MOL GROUP ON THE ROAD OF DECARBONIZATION

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WHY ARE WE HERE?

„MOL HAS A TRANSFORMATION PLAN THAT IS AMONG THE MOST EXPLICIT RESPONSES…" (WSJ, NOVEMBER 28, 2016)

THE WALL STREET JOURNAL.

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What's News

Trump Takes Aim at 'Millions' of Votes

As recount efforts are stepped up, president-elect responds with new claims of fraud

Flags Unfurled in Miami as an Era Ends in Cuba

Castro's Death Dials Up Pressure On Trump to Rethink Cuba Thaw

Oil Firms Anticipate Day of Reckoning

Oil Firms Anticipate Day of Reckoning

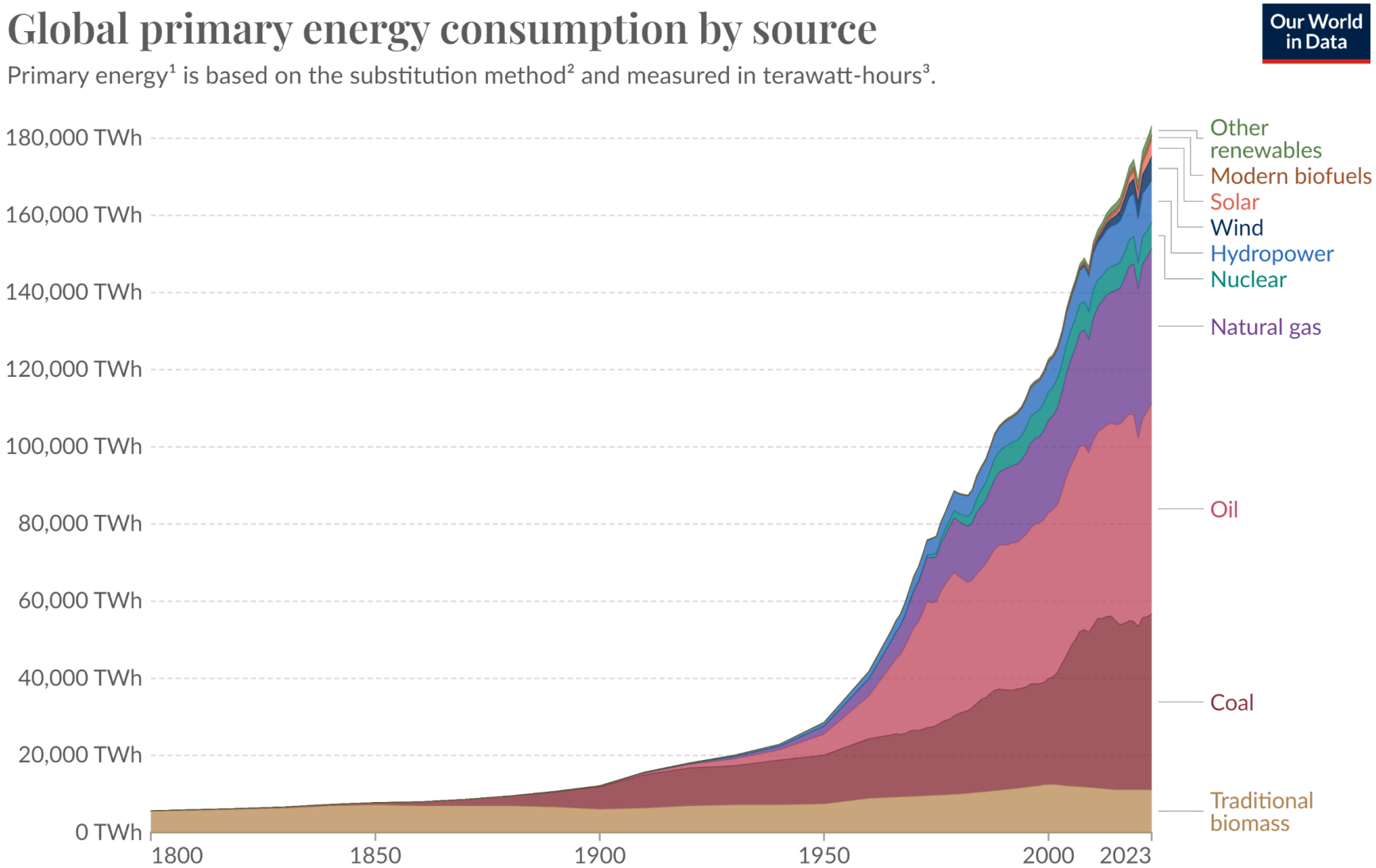
This month, European oil company MOL Group delivered a stark message to investors: Demand for fuel in its key markets is bound to fall.

*By **Sarah Kent** in London and **Brian Spegele** in Beijing*

Peak oil demand—when global consumption crests and begins a permanent decline—is a mind-bending scenario that global producers such as Royal Dutch Shell PLC and state-owned Saudi Aramco are beginning to quietly anticipate. But MOL has a transformation plan that is among the most explicit responses to the trend, indicating how the landscape may change for big energy providers over the next decade.

The Hungarian company is rethinking its traditional focus on fuel supply and shifting investment to petrochemicals, the key ingredient of everyday plastic products and a sector where MOL believes growth will continue even when its fuel business falters.

