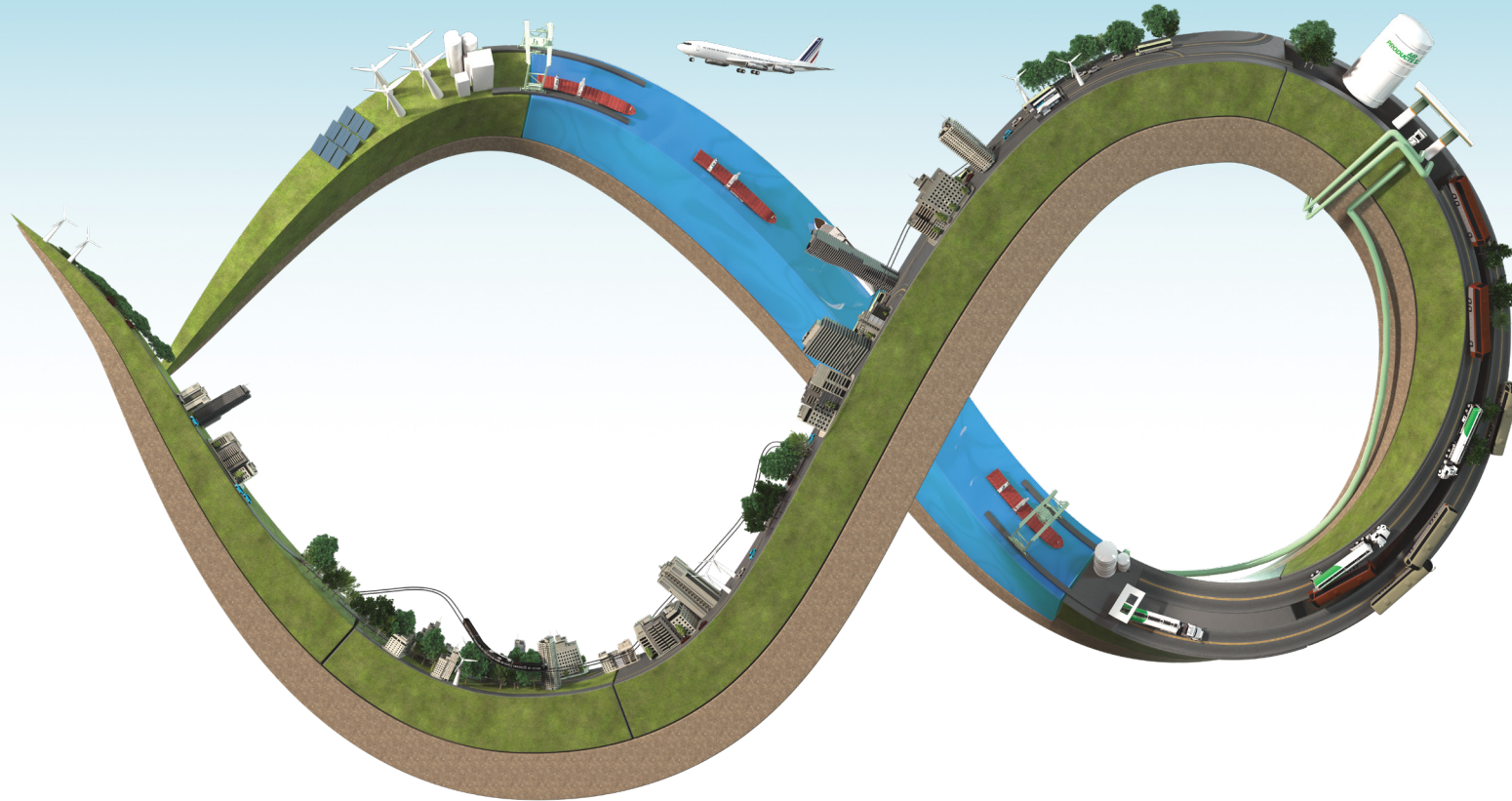


# H<sub>2</sub><sup>f</sup>M<sup>®</sup>

Hydrogen for Mobility

AIR  
PRODUCTS 



Generating a Cleaner Future

# Imagine a world . . .

. . . where people from all walks of life come together to solve some of the greatest sustainability challenges.

. . . where experience, global reach and investment combine to create pathways to a cleaner future for our planet.

. . . where we work alongside each other to become engines of economic growth and sustainable development.

**Welcome to Air Products.**  
Welcome to a world  
fueled by hydrogen.



**At Air Products, we believe we have a higher purpose, and that's to bring people together to collaborate and innovate solutions to the world's most significant energy and environmental sustainability challenges.**

Working in partnership, we are already creating a reality built on hydrogen for mobility – a world where hydrogen and fuel cell technology will play a central role in decarbonising heavy-duty vehicles and industry.

