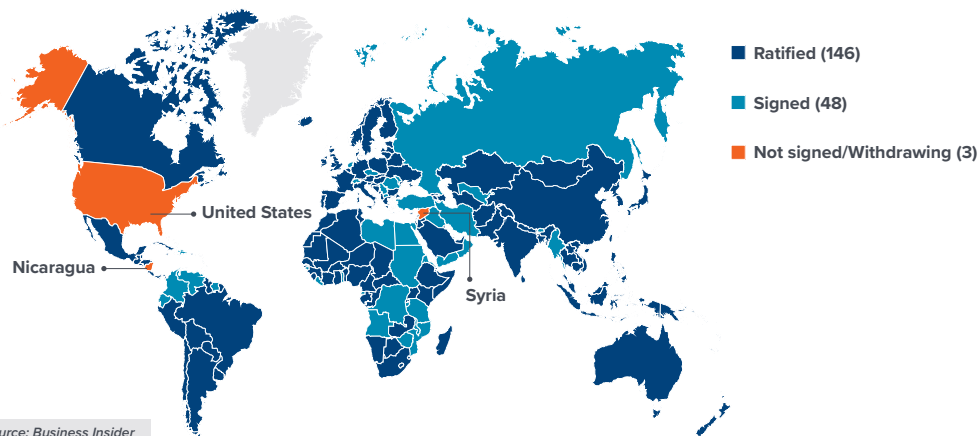# Supporting the Hydrogen Fuel Economy

Paris Agreement

In December 2015, the world united in Paris at the United Nations Framework Convention on Climate Change to agree a way forward to reduce global greenhouse gas emissions.

With Europe leading the way, the concept of Carbon Capture, Utilization and Storage (CCUS) and Hydrogen Fuel for the transport sector, both industrial and domestic, has become a reality. Leading providers throughout Europe are testing industrial applications and completing studies to aid in the reduction or repurpose of waste gases from existing processes.

COUNTRIES THAT JOINED THE PARIS CLIMATE AGREEMENT

■ Ratified (146)
■ Signed (48)
■ Not signed/Withdrawing (3)

United States
Nicaragua
Syria

Source: Business Insider

Broad Range of Experiences

In commercialising hydrogen technologies and applications, all aspects of safety will be critical. Compliance with current regulations will apply across many aspects of the hydrogen production, storage, and distribution systems. ABS Group has vast experience in supporting the Oil, Gas and Chemical Sector in ensuring safety is at the forefront, by providing a full-service experience from Concept Design Support and Assessment, to Inspections and Testing, to Safety Culture and Training.

Chemical   Petrochemical   Upstream/Midstream Oil and Gas   Downstream Oil and Gas   Utilities

40+ Years of Process Safety Leadership

SAFETY JUSTIFICATION
■ LOPA, SIL
■ Regulatory Report Support ALARP Assessments
■ Verification of Safety Justifications
■ Quantitative Risk Assessment

MECHANICAL INTEGRITY
■ Development of MI Programmes
■ Inspection and Testing
■ Risk Based Inspection (RBI)

CONSEQUENCE MODELLING
■ Fire and Explosion Modelling
■ Toxic Dispersion and Ingress Assessments
■ Blast/Toxic Resistant Design

ENGINEERING SUBSTANTIATION
■ Building Analysis and Assessment including CFD and FEA
■ Pipework Analysis and Assessment

RISK MANAGEMENT
■ HAZID, HAZOP, HAZAN, SIMOPS
■ Quantitative Risk Analysis
■ Pipeline Hazard and Risk Analysis
■ Emergency Preparedness
■ PSM GAP Assessment / Audit
■ Bow Tie Risk Management

CULTURE AND HUMAN FACTORS
■ Safety Culture Evaluation
■ Training and Organisational Change
■ Human Factors Assessment

ABS Group