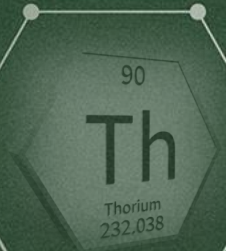


THE FUTURE OF CLEAN POWER
SAFE BY DESIGN. BUILT TO SCALE.



SMR

SUBCRITICAL MICROMODULAR REACTOR



ENERGY STORAGE & ENERGY GENERATION



THE COMPANY IN ONE PAGE

WHO WE ARE

Emerald Horizon AG

Deep-tech scale-up building the platform behind Europe's clean-power policy: modular energy storage today, SMR-class generation tomorrow.



Graz, Austria · Vienna Stock Exchange listing 26 June 2026



Founded 2019 · Year 7 of 10-year master plan



50+ specialists · Tier-1 partners across 3 continents



Multi-level de-risking · on schedule, in parameters

Energy. Everywhere.

Two products. One platform. A policy tailwind.

COMPANY & AMBITION

A 10-year master plan to industrial-scale clean power

Founded 2019, Emerald Horizon develops both an advanced modular, shipping-container-sized, energy-storage system and an accelerator-driven thorium generator. The end goal: hand both products over to full-scale serial production with Tier-1 manufacturing partners.

WHAT WE BUILD

DUALstorePLUS today · SMRX tomorrow · Energy as a Service (EaaS)

DUALstorePLUS

Modular energy storage · 5-100 MWh

In-market 2026 · Path to TRL 9 · Serial production with VDL

SMRX

Storage + thorium generator · SMR-class system

Deploy 2031+ · Path to TRL 9 prototype · EU SMR policy aligned

HOW WE EXECUTE

Multi-level de-risking — technical, regulatory, commercial

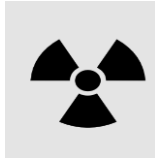
Co-development with VDL Groep (EUR 4.06bn revenue, 13,500+ specialists, ASML/PALLAS-tier). U.S. regulatory pathway with Pillsbury LLP. EU pathway with Haskoning. Project on schedule, within defined parameters — entering year 7 of 10.

POLITICAL TAILWIND: EU SMR Strategy, 10 March 2026 — first SMRs operational in Europe by the early 2030s, backed by a EU investment guarantee. European Commission (PINC 2025): €241bn of nuclear investment needed by 2050. European SMR Industrial Alliance: 17-53 GW of SMR capacity by 2050.

SOLVING PROBLEMS WITH HIGH IMPACT POTENTIAL

Problem-Risk-Need-
Analysis

RISK
Critical chain reaction
Transuranic nuclear
waste



RISK
Volatile renewables
Or: Pollution &
ocean acidification

No critical chain reaction

Pressure-free by design

No meltdown risk

~0% plutonium production

~0% weapons-grade material

20 years of secure supply

~0% uncontrolled transuranic nuclear waste

+ significant USP

<1 g CO₂/kWh in operation

24/7 baseload – independent of weather

No large powerlines

High-power density

High profitability with global impact

Low land-use requirements for systems

Affordable high-temperature heat → hydrogen or electricity

+ Proof of concept

SMRX

Solution for:

AI
Data Centers
Remote Areas
Critical Infrastructure

SMRX - SUBCRITICAL MICROMODULAR REACTOR

ONE SYSTEM - CONTAINER SIZE - MODULAR & SCALABLE

Phase 1

NON-Nuclear
Stand alone product

DUALstorePLUS

Hybrid energy Storage System · Modular 5-100 MWh

Stand-alone product.
Bankable 20-year EaaS contracts.

TRL 6.5 / 9
3 components

E-store

Battery Storage (BESS)

5 MWh LFP battery per module. ≥8,000 cycles
~94% efficiency

USED IN

- ✓ DUALstorePLUS
- ✓ SMRX



CALstore

Heat Storage (TES)

5 MWh molten salt per module. 200-550°C
>20-year lifecycle

USED IN

- ✓ DUALstorePLUS
- ✓ SMRX



MCU

Master Control Unit

AI orchestrates thermal & electrical flows. Grid integration.

USED IN

- ✓ DUALstorePLUS
- ✓ SMRX

Phase 2

DUALstorePLUS +
ADES = SMRX

ADES

Energy Generator · Subcritical Micromodular Reactor

DUALstorePLUS platform + thorium generator.
The full SMR-class system.
EU SMR policy aligned.

TRL 4.5 / 9
4-5 components

Converter

Output Converter

Heat → Power / Hydrogen / Process Heat
Client-specific

USED IN

- DUALstorePLUS
- ✓ SMRX (opt.)

ADES

Thorium based - Accelerator Driven - Molten Salt
Generator

25 MW(th) Subcritical. 20 years no refueling
~0% uncontrolled - transuranic waste

USED IN

- DUALstorePLUS
- ✓ SMRX



Modular by design — DUALstorePLUS configurable 0-10 modules per E-store / CALstore. SMRX combines multiple ADES modules for higher capacity.

By operating ADES under an Energy-as-a-Service (EaaS) model, every unit remains under continuous supervision. This enhances operational safety, enables predictive maintenance, and helps protect proprietary technology from unauthorized access or replication.

TAILWIND

THE EU JUST MADE STORAGE & SMRS ITS OFFICIAL ENERGY POLICY



Significantly increases the probability of success

The macro thesis has now become official EU policy.

The question for investors is no longer "Is this the right direction?"

It is: "Who is best positioned to deliver it?"

On March 10, 2026, EU Commission President Ursula von der Leyen made the policy direction irreversible:

- Storage explicitly named as the essential backbone alongside nuclear
- First SMRs operational in Europe by the early 2030s



Nuclear Energy Summit, Paris — March 10, 2026



World Bank nuclear policy changed.

- World Bank Group: end of the prohibition on nuclear energy financing,
- World Bank Group-IAEA cooperation agreement, expressly covering small modular reactors

Emerald Horizon Develops Energy Storage Systems & SMRs. Since 2019



VDL GROEP

INDUSTRIALIZATION PARTNER & KEY DE-RISKING ELEMENT



Significantly increases the probability of success

VDL builds the first SMRX factory at its own site. The factory itself is the blueprint: further plants are replicated copy-exact in additional countries.

Serial production, twice over: the module is a product – and so is the factory.

CO-DEVELOPMENT & MANUFACTURING CONFIRMED

5-month due diligence | 30 Apr 2025

What VDL delivers for Emerald Horizon



CALstore → Serial Production

TRL 6 prototype transferred to industrial manufacturing at VDL. Assembly, integration, QA.



ADES Co-Development

Joint development of Energy Generator modules. Precision engineering & production scale-up.



Supply Chain & Logistics

Global procurement infrastructure. No proprietary factory needed (asset-light model).



Certification & QA

Industrial quality standards, certification & compliance for global deployment.



INVESTOR DE-RISKING

No factory CAPEX; proven Tier-1 partner; replication risk, not engineering risk; reduced timing risk; reduced failure risk; reduced scalability risk

€4.06bn

Annual Turnover

100+

Companies

22

Countries

€190M

R&D / year

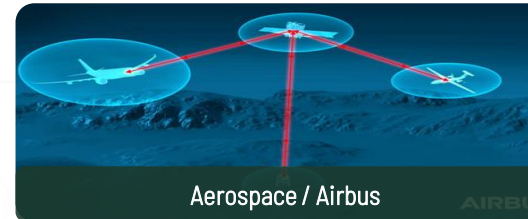
VDL: 13,500+ people -Precision engineering, system integration & serial manufacturing at scale



ASML / nm-Lithography



3D-Printing / Additive



Aerospace / Airbus



Accelerators / CERN

Manufacturing de-risked: Asset-light co-development | No mega-plant risk | Modular production confines capital-at-risk | Haskoning: regulatory strategy

VDL Groep: ASML supplier | PALLAS reactor partner | Thorizon MSR co-developer | European Industrial Alliance on SMR member

LISTING MILESTONE ON THE VIENNA STOCK EXCHANGE SINCE JUNE 26TH 2026

Ticker: **SMRX** (Vienna Stock Exchange) ISIN AT0000A3UZE1

Company: **Emerald Horizon AG**

Group Structure: **3 subsidiaries (USA, Slovakia, EaaS spv) and 2 equity participations**

Capital Markets Advisor: **Wiener Privatbank AG**

Corporate Brokerage: **Baader Bank AG**

Designated Sponsors / Market Makers: **Baader Bank AG / Hauck Aufhäuser Lampe Privatbank AG**

Legal Counsel: **Müller Partner Rechtsanwälte - Mag. Wilfling**

Research Coverage: **NuWays AG** - Initiated with a BUY rating and a €1,300 price target.

<https://www.nuways-ag.com/research/accelerating-the-future-of-clean-energy-initiate-with-buy>

Market cap: **€1.127bn**

Issued Shares: **1,049,375**

Free Float and Other Shareholders: **~25.3%**

Company philosophy: **Growth now, on the long run value**

The company is subject to several material risks, including its pre-revenue stage, integration risk, capital intensity, an unproven regulatory pathway, and limited price discovery, which are summarized in the Appendix.

Share Price Development – SMRX
End-of-day share price development since the first trading day



Past performance is not indicative of future results. Any projections, forecasts, or expected returns are illustrative only and are not guarantees of future performance.