HISTORY IS A WISE TEACHER, IT IS WORTH LISTENING TO IT



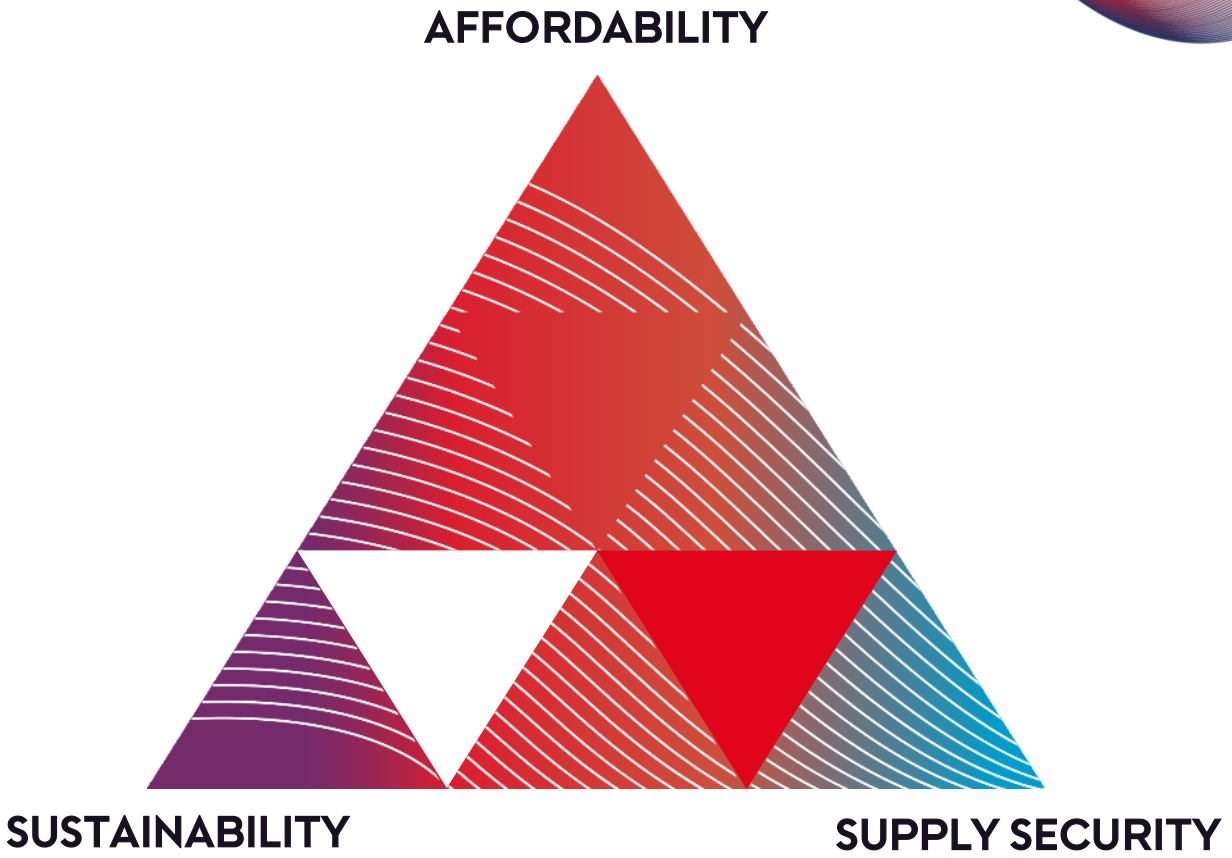
NAVIGATING THE COMPLEXITIES OF THE E-TRANSITION

CHALLENGES AND OPPORTUNITIES IN A SHIFTING LANDSCAPE

Sustainability regulations: ambitious goals, but high uncertainty regarding markets & technologies

Geopolitical tensions: need for supply diversification & improved European competitiveness

Customer expectations: predictable & affordable energy supply



The energy transition poses both challenges and opportunities, requiring a nuanced approach to balance sustainability, energy security, and economic competitiveness.

