

# ADX Energy Ltd – Investor Presentation

*Resources Roadhouse Investment Afternoon*

*Perth 21 July 2021*



A transformational, European focussed energy company **(ASX:ADX)**

# DISCLAIMER STATEMENT (1)

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## Important Notice

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**Persons compiling information about Hydrocarbons.** Pursuant to the requirements of the ASX Listing Rule 5.31, the unaudited technical and reserves information contained in this presentation has been prepared under the supervision of Mr Paul Fink. Mr Fink is Technical Director of ADX Energy Ltd, is a qualified geophysicist with 23 years of technical, commercial and management experience in exploration for, appraisal and development of oil and gas resources. Mr. Fink has consented to the inclusion of this information in the form and context in which it appears. Mr. Fink is a member of the EAGE (European Association of Geoscientists & Engineers) and FIDIC (Federation of Consulting Engineers).

ERC Equipoise Pte Ltd (ERCE) has conducted an independent audit of the **Gaiselberg & Zistersdorf Oil Fields** developed Reserves and have previously consented to the inclusion of information specified as ERCE audited values in this presentation. ERCE is an independent London and Singapore based consultancy specialising in geoscience evaluation, engineering and economic assessment. The CPR has been prepared in accordance with the June 2018 SPE/WPC/AAPG/ SPEE/SEG/SPWLA/EAGE Petroleum Resources Management System (PRMS) as the standard for classification and reporting. ADX is not aware of any changes of economic assumptions, field operating costs, new information or technical data that materially affects the estimates announced on Reserves Reporting Date of 5/11/2020 for the **Gaiselberg & Zistersdorf Oil Fields**.



# DISCLAIMER STATEMENT (2)

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## PRMS Reserves Classifications used in this Report

**Developed Reserves** are quantities expected to be recovered from existing wells and facilities.

*Developed Producing Reserves are expected to be recovered from completion intervals that are open and producing at the time of the estimate.*

*Developed Non-Producing Reserves include shut-in and behind-pipe reserves with minor costs to access.*

**Undeveloped Reserves** are quantities expected to be recovered through future significant investments.

A. **Proved Reserves (1P)** are those quantities of Petroleum that, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable from known reservoirs and under defined technical and commercial conditions. If deterministic methods are used, the term “reasonable certainty” is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate.

B. **Probable Reserves** are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves. It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated Proved plus Probable Reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the 2P estimate.

C. **Possible Reserves** are those additional Reserves that analysis of geoscience and engineering data suggest are less likely to be recoverable than Probable Reserves. The total quantities ultimately recovered from the project have a low probability to exceed the sum of Proved plus Probable plus Possible (3P) Reserves, which is equivalent to the high-estimate scenario. When probabilistic methods are used, there should be at least a 10% probability that the actual quantities recovered will equal or exceed the 3P estimate. Possible Reserves that are located outside of the 2P area (not upside quantities to the 2P scenario) may exist only when the commercial and technical maturity criteria have been met (that incorporate the Possible development scope). Standalone Possible Reserves must reference a commercial 2P project.

**Contingent Resources:** those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations but, for which the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies.

1C, 2C, 3C Estimates: in a probabilistic resource size distribution these are the P90 (90% probability), P50, and P10, respectively, for individual opportunities. Totals are by arithmetic summation as recommended under PRMS guidelines. This results in a conservative low case total and optimistic high case total.

**Prospective Resources:** those estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further explorations appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. “Low” means a conservative estimate of the quantity that will actually be recovered from the accumulation by the project; there is a 90% probability (P90) that the quantity actually recovered will equal or exceed the best estimate. “Best” means a best estimate of the quantity that will actually be recovered from the accumulation by the project; there is a 50% probability (P50) that the quantity actually recovered will equal or exceed the best estimate. “High” means an optimistic estimate of the quantity that will actually be recovered from the accumulation by the project; there is a 10% probability (P10) that the quantity actually recovered will equal or exceed the best estimate.

# CORPORATE OVERVIEW



A transformational, European focussed energy company (**ASX:ADX**)

## Financial information

|  |                  |
|--|------------------|
| Share price (19 July 2021)                               | A\$0.008         |
| Number of shares   | 2,654 m          |
| Number of Options  | 211 m            |
| <b>Market capitalisation</b>                             | <b>A\$21.2 m</b> |
| Cash (31 March 2021)                                     | A\$4.6 m         |
| Loan Notes (unsecured) and Austrian Loans (30 June 2021) | A\$4.8 m         |
| Minority Interest in Subsidiary (31 Dec 2020)            | A\$ 8.8 m        |
| <b>Enterprise value</b>                                  | <b>A\$30.2 m</b> |

## Company overview

- **Corporate Headquarters** in Perth Western Australia
- **Operations & technical teams** in Austria
- **Focus on production & rapid cashflow growth** - fast track appraisal & development close to infrastructure
- **Decarbonisation and sustainability** opportunities – H2 storage, geothermal and CO<sub>2</sub> storage
- **Asset positions** in **Austria** onshore, **Romania** onshore and **Italy** offshore
- **Operate** all assets. Only 3rd production operator in Austria. 2nd Exploration Operator

## Directors

### Ian Tchacos (Executive Chairman)

- Located Perth; petroleum engineer; production operations, commercial, corporate and management experience. (35 years)

### Paul Fink (Technical Director / CEO)

- Located Vienna; geophysicist; new ventures, exploration, production and management experience (30 Years)

### Andrew Childs (Non-Executive Director)

- Located Perth; geoscientist; exploration, HR and corporate experience (35 years)

### Edouard Etienvre (Non-Executive Director)

- Located London; finance executive; debt market, new ventures, commercial and management experience (15 years)

**Over 115 years of relevant oil and gas experience**

## Company Secretaries (joint)

**Peter Ironside and Amanda Sparks** – extensive finance and corporate experience

**ADX Vienna MD - Alan Reingruber** – extensive engineering, government relations and operations experience



# STRATEGIC FOCUS

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**Focussed on becoming a leading European energy producer and the provider of energy solutions for a low carbon society**

ADX is a rapidly growing European producer and explorer focusing on projects in Austria, Romania and Italy

We produce safe, low greenhouse gas emission energy now to the highest environmental standards while redeploying our assets, people and skills for transition to low carbon energy production and carbon abatement

We are also working on intelligent solutions to become a leading European energy producer and provider of solutions for a low carbon society to enhance value for shareholders and the communities in which we operate

We are well positioned to expand our oil and gas business and build a green energy business for exceptional growth



## Production, exploration and renewable energy assets

### Gaiselberg & Zistersdorf Oil Fields

*(Operated, 100% equity) Vienna Basin, Austria*

- Stable, efficient, long-lived production
- **Hydrogen (H<sub>2</sub>) production & storage project**

### Upper Austria Appraisal & Exploration Licenses

*(Operated, 100% equity) Mollasse Basin, Austria*

- Large 3D seismic data base [Eur 100 MM]
- Drill ready prospects with high success rate
- Agreed infrastructure access
- Geothermal reservoirs

