# Shaping—the future of green biotech.

**Investor Pitch Deck, February 2024** 

Strictly Private & Confidential - For Information Only





### **Disclaimer:**

This presentation is for informational purposes only and does not constitute an offer or solicitation to invest in our company. The information contained in this presentation, including any data, financial projections, business plans, strategies, or intellectual property, is confidential and proprietary to our company. It is provided solely for the recipient's review and evaluation.

Any statements, projections, or estimates included in this presentation are based on assumptions made by our company and involve risks, uncertainties, and factors that may cause actual results to differ materially from those expressed or implied. Prospective investors should carefully consider all relevant factors and conduct their own due diligence before making any investment decision.

Investing in early-stage companies involves inherent risks, including the risk of loss of capital. The information provided in this presentation does not constitute financial, legal, or tax advice. Prospective investors should consult with their own advisors before making any investment.

The information presented in this pitch deck, including the business strategy, market analysis, financial projections, and other forward-looking statements, is subject to change without notice. Our company disclaims any obligation to update or revise any such statements based on new information or future events.

Furthermore, any disclosure of intellectual property or trade secrets in this presentation does not grant any rights or licenses to the recipient or any other party. All intellectual property rights, including patents, trademarks, copyrights, and trade secrets, are and will remain the exclusive property of our company.

By accepting this presentation, the recipient agrees to maintain the confidentiality of all information contained herein and not to disclose it to any third parties without our prior written consent. The recipient acknowledges that any unauthorized use, disclosure, or reproduction of this information may cause irreparable harm to our company.

This presentation is not intended to be relied upon for making any investment decisions and should not be considered a substitute for thorough due diligence. Our company makes no representations or warranties, express or implied, regarding the accuracy, completeness, or reliability of the information contained herein.

Any reference to third-party trademarks, copyrights, or other proprietary rights in this presentation is done for informational purposes only and does not imply any endorsement or sponsorship by the respective owners.

By continuing to review this presentation, the recipient acknowledges and accepts the terms of this disclaimer.



# Wespran: Shaping the future of green biotech.

### **Purpose**

Spearhead the future of green biotech and catalyze a profound transformation towards a cleaner, more sustainable world.

### **Vision**

Create a planet where the impacts of climate change are contained, and future generations thrive in a pristine environment.

### Mission

Empower global corporations with a cutting-edge enzymatic technology, enabling the upcycling of greenhouse gas emissions into valuable, revenue-generating products. By harnessing the power of nature, seek to revolutionize industries, mitigating their carbon footprints while unlocking new economic opportunities through sustainable practices.

### **Values**

Eco-friendliness.
Sustainability.
Respect.
Excellence.
Innovation.
Accountability.
Integrity.



# Problem: Climate change and greenhouse gas emissions.

### Sources

- <sup>1</sup> Intergovernmental Panel on Climate Change report Climate Change 2023, March 20, 2023.
- <sup>2</sup> Global Policy Institute issue briefs, August 17, 2022.
- <sup>3</sup> JRC/IEA report GHG Emissions of all world countries, September 15, 2023.
- <sup>4</sup> International Energy Agency report CO<sub>2</sub> Emissions in 2022, March 2023.

Man-made greenhouse gas (GHG) emissions drive global warming and disrupt life on Earth<sup>1</sup>.

Adopted in 2015, the Paris Agreement is the international treaty on climate change.

Trillions of dollars is going to greentech by 2025<sup>2</sup>.

Global GHG emissions reached a record high of 54 GtCO<sub>2</sub>e in 2022<sup>3</sup>.

Carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) account for 72% and 21% of GHG in 2022<sup>3</sup>.

Global CO<sub>2</sub> emissions from energy combustion and industrial processes grew to 37 GtCO<sub>2</sub> in 2022<sup>4</sup>.



### **Notes**

Gt means Gigatonne or billion of tonnes or billion metric tons. MT stands for metric ton.