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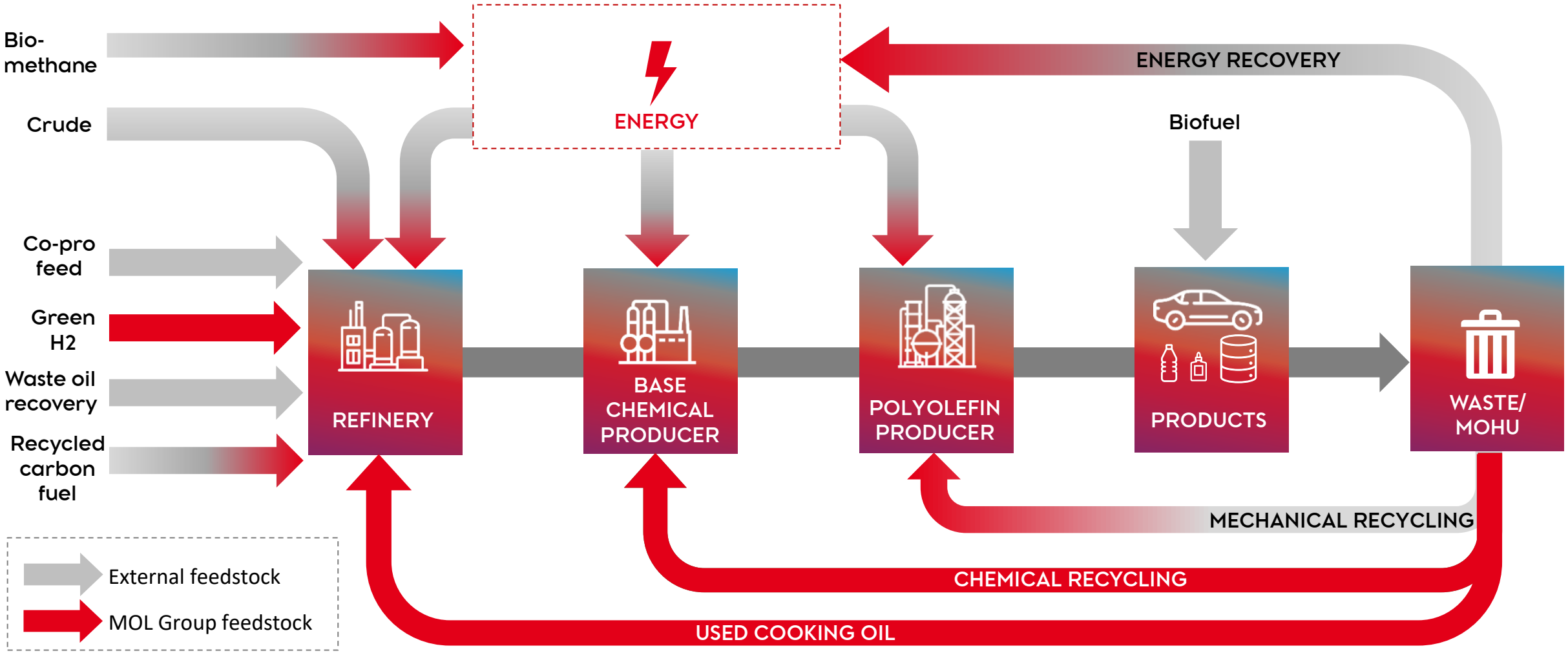
MAXIMISING SYNERGIES WITH WASTE MANAGEMENT

DOWNSTREAM INCREASINGLY RELIES ON CIRCULAR SOLUTIONS BUT MARKET-BASED SOLUTIONS STILL NEEDED



CHANGING EU REGULATORY ENVIRONMENT CALLS FOR INCREASING DECARBONIZATION EFFORTS

Compliance tools highlighted by EU decarbonization areas...

...are integrated into DS decarbonization strategy

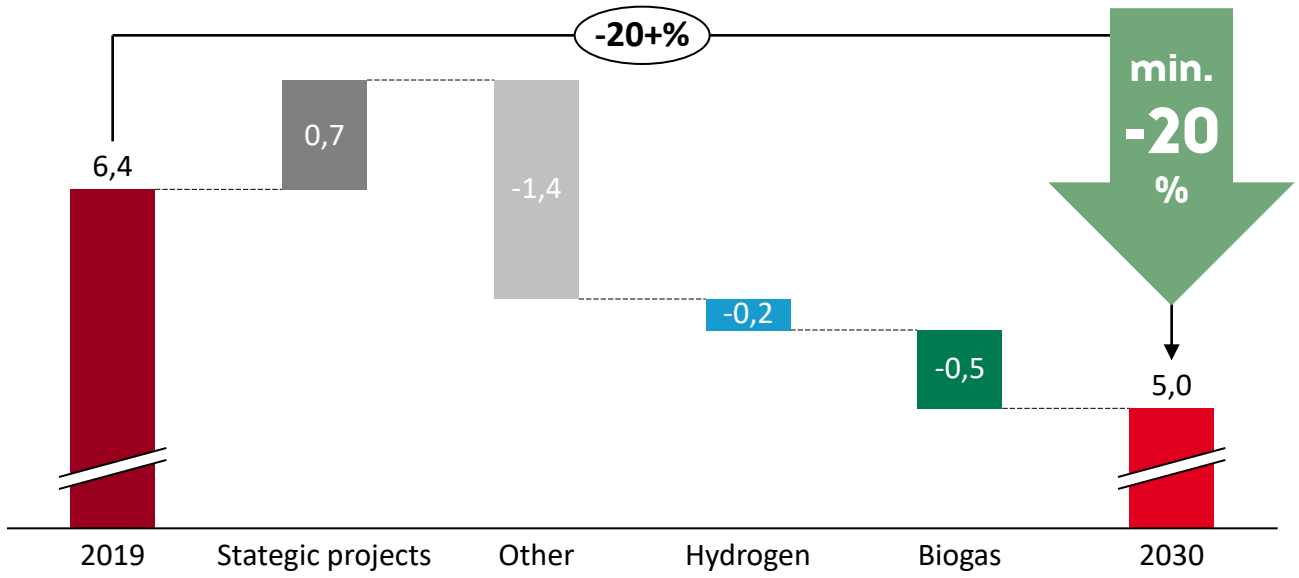
TRANSPORT
RED III
ReFuelEU
ICE Ban
Alternative Fuel Infrastructure Directive
Clean Vehicle Directive