### Iceea Mare Production License & Parta Exploration license

*(Operated, 49.2% equity), Pannonian Basin, Romania*

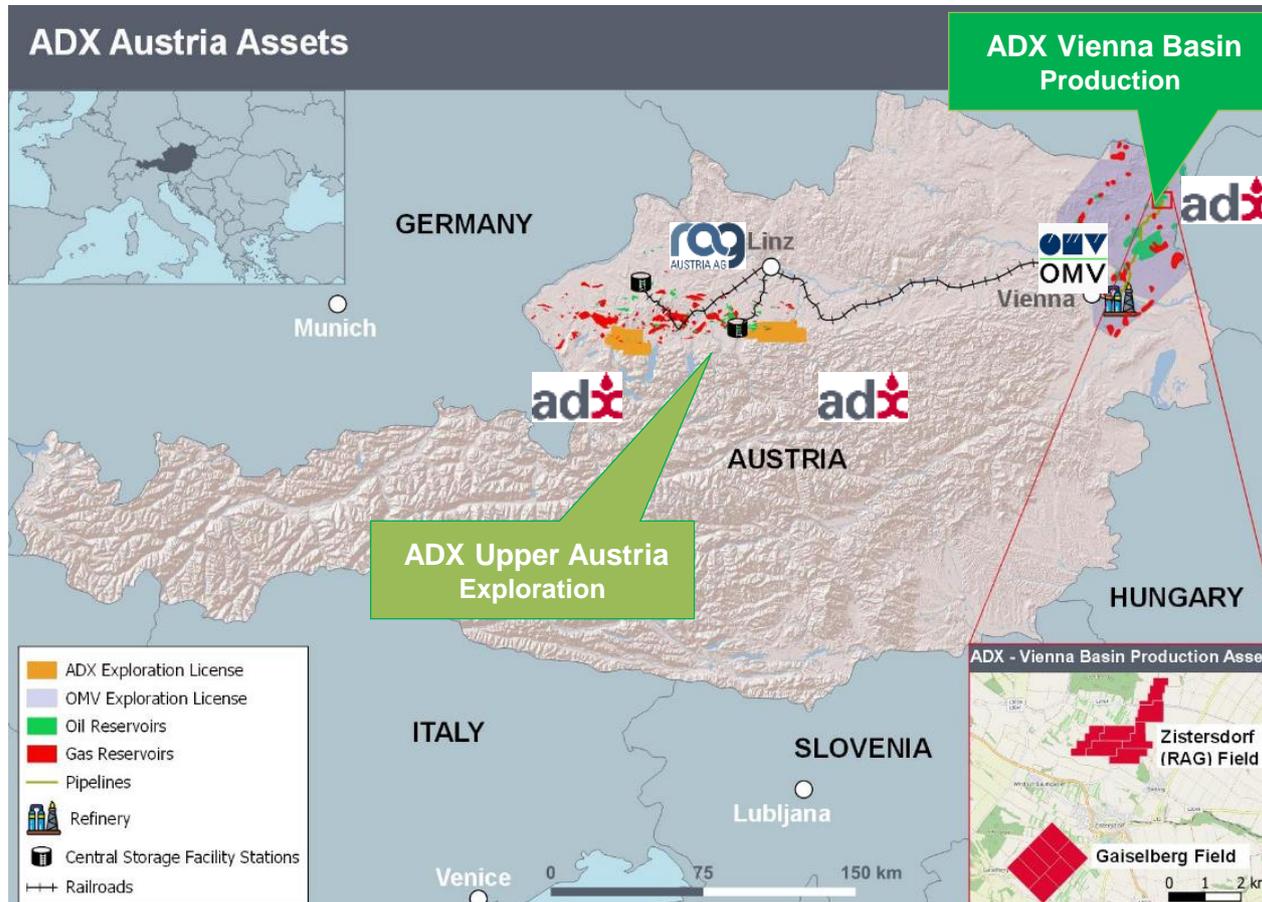
- Excellent prospectivity, good access to infrastructure and high gas demand

### Nilde Oil Field Redevelopment Project

*Operated, 100% equity) Sicily Channel, Italy <sup>note 1</sup>*

- 34.1 MMBBL (2C) Resource (CPR) prematurely abandoned
- *Moratorium being lifted*

# AUSTRIA IS A RARE BREAK THROUGH OPPORTUNITY



## ASSET POSITION

- 100% equity in oil production asset in *Vienna Basin*
- H<sub>2</sub> production & storage project
- 100% equity in appraisal and exploration acreage in *Upper Austria*
- Geothermal pilot project
- Assets managed and operated by ADX local team
- Production and exploration growth opportunities

## COUNTRY FUNDAMENTALS

- Excellent infrastructure for oil and gas processing and export – central European gas hub and 230,000 BPD refinery
- High value received for oil and gas
- Stable, predictable legal and licensing system
- Favorable fiscal terms
- Government support for hydrocarbons and transition projects to renewable technologies

## UNIQUE COMPETITIVE POSITION

- Break into a 75-year duopoly
- World-class oil province ~1 billion barrels oil and 2.7 Tcf gas
- ADX is one of 3 production and one of 2 exploration operators in country – *a very privileged position that provides exceptional growth opportunities*

# SUMMARY OF RECENT HIGHLIGHTS

## Production

**66% Increase  
in hedged  
oil price  
position**

**35% Increase  
oil and gas  
production  
for quarter**

## Exploration

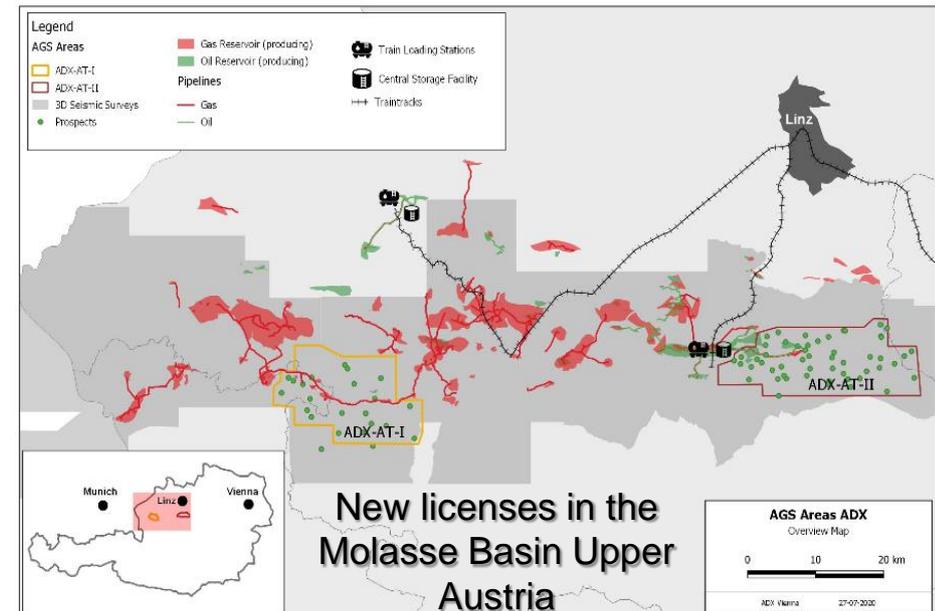
**Upper  
Austria  
exploration  
award**

