Flameless Combustion Microturbines

The European Regional Development Fund and Wallonia invest in your future.
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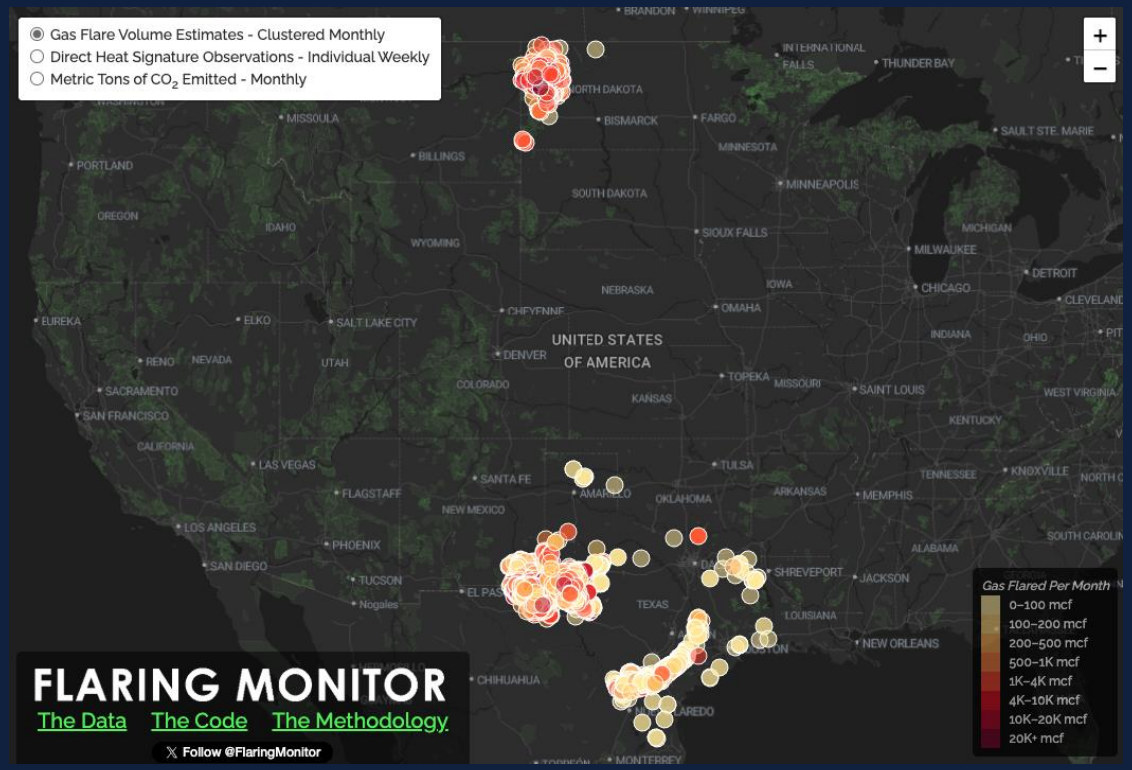
CHALLENGE: Venting or flaring CH4 has a hug GHG impact

Source	Methane emitted	CO_2-equivalent (*)	Share of global CH_4
Oil & gas sector (venting + flaring)	≈ 80–100 Mt CH_4 / yr	2.2–2.8 Gt CO_2e / yr	~25 %
Landfills & waste disposal sites (2023)	≈ 70–80 Mt CH_4 / yr	≈ 1.9–2.2 Gt CO_2e / yr	~20 %
Agriculture (mainly enteric fermentation)	≈ 140 Mt CH_4 / yr	3.9 Gt CO_2e / yr	~40 %

(*) (GWP = 28)

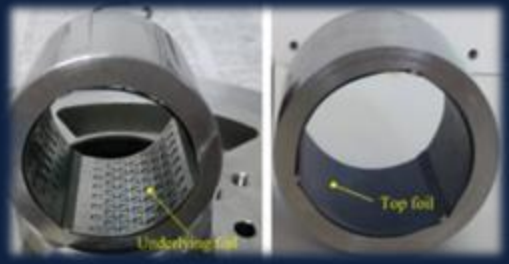


SOLUTION:

