



NEXXOIL

Waste to Fuel TECHNOLOGIES

SERIES B • 04/2023

SUMMARY

Nexxoil READI technology turns organic waste into organic waste into synthetic fuel.

After more than 10 years of development at HAW Hamburg, we have developed a technology that is ready for commercialization. The first customers have already signed LOIs.

Problem definition	Pages 4-5
Solution contribution: READi	Page 6
Regulatory Environment	Page 7
READi in plastics recycling	Page 8
Comparison with other methods	Pages 9 - 10
Business model and turnover expectations	Pages 11 - 13
Team	Pages 15 - 17
Milestones achieved 2022	Page 18
Offer of participation	Pages 19 - 20

Nexxoil is superior to previous methods

Status Quo

Three processes are used to produce synthetic fuels from waste:

Hydrogenation (end product HVO, e.g. from Neste) Biodiesel production

Pyrolysis process

READi procedure



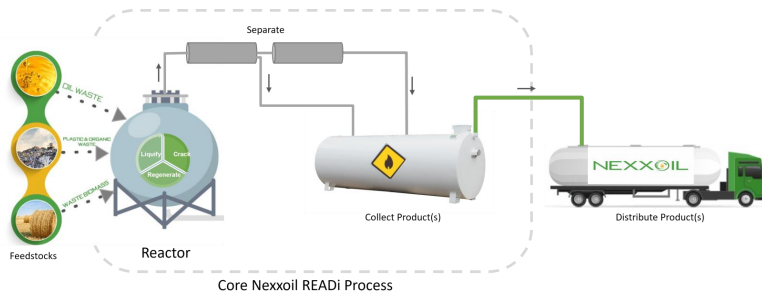
The laboratory and pilot scale tests have demonstrated significant advantages over all 3 processes.