 **NuWays**

RECOMMENDATION		BUY
TARGET	EUR 1,300.00	
UPSIDE	+35.6%	
PREVIOUS	EUR 1,300.00 BUY	

DUALstorePLUS



ENERGY STORAGE



Inputs:

Electricity
from

PV | Wind
Grid

and/or
HEAT



Proven EaaS contracting
through PV contracting

ADES-Ready
Integral Component

Deployable
Worldwide

Hybrid storage combining heat (TESS) & electricity (BESS).

Stand-alone product today – integral building block for the Thorium Generator (ADES) tomorrow.
Configurable to client-needs : 0-10 modules per TESS or BESS + 1 MCU – AI Control module.
E-Store is externally sourced, enabling faster implementation with no R&D risk.

ORDER NOW – DELIVERY SOON

E-store 4 months | CALstore 20 months



MCU – AI Control

Function	Orchestrates thermal & electrical flows
Grid	Peak shaving, frequency response
PLUS	Sells surplus to grid
Integration	P2H, H2H, H2P modes
Container	20- or 40-ft HC



CALstore (TESS)

Capacity	5 MWh (th) per unit
Power	500 kW(th) + 500 kW(el)
Efficiency	>95% h2h >98% p2h
Temp.	200–550°C (Solar salt)
Lifecycle	Minimal degrad. >20 yrs



E-store (BESS)

Capacity	~5 MWh (el) LFP
Cycles	≥ 8,000 @25°C
Efficiency	~94% roundtrip
Rating	IP55 / C4
Delivery	~4 months

STRATEGIC DUAL ROLE

TODAY Stand-alone product. Store & optimize existing energy. Bankable 20-year EaaS contracts.

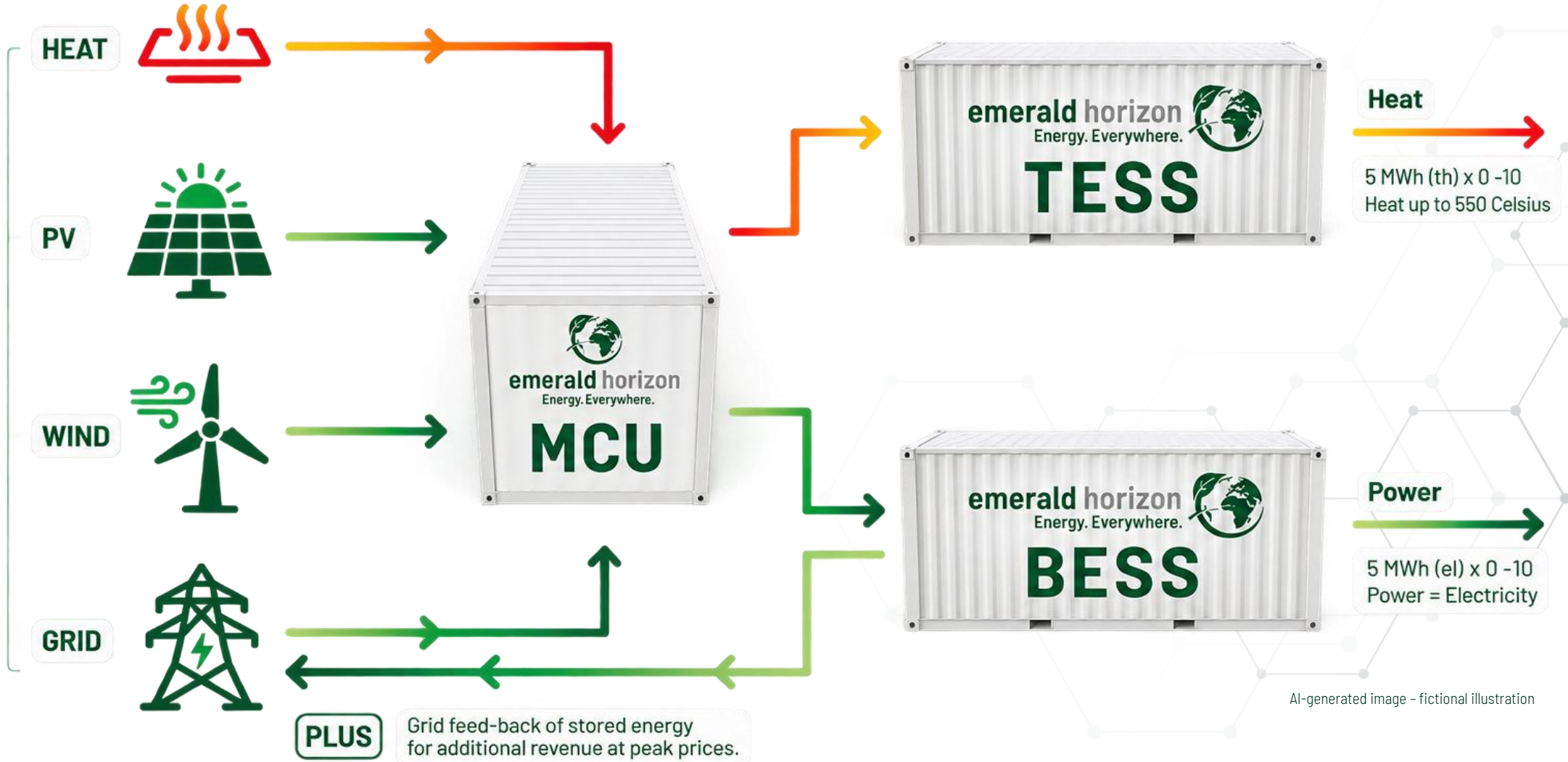
TOMORROW ADES building block. Thorium Generator plugs in → not just store but generate carbon-free energy.

- ✓ EaaS Proven – Raiffeisen Financed
- ✓ ADES-Ready – Integral Component
- ✓ Deployable Worldwide

DUALstorePLUS

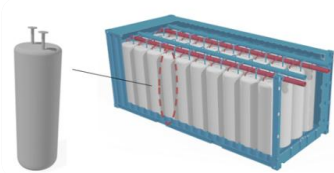
HOW IT WORKS

DUAL input
DUAL output



AI-generated image - fictional illustration

1 Cell -> 1 Container -> Serial Production @ VDL



5 MWh molten salt heat storage – stand-alone & integral building block for ADES.

Stand-alone product + Part of DUALstorePLUS + Integral to ADES → With ADES: not just storage – carbon-free energy generation



Extreme Temperature Range: 200–550°C

Solar salt (KNO₃/NaNO₃). Reliable in extreme ambient conditions.



High Energy Density – 5 MWh

150–200 kWh/m³ (vs. water: 60–80 kWh/m³). Compact footprint.



Entirely Water-Free & Pressure-Free

Zero vapor pressure or detonation risk. No steam, no overpressure.



3 Operating Modes

Power2Heat | Heat2Heat (waste heat) | Heat2Power (re-electrification)



Adaptable & Mass-Production Ready

Salt mix & capacity configurable. Serial production via VDL Groep.



Minimal Lifetime Degradation

Near-constant capacity over >20 years. Unlimited cycling. Low maintenance.

Target: Chemical | Pharma | Steel & Metal | Paper | Food & Feed | Cement

PROTOTYPE CELL

READY & VALIDATED

Government-funded (FFG) – Ongoing audits



KEY SPECIFICATIONS

Capacity	5 MWh (th) per unit
Charge / Discharge	500 kW (th) 500 kW (el)
Efficiency	>95% h2h >98% p2h
Temperature	200 – 550°C (Solar salt)
Cycling	Unlimited Minimal degradation
Lifetime	> 20 years
TRL	6+ → serial production with VDL

ENERGY DENSITY COMPARISON

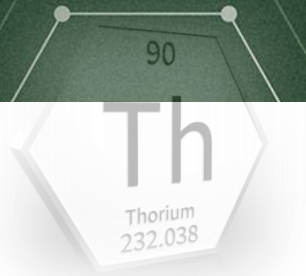
Medium	Temp.	Density	Pressure
Water	20–100°C	60–80 kWh/m ³	High!
Molten Salt	200–550°C	150–200 kWh/m ³	None!



Order now
Deployable
worldwide from 2026
20-year EaaS contracts
Serial production via
VDL Groep

SMR^X

ADES & DUALstorePLUS



and



ENERGY PRODUCTION INCL. STORAGE



WHAT IS ADES?

ACCELERATOR DRIVEN ENERGY SOURCE

The Concept: Thorium + Particle Accelerator + X-Amplifier → CO₂-free energy

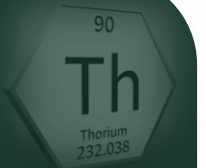
Pioneer: Carlo Rubbia

Nobel Prize in Physics 1984, CERN Director

Pioneer of the Energy Amplifier concept - the scientific foundation of ADES

Why Thorium?