This journey is already well underway, with buses, trucks, trains, and ships across the globe already being fueled with hydrogen produced, distributed and supplied by Air Products.

It's a future we believe in, and in which we're totally vested with \$15 billion in clean energy hydrogen projects by 2027.

We've committed \$3.7 billion to create the world's largest green hydrogen project. It will supply up to 600 tons per day of renewable hydrogen to power buses and trucks around the world, avoiding ~5 million metric tons of CO<sub>2</sub> emissions compared to diesel trucks or buses.



### LET US **INSPIRE YOU**

- In many ways, hydrogen is the perfect fuel. It is efficient and produces no harmful emissions when used in a fuel cell.
- Hydrogen fuel-cell powered vehicles have no pollutants and zero tank-to-wheel CO<sub>2</sub> emissions.
- When compared to a battery-powered electric vehicle, a hydrogen fueled bus and truck offers a longer daily range, faster refueling, better payload capacity and increased seating scope.



# Hydrogen for mobility: a future fueled by hydrogen

## AIR PRODUCTS:

**Know us** — the world's largest hydrogen producer, delivering end-to-end solutions.

**See us** — engaging on a global scale.

**Work with us** — passionate, committed experts with over 60 years' experience.



# Know us

## The world's largest hydrogen producer

Air Products is the world's largest hydrogen producer, with over 60 years' experience. We work across all facets of the hydrogen value chain – from production to distribution, storage and dispensing.

We work together with our customers, providing hydrogen solutions to support them on their sustainability journey. And we partner with select industry experts and governments on large-scale solutions.

Together we are providing lower-carbon and zero-carbon hydrogen solutions that address some of the world's most significant energy and environmental challenges, moving us all toward a cleaner energy future.



# At the forefront of hydrogen fueling

We're proud to be a first mover in large scale, clean hydrogen production.

We operate the world's largest hydrogen pipeline system and are a first-class liquid hydrogen supplier.


We have hands-on operating experience with over 250 hydrogen fueling station projects in 20 countries.

Our technologies are used in over 1.5 million fueling operations annually.

The world's largest  
hydrogen producer with




proven  
reliability

 **1,100+**  
kilometers of pipeline  
**>32** billion Nm<sup>3</sup>/year

**H<sub>2</sub>** The world's  
longest H<sub>2</sub>  
pipeline system  
and world class  
liquid hydrogen  
supplier

**25+** years  
safe fueling

 **250+**  
hydrogen fueling  
projects worldwide

 **30+**  
H<sub>2</sub> Electrolyser  
projects

 **20+** countries  
Unique product  
offering for H<sub>2</sub> fueling

**1,500,000**  
fuelings per year  
 13 million total  
fuelings

**~50** patents  
for hydrogen fueling



# Providing end-to-end solutions

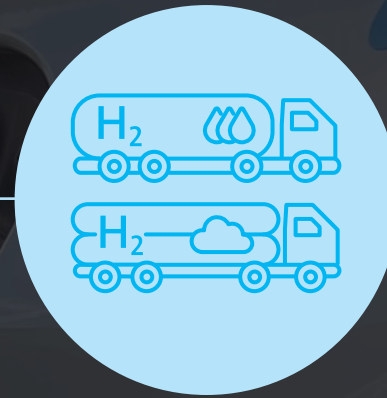
Reliability of supply matters. From production to distribution to hydrogen fueling stations, we deliver a complete service for our customers.

**Our offer:** a dependable supply of hydrogen, leading technology and equipment, and proven expertise.



## H<sub>2</sub> production

We offer a wide range of production options from a variety of feedstocks – from onsite generation to reduce distribution costs and ensure reliability, to renewable or low-carbon hydrogen.



## H<sub>2</sub> distribution

Hydrogen can be distributed in a range of ways based on a customer's needs. Liquid hydrogen supply is ideal for the conversion of mass transit and heavy-duty vehicle markets thanks to large scale storage, supply reliability, efficiency and low-cost delivery. High pressure gas deliveries and extensive pipelines ensure stations can be deployed in urban areas and reduce station complexity.



## H<sub>2</sub> fueling

Whether it's in the United Kingdom, the United States, Saudi Arabia, China or South Korea, we supply hydrogen fuel via fueling stations in over 20 countries. We've supplied major international projects like the Olympics and Air Products can design, build and operate the systems for you.

# Supporting clean energy, low carbon and renewable applications

The hydrogen fuel that we supply and distribute is used across the globe and in a diverse range of applications, boosting efficiency and productivity and safeguarding our planet.