INDUSTRY
RED III
REPOWER EU

CIRCULAR ECONOMY
Ecodesign
Waste Framework Directive
Packaging and Packaging Waste Regulation
SUP Directive
ELV Directive

- **BIO-BASED RENEWABLE FUELS**
- **GREEN H2**
- **CARBON MGMT AND OTHERS**
- **RECYCLING COMPOUN-DING**

DS CO2 Plan 2025-2030

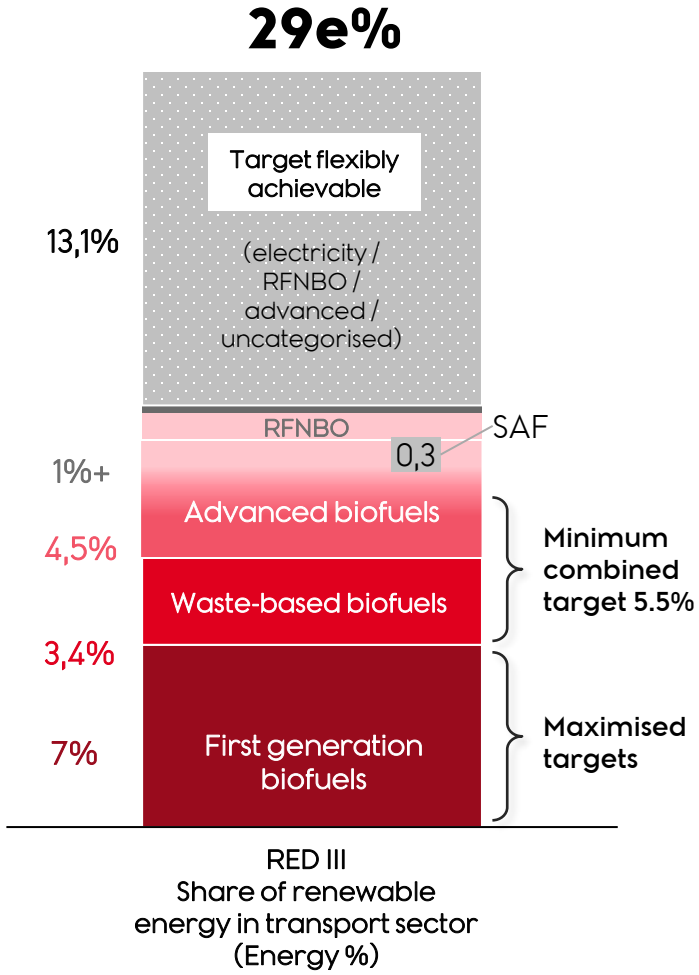


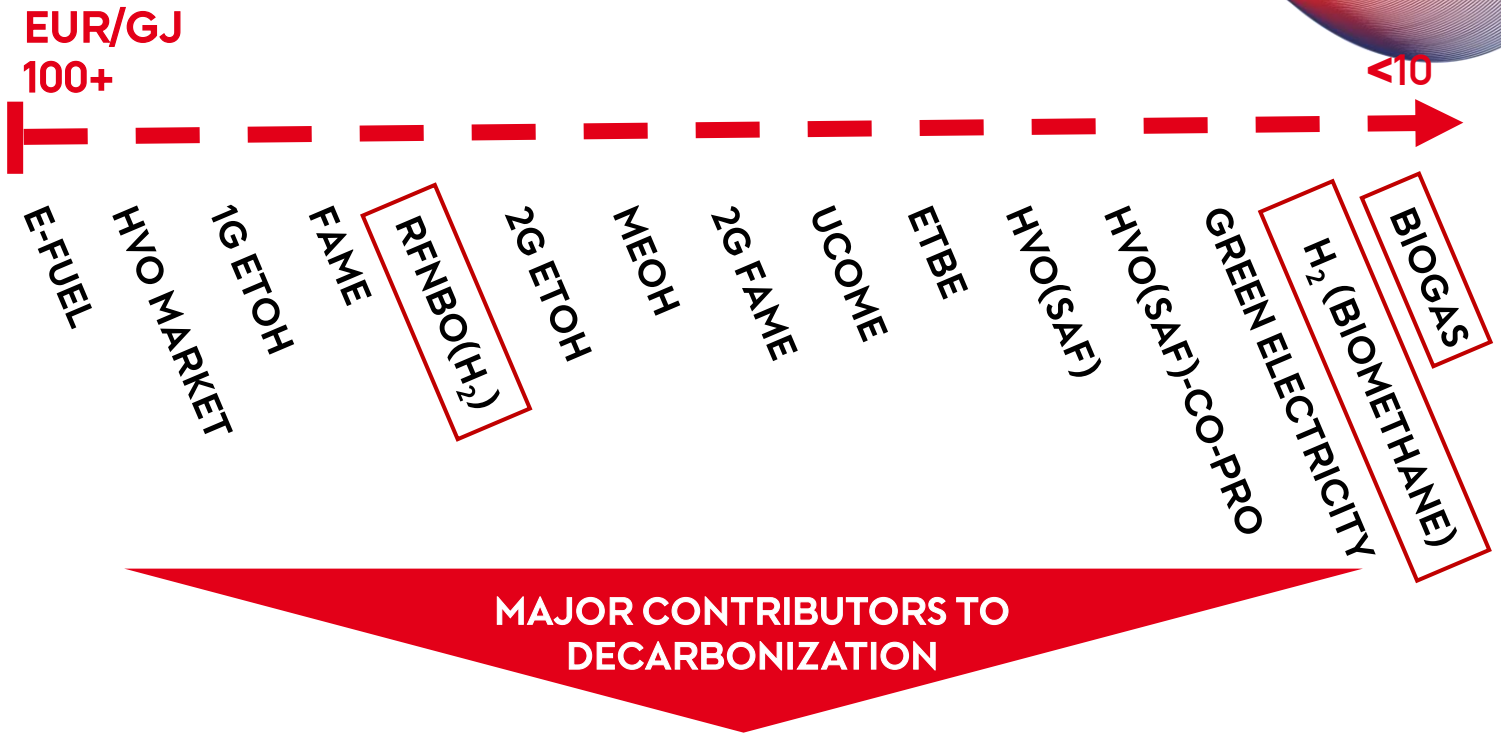
DS

More than 1.3bn USD investment for complience and to achieve further 1.5Mt net CO_2 eq. decarbonization by 2030

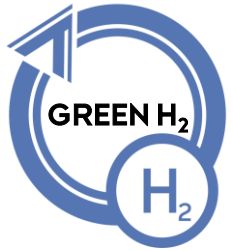
BREAKDOWN OF TRANSPORT TARGET

BASED ON TECHNOLOGICAL, FEETSTOCK & MARKET POTENTIAL, INVESTMENT NEED AND OUR FINANCIAL RESOURCES