- 3x more abundant than uranium
- 300-400x more abundant than U-235
- Byproduct of the mining industry
- „~80 % of the thorium is burned up (FIMA)
- ~0% transuranic waste



4 Key Factors



Mini-Modular

Compact, container-sized



Subcritical

No chain reaction risk



100% Thorium

No plutonium or uranium 235/238



ON/OFF Switch

Controllable neutron injector

Energy Density Comparison

Allows a runtime of 20 years without refueling

2,800,000 barrels of oil
= 0.34 barrels of thorium
Both deliver 4.4 TWh of energy



FUSION of 5 Core Components



Injector (Accelerator)

Generates protons/ neutrons to initiate and control the thorium reaction



X-Amplifier Box

Amplifies the neutron flux from the accelerator



Subcritical Thorium Molten Salt Loop

Thorium in molten salt circulates as fuel and coolant simultaneously



HTHX (Heat Exchanger)

Transfers high-temperature heat to the energy conversion system



Containment & Shielding

Isolation and shielding ensures safe operation

Prototype Status

TRL 4.5

All components already exist

VDL as Tier-1 partner

Co-development to TRL 9

Serial product est. 2031

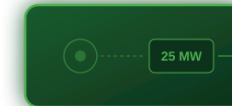
1 ADES ~ 25 MW

(thermal) · ~10 MW electric · 20-year lifetime

Scalable: combine multiple ADES modules for higher demand

Converter Modules (client-specific)

ADES MODULE



Accelerator Driven Energy Source
25 MW(th) · 10 MW(el) · Container-sized · 20 years



Heat to Power Electricity



Heat to Hydrogen H₂ production



Heat to Heat Process heat



AI-powered | Plug-and-Play | Minimal Maintenance

AI learns load profiles and adapts energy production in real time
Deliverable and installable worldwide | Low OPEX | 20 years without refueling

Ideal for global distribution & high scalability

The scalable and risk-optimized solution for CO₂-free energy



ON/OFF switch

- ADES features a **passive-safe ON/OFF control unit**.



AI-powered optimization

- ADES **leverages AI** to **adjust its power output** based on the installation location.
- ADES thereby ensures **optimal performance** in **diverse environments**.



Significantly reduced nuclear waste

- Design target: Approximately 80% of the fuel is converted into usable energy, **significantly reducing the need for long-term waste storage**.
- ADES **produces virtually no transuranic waste**, such as plutonium, neptunium, americium, or curium.
- The remaining waste consists primarily of fission products with relatively short half-lives.



No critical chain reaction

- ADES **operates subcritically**.
- When the injector impulses the thorium, it triggers a reaction – **but no critical chain reaction** – making ADES much safer than conventional nuclear power plants.
- **No risk of steam-pressure explosions**, since the system operates without pressurized water or steam.
- No water needed.
- Very low production of thallium-208



Minimal maintenance

- The final ADES module **requires only limited routine maintenance**.
- A **Safety Security Environment Software** ensures safe operation (see patent for details).
- Expected operational lifetime without refueling: up to 20 years.
- Low operating expenses (OPEX)

Output:
High-temperature
heat

To generate:
Heat
Electricity
Hydrogen

1 x ADES module: 25 MW(th)= 10 MW(el) for 20 years



.. can be combined to achieve higher energy output



.. can be delivered worldwide
and installed as plug-and-play

SMRX IS ADDRESSING ONE OF THE WORLD'S LARGEST MARKETS

EXPANDING BEYOND CONVENTIONAL SMR APPLICATIONS

Positioned in the 10 MW sweet spot – one of the largest addressable energy markets in the world (TAM).

1 ADES
= 10 MW(el)

for 10,000
households

Scalable from 10 MW to 1+ GW
by combining modules

NO WATER NEEDED!



Hydrogen Production

High-temp heat for
efficient H₂ thermolysis



AI & Data Centers

On-site power for AI.
No grid dependency



Critical Infrastructure & Military

Self-sustaining energy
for vital facilities



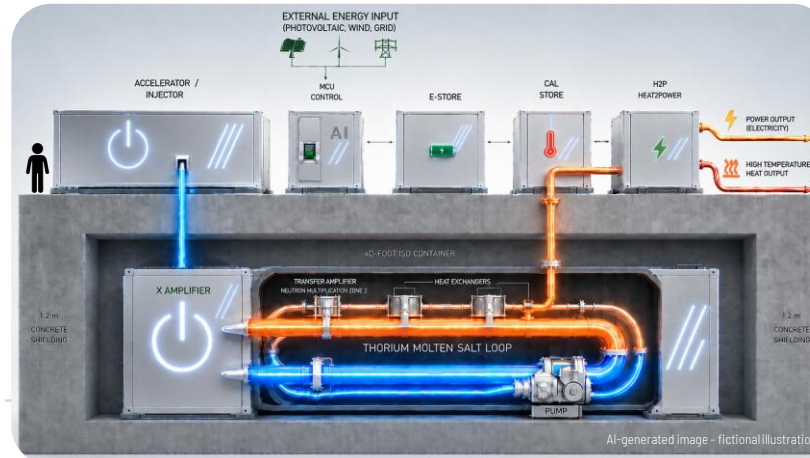
Enhances Wind & Solar

Stable baseload for
intermittent renewables



Upgrade Existing Power Plants

Replace oil/gas/coal/conventional nuclear
Enhance with modules



Energy-Intensive Industries

Direct heat, H₂, electricity
for steel, chemical, aluminum



Drying process in
the food industry



Carbon-Free Real Estate

1 ADES = 10,000 homes.
Net-zero districts



Grid Integration & Stability

Redundancy and support
for existing District Heat &
Power Grids



Emerging Markets & Remote Areas

Deploy anywhere.
Desalination & island water
supply



E-Mobility Charging

Universal EV charging
at any location



Ship Propulsion & Aviation

Maritime energy &
e-fuels for airplanes

The large total addressable
market (TAM) enhances
SMRX's resilience to
competitive pressure by
enabling the company to
address multiple high-value
use cases.

SMRX IN ACTION

ILLUSTRATIVE X-CONFIGURATION OF THE MODULAR SYSTEM





CONFIDENTIAL

ACCELERATOR ENERGY – BUILDING THE FUTURE OF CLEAN POWER



THE EARTHSHOT PRIZE
Emerald Horizon NOMINATED 2025


THE REDBULLETIN INNOVATOR
Redaktion | März 2023

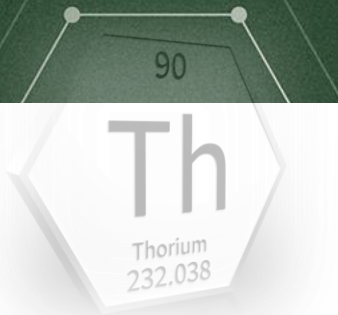

Grazer Unternehmen will einen besseren Atomreaktor bauen
Redaktion | September 2022


Green Future | Innovative Wege zur grünen Zukunft
Redaktion | April/Mai 2021




Suche nach Alternativen - Kann Thorium bei der Energiewende helfen?
Redaktion | August 2022


SPRIT START-UP AWARD
SFG SPARKASSE BDO RKP



APPENDIX DE-RISKING

APPENDIX

DE-RISKING OVERVIEW

READ THIS APPENDIX
AS A MAP

01 RISK
State it openly

02 DE-RISKING
Show the mitigant

03 EVIDENCE
Turn the page

De-risking reduces risk.
It does not eliminate it.

Most Likely Risk:
delays in project execution

Five material risks. Five de-risking responses. The following pages show the evidence.

THE RISK	HOW EMERALD IS DE-RISKING IT	EVIDENCE
01 PRE-REVENUE FY25 revenue: €0.2m. Group breakeven not expected before 2029e.	DUALstorePLUS EARNS FIRST Non-nuclear product, planned for market entry in 2026 and structured around 20-year EaaS contracts. Storage revenue is designed to begin before ADES/SMRX. Beyond this, the broader PIER Group remains pre-income until commercial revenues from its advanced nuclear business commence.	TIMING & READINESS → p. 28–30
02 INTEGRATION RISK ADES is at TRL 4.5. Components exist; the integrated system is not yet demonstrated.	TIER-1 INDUSTRIALISATION FROM THE PROTOTYPE STAGE VDL Groep co-develops and industrializes from prototype to serial manufacture. Independent literature supports the underlying physics; the remaining program is integration, commissioning and scale-up.	TECHNICAL DE-RISKING → p. 25–32
03 CAPITAL INTENSITY €75m prototype assumption plus up to €150m for industrial scale-up; fleet deployment requires project finance.	MODULAR, ASSET-LIGHT CAPITAL MODEL No proprietary mega-factory, no 1 GW megaproject and less transmission build-out at point of use. Founder/co-investor capital and grants support the prototype; long-term EaaS/PPA cash flows are intended to support fleet debt.	FINANCIAL DE-RISKING → p. 22–23
04 REGULATORY PATHWAY Final U.S./EU classification and licensing route for ADES are not yet confirmed.	THREE FACTS · THREE JURISDICTIONS · THREE TEAMS Subcritical operation, an external ON/OFF neutron source and no Pu/HEU added as initial fissile fuel are being assessed in the U.S., Slovakia and the Netherlands. DUALstorePLUS follows standard non-nuclear permitting.	REGULATORY DE-RISKING → p. 24
05 VALUATION / PRICE DISCOVERY Pre-revenue status and the significant addressable market introduce a broad range of potential valuation outcomes.	ONE AUDITABLE UNIT-ECONOMICS DRIVER Every valuation scenario traces to one operating metric: a potential 3.8 ct/kWh target contribution net earnings after the 2.5 ct/kWh full-cost and risk reserve — multiplied by output, availability and module count.	INCOME DE-RISKING → p. 33

Selected risks only; not exhaustive. De-risking measures reduce but do not eliminate risk. FY25 revenue and breakeven estimates: NuWays AG, 23 Jul 2026. Full risk factors: FMA-approved prospectus. Page references assume insertion immediately after the current appendix cover.