### Subsequent challenge: Decarbonization.

Carbon reduction required to achieve net zero in 2050

1.2 GtCO, by 2030

4.7 GtCO, by 2040

7.8 GtCO<sub>2</sub> by 2050<sup>1</sup>

Carbon capture & storage projects: 46 m MT captured in 2022, 321 m MT planned in 2030<sup>1</sup>.

Government policies aligned with UN's Intergovernmental Panel on Climate Change (IPCC) guidelines drive industrial decarbonization urgency:

- Price of a metric ton of excess carbon exceeds €65<sup>2</sup> in EU and averages an estimated \$60 in US.
- Corporate social responsibility requires a significant emphasis on environmental issues.

**Sources** 

<sup>&</sup>lt;sup>1</sup> IEA report - Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach, September 26, 2023.

<sup>&</sup>lt;sup>3</sup> Trading Economics website - EU Carbon Permits, January 26, 2024.

## Huge cleantech market opportunities to serve industrials.

Today, too few mature solutions exist to reverse global warming and none is really clean:

- The number of carbon capture projects is not sufficient.
- Carbon sequestration does not resolve the issue entirely.
- Existing capture systems are extremely energy intensive.
- Current utilization techniques, whether direct (solvent, stripping), biological (fermentation, methanation) or chemical (mineralization, hydrogenation, electrolysis, thermochemistry) lack efficiency.
- Bacteria-based solutions produce organic waste.

Every company has its own specificities: industry, type and volume of gas emissions, space availabilities, geographies, scale.

Global market size for CO<sub>2</sub> utilization: \$70 bn by 2030, to increase to \$550 bn by 2040<sup>1</sup>. Market volume: 1-2 GtCO<sub>2</sub>/year, and even up to 5-7 GtCO<sub>2</sub>/year if large-scale deployment for fuels<sup>2</sup>.

Despite unprecedented action against climate change, CO<sub>2</sub> emissions continue to grow<sup>1</sup>.

Target audience: industrials (especially the prime polluters), carbon capture & storage projects, local governments.





**Steel/Chemicals** 



Cement



**Refinery gas** 



**Biomass** 



**Biogas** 

### **Sources**

- <sup>1</sup> Lux Research report CO<sub>2</sub> Capture and Utilization: The Emergence of a Carbon Economy, July 2022.
- <sup>2</sup> IEA report Putting CO<sub>2</sub> to Use, September 2019.



# Carbon Capture & Utilization (CCU).

### **Notes**

- <sup>1</sup> FREED: Free Reactions using Enzymatic Electrocatalysis for Decarbonization.
- <sup>2</sup> Enzymes: Biological entities acting as catalysts to speed up biochemical reactions; biodegradable, environmentally friendly and reusable.
  Manufacturing: Low CO<sub>2</sub> emission process.

### Solution:

### Wespran FREED<sup>1</sup> technology.



### WESPRAN

Green biotech deeptech startup specializing in cell-free synthetic biology. Advanced know-how in proteins and enzyme<sup>2</sup> selection for scalable solutions.

Breakthrough biomimetic technology combining biochemistry, physics and bioinformatics.

Novel cofactor-free engineered enzymes paired with specific electrodes (electrocatalysis) to capture and convert CO<sub>2</sub> into clean added-value products, used as a feedstock or sold.

Addresses major pain points of capture approaches:

Applicable to flue gas with 1-100% CO<sub>2</sub> concentration.

Operating at standard temperature and pressure.

No hydrogen required, only electricity and water.

Performed on client site to avoid Scope 3 emissions linked to transportation.

No biohazard related to waste onto the client site.

