International Hydrogen Ramp-up Programme – H2Uppp

Project Overview

2023-2026

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Country	Keyword	Project	Outcome	Partner	Link
Argentina	Green Ammonia	Gaucho project: series of studies on the feasibility of producing green ammonia in off-grid industrial plants in southern Argentina	Project is under implementation.	RP Global Austria GmbH	Project brief
Brazil and Colombia	Software Solution for Green Hydrogen Certificates	Green proof for the hydrogen value chain – digital solutions for the certification of green hydrogen	Requirements of European certification schemes (ISCC plus, CertifHy and TüV Rheinland Standard H2.21) are available for project and software development. A practical test for the certification of H2/PtX projects is conducted in the 2 nd phase.	SAP SE	Results
Brazil	Training, Safety Standards in Hydrogen Clusters and Harbours	Training programme to improve safety in the hydrogen cluster in the Pecém industrial and port complex	Project is under implementation.	TÜV Rheinland Akademie, SENAI Ceará	Project brief
Brazil	Green Methanol from Green Hydrogen & Biogas from Pig Manure	Sustainable production of hydrogen derivatives obtained from biogas (from pig manure) and green hydrogen in Paraná	The production of 275,000 t/a of green methanol as a mix (e-methanol/biogenic methanol) is currently still cheaper than pure e-methanol production. A first biogas plant is being built.	Mele Group, - Kooperativen Coopersan and Ambicoop	Results
Brazil	Oxyfuel Welding with Green Hydrogen	The innovative project will demonstrate the use of green hydrogen for thermal cutting processes (oxyfuel technology) in the metalworking industry and establish a corresponding training programme.	Project is under implementation.	Messer Cutting Systems GmbH	<u>Link</u>



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Brazil	Defossilisation of painting processes in the automotive industry.	Introduction of a modular painting system in which LPG and diesel used in the drying process are replaced by green hydrogen. Project isunder implementation	Project is under implementation	Tünkers Maschinenbau GmbH	
Brazil and Chile	Integrated plant for the production of green hydrogen and energy/oxygen supply for industrial processes	Generation and use of green hydrogen in various industries in Chile and Brazil using a modular 230 kW H ₂ plant. The system provides integrated hydrogen, energy, and oxygen supply for industrial processes.	Project is under implementation	Wilo SE	Project brief
Chile	Seawater desalination / brine processing	Brine to Value – extraction of valuable salts and minerals from brines resulting from seawater desalination processes in hydrogen production	Project is under implementation.	K-UTEC AG Salt Technologies	Project brief
Chile	Carbon-based Power- to-Liquid (PtL)	Front-End Engineering Design (FEED) of Power-to-Liquid (PtL) plants in Chile; study on site criteria for PtL plants	For the production of 50,000 t PtL per year, 10 sites in Chile were characterised and prioritised for further project development of industrial PtL plants.	INERATEC GmbH	Results
Chile	Green ammonia	Design of a green hydrogen / ammonia plant pool in Antofagasta in northern Chile	Ammonia production (640,000 tNH3/a) in plant pools (e.g. Mejillones industrial park) is possible at competitive production prices.	Soventix Chile Spa, SI Solar Investments GmbH, Pabettin GmbH	Project brief
Chile	Green Ammonia	Frontera Project: Industrial production of green ammonia in the province of Tierra del Fuego – development of the plant design taking into account optimised logistics and infrastructure planning, circular economy, and carbon footprint.	Project is under implementation	ANGH (Acciona Group & Nordex Group)	Project brief



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Colombia	Green methanol	AkuaippaHy project: production of e- methanol in the region of La Guajira from green H2 and sustainable carbon sources for export to Europe and domestic use	Project is under implementation.	Viridi RE GmbH	Project brief
Egypt and Morocco	Liquid Organic Hydrogen Carriers	Assessing the production, storage and shippment of green Liquid Organic Hydrogen Carriers (LOHC) from Morocco and Egypt to ports in Europe.	Project is under implementation	Hydrognious LOHC Technologies GmbH	
India	Green methanol	Pre-feasibility study of projects for green methanol production in India for export to Europe	Project is under implementation.	3E + Renew e-Fuels Private	Project brief
India	Green ammonia	Supply chain for green ammonia from India: analysing production and international trade	For the production of 600,000 tonnes of NH3/a and export to Germany, an initial technical and economic analysis is available for 5 regions, which allows project developers to estimate the competitiveness of export projects	RWE Supply & Trading GmbH	Results
India	Index and trading platform for green hydrogen from India	Market research and development of an action plan for an index and trading platform for green hydrogen in India	Project is under implementation.	European Energy Exchange (EEX) AG, Indian Gas Exchange Ltd. (IGX)	Project brief