TEAM DE-RISKING

BRAINS BEHIND EMERALD HORIZON



EXECUTIVE TEAM

Leaders with experience at the World Bank, the IMF, the ECB, the Austrian National Bank and in the Austrian federal government.

CEO Florian Wagner *Capital Markets & IPO*

Founder of Emerald Horizon;
Multi-award-winning international
fund manager. 20+ years capital
markets experience across EU & US.
Leads IPO preparation and exit strategy for
investors

Prof. Dr. Robert Holzmann *VP International Relations*

fmr. Austrian National Bank Governor
& ECB Governing Council member;
World Bank Sector Director; IMF; OECD.
Key for EaaS credits & EU Green Bonds
(EU Taxonomy / Sustainable Finance
Regulation aligned)

Ing. Norbert Hofer, MBA *VP Strategic Communications*

fmr. Federal Minister for Transport,
Innovation & Technology; served as Government
Coordinator; chaired transport-related work during
Austria's 2018 EU Council Presidency; contributed to
Austria's #mission2030 climate & energy strategy
Leading the infrastructure deployment of
DUALstorePLUS projects

DI Dr. Mario J. Müller *VP Accelerator Technology*

Ex-CERN physicist.
Central for ADES accelerator development.
Bridges medical accelerator (AD-BNCT)
and energy accelerator IP.
Deep expertise in particle physics and neutron
transport interactions

MMag. Philipp Pölzl *VP Operations*

Co-Founder of Emerald Horizon AG;
dual degrees in Business Administration & Law;
University of St. Gallen (HSG) & Texas Tech University
(USA);
Overseeing corporate operations, compliance & R&D
alignment – ensuring operational integrity during rapid
growth phases.



SCIENTIFIC TEAM

Experts in nuclear physics, accelerator technology (ex-CERN), mechanical engineering, electrical engineering, molten salt chemistry, and industrial manufacturing.

Nuclear Physics

Accelerator Tech

ex-CERN

Mech. Engineering

Electrical Engineering

Molten Salt

Industrial Manufacturing

AI



TIER-1 EXECUTION PARTNERS

For regulatory affairs, co-development, manufacturing, supply chain, and financial support.

VDL Groep

Co-Development &
Manufacturing
€4.06bn · 13,500+

Pillsbury LLP

U.S. Nuclear Regulatory
Classification
Tier-1 · Paid-in

Haskoning

EU Regulatory
Pathway
Tech validation

TU Graz

Scientific
Partnership
Academic R&D

PwC

Financial
Advisory
Audit & structure

FFG

Austrian Research
Funding
Govt. grants



Emerald LaboraTHorium

Full R&D facility: Assembly & Production, ADES Prototyping, Salt Preparation, MECH/CHEM/LASER/NUC/HOT Labs, ADES Workshop.



Note: Emerald Horizon AG is strictly non-political. Board members and advisors represent diverse professional backgrounds across the full political spectrum. Their involvement is exclusively based on domain expertise, not political affiliation.

FINANCIAL DE-RISKING

WE DON'T NEED BILLIONS IN EQUITY

Conventional
Plant Risk
Eliminated

€6,900M

1 GW Plant → Container-Size Modules

No large power plant construction risk. Modular container units eliminate megaproject cost overruns.

Grid
Infrastructure
Avoided

€3,086M

Distributed Grid → No Grid Infrastructure

No high-voltage transmission lines needed. Plug-and-play at point of use.

Factory
Costs
Eliminated

~€1,750M

No Own Factory → VDL Co-Development

VDL Groep's existing Tier-1 manufacturing infrastructure replaces need for greenfield factory.

EU Grants
Leverage

X equity multiplication

Slovakia Grants + additional Grants by using the tailwind

Slovakia non-dilutive cash relief (~€75-100M).

Prior
Contributions

Absorbed

Prior Equity + Know-How + Grants

Founders, early investors, FFG grants, and know-how contributions already paid in.

WHAT'S LEFT

€75M

€150M

Prototype and Serial Production

Should additional capital be required, it could be raised after prototype completion with limited dilution. The same applies if equity is required for EaaS rollout.

All figures illustrative. Based on Emerald Horizon internal analysis and comparable nuclear/energy infrastructure benchmarks.



X SCALABILITY
EaaS bankable
Green Bonds
to finance serial production -
debt instead of equity

FINANCIAL DE-RISKING

SEVERAL POTENTIAL FUNDING PATHWAYS

€75M SMRX – ADES prototype cost assumption

€50M for prototype development (TRL4.5->6) & €150M for industrial scale-up and series production (TRL 6-> 9)

TARGET
High capital efficiency
&
minimum dilution

1 Commitment from CEO Florian Wagner (Carl Page, Philipp Pölzl, ..) 

€5M initial investment + €20M follow-on investment = €25M total (EQS News ID: 2356964)

2 Two co-investors
€25M investment each (€50M total)

3 Shareholder Lombard Financing
Additional Lombard loans secured by shareholders and provided to Emerald Horizon on attractive terms

4 Lead Strategic Investor
Investor with extra benefits for the company

5 U.S. Subsidiary Capital Raise
Capital raised through the U.S. entity and allocated to the parent company

6 Equity Financing
Capital increase within the next three years, targeting €50M-€200M



X Multiplication
through potential
grants 

REGULATORY DE-RISKING

NON-CRITICAL PATHWAY DUAL IDEAL WITH FLEET REGULATION

Significant
risk
reduction

Not like normal
Nuclear
Gen IV
SMRs

$3 \times 3 \times 3$
= built-in redundancy

1. NON-Nuclear

DUALstorePLUS

Conventional NON-Nuclear
storage product pathway

- ✓ Zero nuclear regulatory friction
- ✓ Standard industrial permitting
- ✓ Ready for order Q3 2026
- ✓ Bankable 20-year EaaS contracts
- ✓ Already validated EaaS cycle
(Raiffeisen Bank financing)

DUALstorePLUS

2. Nuclear Adjacent Strategy



3× Regulatory Friendly
Technical Facts



3× Regulatory Friendly
Countries



3× Regulatory Friendly
Expert Teams



No critical chain reaction

- no risk of explosion
- instant OFF switch
- subcritical amplification



No Plutonium or Uranium added

- no transuranic waste
- no weapons-grade material
- intrinsic suppression of TI-208 formation



No refueling for 20 years

- no constant transport of proliferation material
- minimal operational risk

→ USA

Established NRC framework
Pillsbury classification ongoing
Non-reactor or limited NRC path

→ Slovakia

Nuclear-friendly jurisdiction
ADES prototype location
€75–100M state incentives

→ Netherlands (VDL)

EU Industrial Alliance on SMRs
VDL co-development & manufacturing
EU regulatory pathway

→ Pillsbury

Winthrop Shaw Pittman LLP
Tier-1 U.S. nuclear & regulatory law firm
Formal U.S. regulatory classification
+ licensing assessment (paid-in)



→ Emerald Horizon

Internal Regulatory Team
INFCIRC/153 analysis completed
Effective Kilogram framework mapped
Dual-country regulatory strategy

→ Haskoning

Netherlands
EU regulatory pathway support
Technical validation throughout
regulatory process



ADES (Accelerator Driven Energy Source)

Where ADES sits on the regulatory spectrum

▼ ADES

Conventional Nuclear

Critical chain reaction
Pu / HEU • Meltdown risk
10–20 yr licensing

SMRs / Gen IV

Simplified licensing
Some still critical
5–10 yr process

ADES “Nuclear Adjacent”

Subcritical
Expected low safeguards tier &
fast-track licensing

Note: Emerald Horizon has engaged **Pillsbury Winthrop Shaw Pittman LLP**, a Tier-1 U.S. nuclear and regulatory law firm, to conduct the formal U.S. regulatory classification and licensing assessment of its accelerator-driven, subcritical energy system. The objective is to determine whether the technology proceeds under (i) a non-reactor, accelerator/radiation licensing pathway or (ii) a limited NRC advanced-nuclear framework, establishing a clear, bankable U.S. regulatory route.

IAEA INFCIRC/153 (Corrected), June 1972. Regulatory partners: Pillsbury (USA), Haskoning (NL), Emerald Horizon internal regulatory analysis.

TECHNICAL DE-RISKING FROM GW VISION TO PROVEN PHYSICS

How to get
Gigawatt
power

without building
a Gigawatt
plant



LEVEL 1 – PARTICLE ACCELERATOR

The Neutron Source

Compact accelerators are proven neutron sources in medical applications and beyond. TRL9 refers to this mature core technology, not to the final ADES accelerator. ADES adapts and optimizes energy, current, efficiency and target coupling for energy applications.



LEVEL 2 – MULTIPLICATION

The X-Amplifier Box

A major part of the ADES IP is the amplification of the external neutron source. The X-Amplifier integrates target, neutron spectrum and subcritical multiplication ($k_{eff} < 1$) to achieve the neutron economy required by the overall system.