Versatile & the cheapest compliance tool



Needed to reach 1% RFNBO target, significant CO_2 reduction potential

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HYDROGEN AND BIOGAS FOR THE NEW AND SUSTAINABLE BUSINESSES

SHIFTING TOWARDS A SUSTAINABLE FUTURE WITH HYDROGEN

HYDOGEN

STRONGLY SUPPORTS THE SOLUTIONS OF THE ENERGY TRILEMMA

AFFORDABILITY

SUSTAINABILITY

SUPPLY SECURITY

due to versatility of utilization for decarbonisation

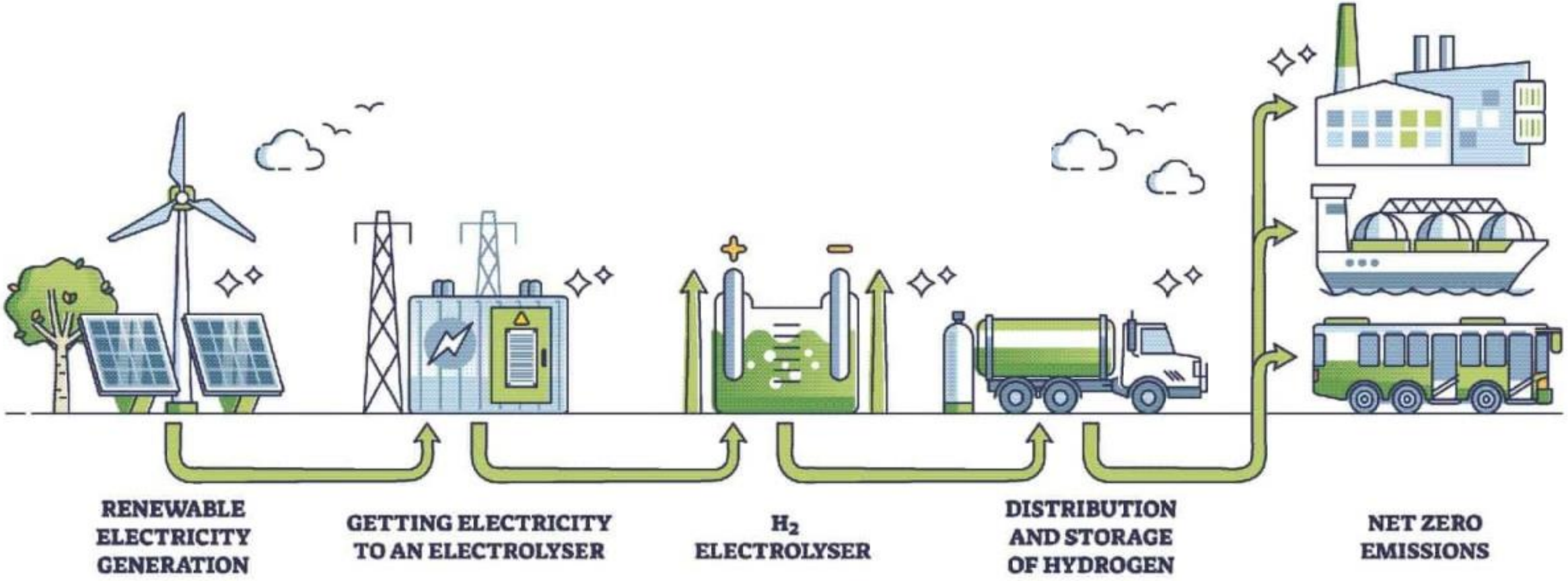
due to the versatility of usage and domestic generation

WHAT IS THE HYDROGEN?