Traction



80M in LOIs

+ Great customer interest

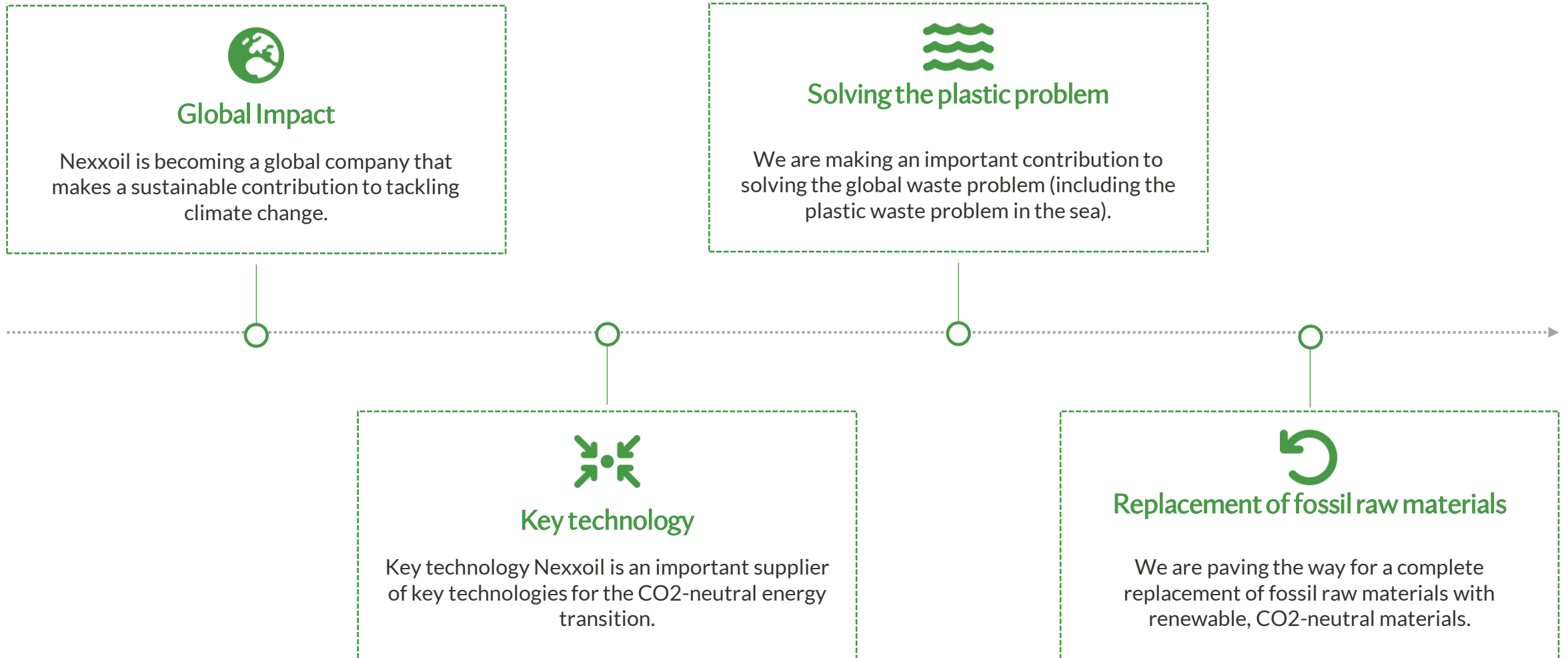


Core Nexxoil READi Process

Goal of the financing round

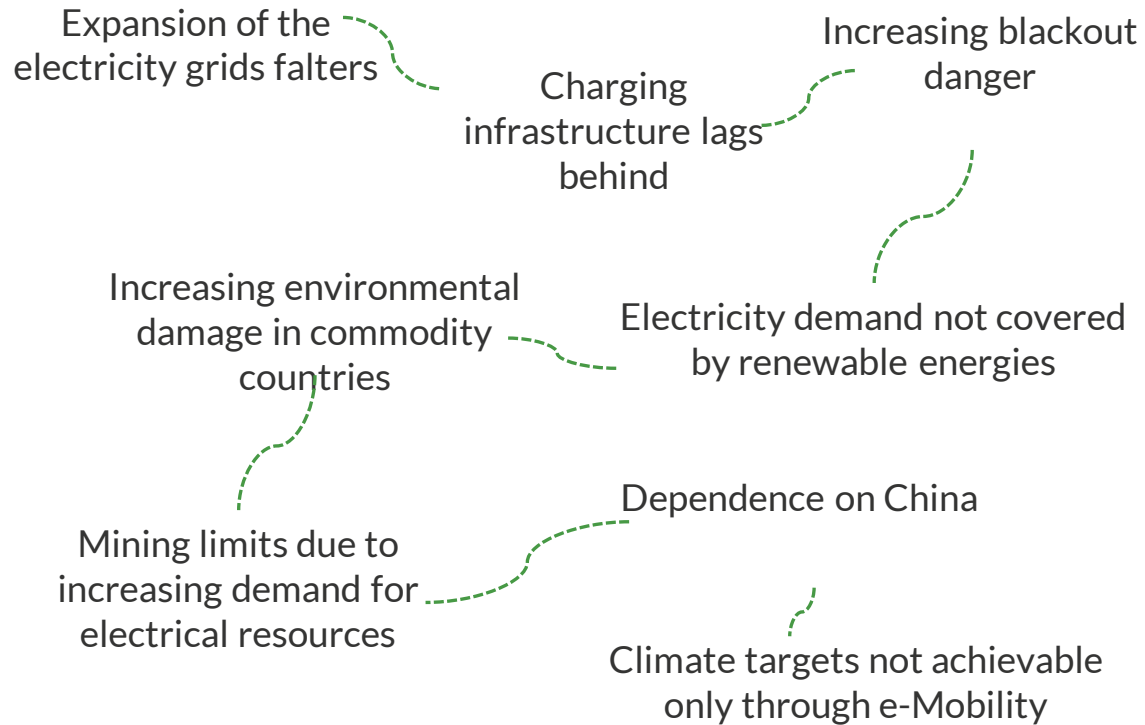
- Financing the design & construction of the first commercial demonstration plant.
- Expansion of the use for chemical recycling of plastic waste