**Preparation  
for drilling  
first  
prospect**

## Renewable Energy

**Vienna Basin  
Hydrogen  
project  
initiation**

**Geothermal  
pilot  
project**



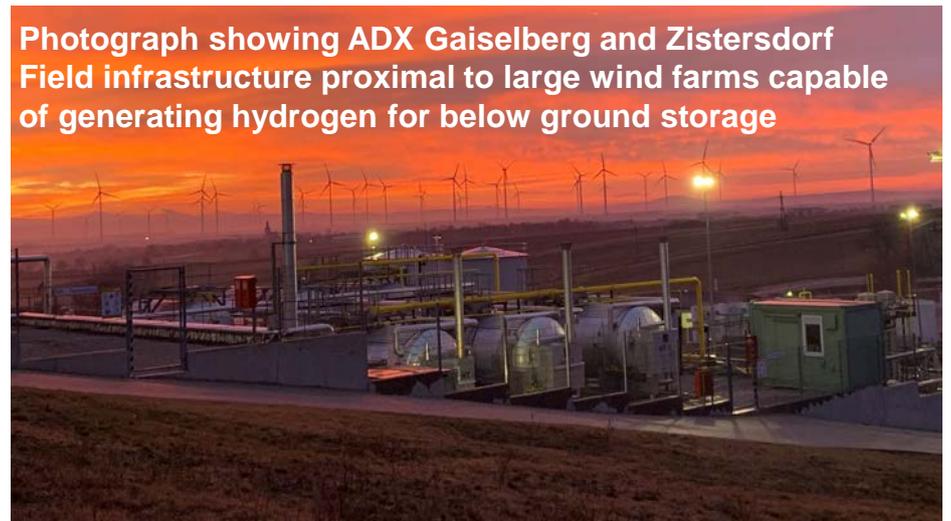
# ZISTERSDORF FIELDS (Vienna Basin) - Asset Summary

- 100% equity purchased from RAG Austria AG (RAG) in December 2019
- Low decline long lived production  
Current production rate of 320 BOEPD
- Low emission production from state of the art facilities
- Ownership of 13.7 hectares agricultural land (Vineyards)
- High value sweet crude oil (33° API – 7.9% discount to Brent)
- Depleted gas reservoirs suitable for Hydrogen Storage

Well work over operations



Photograph showing ADX Gaiselberg and Zistersdorf Field infrastructure proximal to large wind farms capable of generating hydrogen for below ground storage



Multilayer reservoir producing since 1935

0.9 mmbbl 2P developed reserves  
"Note 1"

Large appraisal from Flysch reservoirs

34 wells, 20 producers, 14 injectors

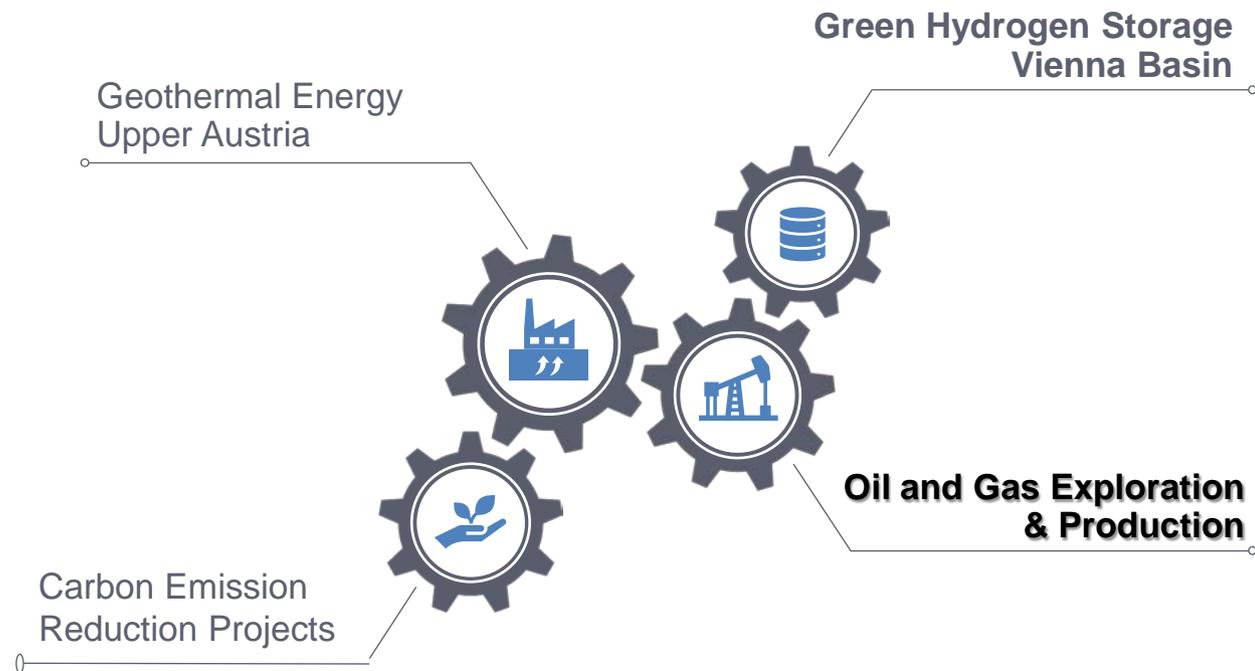
4,000 boepd production capacity

Pipeline to Schwechat refinery Vienna

## Utilising our existing assets and skills to transform our business into zero carbon energy production and emission reduction technology business

- » Redeploying subsurface reservoirs for safe, cost effective energy storage or green energy production
- » Utilising our operational geological, engineering and commercial skills
- » Creating innovative partnerships to develop zero carbon ecosystems
- » Leverage existing relationships with regulating authorities
- » Source ESG investment

***The compatibility between oil and gas operations, green energy production and emerging decarbonisation technologies enables us to make a strategic shift without diminishing our existing business***



**Transform profitable oil and gas assets now to future renewable energy production**



# VIENNA BASIN GREEN HYDROGEN PROJECT



A potential lighthouse project in the European energy market with compelling attributes



1

Developing partnerships for the **production and storage of hydrogen (H<sub>2</sub>)** using depleted ADX gas reservoirs in the Vienna basin

2

Offering **substantial storage capacity** for renewable energy, essential for the decarbonisation of our society

3

Working with **proven technologies** that ensure environmentally safe operations, which is a key success factor

4

Through its **unique asset position in Austria**, which ADX operates with a favourable production concession in the Vienna basin including land ownership

5

**Legislative changes and potential subsidies** from the EU green deal for hydrogen projects make it the ideal time to start