Hydrogen fueling  
for automobiles



Hydrogen fueling  
for buses



Hydrogen fueling  
for marine



Hydrogen fueling  
for forklifts &  
goods transport



Hydrogen fueling  
for power generation



Hydrogen fueling  
for rail transportation



Hydrogen fueling  
for trucks



# See us

Wherever you go in the world, you're likely to find a part of Air Products' end-to-end hydrogen offering.

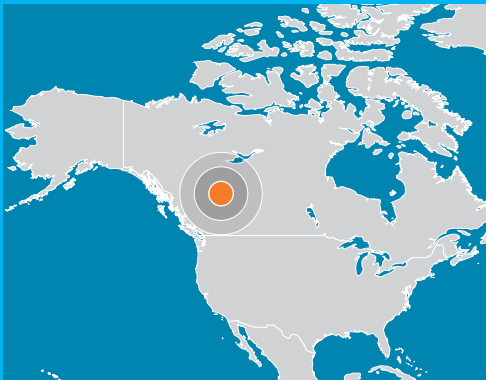
Whether it's a large-scale production facility, a section of our 1,100 kilometers of pipeline, a refueling station or a vehicle powered by our supply – we're working worldwide to aid the transition to a cleaner energy future.



# Visible on a world-stage

We are proud to be at the centre of globally significant hydrogen projects.

## THE WORLD'S MOST COMPETITIVE AND LOWEST-CARBON-INTENSITY HYDROGEN NETWORK



Working together with the **Government of Canada and the Province of Alberta**, we are delivering a large-scale plan to build a landmark new net-zero hydrogen energy complex, expected onstream in 2024.

## THE WORLD'S LARGEST GREEN HYDROGEN PROJECT



**The NEOM green hydrogen project in Saudi Arabia** is the world's largest based on proven, world-class technology - and it's a game changer in how the world gets its energy.

This multi-billion dollar project is equally owned by Air Products, ACWA Power and NEOM. It will supply up to 600 tons per day of carbon-free hydrogen for transportation globally, with Air Products the sole off-taker, and save the world three million tons per year of CO<sub>2</sub>.

## LANDMARK U.S. \$4.5 BILLION LOUISIANA BLUE HYDROGEN CLEAN ENERGY COMPLEX



**The Louisiana Blue Hydrogen Clean Energy Complex** megaproject will produce over 750 million standard cubic feet per day of blue hydrogen and capture over five million metric tons per year of CO<sub>2</sub>.



# Work with us

Our diverse teams are passionate, talented and committed.

They are working together to deliver what is needed – a more robust global infrastructure capable of supporting energy-efficient and environmentally-friendly heavy-duty vehicles.

This isn't just business for us, it's part of a higher purpose – a purpose focused on creating innovative solutions that benefit the environment, enhance sustainability and address the challenges facing customers, communities and the world.

Our **Hydrogen for Mobility** strategy has a clear goal – to lead the energy transition and drive a more sustainable hydrogen-based world.



## We are experts

Grounded in decades of history and global reach, we take our role in a cleaner environment seriously. Every action. Every detail. It all matters when providing a clean source of energy at a massive scale. We use our technical expertise, proven technology, strong local knowledge, and established safety practices to innovate and constantly improve and expand hydrogen's role in the energy transition.



## Delivering reliable end-to-end solutions



From production to distribution to stations – we have a holistic offering and focus our expertise and investment on every part of the value chain. We deliver a complete service – in a complex industry – for our customers, offering a dependable supply of hydrogen, quality equipment, reliable stations, time savings and cost efficiencies.





# Driving the industry forward

We are vested in driving hydrogen forward by strategically partnering with select industry experts and governments on large-scale solutions. We seek to harness our collective expertise to elevate hydrogen as a safe and effective energy carrier and to provide the more sustainable and environmentally impactful solutions that our customers seek.



# Together

The world's future  
depends on alternative  
energy solutions.

We believe that hydrogen, the simplest and most plentiful of all the elements, will be the solution – the future of energy.

**Together**, we are making a difference.

**Together**, we are delivering Hydrogen for Mobility.

**Together**, we are generating a cleaner future.

H<sub>2</sub><sup>f</sup>M<sup>®</sup>

Hydrogen for Mobility





# Air Products today – a global leader in the industrial gas industry

**\$12.7**  
billion in FY22 sales

**21,000**  
employees

**50+**  
countries

MEMBER OF:



**Hydrogen**  
Council



**8+**  
decades in business

**~\$55** billion  
market cap

**170,000+**  
customers

**2900** km  
of industrial gas pipeline

**750+**  
production facilities

**30+**  
industries served

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