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Indonesia	Hydrogen-powered ferries	Feasibility study on ferries powered by hydrogen and batteries for inter-island transport. The study aims to guide future maritime pilot projects.	Project is under implementation.	Neuman & Esser, HDF Energy,	
Mexico	Off-grid ammonia production	Marengo project: pre-feasibility study and strategies for green ammonia production in off-grid annexes on the east coast of Mexico based on the Marengo-I project in Campeche.	The feasibility of off-grid ammonia production (205,000 tNH3/a) on the east coast of Mexico was demonstrated	Hy2Gen AG Mexión Corporation SRL	Results (spanisch)
Mexico	H2 training courses, industrial application, decentralised energy supply	From theory to practice: the use of green hydrogen solutions in industry and decentralised energy supply in Mexico	Business cases on H2 in industry and decentralised energy supply were presented to technicians and decision-makers from industry and their expertise was expanded through training	Siemens Energy S. de R.L.	
Mexico	Large-scale hydrogen storage in salt caverns	Ten Achiwa X – feasibility and roadmap for setting up an industrial hydrogen cluster with large-volume hydrogen storage in salt caverns	Project is under implementation.	Linde GmbH, Geostock S.A.S. Cydsa	Project brief
South Africa	PtX, grid and transport constraints	Taaibosch Puts Green Industrial Cluster – overcoming grid and transport constraints for PtX project development in the Northern Cape	Project is under implementation.	Enertrag	Project brief
South Africa	Sewage sludge as feedstock for green methanol	Development of replicable utilisation concepts and business models for green methanol using sewage sludge as a carbon source	Project is under implementation.	FEV, GeFP (Green eFuels Producers)	Project brief



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Türkiye	H2 utilisation in the ceramics Industry	Demonstration of an H2 value chain in the ceramics industry in Turkey	The switch to green H2 in the ceramics industry is currently only feasible for premium products or with further financial incentives	Burgbad AG Eczacibasi Holding	Project brief
Thailand	Hydrogen, decentralised energy supply in off-grid areas	Feasibility study on the use of green hydrogen for the sustainable energy supply of hotels, resorts and islands in offgrid areas	Project is under implementation.	EGS-Plan GmbH	Project brief
Thailand	Green hydrogen & derivatives, large scale PtX production blueprint	The project will explore the production of green hydrogen, e-methanol, e-ammonia, urea, and SAF alongside existing PTT infrastructure in Southern Thailand, delivering a blueprint for large-scale production and commercialisation.	Project is under implementation.	Thyssenkrupp Uhde, PTT	
Thailand	Knowledge transfer, training, capacity building, modular H2 systems	Development of Chiang Mai into a knowledge centre for green hydrogen	A training center has been equipped with hardware. Training programmes are carried out in Chiang Mai.	Enapter GmbH; Chiang Mai Universität	Project brief
Vietnam	Green Hydrogen Technology and Business Hub, Network	Establishment of a "Green Hydrogen Technology and Business Hub" at the Vietnamese-German University (VGU) as a central platform for technology transfer, business model development, capacity building, and networking.	Project is under implementation	Enertrag, Bosch Vietnam, IB Consulting, Indefol Solar, Messer Vietnam, Siemens Vietnam, TÜV Süd Vietnam, Neuman&Esser, VGU	



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Ukraine	Green hydrogen, pipeline grid feed-in	Green H2 Uzhgorod: feasibility study for the production of green H2 in Western Ukraine & feeding into the Central European H2 pipeline network	Project is under implementation.	N1 Capital Limited	Project brief
Vietnam	Green Hydrogen Technology and Business Hub, Network	Establishment of a "Green Hydrogen Technology and Business Hub" at the Vietnamese-German University (VGU) as a central contact point for technology transfer, business model development, training, and networking.	Project is under implementation	Enertrag, Bosch Vietnam, IB Consulting, Indefol Solar, Messer Vietnam, Siemens Vietnam, TÜV Süd Vietnam, Neuman&Esser, VGU	Vietnam
Global	Ammonia-based green fertiliser, carbon credits NH3, UNFCCC Art. 6.4 Paris Agreement	Development of a methodology for the carbon market under the UNFCCC Paris Agreement for climate-friendly fertiliser production based on renewable ammonia	Project is under implementation.	Perspectives Climate Research gGmbH	Project brief
Global	Certified e-learning module for developers and financiers (hydrogen projects)		The certified training programme is offered on the market. 200 project developers and financiers from H2UProjectcountries have already completed the programme.	RENAC The Renewables Academy	Website Project brief



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