## Great Fundamentals



- » Oversupply of green power in summer to generate H<sub>2</sub>
- » Store produced H<sub>2</sub> in depleted ADX reservoirs
- » Low cost and high quality water feedstock for H<sub>2</sub> electrolysis
- » Sell H<sub>2</sub> in winter at premium pricing
- » Store and sell O<sub>2</sub> into local market

## Compelling Success Factors



- » Multiple sources of wind power near to ADX fields
- » Economical, industrial scale storage capacity
- » Delivery of H<sub>2</sub> into existing methane pipeline system
- » Vienna hydrogen hub and EU hydrogen pipeline network planned for mid 2020's

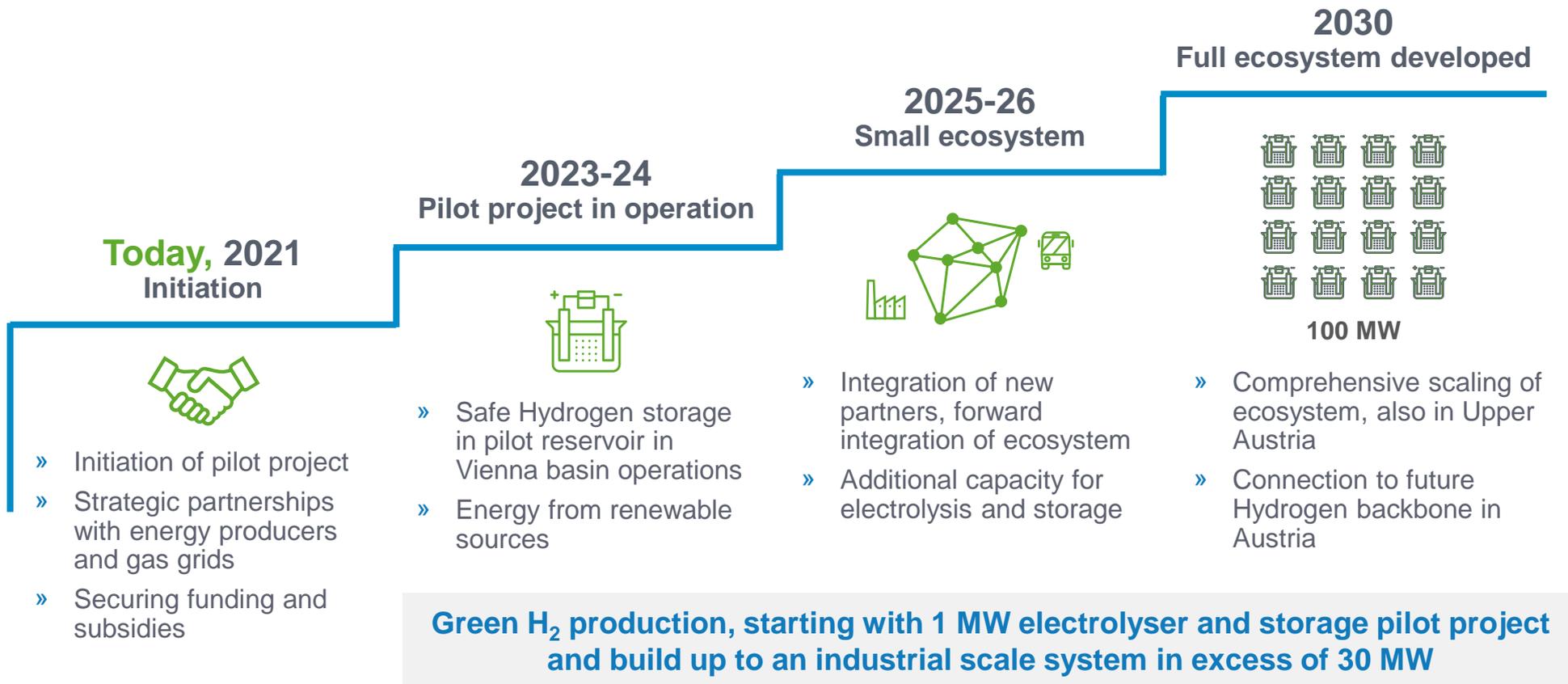
## Austrian & EU Policy Support



- » Austrian policy to increase renewable energy by factor 6 by 2030
- » Increasing funding available on favourable terms for renewable projects
- » Large EU subsidies for hydrogen projects

# VISION FOR GREEN H<sub>2</sub> PRODUCTION & STORAGE

Opportunity to build a substantial, profitable & green H<sub>2</sub> ecosystem for the energy sector at our Gaiselberg and Zistersdorf Fields