The M10 converts any associated gas into clean electricity and heat

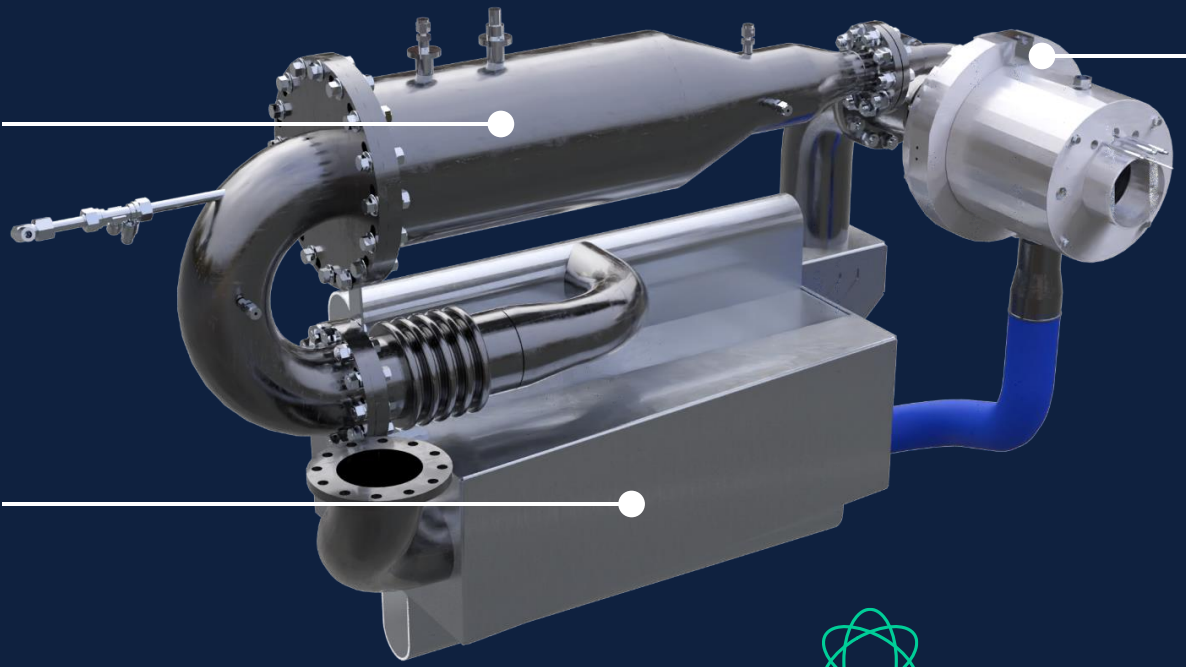
ULTRA COMPACT TURBOGENERATOR WITH AIR FOIL BEARINGS

Simple, robust, low maintenance



FLAMELESS COMBUSTION

Low emissions (NOx), multi-fuel



HIGH-TEMP RECUPERATOR

Diffusion bonded, high corrosion resistance, thermal shock resistant, low cost design

Fuel agnostic
(high to low LHV)

Ultra Low emissions
(NOx, No methane slip))

Low maintenance
(no lubricant)

TOLERANT TO HIGH H2S CONTENT (10 000 PPM)