Nexxoil is part of the solution to the climate problem

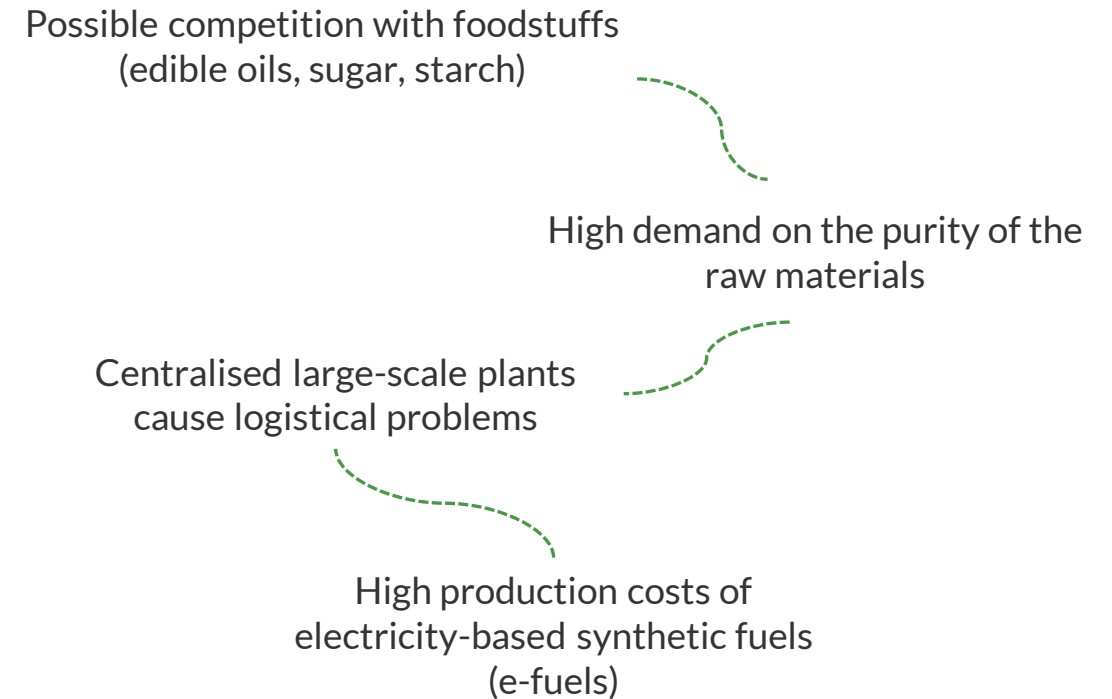


Current solutions are not scalable

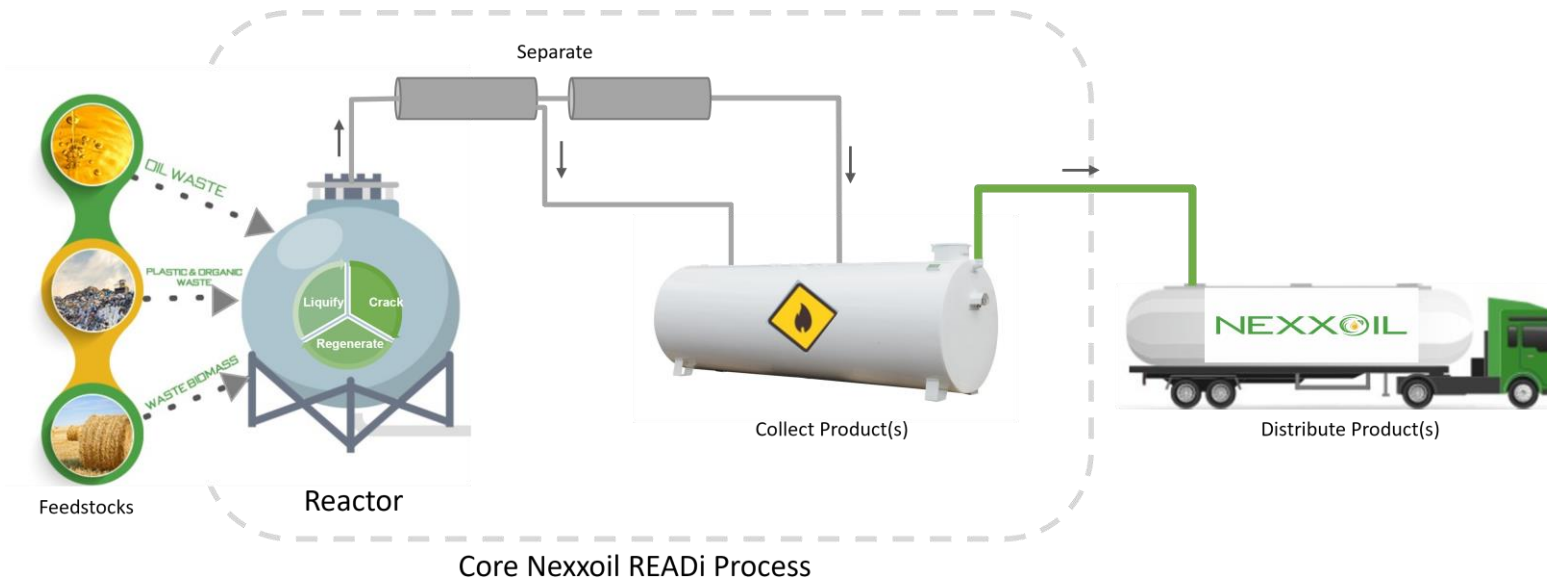
Problems of Electromobility



Problems so far of alternative raw materials



READi: Fuels from biogenic waste



Advantages

Energy yield ~80

Simply constructed production plant
(know-how is in process control)

Low production costs can be used
economically on a small scale (>2500t
/ year) & thus interesting for medium-
sized production or disposal
companies

INPUT

Biogenic or plastic waste

Suitable for contaminated raw
materials & low-grade pyrolysis oils

OUTPUT

Produces a high-quality oil that can be
converted into drop-in fuels of all
types with little effort

READi is patented

There is no alternative process
with comparable positive
properties.

Strong tailwind from EU legislation

25%

Greenhouse gas savings through renewable fuels required by 2030



10M TONS/YEAR

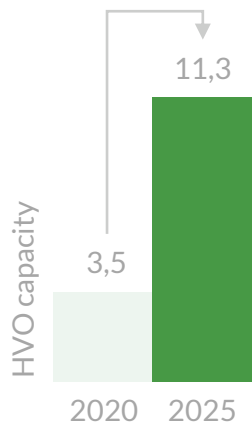
Additional demand per year in Germany alone (excluding kerosine for aviation)



