one aspect of identity, and that diversity—whether in gender, culture, or professional background—is a strength. It's key to building high-performing teams and to overcoming any conflict or misalignment.

To summarise, I think being the only female Project Manager automatically sets me apart. This can sometimes lead to friction, but with more women in similar roles, those differences would be better understood and more easily integrated.

What would be your three top career tips for women who would like to enter, or have recently joined, the shipping industry?

- Your diversity is your strength.
- Be assertive.
- Be resilient.

What value do you see in the WiGS initiative?

In enhancing the visibility of women in this sector, paving the way for other women, establishing a network.

What more could we do to boost women's profiles and careers in the industry?

Keep going!

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