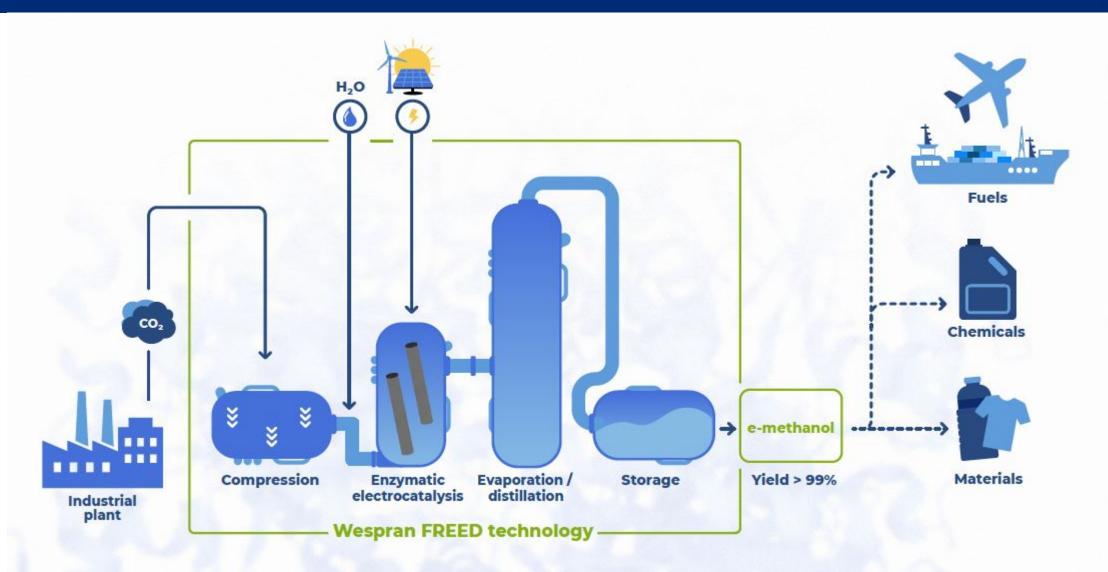
Green product output: e-methanol (as a start), e-ethanol, formic acid, lactic acid, starch.

## Proprietary Al software developed in-house to digitalize enzyme selection.





## Wespran FREED technology enabling a clean reprocessing of CO<sub>2</sub> on client site.



## Uniquely positioned to provide a clean biological solution.



**Competitive mapping of carbon capture and utilization (non-exhaustive)** 



## Appealing outcome-based XaaS revenue model.

Upfront fees to cover setup costs.

Annual recurring subscription fees for upcycling industrial CO<sub>2</sub> emissions (maintenance included).

Resulting product remaining with the client (used as a feedstock or sold).

Anticipating trends of industry 4.0, removing client capital expenditure.

Enhanced client and supplier relationships.

Alternatively, capture and sale model can be envisaged, based on specific client requirements.

Turnkey solution provided on-site (ideally) or externally.

Produced commodity remaining with Wespran (sold via strategic partners). Additional fees should be agreed.