5

TARGET MARKETS

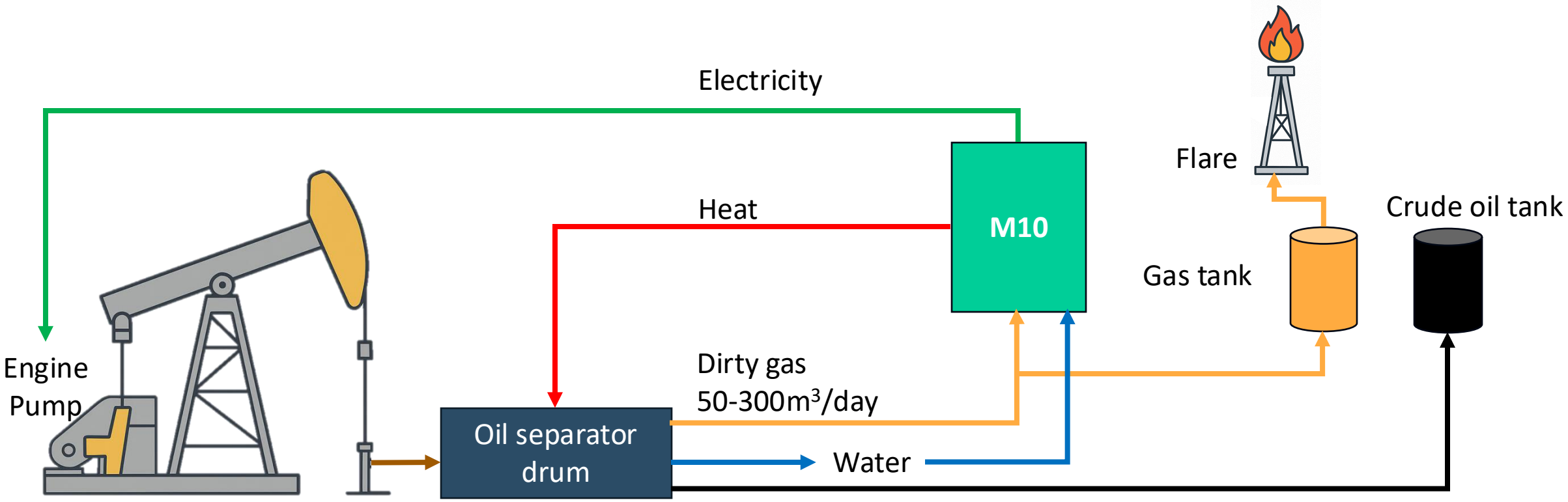
1. Oil & Gas: methane mitigation for small oil wells (<200 m³/day)
2. Compressor stations fugitive gas abatement
3. Biogas valorisation: landfill & farming waste gas

Region	Oil wells (<200 m³/day gas)	Share of Total	Comment
North America	1.200.000	72,33%	Shale decline, heavy oil
Asia	240.000	14,47%	Mature conventional
Russia & CIS	120.000	7,23%	Aging Siberian fields
Latin America	70.000	4,22%	Heavy oil (Venezuela)
Africa	15.000	0,90%	Inland low-GOR fields
Europe	8.000	0,48%	Depleted fields
Middle East	5.950	0,36%	Mature low-GOR zones, ~15,000–20,000 on-shore wells
TOTAL	1.658.950		