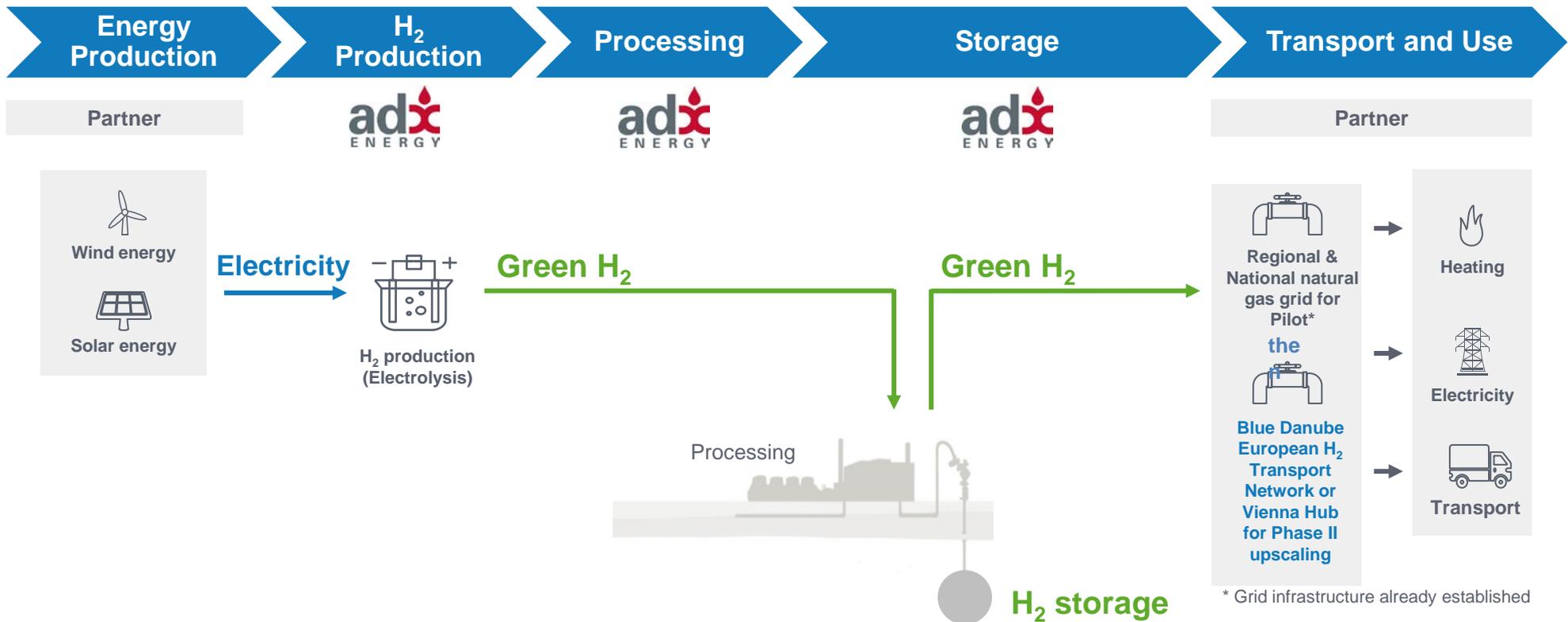


# H<sub>2</sub> PROJECT STRUCTURE

**Phase 1** – Pilot Project to ADX position in the H<sub>2</sub> value chain

**Phase 2** – Upscaling to Commercial Project when H<sub>2</sub> infrastructure becomes available

**Pilot Project (1 MW) >> Phase 2 Upscaling (30 MW +)**



# LARGE SCALE PROFITABLE ENERGY STORAGE

## Illustrative Comparisons

### AREA

The **subsurface** hydrogen storage reservoir (“sponge”) is approx. 20 hectares in area and 10 metres thick, i.e. the size of 30 soccer fields or a bit larger than the London Serpentine Lake, Hyde Park.

On the **surface** only a few well pad areas as in the picture below are required. That means that only a few hundred square meters are needed.

### ENERGY

ADX can store in one large hydrogen underground reservoir approx. **500 times** the energy – equivalent of the largest Tesla energy storage Mega-Pack (approx. 200 MWh).

Alternatively, our underground hydrogen storage solution could supply 20,000 households with electric energy equivalent for an entire year.

### COST

It costs Tesla approx. € 150 Million to build their “giant” 200 MWh battery storage. ADX can build the subsurface energy storage facility for a tenth of the Tesla battery cost and **2.500 times cheaper** on an energy equivalent basis.

As the price of electrolysis comes down, this will be a much more cost efficient way to store energy, with a lot less valuable land required for the facility.

There is consensus that large scale energy storage will be needed for the green energy transition to succeed



# GEOHERMAL PILOT PROJECT

A ground breaking Pilot Project with Siemens Energy and RED Drilling to evaluate a highly efficient new geothermal power generation technology.

## Project execution

- ADX responsible for all licensing, geological analysis, planning, subsurface engineering and execution
- Siemens Energy to provide power generation technology
- RED to provide drilling and well work services

## Relevance of technology

- Cutting edge 24/7 green energy production system
- Potential to be 6 times more efficient than existing geothermal systems
- Utilisation of suitable oil and gas reservoirs for green power generation

## Benefits for ADX

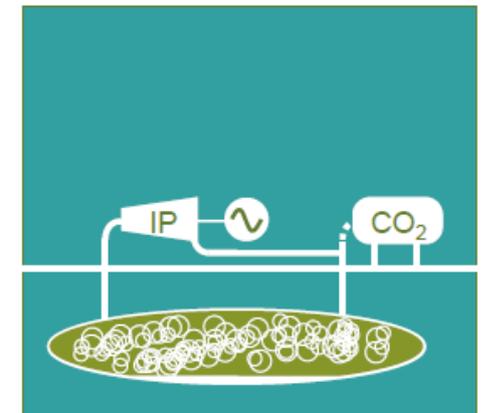
- Potential deployment in ADX Upper Austria acreage where there is proven geothermal potential as well as other European onshore locations
- Relationship development and collaboration with Siemens and RED
- Develop skills and experience in geothermal power project development

**Potential to deploy Siemens' technology at commercial scale in areas of Europe with a very high geothermal gradient such as the Pannonian basin of Hungary and Romania where ADX has a wealth of experience.**

## Hydrocarbon Production Phase



## Geothermal Power Phase



# MOLASSE BASIN (Upper Austria) – *Exploration Summary*



*Extensive 3D Seismic Data Base*



*Predictable licensing system and operational access*



*Excellent oil and gas infrastructure Access*



*Strong community support*

**“Drill ready prospect portfolio with infrastructure access, ministry and community support”**



# UPPER AUSTRIA – EXPLORATION OVERVIEW



Agreements for **2 exploration, production and gas storage concessions** (AGS) in Upper Austria signed on 08 January 2021, 4 x 4 years period, highly efficient licensing system



**3,650 km<sup>2</sup> of modern 3D seismic data coverage** in the prolific Molasse foreland basin (220 mmboe produced in Upper Austria alone)



