

MVM GROUP

Horizon Europe Matchmaking Event on Energy

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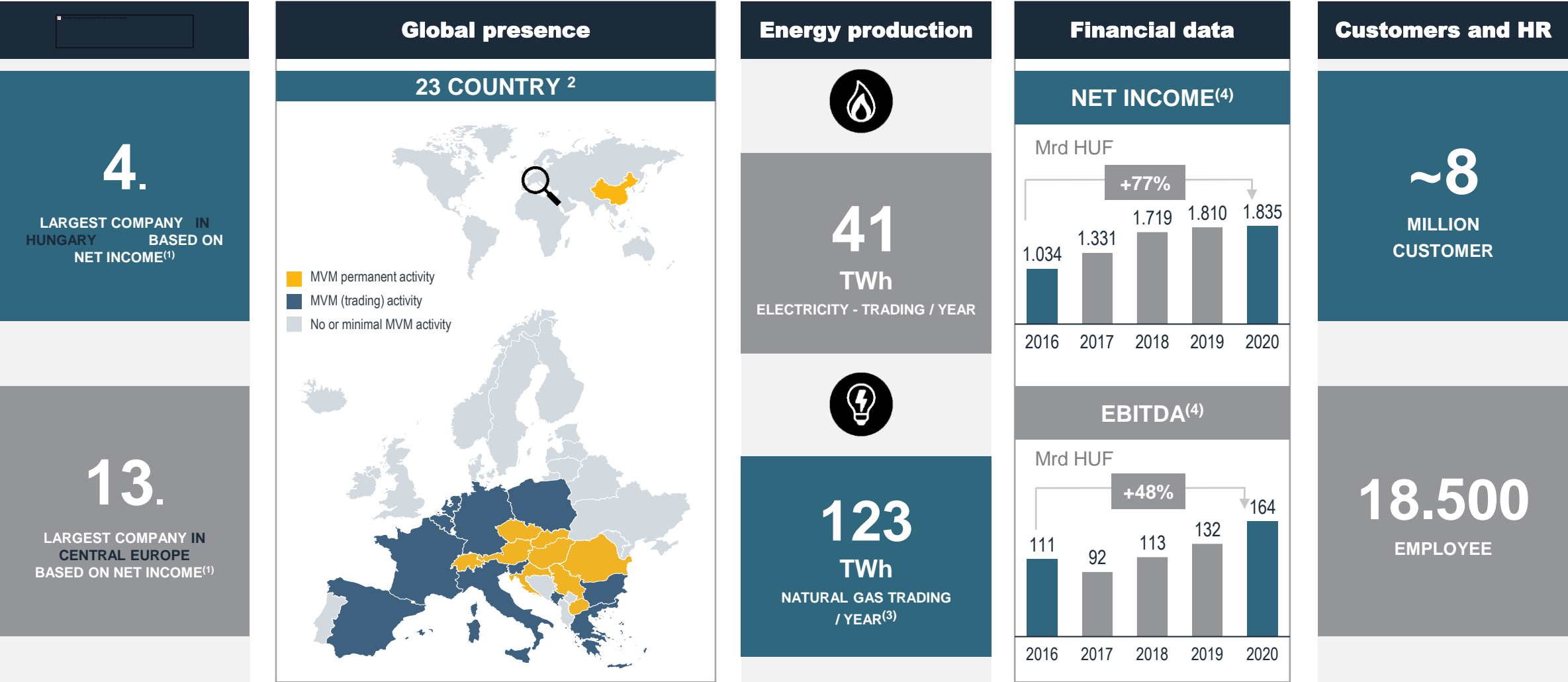
R&D and Knowledge Management Leader

2021.10.19

Providing energy



MVM GROUP IN NUMBERS



2020. évi adatok
(1) Forrás: Coface CEE TOP 500 (2020)
(2) MVM Zrt. külképviseleti irodával rendelkezik Brüsszelben és Moszkvában
(3) Tartalmazza az Innogy CR 2 hónapos hozzájárulását a felvásárlás 2020. október végi lezárásától számítva
(4) HAS szerinti számok



INNOVATION CHALLENGES / AREAS OF INTEREST

Decarbonization of fossil based energy generation with CCUS

In 2020 MVM generated 4 TWh electricity using fossil fuel, to decarbonise this production we are interested in all CCUS project considering post combustion technologies. Since locally we do not have appropriate geological formation for permanent storage of CO₂ thus we are focusing firstly on CO₂ utilization secondly on participation in CCUS hubs and clusters.

Development and testing of scalable natural gas-hydrogen separation technologies

Hydrogen injection into natural gas transmission and distribution networks looks to be the future and an elegant solution for decarbonization of many industries and use-cases. For this, selective withdrawal of hydrogen from natural gas-hydrogen mixtures is necessary, that is why MVM is seeking potential research partners that could undertake this R&D task together with MVM and other relevant Hungarian partners.

Development and testing of scalable lignite-to-chemical product technologies

The coal phase-out and the transformation of Mátra Power Plant are key priorities in MVM Group due to the climate goals and the dynamically growing CO₂ quota price and this vision will be realized until 2026.