# Propelled sales and marketing efforts to rapidly tap underpenetrated markets.



### **Client segmentation and sales strategy**

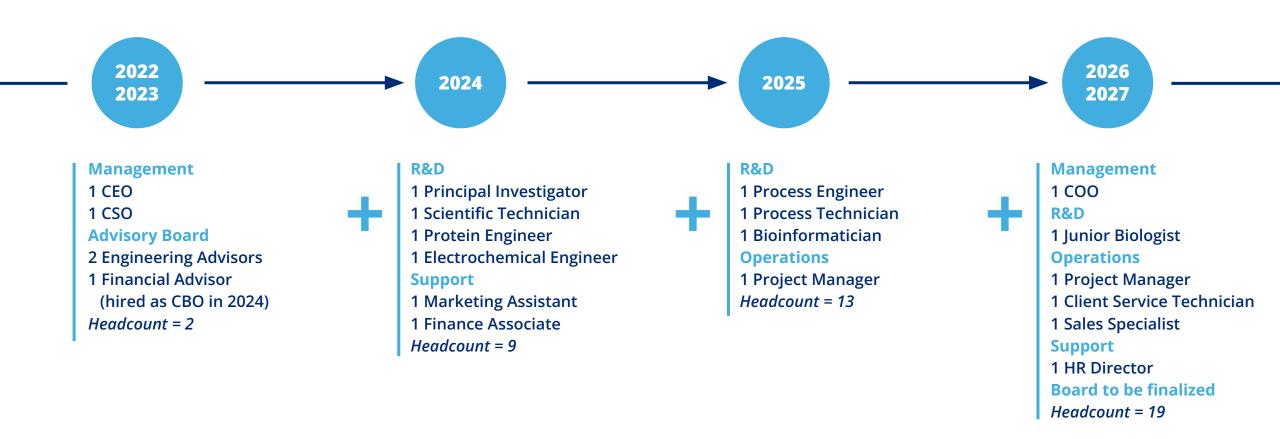
- Industrials (starting with refineries, steel plants, cement manufacturers, thermal power plants, chemicals) for decarbonization.
- Carbon capture and storage projects to vertically complete their offering by proposing an alternative to storage.
- Local governments to enforce climate policies.
- Priorities defined based on client type, industry, and geography (France, USA, Germany, Poland, Italy, China, India).
- Choice of international presence or distribution partners according to specific regions.

### **Marketing strategy**

- Product development strategy to highlight the benefits of an enzymatic solution for carbon valorization, and market development strategy to then ensure a geographical expansion.
- Strong brand identity building to differentiate from other decarbonization projects in the long run, positioning FREED as an ecological, sustainable, innovative, and economically viable clean biotech.
- Communication and PR: Engaging BtoB online presence (website, LinkedIn, YouTube, blog, videos, webinars, infographics) with relevant content strategy, by utilizing media outlets, social networks, and ChatGPT, and informing about the environmental benefits of the enzymatic solution and its applications (methanol and its usage, future green products).
- Partnerships and collaborations to promote with industrial companies, government agencies, and research institutions, while deploying on client sites and leveraging referrals.
- Professional events and trade shows (biotech, deeptech, energy, chemistry, innovation).
- Growth marketing, marketing mix, monitoring & evaluation (KPIs, traffic, ads, CAC, conversion).

## Rigorous talent planification to support R&D and growth.







## €10 m required<sup>1</sup> over 3 years to develop an industrial pilot.

2024 + 2025

Phase I: €2 m to develop a carbon upcycling lab.

R&D ..... €800 k HR² .... €900 k Sales & Marketing ... €100 k General & Admin. €200 k 2026 + S1 2027

Phase II: €8 m to finance an industrial pilot.

| R&D                 | €5.3 m |
|---------------------|--------|
| HR <sup>2</sup>     | €1.9 m |
| Sales & Marketing . | €400 k |
| General & Admin     | €400 k |

**S2 2027...** 

Phase III: Commercialization (funding TBD).

### **Notes**

<sup>&</sup>lt;sup>1</sup> The indicated capital requirements encompass a combination of equity and public funding sources, and possibly debt.

<sup>&</sup>lt;sup>2</sup> HR encompasses employee costs associated with R&D and strategically anticipates future talent needs. It also leverages the Jeune Entreprise Innovante (JEI) status exemptions on social security contributions to finance innovation.



## Industrial pilot's promising outcome (Phase II).

| Volume of CO <sub>2</sub> emissions  | 5,000 Nm <sup>3</sup> /h at 10% CO <sub>2</sub> |
|--------------------------------------|---|
| CO <sub>2</sub> processed by Wespran | 8,000 MT per year of CO <sub>2</sub>            |
| (green) e-methanol produced          | 5,800 MT or 7.3 ML                              |

Sale of e-methanol for client ...... €3.1 m<sup>1</sup>

Upfront setup fees for Wespran ..... €1.0 m

Share of recurring revenue for Wespran ..... €0.9 m per annum<sup>2</sup>

Electricity consumption ...... circa 3.3 MW.h or 12.0 GJ<sup>3</sup>

Notes

A successful industrial pilot will allow an imminent deployment of Wespran solution to larger projects of the client.