**Shallow (<1,000 m) to moderate (<3,000 m) drill depths and excellent reservoir productivity** (~1,000 bopd)

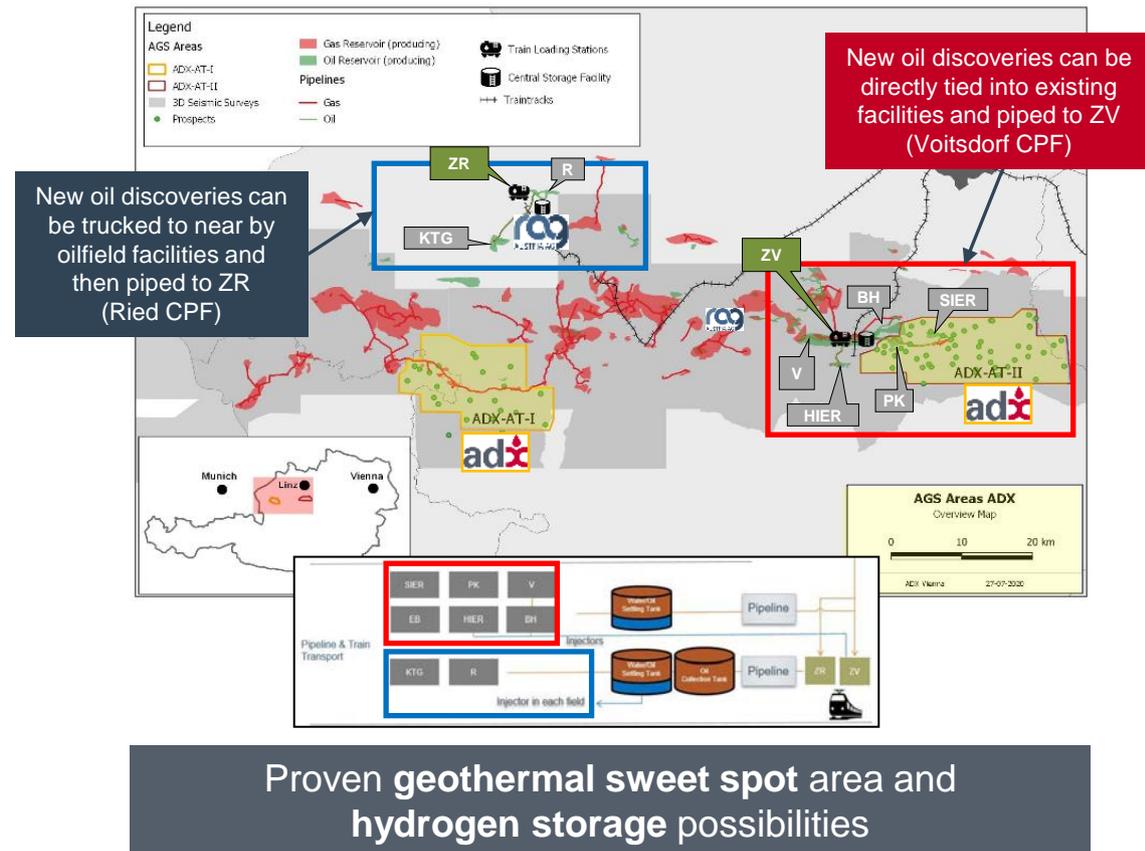


Targets with **balanced oil and gas mix** and very large upside



Portfolio **close to infrastructure** with access on agreed terms allowing rapid and **cost effective monetisation**

## Map of ADX licenses and infrastructure



**81**

leads, prospects and appraisal targets

**48%**

historical **exploration success ratio**

**58 mmboe<sup>1</sup>**

best technical resources for **10 matured expl. prospects**

**2**

**Stand out Prospects** ready to drill with large upside

**< 0.3 mmboe**

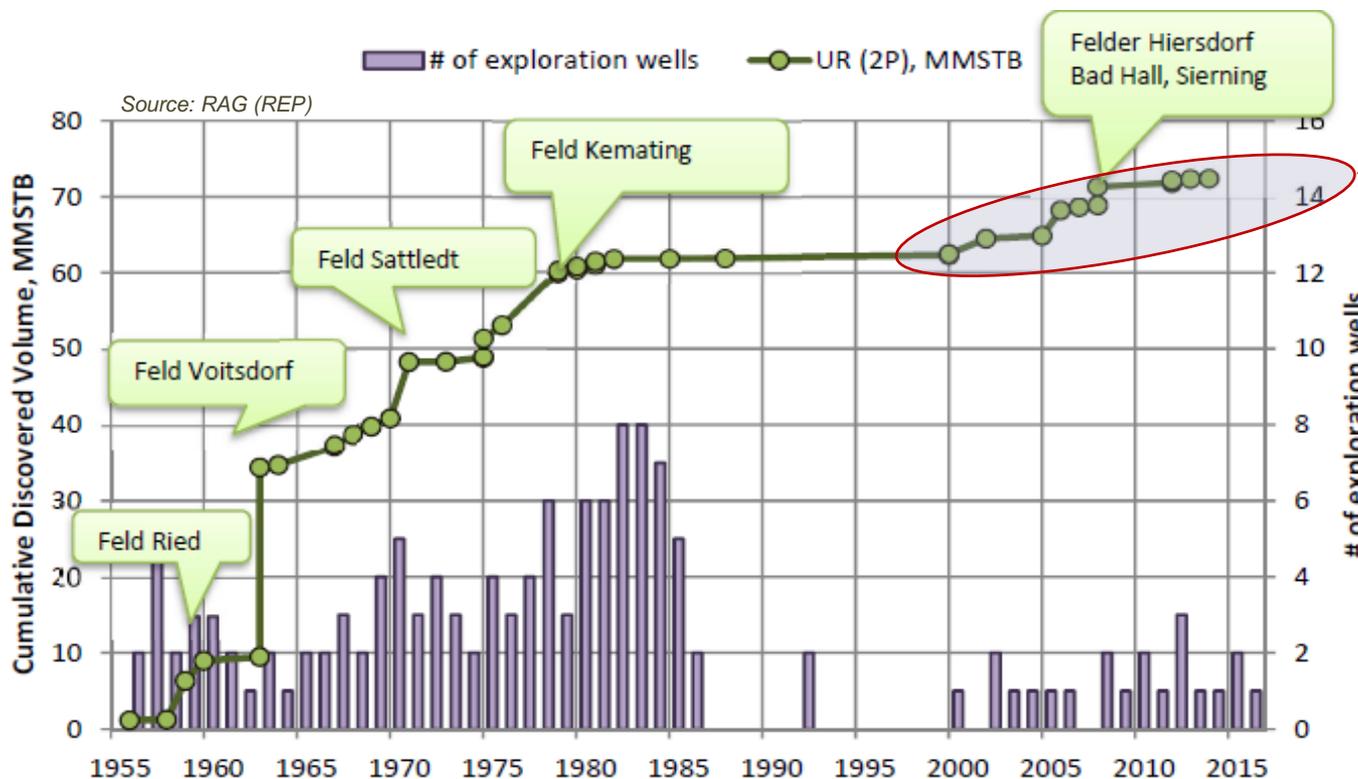
of recoverable resources **generate positive economics** (low break-even)

<sup>1</sup>note : Original Resources Reporting Date: Upper Austria Exploration 30/11/2020, Resources revised from 42 mmboe on 30/11/2020 to 58 mmboe on 30/3/21