ELECTROLYSIS PROCESS
HYDROGEN H_2
HYDROGEN H_2
H_2O
HYDROGEN H_2
H_2

GREEN HYDROGEN

ALTHOUGH RFNBO IS ONE OF THE MOST EXPENSIVE COMPLIANCE TOOLS, IT REQUIRES SPECIAL ATTENTION DUE TO EUROPEAN UNION REGULATIONS AND ITS SIGNIFICANT CO2 REDUCTION POTENTIAL



HYDROGEN LATEST ACHIEVEMENTS

BUSINESS RATIONALE

Needed to reach **1% RFNBO target,** Green H_2 to be the **major compliance technology** to **decrease** significant amount of **CO_2.**

MILESTONES

- RES GENERATION
- PRODUCTION
  - NEBULA
  - FIREFLY
  - RIJEKA, SN GREEN H_2
- STORAGE & LOGISTICS
- END USE
  - MÁV-VOLÁN WABERER'S

PROJECT NEBULA - LARGEST ELECTROLYZER IN CEE

- 10 MW electrolyzer was established in the Danube refinery.
  - Capacity: 1.6 Ktpa green H_2
  - CO_2 saving: 26 Ktpa
- Official handover was held in 11 April, 2024. Test period started in August, 2024

MÁV-VOLÁN & WABERERS

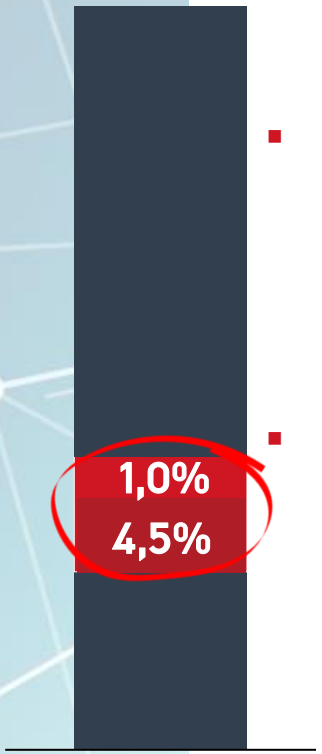
- In January 2024, a Cooperation Agreement was signed with MÁV-Volán and Waberers for the development of hydrogen mobility.

MOLGROUP | VOLÁNBUSZ | MÁV | WABERER'S OPTIMUM SOLUTION

HYDROGEN: WHAT'S NEXT?

AIMING TO DEPLOY AT LEAST 100MW OF ELECTROLYZER CAPACITY BY 2030 TO DECARBONIZE OPERATION AND SUPPLY CLEAN FUELS TO THE MOBILITY MARKET

MAJOR EXTERNAL DRIVERS



- Minimum requirement of **1% of RFNBOs** (e.g.: Renewable Hydrogen)
- **Combined target of 5.5%** for advanced biofuels and RFNBO

OUR TARGETS

- **Comply with EU CO2 and RFNBO (1%) obligations** *(42% of industrial use of H2 should be based on RFNBO)*
- **Develop pilot electrolyzers in each MOL countries** *(~10MW)*
- **Scale-up of electrolysis** *(~100MW) covers sizable part of* **hydrogen need with own produced green hydrogen** — H_2
- **Cover part of our hydrogen need with biomethane** — Bio CH_4
- **Enter into mobility sector** → **Expected after 2030** *For market maturity national/policy and financial support is needed*

SHIFTING TOWARDS A SUSTAINABLE FUTURE WITH BIOGAS

BIOGAS/BIOMETHANE

STRONGLY SUPPORTS THE SOLUTIONS OF THE ENERGY TRILEMMA

AFFORDABILITY through cheap and reliable feedstock

SUSTAINABILITY through supporting circularity efforts

SUPPLY SECURITY due to a potential substitute of natural gas

BIOGAS

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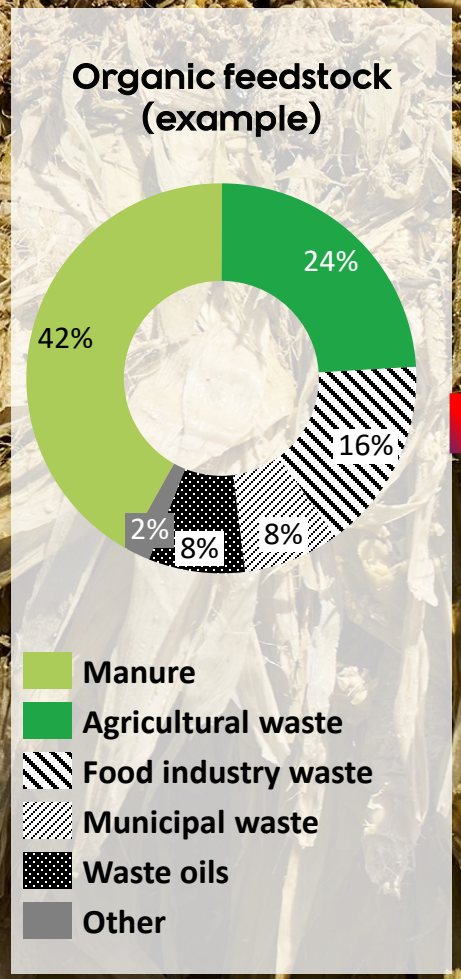
WHAT IS THE BIOGAS/BIOMETHANE?


But let's see how waste is turned into clean energy!