<sup>&</sup>lt;sup>1</sup> Based on Methanex European posted contract price (Jan 1 - Mar 31, 2024) of €525/MT, i.e. no premium applied for green methanol.

<sup>&</sup>lt;sup>2</sup> Assuming a recurring fee of 30% of product sales for Wespran.

<sup>&</sup>lt;sup>3</sup> Assuming a continuous operation (8760 h/yr) - Power required of 3.7 MW/MT of CO<sub>2</sub>.

## **Example of a steel mill showing the magnitude and profitability of the opportunity.**

| CO <sub>2</sub> processed by Wespran | 125,000 MT per year of CO <sub>2</sub> |
|--------------------------------------|--|
| (green) e-methanol produced          | 90,900 MT or 115 ML of methanol        |

Sale of e-methanol for client ...... €47.7 m per annum<sup>1</sup>

Upfront setup fees for Wespran ...... €(20.0) m

Share of recurring revenue for Wespran ..... €(14.3) m per annum<sup>2</sup>

Electricity cost ...... €(20.6) m per annum<sup>3</sup>

Client profit margin excl. water cost<sup>3</sup> ........... €(7.1) m for yr 1, €12.9 m for yr 2 onward

Carbon tax savings ...... €8.1 m per annum<sup>4</sup>

### **Notes**

<sup>2</sup> Assuming a recurring fee of 30% of product sales for Wespran.

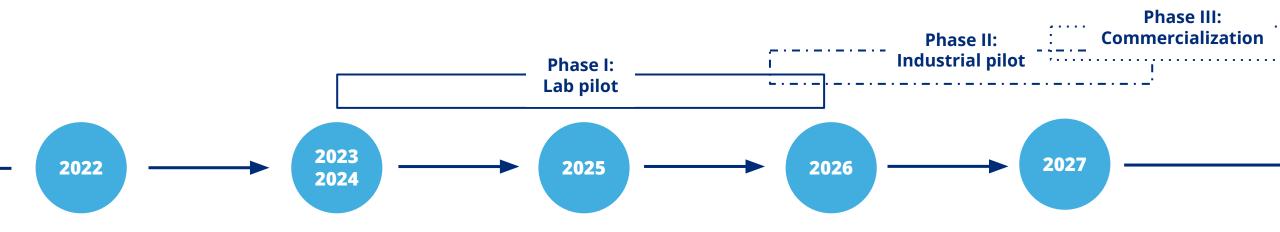
<sup>4</sup> Assuming an average carbon credit price of €65 per metric ton.

<sup>&</sup>lt;sup>1</sup> Based on Methanex European posted contract price (Jan 1 - Mar 31, 2024) of €525/MT, i.e. no premium applied for green methanol.

<sup>&</sup>lt;sup>3</sup> Utility cost (electricity/water) can be volatile given current market conditions and sources. Assuming an electricity consumption of 52.2 MW.h at the global average levelized cost of energy of €45/MW.h from solar power (source: International Renewable Energy Agency (IRENA) report - Renewable Power Generation Costs in 2022, August 29, 2023).

### **Aggressive roadmap to have** an industrial pilot ready by 2027.





Planning of innovation.

Kick-off.

In-house protein bioinformatics system development.

Incorporation.

Enzyme and protein studies.

Process engineering design. Partnership development (including with CNRS). Pre-seed capital raise

+ public funding.

Talent acquisition..

**Carbon upcycling** laboratory creation. Lab pilot development. Patents filing & publication.

**Seed capital raise** 

+ public funding. **Industrial pilot** partnership.

Industrial pilot development.

**Series A capital raise** 

+ public funding/debt. Scale-up.

**Client acquisition** & site deployment. **Industry** diversification. International expansion.

### **Discussions initiated with** potential industrial partners.













Industrial firms actively seek reliable clean solutions, with many already involved in carbon capture and storage projects.