# UPPER AUSTRIA – HISTORICAL SUCCESS RATE

**Recent exploration success rate utilising 3D seismic is 48%**

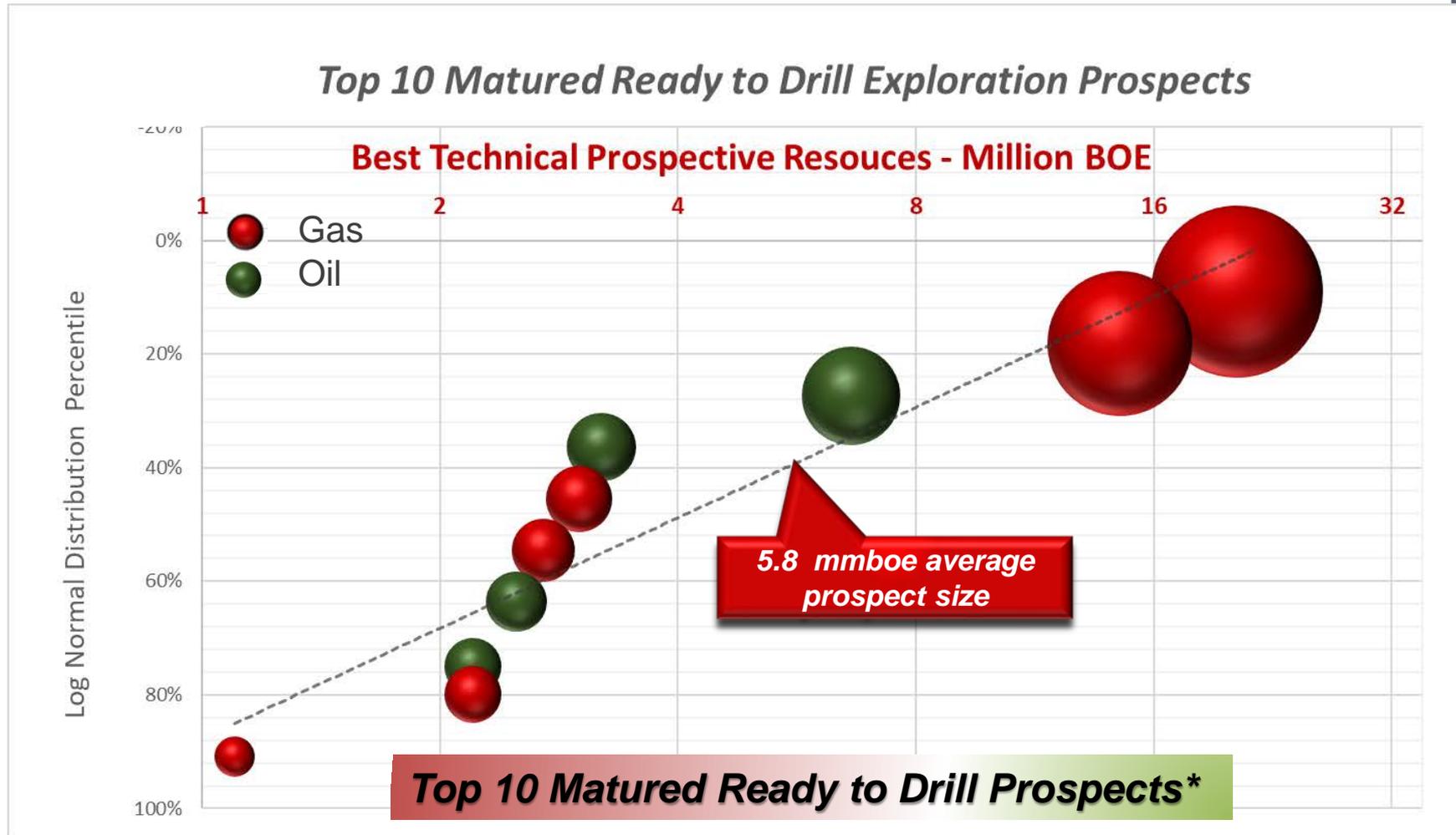
|  |                           |  |
|--|---------------------------|--|
| 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 |                           |  |
| <b>Large oil fields discovered on 2D seismic &amp; gravity</b>   | <b>No Oil Exploration</b> | <b>Drilling on 3D.... to be continued by ADX + Partner</b> |



- Despite a strong focus on gas and the recent (ca. 2017) RAG shareholder decision to phase out exploration and appraisal drilling, an excellent **success rate of 48%** was achieved for oil discoveries
- 10 discoveries with 21 wells drilled



# UPPER AUSTRIA - DRILL READY & 3D SEISMIC MATURED



\* Note: appraisal portfolio not shown here

**58 mmboe Best** Note  
Technical Resources  
for 10 matured  
Exploration prospects

**Excellent reservoir  
productivity (~1000 bopd);**  
shallow (< 1000m) to moderate  
(< 3000m) drill depths

**Balanced oil &  
gas mix with  
very large gas  
upside**

**Average prospect  
risk in line with  
historical success  
rate of 48%**

**Note : Original Resources Reporting Date: Upper Austria Exploration 30/11/2020, Resources revised from 42 mmboe on 30/11/2020 to 58 mmboe on 30/3/21**

# UPPER AUSTRIA – Drill Ready Portfolio

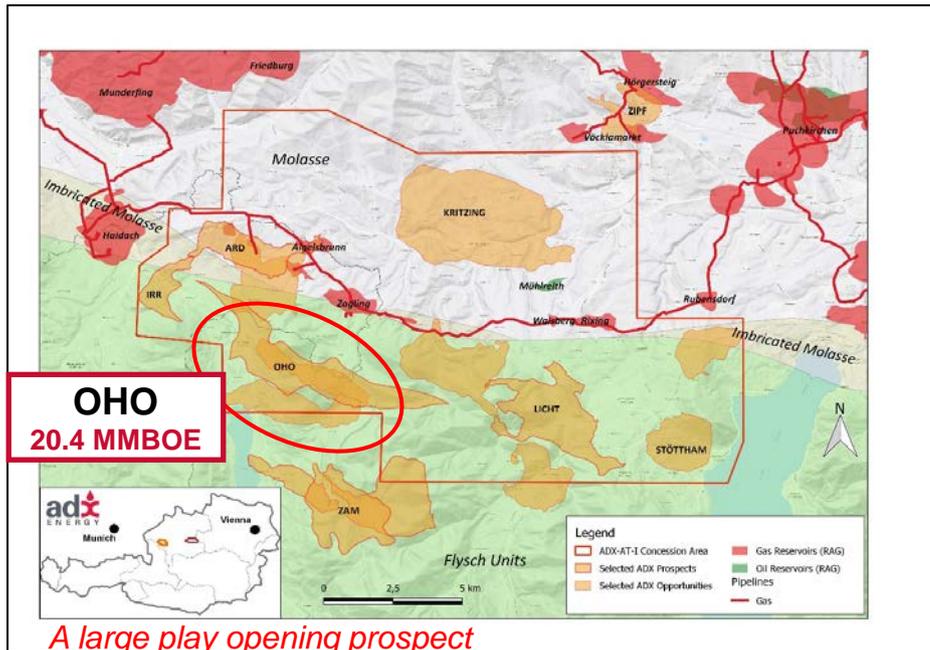
**Two stand out prospects with follow up opportunities mapped on 3D seismic**

|   | PROSPECT NAME                    | fluid     | Map Name | Best Technical Recoverable [mmboe] | well TD [m TVD] | Exploration Well Cost [MM Euro] |
|---|----------------------------------|-----------|----------|------------------------------------|-----------------|---------------------------------|
|   | <b>Σ HIGH IMPACT EXPLORATION</b> |           |          |                                    |                 |                                 |
|  | OHO                              | gas (oil) | OHO      | 20,4                               | 4 365           | 6,6                             |
|   | ZELL AM MOOS                     | gas (oil) | ZAM      | 14,6                               | 5 400           | 7,3                             |
|   | <b>Σ TREND EXPLORATION</b>       |           |          |                                    |                 |                                 |
|   | LICHTENBERG                      | gas       | LIC      | 2,7                                | 3 010           | 3,6                             |
|   | IRRS DORF                        | gas       | IRR      | 3,0                                | 2 950           | 2,9                             |
|   | TERNBERG                         | oil       | TER      | 3,2                                | 2 890           | 5,0                             |
|   | WOLFSGRUB                        | oil       | WOL      | 2,2                                | 3 150           | 5,1                             |
|   | PERGERN                          | oil       | PER      | 2,5                                | 1 790           | 2,2                             |
|  | ANSHOF                           | oil       | ANS      | 6,6                                | 2 250           | 1,8                             |
|   | ARD (LP gas only)                | gas       | ARD-BR   | 2,2                                | 2 700           | 2,1                             |
|   | SIERNING IMB                     | gas       | SIE      | 1,0                                | 1 100           | 1,4                             |
|   | <b>Σ APPRAISAL / SIDE TRACK</b>  |           |          |                                    |                 |                                 |
|   | STEYR 3 (APPR)                   | gas       | STE      | 0,5                                | 1 270           | 1,5                             |
|   | BAD HALL - LIND (appr.)          | oil       | LIN      | 0,8                                | 2 150           | 1,8                             |
|   | BAD HALL - STEIN (appr.)         | oil       | SGB      | 0,8                                | 2 200           | 1,8                             |
|   | BRUNN (sidetrack)                | gas       | ARD-BR   | 0,8                                | 2 100           | 1,2                             |
|   | KLE 1A (Sidetrack)               | oil       | KLE      | 0,6                                | 2 260           | 1,3                             |
|   | <b>TOTAL EXPLORATION [mmboe]</b> |           |          | 58                                 |                 |                                 |
|   | <b>TOTAL [mmboe]</b>             |           |          | 62                                 |                 |                                 |