Illustration for conceptual purposes only – AI generated



LEVEL 3 – ADES INNOVATION

Molten Salt Loop – ~25 MW(th) / net ~10 MW(el):

The circulating thorium molten-salt system combines continuous heat transport with a permanently subcritical reaction zone. External neutrons drive the energy release into the salt; switching off the accelerator promptly collapses the externally driven fission power.



LEVEL 4 – GRID SCALE

100 Containers = ~1,000 MW(el) = ~1 GW

Identical modules are deployed in parallel where energy is required. ADES scales through replication rather than reactor enlargement: ~100 standardized 10 MWel modules provide ~1 GWel with staged deployment and high redundancy.



WHY THIS WORKS



Proven Core Technology

TRL 9 accelerator technology is already proven in clinical cancer treatment (AD-BNCT). We don't invent the accelerator—we repurpose it.



20 Years, No Refueling

Thorium's energy density: 1 kg Th $\approx$ 3.5M kg coal.
A single ADES load replaces an entire supertanker of oil – for 20 years.



Near Zero Waste

~0% transuranic waste: Pu, U-235, TI-208.



2.8M Barrels of Oil = 1.2M Tons of CO₂

Thermal power averages ~270 g CO₂/kWh.
ADES delivers <1 g/kWh including embodied carbon from materials and occasional grid draw.

CONVENTIONAL vs. ADES

	Conventional 1 GW Plant	ADES 100 Modules
Build time	10-20 years	Gradual ramp
CAPEX risk	\$10-35 bn all upfront	\$25M / unit scalable
Failure impact	100% blackout	1% loss
Refueling	Every 1-2 year	Never (20 years)
Grid needed	Massive	Not massive

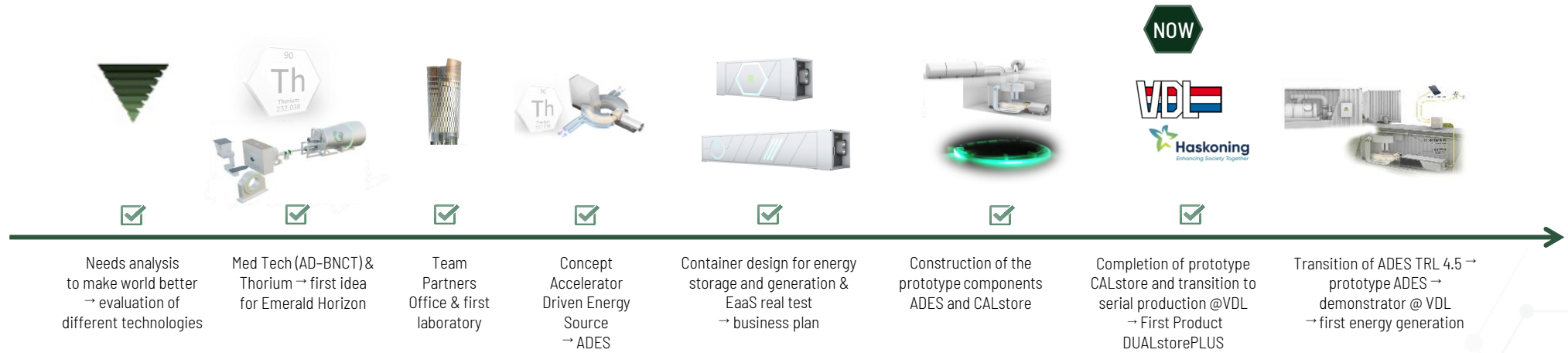
4 scaling levels
from proven
accelerator
to grid-scale

PROGRESS DE-RISKING

FROM IDEA TO SERIAL PRODUCTION – X SCALING

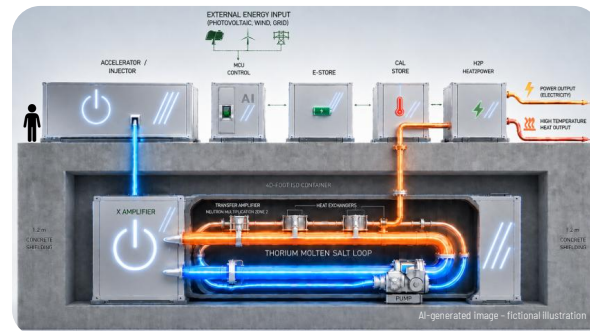
From Zero to Trillions

Idea
R&D Simulation
R&D Hardware
Business Plan
Phase 1 product
Phase 2 product

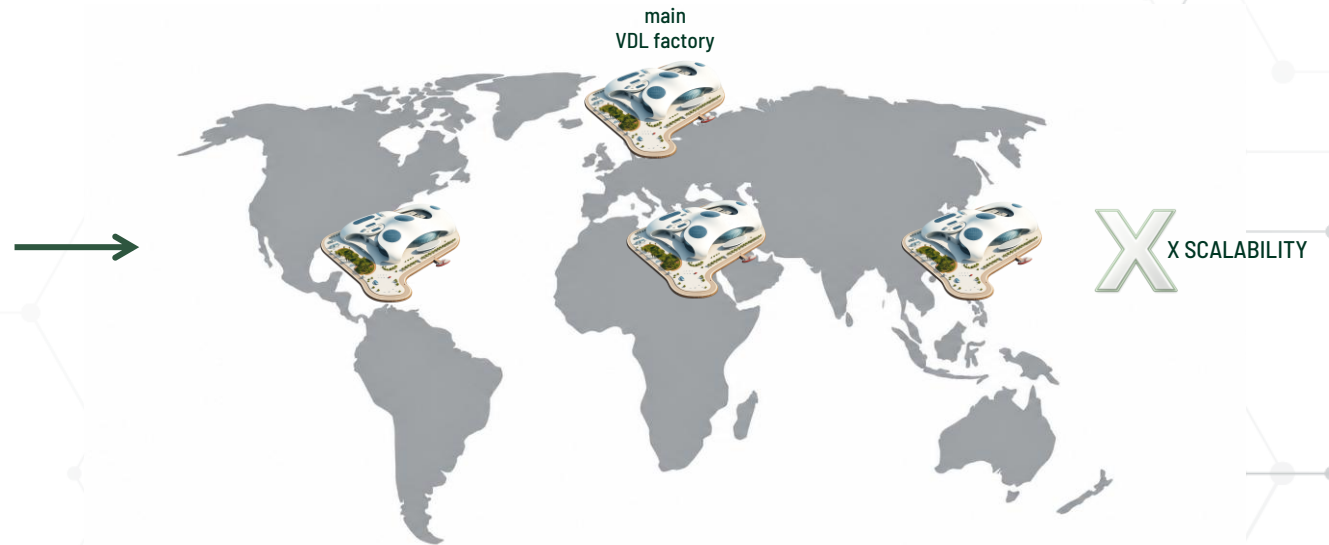


3 copies of the VDL factory

JV with strategic partners



Completion of demonstrator ADES and transition to serial production @VDL
→ DUALstorePLUS + ADES = SMRX



To support the growing global demand, Emerald Horizon plans to expand its manufacturing footprint with additional production facilities in strategic locations, such as the USA, Japan, and the Middle East.

ADES PROTOTYPE SETUP

CO-DEVELOPMENT - SERIAL PRODUCT TRL 9

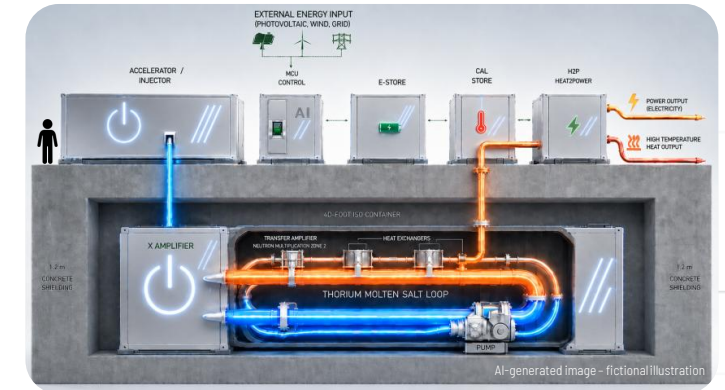
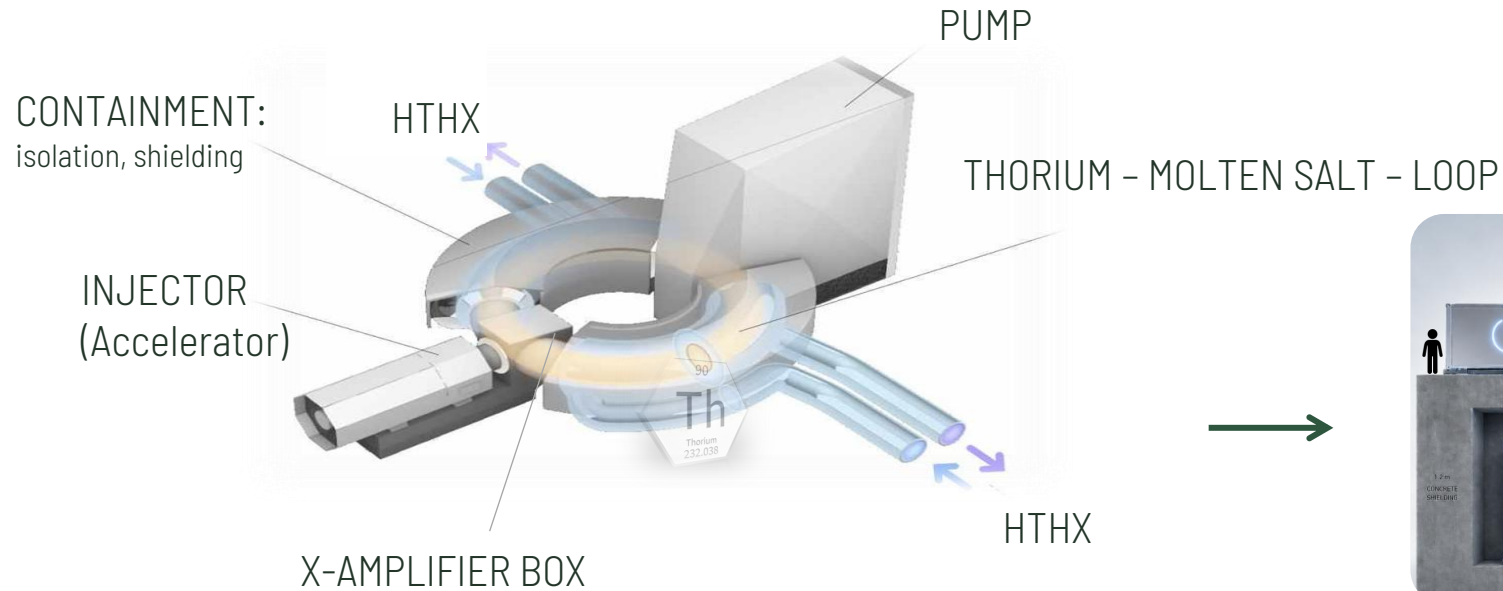


