

WELCOME TO WIND ACADEMY

Filling the skills gap to optimise the operational efficiency of your wind-turbine drivetrain and lower the levelised cost of energy (LCOE) across your sites.

WE HELP MAKE IT HAPPEN



INTEGRATED EXPERTISE FOR IMPROVED EFFICIENCY

WORKING IN WIND ENERGY

1.15 MILLION

High-quality jobs in the wind industry across the globe¹

The wind industry has had an enormous contribution to economic development:

- Opening up **new jobs**
- Offering **new investment opportunities**
- Providing **cleaner, more affordable power**
- **Lowering carbon footprint**



INTEGRATED EXPERTISE FOR IMPROVED EFFICIENCY

¹ Global Wind Energy Council, "The local impact of wind energy in the spotlight on Global Wind Day", gwec.net/the-local-impact-of-wind-energy-in-the-spotlight-on-global-wind-day/.

WIND AFTERMARKET CHALLENGES

COST - LCOE

Over the next three years, operators are looking to reduce costs by

at least 14%
– ensuring they remain competitive.

AGEING FLEETS

52% of today's assets are more than five years old, compared to 30% in 2010 – increasing probability of downtime.

SHORTAGE OF SKILLED TECHNICIANS

The industry requirement for skilled technicians is growing at **6% per annum**, which is a challenge considering the high attrition and stringent employee-contractor ratio.

THE SKILLS SHORTAGE

It's a well-recognised challenge within the wind industry; one that will continue to grow if the right people don't put the right measures in place.



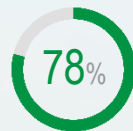
20,000

Annual shortfall of engineering graduates²



265,000

Skilled employees required annually to meet demand through to 2024.³



78%

Of wind-energy stakeholders stated finding suitably trained staff as either 'difficult' or 'very difficult'.⁴

CASTROL WIND ACADEMY IT'S TIME TO ACT

We're completely committed to alternative energy and a low-carbon future. With our understanding of today's industry challenges, we've worked with our JV partner to launch the Castrol Wind Academy.

WHY

- **To share** industry knowledge and expertise with your technicians and site managers
- **To educate** your team on how some of the leading solutions and dedicated support can help
- **To focus** on optimising operation efficiency and maintenance of your wind-turbine drivetrain



INTEGRATED EXPERTISE FOR IMPROVED EFFICIENCY



CASTROL WE HELP MAKE IT HAPPEN

At Castrol, we understand your operational challenges, and more importantly, we can help you overcome them – delivering greater efficiency and lowering the LCOE.



20 years'

Experience in lubricants



1st

Lubricant supplier in the world to offer carbon-neutral products to wind-turbine manufacturers



50,000

Turbines across the world are serviced by Castrol

INTEGRATED EXPERTISE FOR IMPROVED EFFICIENCY

Castrol and Onyx insight is a collaborative solution for wind turbine maintenance. We combine predictive engineering and lubricants expertise to achieve higher efficiency and reduced LCOE.



30%
Potential savings in
maintenance costs
for customers⁵



INTEGRATED EXPERTISE FOR IMPROVED EFFICIENCY

⁵ BP Castrol, "NEW JOINT VENTURE TO REDUCE MAINTENANCE COSTS FOR WIND TURBINES", [castrol.com/en_gb/united-kingdom/about-us/news-events/press-releases/castrol-and-romax-technology-joint-venture.html](https://www.castrol.com/en_gb/united-kingdom/about-us/news-events/press-releases/castrol-and-romax-technology-joint-venture.html).



MAXIMISE THE EFFICIENCY OF YOUR WIND FARM

The Castrol Wind Academy integrates industry expertise to deliver a comprehensive programme.

It equips site managers and technicians with the very latest knowledge and skills to perform at the highest level while getting the best from the products, tools and services they use every day.



INTEGRATED EXPERTISE FOR IMPROVED EFFICIENCY

THE CASTROL WIND ACADEMY

The Castrol Wind Academy will help address the skills gap with technicians and site managers helping wind farms improve efficiency and reduce cost.

STEP 1

E-LEARNING

Introductory sessions covering a variety of topics. Materials will be available online.

STEP 2

VIRTUAL/ PUBLIC CLASS

Intermediate classes – either online or at a Castrol facility – covering advanced topics.

STEP 3

FACE-TO-FACE/ HANDS-ON

In-depth classes at customer sites – explaining best practices and running demonstrations.

DISCOVER MORE



INTEGRATED EXPERTISE FOR IMPROVED EFFICIENCY