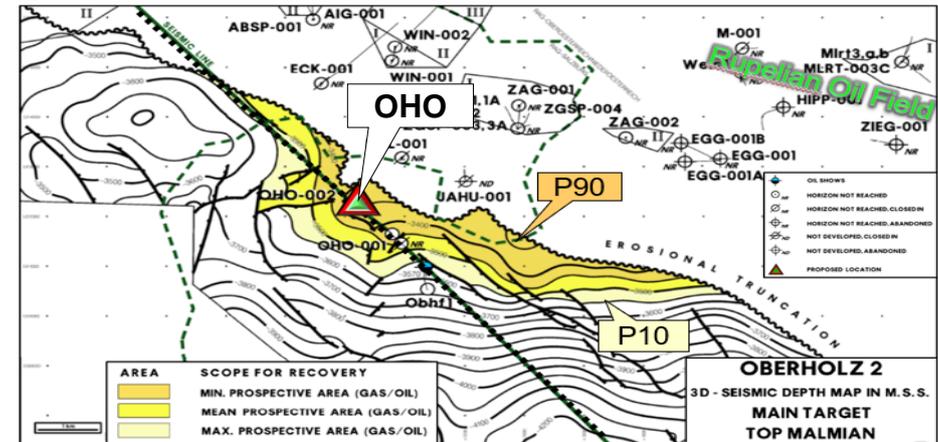
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# UPPER AUSTRIA – Drill Ready Prospects

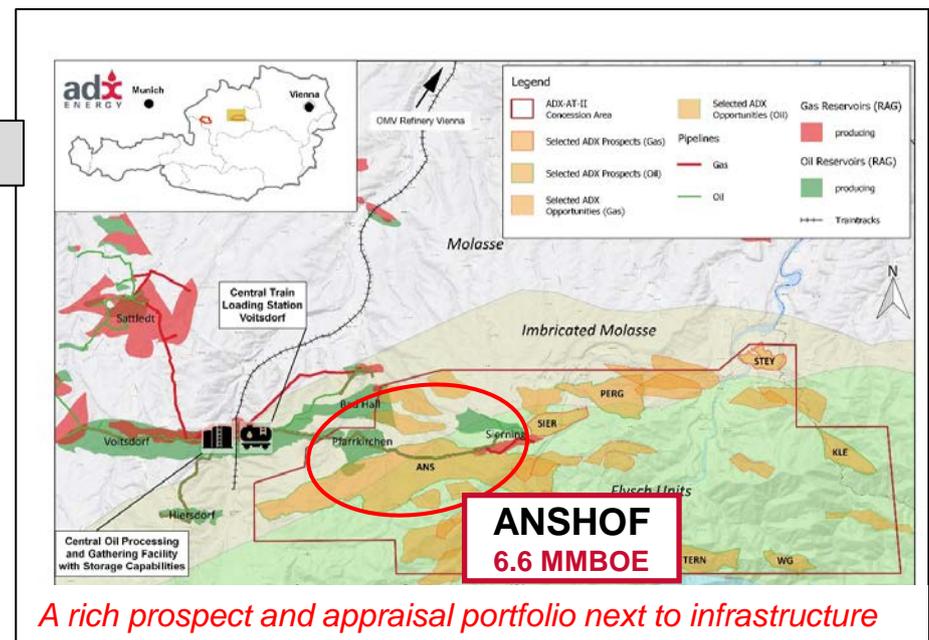
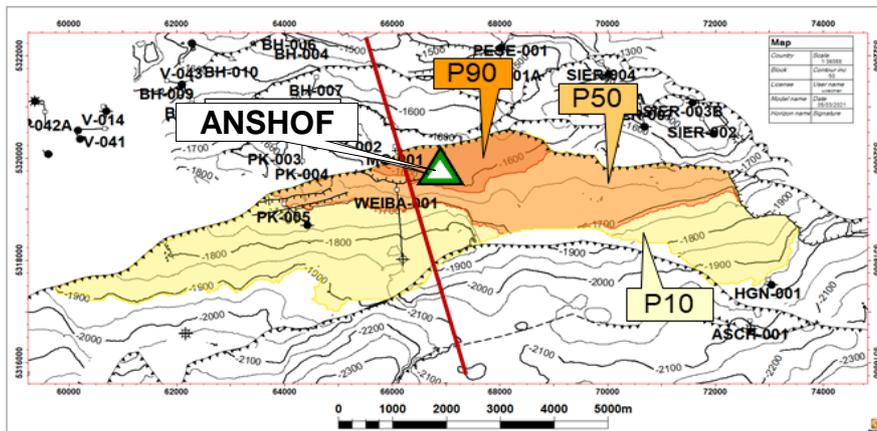
*Two stand out prospects with follow up opportunities mapped on 3D seismic*



*ADX AT-I prospects and leads, fields and pipelines including OHO*



*ADX AT-II prospects and leads, fields and pipelines including Anshof*



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# NEXT STEPS FOR AUSTRIAN EXPANSION

## Vienna Basin Production

Enhance production, reserves and cash flow  
Reserves review results

## Upper Austria Exploration

Anshof prospect drilling preparations underway  
Expand acreage for HC's and geothermal

## Zero Carbon Energy Projects

Vienna Basin Hydrogen project formation  
Geothermal pilot project execution



***“Blend of compatible hydrocarbon and green energy production opportunities”***

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## For more information on our company contact

### Executive Chairman:

Ian Tchacos

[ian.tchacos@adxenergy.com.au](mailto:ian.tchacos@adxenergy.com.au)

### Chief Executive:

Paul Fink

[Paul.Fink@adx-energy.com](mailto:Paul.Fink@adx-energy.com)

### Finance Manager and Company Secretary:

Amanda Sparks

[amanda.sparks@adxenergy.com.au](mailto:amanda.sparks@adxenergy.com.au)



[adxenergy.com.au](http://adxenergy.com.au)