TIER-1 execution
partner

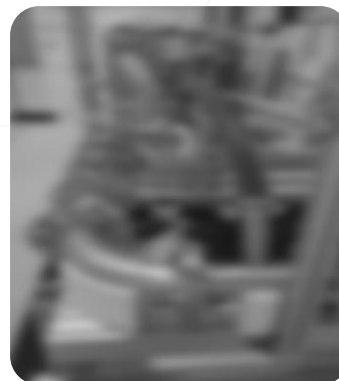
Co-Development
to achieve TRL 9

Manufacturing

Supply Chain



Reality check:
All prototype
components
already exist



Censored for security reasons

Continuous optimization of amplification and core geometry improves system performance with every new version, reflecting a steep learning curve and a continuous learning process.

Readiness scorecards (current)

Milestone de-risking: readiness scorecards translate technical, regulatory, and commercial progress into valuation step-ups.

DUALstore PLUS readiness (E-store and CALstore)

1800 / 2700



- E-store (BESS) + CALstore (TES) + MCU (AI control)
- Ready for global deployment from 2026
- Bankable 20-year EaaS structure

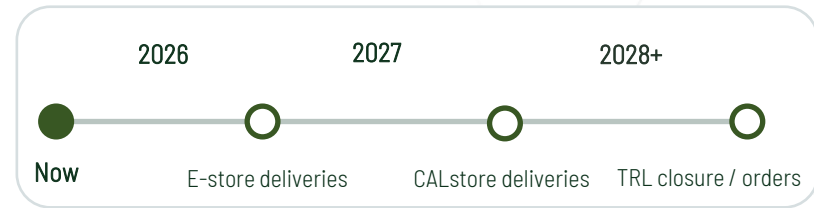
ADES readiness (deep-tech)

1590 / 2700



- 3 workstreams: structures/heat loop + accelerator/targets + nuclear release loop
- Prototype components exist; TRL-gated plan
- Use of funds closes DELTA to TRL 9

Timeline and near-term milestone triggers



Each scorecard is broken down into 27 checks.
Completing key milestones triggers step-ups in the valuation matrix (e.g., higher U.S. tranche valuation and next rounds).

Near-term trigger examples

Regulatory	Pillsbury memo: classification + licensing roadmap (U.S.); EU pathway redundancy
Commercial	20-year EaaS contracts signed; deliveries start (E-store Q4 2026; CALstore 2027)
Technical	Integrated prototype commissioning; safety interlocks + reliability demo closing TRL DELTA
Financing	Slovakia incentives application → €75–100m equity relief; project finance pack
Execution	Tier-1 industrialization (e.g., VDL) plus QA & delivery workplan

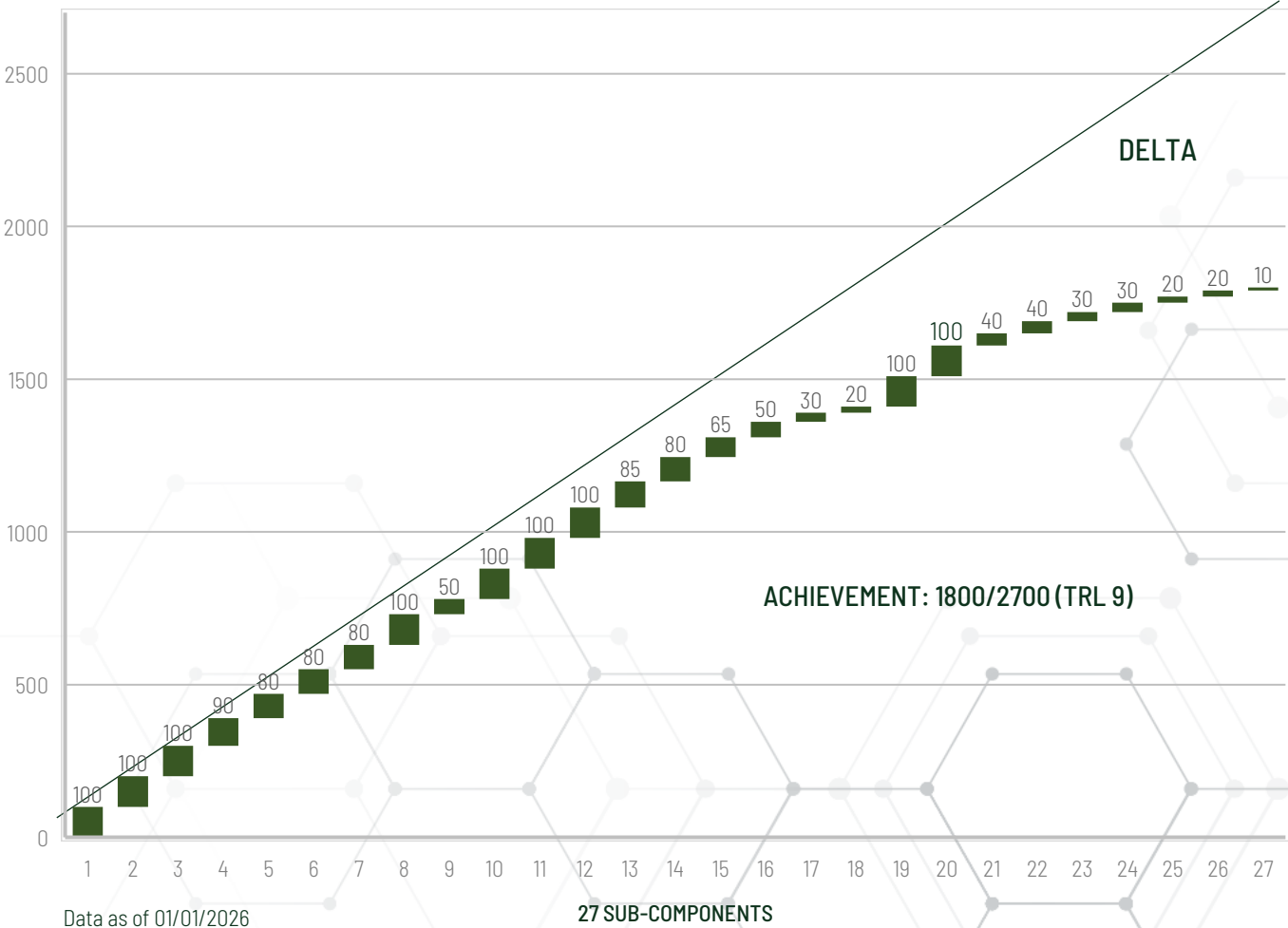
DUALstorePLUS

TECHNICAL READINESS - MILESTONES ACHIEVED - REMAINING PART TO TRL 9

- 1-9 E-store (BESS) - stand-alone or DUALstorePLUS
- 10-18 CALstore (TES) - stand-alone or DUALstorePLUS
- 19-27 MCU (Master Control Unit) DUALstorePLUS

- 1 Basic validated foundation
- 2 Concept defined validated
- 3 Safety lifecycle environment
- 4 Electrical architecture hybrid
- 5 KPIs degradation revenue
- 6 Stability power quality
- 7 Compliant market participation
- 8 Repeatable maintainable certified
- 9 Grid-support demonstrated resilience
- 10 Basic validated foundation
- 11 Concept defined validated
- 12 Feasibility temperatures interfaces
- 13 Architecture sealing insulation
- 14 Performance losses sizing
- 15 Stability ramps gradients
- 16 Integration charging sources
- 17 Productizable, manufacturable, serviceable
- 18 Field-grade availability guarantees
- 19 Basic validated foundation
- 20 Concept defined validated
- 21 Orchestration data boundaries
- 22 Control comms cybersecurity
- 23 KPIs testable latency
- 24 Constraints failsafe validated
- 25 Multimarket optimization priorities
- 26 Fleetgrade OTA hardening
- 27 EnergyOS governance SLA