BIOGAS/BIOMETHANE

CAN PROVIDE A VERSATILE TOOL TO ACHIEVE COMPLIENCE AND CO_2 REDUCTION TARGETS

FEEDSTOCK | **PRODUCTION** | **END-USE**



Heat

Electricity

Biogas
~60% methane,
~40% CO_2

Biomethane

Digestate, Biological CO_2

- Organic fertilizer
- CO_2 CCS or industrial use

Direct use as BioCNG and BioLNG

Industrial use in refinery to produce Clean H_2

GO systems and tariff discounts

BIOGAS/BIOMETHANE: VERSATILE GREEN SOURCE OF ENERGY

BUSINESS RATIONALE

Biomethane is one of the **cheapest alternative of RED III compliance**, a **versatile product** for **industrial and transportation use** cases.

POTENTIAL USAGE

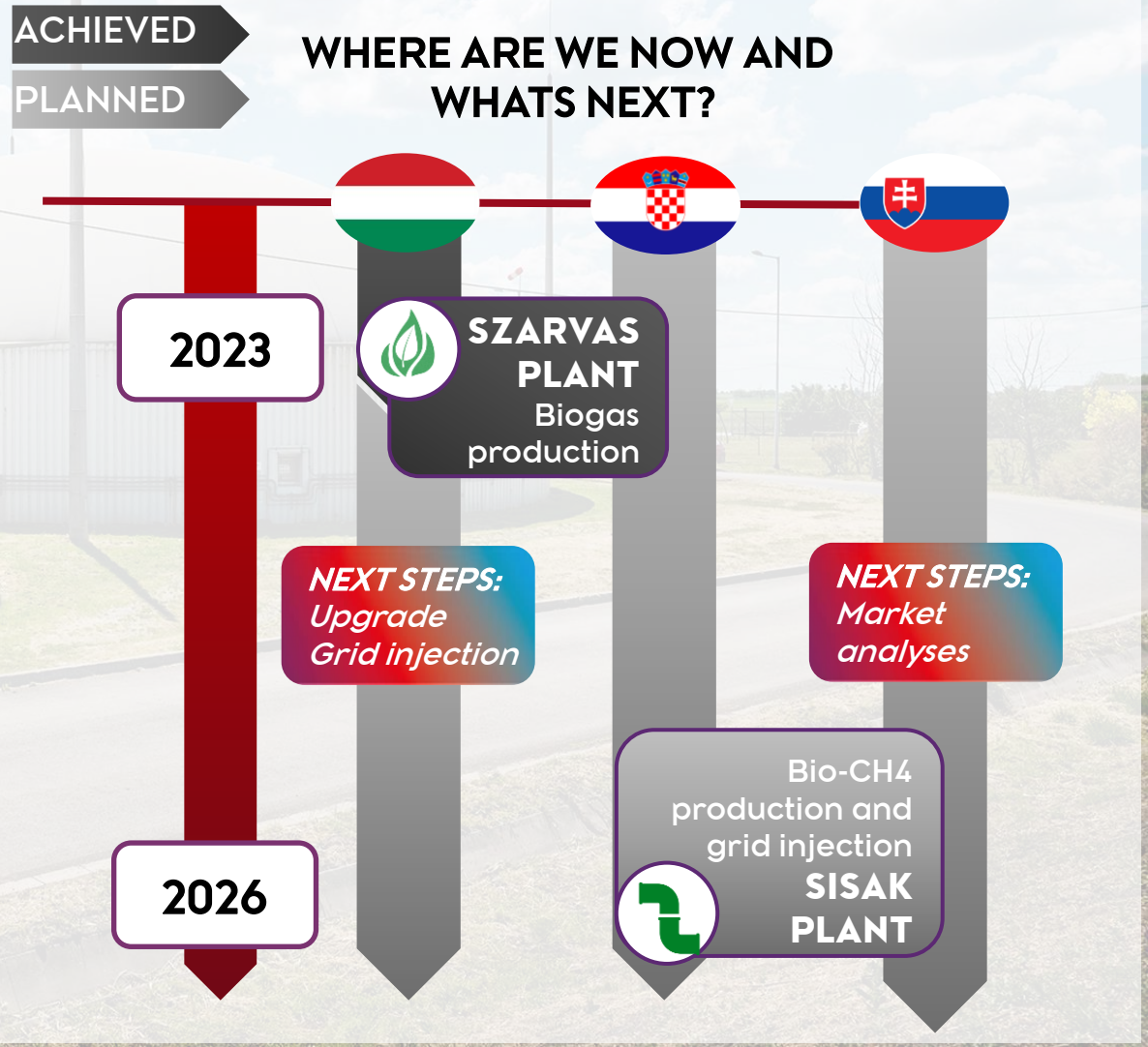
- **Renewable fuel (advanced)**
- **Direct use as BioCNG and BioLNG**
- **Industrial use in refinery to produce Green H2**
- **GO systems and tariff discounts**

PRODUCTION

SZARVAS (HUN) BIOGAS PLANT

- Acquisition in 2023
- Annually 12.5 mn m3 biogas production
- 4 MWp renewable power capacity
- Utilization of 110 000 t waste annually
- Preparation for upgrading to biomethane plant (2026) has started

