



WIND  
POWER

QUALITY AND SAFETY  
THROUGHOUT  
THE LIFE CYCLE

*Move Forward with Confidence*



**BUREAU  
VERITAS**

### OUR OFFER



#### CERTIFICATION

- Component certification
- Type certification
- Project certification



#### DESIGN & PERMITTING

- Design review
- Environmental impact assessment
- Permitting support
- Risk assessment
- Investor / lender services



#### PROCUREMENT

- Bidding support
- Supplier technical assessment
- Shop inspections (QA/QC)
- Expediting



#### CONSTRUCTION

- Project & construction management support
- On site QA/QC
- On site HSE
- Turbine foundation supervision
- Commissioning & test run supervision
- Take over and end-of-warranty inspections



#### OPERATIONAL ASSET SUPPORT

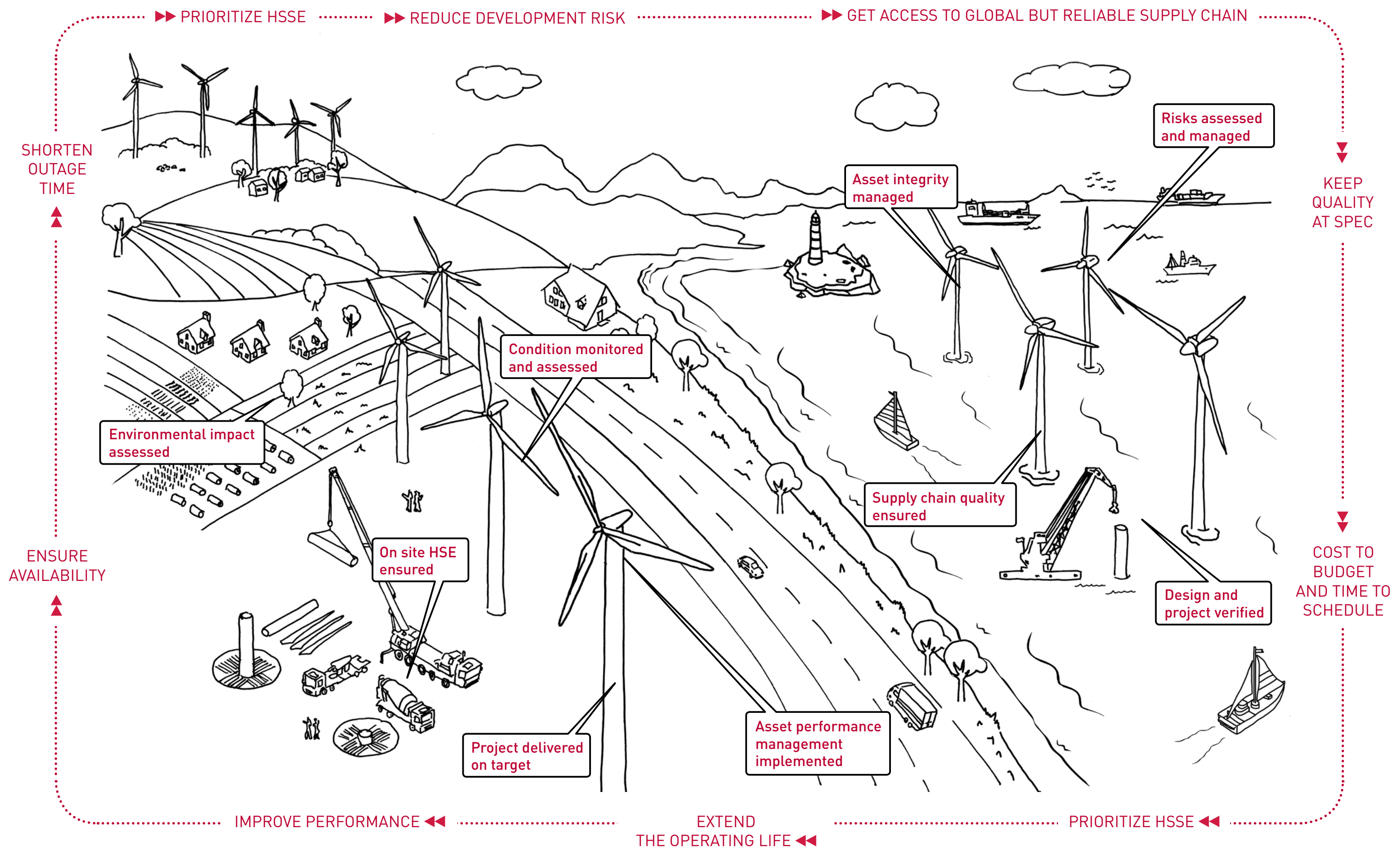
- Periodic inspections
- Non-destructive testing (NDT)
- Vibration monitoring
- Thermographic inspections
- Oil analysis
- Endoscope inspections
- Rotor balance inspections
- Maintenance strategies



#### ASSET MANAGEMENT SOLUTIONS

- Condition monitoring & assessment
- Asset integrity management
- Reliability engineering
- Performance optimisation
- Remaining life assessment & lifetime extension