DUALstorePLUS - READINESS DETAILS - 2700 TARGET



3 main components

27 sub-components

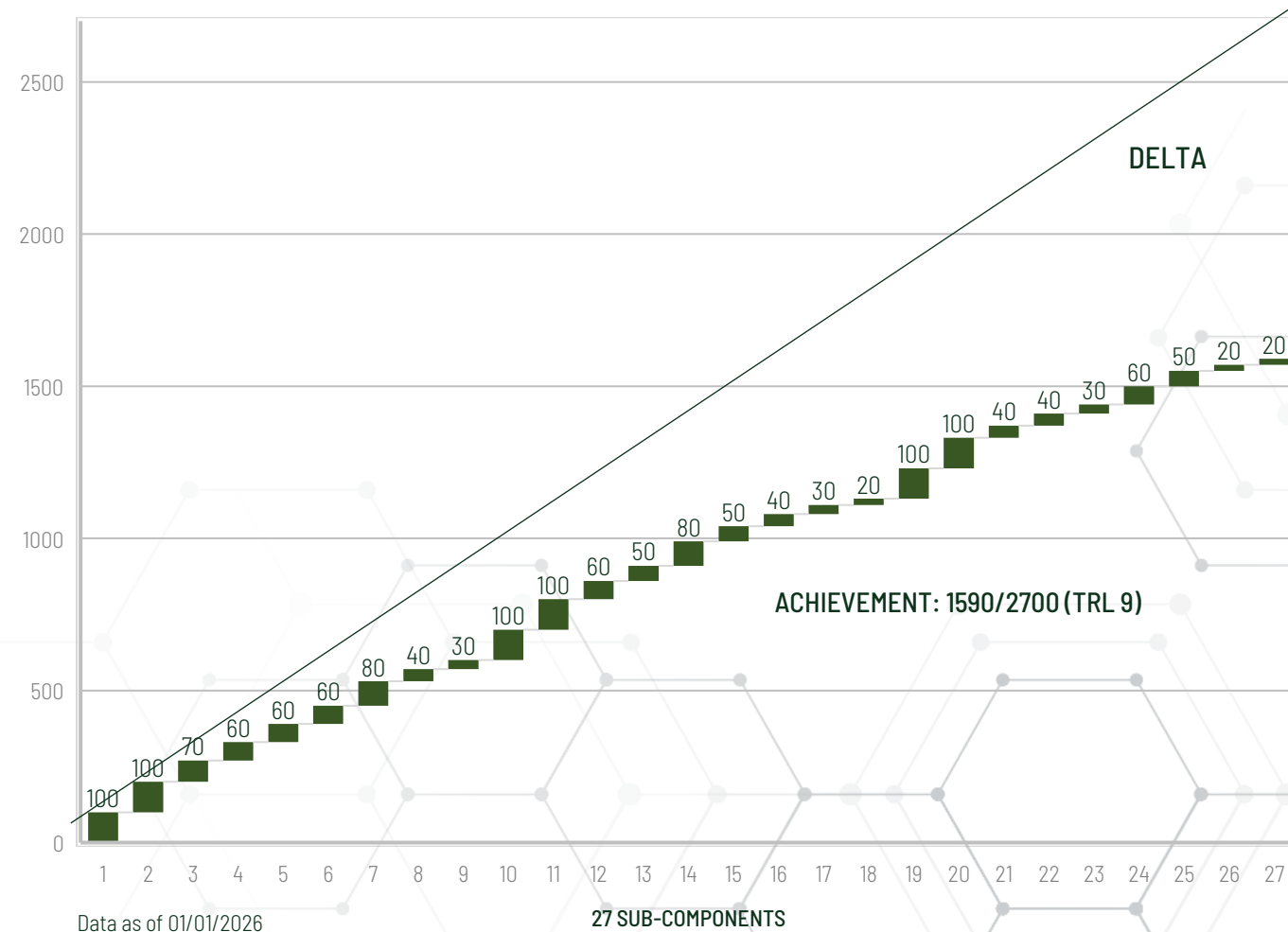


For further details see
Investment Proposal

- 1-9 Structures (non-NUC) & Heat Transfer Loop
 10-18 Accelerator (ACC) + Plasma + Targets
 19-27 Nuclear Energy Release & Energy Transfer-Salt Loop

- 1 Basic validated foundation
- 2 Concept defined validated
- 3 Structural civil interfaces
- 4 Primary heat-exchangers readiness
- 5 Heat-transfer design
- 6 Heat delivery rejection
- 7 Thermal insulation strategy
- 8 Maintainability replaceability provisions
- 9 System integration acceptance
- 10 Basic validated foundation
- 11 Concept defined validated
- 12 Performance operating envelope
- 13 Accelerator design maturity
- 14 Beam optics readiness
- 15 Target engineering readiness
- 16 Diagnostics coverage readiness
- 17 Safety interlocks protection
- 18 Integration commissioning readiness
- 19 Basic validated foundation
- 20 Concept defined validated
- 21 Thermo-hydraulic basis
- 22 NUC vessel readiness
- 23 Pumping control readiness
- 24 Salt conditioning concept
- 25 Sensors hot metrology
- 26 Containment drain emergency
- 27 Commissioning reliability demonstration

ADES - READINESS DETAILS - 2700 TARGET



3 main components

27 sub-components

DELTA

→ Use of funds to get to TRL 9

→ See Investment Proposal

ADES PHYSICS PROOF CHAIN

EVERY COMPONENT IS VALIDATED

5 Components 5 Validations

- ✓ CERN
- ✓ IAEA
- ✓ ORNL
- ✓ MYRRHA
- ✓ PSI
- ✓ SCK CEN
- ✓ Los Alamos
- ✓ DOE
- ✓ DLR
- ✓ VDL Groep

The physics underlying ADES is validated. The challenge is system integration and scaling – that's what VDL Groep delivers.

1	Neutron Production via Accelerator High-energy proton linacs generate neutrons for subcritical nuclear systems. Proven in spallation sources worldwide.	✓ CERN: Accelerator R&D for European ADS Demonstrator ✓ CERN n_TOF: Neutron Time-of-Flight Facility ✓ PSI SINQ: Swiss Spallation Neutron Source	✓ PROVEN
2	Thorium → U-233 Transmutation Th-232 converts to fissile U-233 via neutron capture and beta decay. 60 – 90% FIMA is achievable.	✓ IAEA: Thorium Fuel Cycle (official program) ✓ Oak Ridge Nat. Lab (ORNL): Molten Salt Reactor Experiment	✓ PROVEN
3	Heat Generation (Subcritical ADS) Controlled thermal energy through subcritical fission sustained by external neutron source. Only subcritical reactions.	✓ MYRRHA (Belgium, SCK CEN): ADS demonstrator ✓ GUINEVERE: Subcritical ADS experimental facility ✓ Forschungszentrum Jülich: MYRRHA collaboration	✓ PROVEN
4	Heat Transfer & Energy Conversion Thermal energy transferred via HTHX, converted to electricity (steam Rankine or sCO ₂ Brayton cycles).	✓ Los Alamos Nat. Lab: ADS Heat Transfer Studies ✓ US DOE: Advanced Reactor Technologies ✓ DLR (German Aerospace): Energy Research Division	✓ PROVEN
5	System Integration & Industrialization Scaling from validated components to serial container-sized modules. Precision manufacturing at industrial scale.	✓ VDL Groep: ASML/PALLAS/Thorizon supplier ✓ VDL + Research Center Petten: molten salt tech ✓ VDL: EU Industrial Alliance on SMRs member	VDL PARTNER

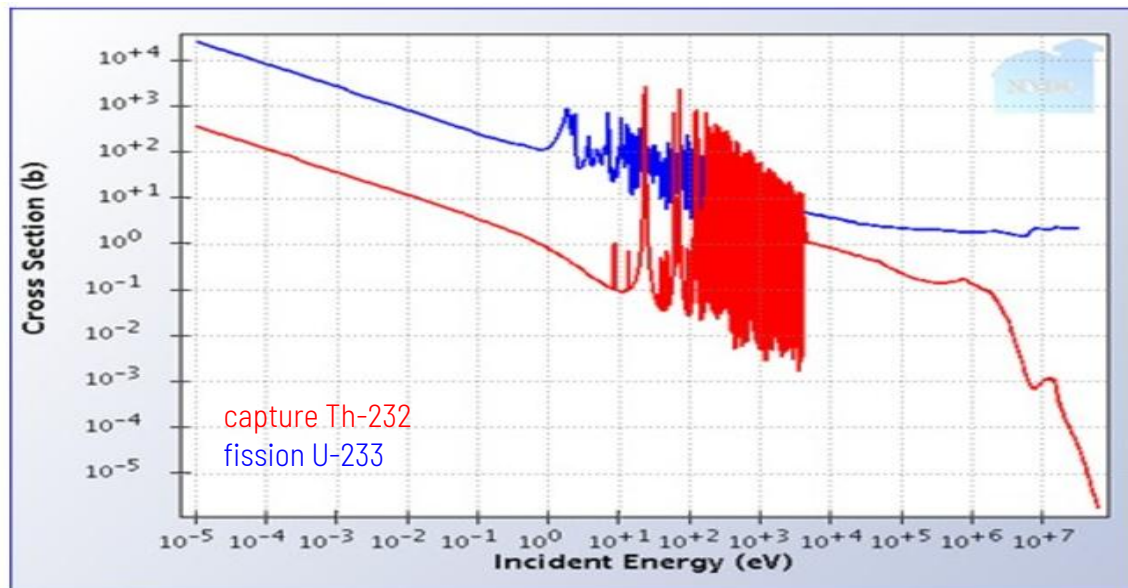
✓ **Every ADES component has independent physics validation.** The remaining challenge is integration – delivered by VDL Groep (Tier-1 partner).
Sources: CERN, IAEA, Oak Ridge National Laboratory, SCK CEN/MYRRHA, PSI, Los Alamos National Laboratory, US DOE, DLR, VDL Groep public disclosures. Full reference list: Emerald Horizon Validation Document.