Large amount of lignite and the connected infrastructure will not be utilised, because lignite based electricity generation will be also eliminated, therefore transformation of lignite to other products must be investigated. MVM is seeking potential research partners that could undertake this R&D task together with MVM and other Hungarian partners.

Development and testing of scalable Li-ion and alternative storage technologies

The rapidly expanding intermittent – mostly PV – production puts a great burden on the electricity grid. MVM group is looking at storage technologies from household to grid scale – beyond the 100MW range. We consider environmental factors, and consider the re-use of batteries, mostly from EVs. MVM is able to provide its infrastructure – Power plants, PV plants, the grid – for developing and piloting such technologies. We are open to explore the possibilities of alternative storage technologies.

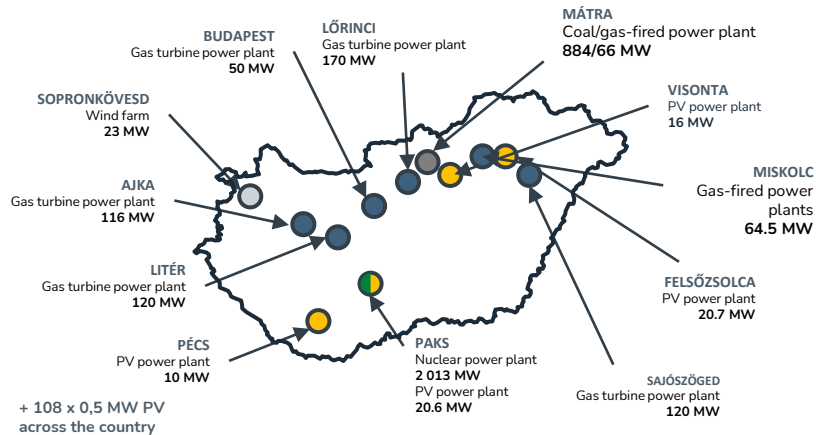
VALUE PROPOSITION / WHAT WE OFFER

MVM Smart Future Lab

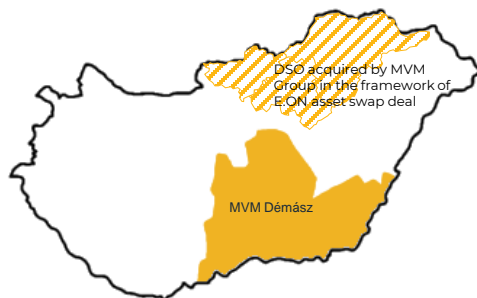
First energy-focused business incubator / innovation service provider in Hungary since 2016

- Incubation of energy related startups & ideas outside the MVM Group
- Innovation programs & service provider
- Product development based on design thinking methodology
- Investment, idea- and business development
- Mentoring
- „Test-bed” opportunity at MVM Group locations

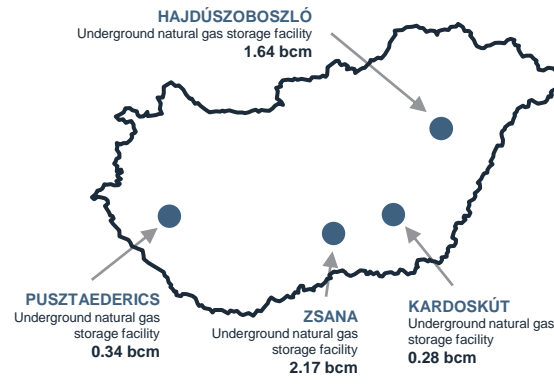
Electricity generation units of MVM Group (>10 MW)



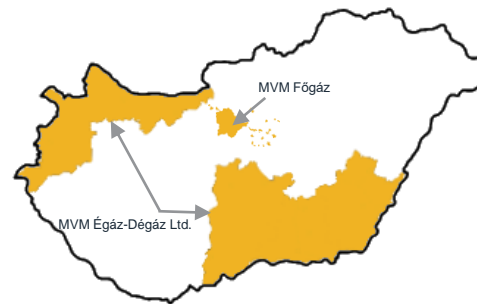
Electricity distribution network of MVM Group



Underground natural gas storage facilities of MVM Group

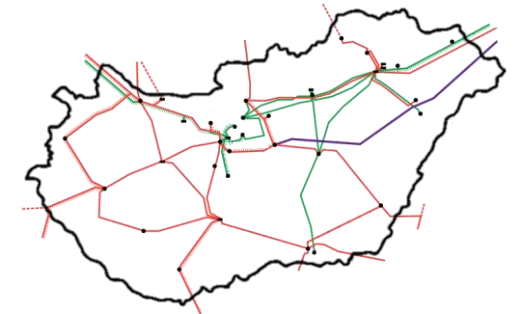


Natural gas distribution network of MVM Group



Hungary's electricity transmission network

750 kV 400 kV 220 kV



MVM laboratories at Budapest University of Technology and Economics (BME) Campus



MVM SMART POWER LAB

HIL environment for innovative devices and control solutions in renewable digital power systems

MVM CHP LABORATORY

Testing of combined heat and power production technologies

MVM

THANK YOU FOR YOUR ATTENTION!

For further information please contact us using toth.katalin@mvm.hu email address.