## ENSURE SAFETY AND PROTECT YOUR ASSETS THROUGHOUT THE ENTIRE SUPPLY CHAIN



# SELECTED REFERENCES

## **HAMI JINGXIA 4 (600MW) ONSHORE**

- Shenhua Guohua (China)
- Bureau Veritas Scope: Project management, construction management, quality, cost & schedule control, on site HSE, sub contractor management (Jianli)
- Delivery: 03/2015 - ongoing

## **FÉCAMP (498MW), COURSEULLES (450MW) & SAINT NAZAIRE (480MW) OFFSHORE**

- EDF (France)
- Bureau Veritas Scope: Project certification according to IEC 61400-22
- Delivery: 08/2016 - ongoing

## **SARPINCIK (45MW) & DEMIRCILI (60 MW) ONSHORE**

- Nordex (Turkey)
- Bureau Veritas Scope: Project management, construction management, quality, cost & schedule control, vendor assessment, design review for WTG foundations, site and access roads & electrical and mechanical BoP systems, site surveyor works
- Delivery: 05/2015 - 02/2017



## **GLOBAL HSE FRAMEWORK**

- Confidential WTG OEM (Europe)
- Bureau Veritas Scope: On site HSE inspection & monitoring, during all stages of construction & installation, wind turbine + electrical and civil balance of plant
- Delivery: 06/2010 - ongoing

## **SHAFTTEST (IN-SITU NDT)**

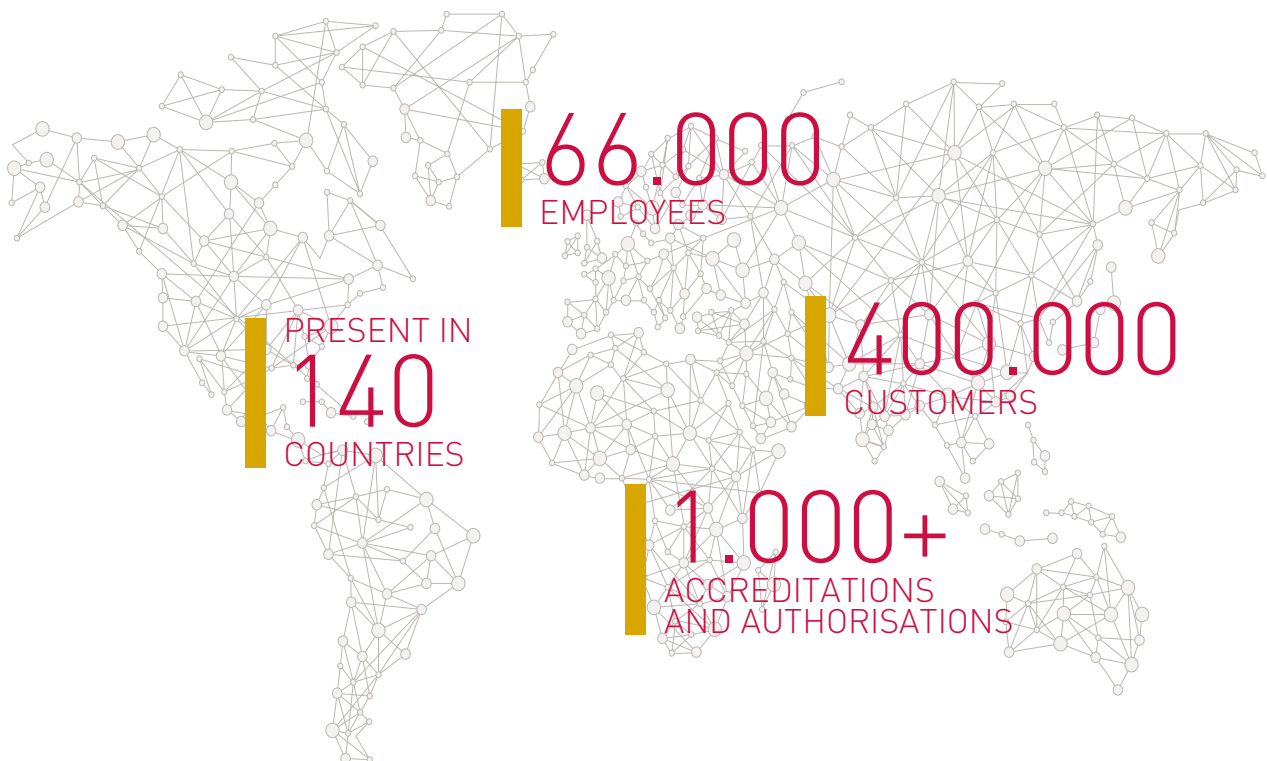
- Longyuan Power (China)
- Bureau Veritas Scope: ShaftTest inspection of turbine main shafts
- Delivery: 06/2010 - 12/2014



# A GLOBAL LEADER

## IN TESTING, INSPECTION AND CERTIFICATION

- Bureau Veritas is a world leader in testing, inspection and certification. We help clients across all industries address challenges in quality, health & safety, environmental protection (QHSE) and social responsibility.
- For over 180 years, our clients have looked to us to provide technical support, verify compliance or obtain certification. We support them in increasing performance throughout the life of their assets and products and via continuous improvement in their processes and management systems.
- Our teams worldwide are driven by a strong purpose: to preserve people, assets and the environment by identifying, preventing, managing and reducing risks.



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