

Objective:
To safeguard life, property and the environment

DNV is a global provider of services for managing risk. Established in 1864, DNV is an independent foundation with the objective of safeguarding life, property and the environment. DNV comprises 300 offices in 100 countries, with 6,100 employees.

DNV Research

Key research areas for DNV include:

- Future energy solutions
- Nanotechnology
- Global transport and short-sea shipping
- Secure, reliable software
- Biological risk

R&D ensures DNV's position at the forefront of technological development

R&D is used to enhance and develop services, rules, and industry standards

DNV is continuously developing our competence on managing hydrogen risks by participation in national and international R&D projects.

Examples are the European Hydrogen and Fuel Cell Technology Platform, IPHE and IEA activities; EU projects such as HySafe, HyApproval and HyWays; Joint Industry projects like FellowShip and HyTrec.

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Hydrogen and Fuel Cell Capabilities

Det Norske Veritas

Technology Qualification

How do you obtain confidence in cutting-edge technology?

In today's fast moving business it is essential to prove that your new technology will function as required.

Technology Qualification is a preferred method for proving new technological solutions. Adapted to satisfy the rigorous requirements of the North Sea offshore business, DNV's Recommended Practise (RPA203) for Technology Qualification has been extended to other technologies.

Technology Qualification provides trust and confidence to stakeholders in the hydrogen and fuel cell industry.

Our competence

DNV is heavily involved in long-running efforts to make the hydrogen society a reality, including joint industry and EU projects.

Our proven expertise in Technology Qualification allows us to help other companies reach their product development and commercialisation goals.



Risk Management

Can you assess both technical challenges and business risk?

Risk Management is the process of assessing risk and then developing strategies to manage the risk. DNV offers Risk Management Services to assess technical and non-technical risk, assuring cost effective solutions for our customers:

- Safety, health and environmental risk management
- Product safety & reliability analysis
- Enterprise risk management
- Asset risk management
- Systems and software risk management

Our competence

DNV continuously improves and develops our competence base related to hydrogen and fuel cells. Our activities:

- Developing the HIAD hydrogen incident data base, thereby improving the modelling of hydrogen releases, fires and explosions
- Improving CFD tools and DNVs risk management software through experimental work including large scale hydrogen explosion tests and benchmarking
- Quantification of the reliability of fuel cell systems

In our services, we make use of well recognised in-house developed software tools; WOAD, LEAK, PHAST and SAFETI.



Certification and Classification

Do your products comply?

DNV offers independent third-party services to the Certification and Classification market, including:

- Certification of products and equipment to international hydrogen & fuel cell standards
- Classification of ships using hydrogen & fuel cell technology

A world leader in certification and classification, DNV is in the top three world-wide for management system certification, including the Automotive industry.

DNV owns the Risk Based Certification™ Concept and the isrs7 Management System Rating Tool.

Our competence

DNV works closely with authorities, industry and competence centres to develop:

- Innovative propulsion concepts for ships, including integration of hydrogen and fuel cell technology
- Regulations, Codes & Standards for hydrogen and fuel cells

Holding more than 80 national accreditations with 50 000 customers in the certification market, DNV operates worldwide with global services that meet local needs.