MOL GROUP IS GRADUALLY BUILDING UP ITS BIOGAS PORTFOLIO IN THE CEE REGION



HUNGARY

- Further inorganic projects to carry out

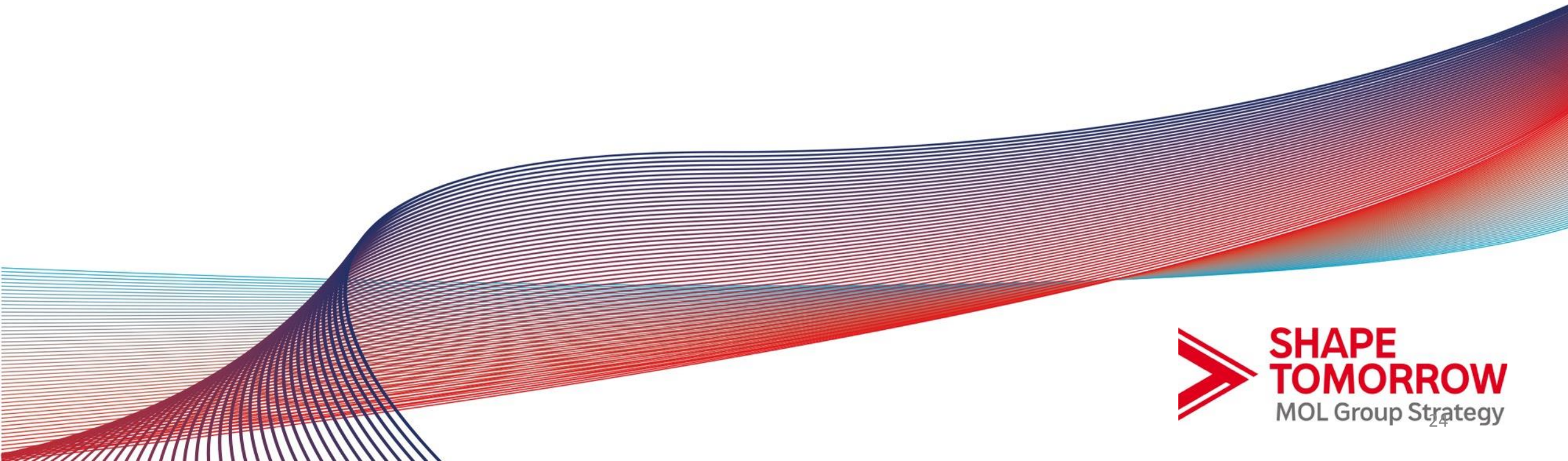
CROATIA – *Sisak Project (2026)*

- Aims to produce biomethane (3 kt/year)
- Industrial, transport use, and grid injection
- Project is eligible for RRF founding, planned to finish in 2026

SLOVAKIA

- Market analysis is ongoing
- Multiple inorganic projects are evaluated

Q&A



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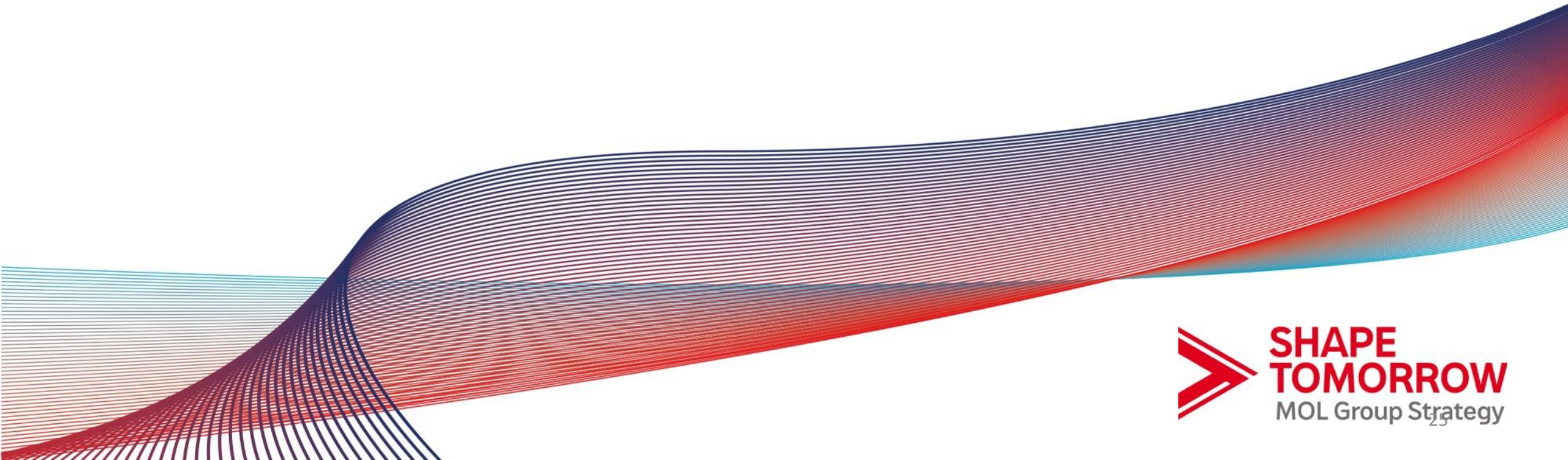
MOL Group Strategy

THANK YOU FOR ATTENTION!



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