Market size: multi-billion € (*) global opportunity

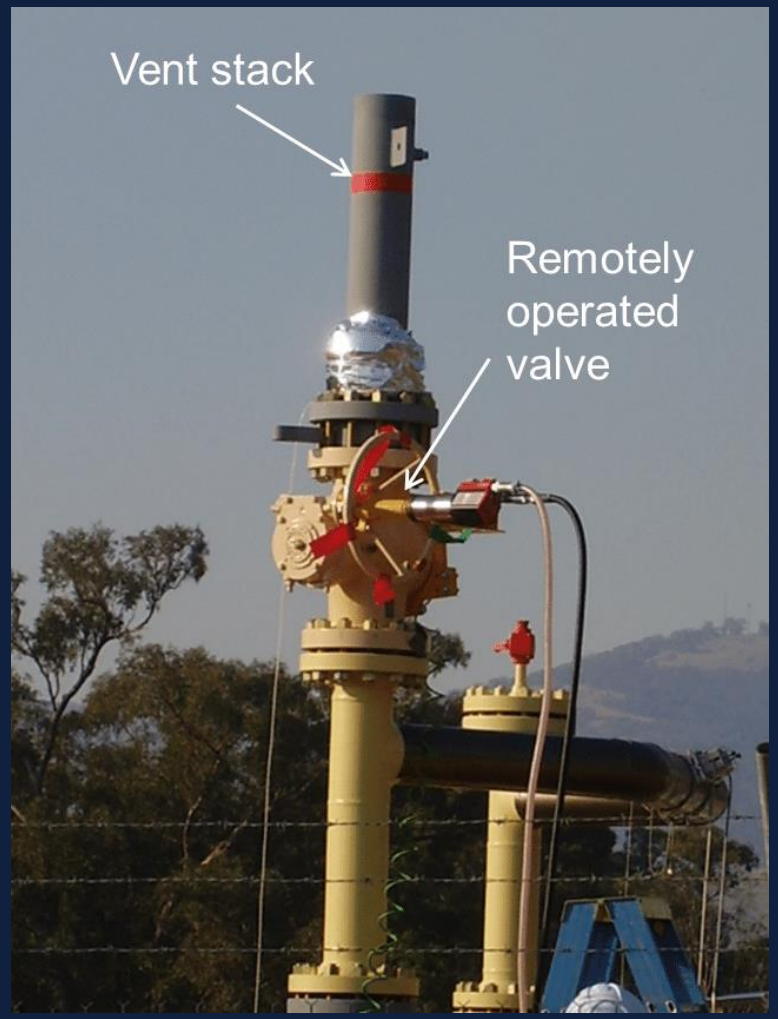
> 1 000 000 sites at 60 KEUR

ASSOCIATED GAS RECOVERY IN OIL WELL



1. Minimal raw gas treatement (H_2O, H_2S up to 10 000 ppm)
2. Well adapted for small decentralized oil/gas wells
3. Input: 50kWh (eq. Nat. Gas) ➔ Output: 10 kWh (elec.), up to 35 kWh (heat)

VENTED GAS CONVERSION FOR TSO

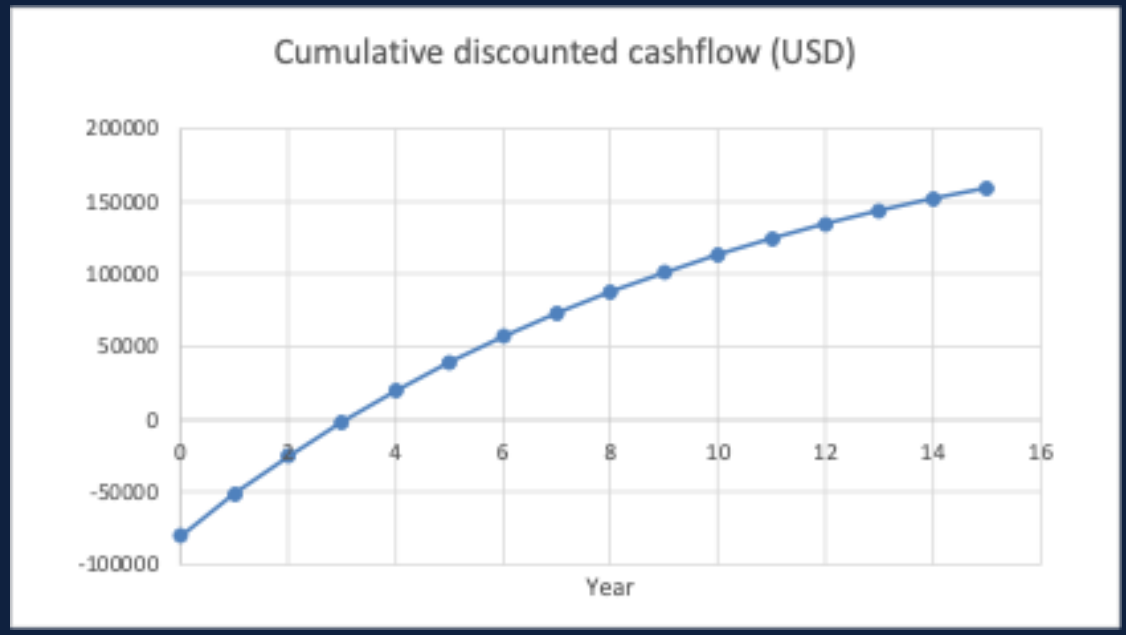


USE CASE ROI:

M10 produces local electricity/heat & carbon credits (UNFCCC CDM AM0037)

Parameter	Value	Unit
Site / Project Name	Medco Onshore	-
Gas flow	5	Nm3/h
Gas Lower Heating Value (LHV)	38	MJ/Nm3
Gas CNTP density	0,74	kg/m3
Capacity factor (Operating hours per year)	7000	h/year
Electricity price (equivalent)	140	USD/MWh
Heat value	30	USD/MWh(th)
CAPEX - M10	60000	USD
CAPEX - Balance of Plant (BOP)	15000	USD
CAPEX - Gas cleanup system	5000	USD
OPEX (as % of CAPEX)	6,12	%
Lifetime	15	years
Discount rate	10	%
Carbon credit value	30	USD/tCO2e
Venting (1) flaring (0.1)	1	
Avoided CH_4 emissions	26,0	tCH4/year
CO_2e factor (1 tCH_4 = x tCO_2e)	27,9	tCO2e/tCH4
Labor cost partner	70	USD/hour
EUR/USD rate	1,2	

Indicator	Value	Comment
NPV (USD)	159106	Net Present Value at discount rate from Inputs (adds Year 0 separately).
IRR (%)	39%	Internal Rate of Return on full cashflow including Year 0.
Payback period (years)	3	First year when cumulative cashflow turns positive.
IRR/WACC	2,8	project IRR ≥ 1.5–2× WACC is typically compelling



USP

- ✓ Micro gas turbines: well known technology for Oil & Gas associated gas conversion and industry CHP
- ✓ No micro gas turbine available for low gas consumption (< 65 kW)
  - Capstone: C65 – 65kW electric production
- ✓ Unique Flameless Combustion guarantess **ultra-low Nox** and **no methane slip**
- ✓ Oil-free design with gas foil bearings for low maintenance, once a year service
- ✓ Compact footprint
- ✓ Higher efficiency than Stirling engines
- ✓ BOM cost reduction roadmap → competitive pricing

TECHNOLOGY STATUS

- Technology Readyness Level 6 reached
- 10 industrial pilots in contracting phase
  - PTTEP (Thailand), PETERMINA & MEDCO (Indonesia), SINOPEC (China), PETROBRAS & QUATAR ENERGY (Brazil), ATCO (Canada), PDO (Oman), Fraunhofer (D), INAGRO (B), …
- TRL 7 within 12 months

Business model

1. **Go-to-market: PoC ➔ industrial roll-out**
2. **Service partners model**
   - Manufacturing by MITIS through its own supply chain
   - Sales to final customers by partner responsible for installation, commissioning, services
3. **Technology Licensing**
   - Base technology licensing generating royalties (bearings, etc)