$$E_{\text{fission, total}}(T) = \int_0^T \left(3.204 \times 10^{-11} \right) \sigma_{f, \text{U233}}^{\text{therm}} \phi_{\text{therm}} N_{\text{U233}}(t) dt$$

$$= \left(3.204 \times 10^{-11} \right) \sigma_{f, \text{U233}}^{\text{therm}} \phi_{\text{therm}} \frac{\lambda_{\text{Pa233}} \lambda_{\text{Th233}} \sigma_{c, \text{Th232}}^{\text{epi}} \phi_{\text{epi}} N_{\text{Th232}}(0)}{(\lambda_{\text{Pa233}} - \lambda_{\text{Th233}}) (\lambda_{\text{Th233}} - \sigma_{c, \text{Th232}}^{\text{epi}} \phi_{\text{epi}}) (\sigma_{f, \text{U233}}^{\text{therm}} \phi_{\text{therm}} - \lambda_{\text{Pa233}})}$$

$$\times \left[\frac{1 - e^{-\sigma_{c, \text{Th232}}^{\text{epi}} \phi_{\text{epi}} T}}{\sigma_{c, \text{Th232}}^{\text{epi}} \phi_{\text{epi}}} - \frac{1 - e^{-\lambda_{\text{Th233}} T}}{\lambda_{\text{Th233}}} - \frac{1 - e^{-\lambda_{\text{Pa233}} T}}{\lambda_{\text{Pa233}}} + \frac{1 - e^{-\sigma_{f, \text{U233}}^{\text{therm}} \phi_{\text{therm}} T}}{\sigma_{f, \text{U233}}^{\text{therm}} \phi_{\text{therm}}} \right]$$

$$\phi_{\text{total}} = \frac{S_{\text{ext}}}{V_{\text{core}}} \frac{1}{1 - k_{\text{eff}}}, \quad \phi_{\text{therm}} = f_{\text{therm}} \phi_{\text{total}}, \quad \phi_{\text{epi}} = f_{\text{epi}} \phi_{\text{total}}$$



System Parameters (typical magnitudes)	
Symbol	Description
V_{core}	Active reaction volume
S_{ext}	External neutron source strength (e.g. Li(p,n) or D(d,n))
k_{eff}	Effective neutron multiplication factor (subcritical)
T	Operation time horizon
f_{therm}	Fraction of the total neutron flux in the thermal spectrum
f_{epi}	Fraction of the total neutron flux in the epithermal spectrum ($f_{\text{therm}} + f_{\text{epi}} = 1$)
$\sigma_{c, \text{Th232}}^{\text{epi}}$	Microscopic capture cross section of Th-232 for epithermal neutrons (Th-232 $\rightarrow$ Th-233)
$\sigma_{f, \text{U233}}^{\text{therm}}$	Microscopic fission cross section of U-233 for thermal neutrons
$\sigma_{c, \text{U233}}^{\text{therm}}$	Microscopic capture (non-fission) cross section of U-233 for thermal neutrons
λ_{Th233}	Decay constant of Th-233 $\rightarrow$ Pa-233 (half-life = 22.3 min)
λ_{Pa233}	Decay constant of Pa-233 $\rightarrow$ U-233 (half-life = 26.97 days)
$N_{\text{Th232}}(0)$	Initial inventory of Th-232 atoms (≈ 10 kg)
$N_{\text{Th233}}(t)$	Transient intermediate isotope concentration
$N_{\text{Pa233}}(t)$	Protactinium-233 atoms produced and decaying to U-233
$N_{\text{U233}}(t)$	Fissile inventory of U-233 atoms available for fission
E_{fission}	Average energy released per fission

Physics-Based
Validation

Stable flux is designed to
be achieved using
accelerator-based
neutron sources, with two
complementary solutions
planned to reduce
technology risk.

For further details see
Investment Proposal

INCOME DE-RISKING - X-MULTIPLIER

TARGETING ATTRACTIVE & PREDICTABLE PRICE FOR CLIENTS AND PROFIT FOR INVESTORS

Target:
Flex margin

Our aim is to buffer potential cost overruns through the flex margin.

Aiming to create additional negotiation flexibility on prices and terms

MARKET PRICE, INDUSTRY DE incl. grid, levies, taxes

18,0 ct/kWh

-9.5 ct savings

MARKET PRICE ON-SITE without grid fee

11,5 ct/kWh

-3.0 ct savings

SMRX CONTRACT PRICE Energy as a Service - target price

8,5 ct/kWh

OWN COSTS	SMRX FIXED PROFIT	FLEX MARGIN
2,2 ct	3,8 ct	2,5 ct

THE CENTRAL METRIC

3.8 ct/kWh fixed profit × 250 SMRX = €790 million profit p. a.

CUSTOMER TARGET PRICE	SMRX FIXED PROFIT	PROFIT P. A. - 250 SMRX
8,5 ct/kWh	3,8 ct/kWh	790 Mio. €

Illustrative calculation based on stated assumptions; actual results may differ.

The target price of 8.5 ct/kWh is well below the industrial market price – the customer saves, SMRX earns a fixed margin. It is precisely this two-sided logic that makes the model viable.

For context: at the current market capitalization, the Company is valued at roughly 1.5x the annual profit of a single 250-module reference package – undiscounted, not probability-weighted, and years out. We state the arithmetic. The discount rate and the probability are yours.



X Multiplication
Profits multiply over time
Modules × Annual Profit × Years
Transforms
Aiming to build a scalable,
long-term value business

DISCLAIMER

The information provided in this presentation, in particular the general information regarding Emerald Horizon AG (the “Company”), is intended for information purposes only. The content of this presentation and the information contained herein do not constitute an offer to sell or a solicitation of an offer to purchase or subscribe for securities, nor do they constitute a recommendation to purchase or sell securities of the Company.

The information contained in this presentation is based on the Company’s current state of knowledge. It may be incomplete, subject to change, and is not necessarily updated. To the extent permitted by law, no express or implied representation, warranty or undertaking is given as to the accuracy, completeness, fairness or adequacy of the information, financial data, market information or forecasts contained therein. In particular, the information may contain forward-looking statements. Such statements are based on current expectations, assumptions and assessments of the Company and are subject to known and unknown risks and uncertainties. Actual results, financial position, results of operations and the development of the Company may differ materially from those expressed or implied in such statements. The analyses and conclusions contained in this presentation are not intended to constitute, and shall not be construed as, a prediction of future results or a guarantee of value, performance, financing availability, regulatory outcomes, transaction completion or any other future development.

To the fullest extent permitted by law, none of the Company, its affiliates, members of its corporate bodies, officers, employees, advisers, the signatories or any other person owes or accepts any duty, responsibility or liability, howsoever arising, and none of them shall be liable for any loss, damage, cost or expense of whatsoever nature arising out of, or in connection with, the use of this presentation, access to or receipt of this presentation, reliance on this presentation or on any information, statements or representations made in connection therewith.

It is noted that the information provided in this presentation cannot replace independent professional advice or the risk disclosures required by law to be provided by advisers to individual investors. Accordingly, investment decisions should not be made in reliance on the information contained in this presentation. Any investment decision should be made exclusively on the basis of the relevant offering documents and only after obtaining full information as well as independent professional, legal and tax advice (where required). Investors should note that an investment in securities may be subject to significant fluctuations and involve substantial risks, including the possible total loss of the capital invested.

None of the following information contained in this presentation is intended for publication, distribution or transmission, directly or indirectly, in whole or in part, in or into the United States of America (USA), Australia, Canada, Japan or South Africa or any other jurisdiction where such publication or transmission would be unlawful. Accordingly, the information is not directed, in particular, at “U.S. persons” (as defined in Regulation S under the U.S. Securities Act of 1933) or at persons resident in, or located in, the aforementioned jurisdictions.



CONFIDENTIAL

Emerald LaboraTHorium
Karl-Huber-Gasse 15
A-8041 Graz
www.emerald-horizon.com

SMR

SUBCRITICAL MICROMODULAR REACTOR

X

ENERGY STORAGE & ENERGY GENERATION