Initial discussions provided insights into traction and technical feasibility, deepening Wespran's understanding of gas capture processes for transformation.

Contacted companies show interest in advancing discussions, particularly when the resulting product serves as a feedstock.

### Accomplished and complementary scientific cofounders.





Brice **Gianesini** 

Cofounder & Chief Executive Officer - PharmD

Cofounder and Director of Medeloc, a pharma CRM SaaS.

Managed robotic solution sales for Becton Dickinson (increased revenues by 400% to €4 m and managed 5 people).

Thesis on monoclonal antibodies and future technological developments.

Founded an oncolytic virus biotech startup.

4 years of experience as a pharmacist.



### **Emmanuel Cornillot**

Cofounder & Chief Scientific Officer - PhD

25+ years of expertise in protein annotation.

Professor of cell biology, biologist,
bioinformatician, agronomist.

18 rank A publications of which Nature,
J Biol Chem, Nucleic Acids Res.

46 publications and 50+ communications in total.
International collaboration includes
Yale University and Virology Institute Marburg.
Fields: Cancer, parasitology, microbiology, metabolism,
cell biology, antigens and genome annotation.
Link to publications:

https://orcid.org/0000-0002-1202-1162.

Developed ViewProt, proprietary software for protein annotation.



### Rudine **Mottaghian**

Cofounder & Chief Business Officer - MS/EMBA

20+ years in strategy, finance and business development.

Advisor to the Board of Wespran.

CEO and former SaaS CFO & CCO. Ex J.P. Morgan & Morgan Stanley M&A. Advised large industrials and TMT in Europe and Middle East.

Expertise: Management, negotiation, complex strategic sales, influence management.

MS Engineering from IMT/EMBA.

## Highly experienced hands-on engineering advisory board.





Philippe **Berrini** 

International Expert in Energy and Environment

President, Bepexi France.

Expert and consultant to French Ministry of Industry, ADEME and EU.

President, Technitherm France.



Xavier **Richelmy** 

Chemical Industries Engineer Former Company Director

Seawater desalination.

Flue gas treatment.

Industrial water treatment.

Fine Chemicals.

## Specific investor consideration.

Capital raise is to support the development costs until the completion of an industrial pilot where revenue will occur.

Expected capital raising exercises include pre-seed (Phase I), seed (Phase II) and series A (Phase III), supplemented by various public funding approaches (Bpifrance, ADEME, JEI).

Bank debt financing could also be an option.

### Investment horizon:

3 years minimum for Series A, 5 years for earlier investors.

Minimum ticket size: \$100 k.

Valuation: SAFE note possible initially, otherwise TBD.

Exit strategy: Trade sale, share buyback, IPO.



## Wespran: A compelling investment opportunity to tackle climate change.

Decarbonization and sustainable behavior required to address the climate Zeitgeist. Tremendous market opportunity to fill the void in CO<sub>2</sub> utilization: \$550 bn by 2040<sup>1</sup>.

Wespran FREED revolutionary green technology for carbon capture and valorization:

- Uniquely positioned to propose a clean and proven biotechnological solution.
- Upcycling of carbon emissions into revenue-generating products or feedstocks (e-methanol).
- Catered to client specificities and performed on-site, while addressing other approaches' pain points.
- Attractive outcome-based XaaS revenue model, and alternative turnkey carbon capture and sale model.
- High barriers to entry suggested by protein expertise, AI software and R&D resulting in future patents.
- Low funding requirements for industrial applications: \$10 m over 3 years, of which €6 m in equity.
- Three robust, complementary scientific cofounders to spearhead the project, bolstered by seasoned advisors.

Talent scarcity mitigated by the anticipation of needs and access to strong networks. Technical project risks mitigated by proven science and strategic research and industrial partners. Financial (interest rate) and geopolitical risks mitigated by urgency to reverse global warming.

Investment horizon for pre-seed until series A: 3-5 years.

Minimum ticket size: \$100 k.

Exit strategy: Trade sale, share buyback, IPO.