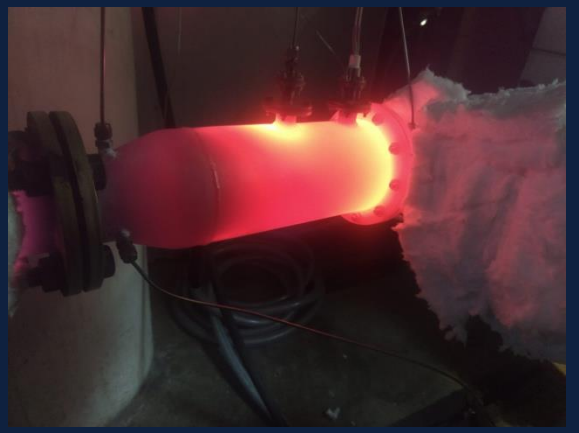
5 distribution agreements in discussion

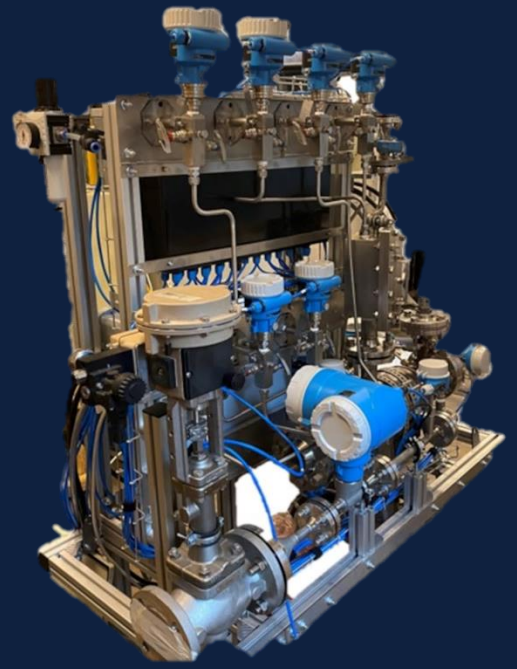
Sales strategy

1. Attend Top 5 major events in O&G engineering, ex: Gastech, OTC …
2. Establish links with major O&G production companies with emphasis on North America (Canada), Asia
3. Push for PoC → roll-out
4. Establish service partners (with established business in O&G) in all major target countries

Unique Technologies ➔ licensing + services

- Flameless combustion ➔ Ultra Low-Nox, fuel flexible
  - Industrial burners
  - Clean combustion: (ethanol combustion ARAMCO)
- Gas foil bearings
  - Special applications : (SAFRAN, LH2)
- High – speed turbomachinery design
  - Turbomachine for third parties (STELLANTIS)
  - Cryogenic applications (GTT, Wärtsilä)
- Integration, EMS, control, PCB
  - Fuel Cell Control Unit (ESA)
- High-Temperature Heat Exchangers





Profit & Loss

- Equity raise of 3-5 MEUR in 2026
- Continuous and increase of activity services in high-speed turbomachinery developments for tiers
- Develop a M40 asap

	2025	2026	2027	2028	2029	Scaling up to mass production
Units sold	1	7	24	65	195	585
Total Sales / Revenue	822 025	1 140 875	2 355 761	4 875 902	12 485 299	35 699 983
Total Direct Margin	103 042	- 20 562	312 289	1 607 136	4 965 763	16 269 983
R&D expenses (gross)	- 1 644 459	- 1 536 138	- 1 300 096	- 534 480	- 373 046	- 349 209
R&D expenses (net of grants and cap.)	- 909 256	- 652 677	- 479 343	- 385 730	- 309 036	- 288 195
Sales & Marketing expenses (Net of grants and cap.)	- 153 723	- 240 916	- 492 758	- 703 108	- 1 019 647	- 1 329 051
General & Administr. expenses (Net of grants and cap.)	- 213 850	- 377 992	- 492 091	- 625 236	- 792 396	- 887 299
EBIT	- 1 173 787	- 1 292 147	- 1 151 903	- 106 938	2 844 684	13 765 439
	-143%	-113%	-49%	-2%	23%	39%
Financial expenses	- 20 035	- 24 042	- 28 851	- 34 621	- 41 545	- 49 854
Result before taxes	- 1 193 822	- 1 316 189	- 1 180 754	- 141 559	2 803 139	13 715 585
Taxes	16 908	16 908	16 908	16 908	- 280 314	- 3 428 896
Net result	- 1 176 914	- 1 299 281	- 1 163 846	- 124 651	2 522 825	10 286 688
CASH-FLOW		2 550 247	- 1 426 605	- 558 777	1 176 021	8 958 264
CASH at Period end	389 275	2 939 522	1 512 917	954 140	2 130 161	11 088 424

Our vision

Pioneering innovative decentralized energy solutions to reduce GHG by leveraging high-speed turbomachinery technologies

Founded in 2012. Private and public investors. 4.5 MEUR equity & 7 MEUR subsidies.

Management with Deep Tech Expertise & Proven Track Record in Scaling Technologies

Skilled technical team (18) of PhD, engineers and technicians

Strong EU R&D partners

Strong EU Supply-chain

IMPACT

Methane is 84x more potent than CO_2 (20-year GWP). Reducing fugitive emissions directly slows global warming.

Capturing methane and converting it into energy provides a cleaner alternative to flaring/venting and displaces fossil fuels.

Methane drives ground-level ozone formation, worsening respiratory and cardiovascular diseases.

Methane-driven ozone reduces crop yields (e.g. wheat, soy, maize, rice). Mitigation protects agricultural productivity.

Lowering methane leaks improves efficiency and resource use in energy/industrial systems.

Methane recovery creates new clean-tech jobs, service opportunities, and investment in green industries.

New technologies (e.g. microturbines, methane-to-power units) modernize infrastructure and foster innovation.

Reduced ozone improves ecosystem health, plant growth, and biodiversity resilience.

Exit Strategy

MITIS is a highly attractive acquisition target for OEMs and industrials seeking:

- Differentiation in distributed clean power, cryogenics, or process heat
- In-house access to oil-free turbomachinery, foil bearings, or flameless combustion IP
- Plug-and-play hardware for methane mitigation, net-zero industrial goals, and marine decarbonization

Potential acquirers include:
Wärtsilä, Siemens Energy, Johnson Controls, Caterpillar/Solar Turbines, Atlas Copco, MAN Energy, Baker Hughes, Technip, Doosan

Why Invest in MITIS

- **Unique IP platform**: 13 patents (5 granted) e-turbo, flameless combustion, recuperators, and integrated turbomachinery electronics
- **Technology readiness**: TRL 6+; certification and TRL 7 planned within 9–12 months
- **Fuel flexibility**: Works with vented gas, process gas, biogas, hydrogen blends, and liquid fuels
- **Capital-efficient scaling**: BOM cost-down through Asian partners; IP licensing to avoid CapEx-intensive production
- **Multiple sector fit**: Clear addressable markets in methane mitigation
- **OEM interest & traction**: Active engagements in Europe, Asia, and Latin America

Thank you

Dr Michel DELANAYE, CEO

michel.delanaye@mitis.be

Strong track record as tech developer

2012

Inception by Michel Delanaye, CEO and private investors

NANOCOGEN+

1kWe microCHP for house with a micro gas turbine

2016

First patent on flameless combustion

2020

EIC: FLAMINCO

Accelerator grant

Start of development of a 10kWe micro gas turbine

Project with **ARAMCO & STELLANTIS**

2022

Horizon Europe Fit4Micro project awarded

Cryogenic subcooler project awarded for **GTT (F)**

2023

HYGUANE (ESA)

Start of fuel cells development project

2024

13 patents

micro-10 TRL 5

CETP RESTORE awarded

2025

Subcooler project for Wärtsilä

micro-10 TRL7

CETP BREAD awarded

Cap Table

	CAT	Nbre de parts	% Parts
Michel DELANAYE	A	1 325	28,8%
Véronique DISTEXHE	A	10	0,2%
TBIZ	A	782	17,0%
Michel MILECAN	A	268	5,8%
Jean-Pierre DELWART	A	368	8,0%
C3ICI (Emeric D'ARCIMOLES)	A	371	8,1%
NOSHAQ Energy SA	B	924	20,1%
WALLONIE ENTREPRENDRE SA (anc. SRIW WING)	B	203	4,4%
KAZOKU (Famille Allaer)	A	202	4,4%
Coccinelle (Famille Martial)	A	152	3,3%
		4 605	100%