20M TONS/YEAR

Lack of renewable fuel in Europe (in road transport alone)

Additional demand currently covered only by HVO



Additional demand can currently only be met by HVO and companies like NESTE. However, the planned capacity of all plants for the whole of Europe in 2025 is only 11.3 million tonnes.

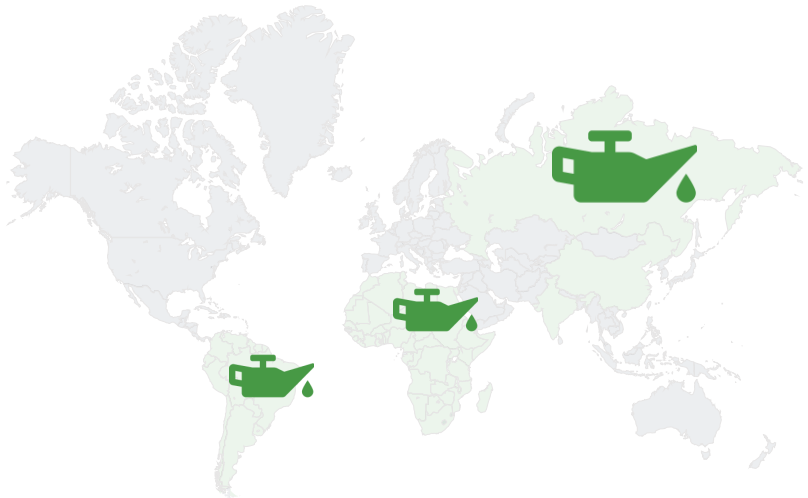
HVO is predominantly based on PFAD, a by-product of palm oil production. Alternatively, HVO requires high-purity raw materials, which in the case of waste fats (e.g. UCO = Used Cooking Oil) means an additional cost.



A significant proportion of all these needs can be met by Nexxoil.

READi as part of the circular economy

Demand fuels



Demand for fuels will decline, but with 1.4 billion vehicles (incl. trucks) it will always remain very high - especially in China, South America, Russia, Africa and India.

Use of mineral oil

50%

Fuels

50%

Heating market, chemical industry, etc.

Demand fuels READi as an integral part of the circular economy

By producing petroleum substitutes from plastic waste, we are making a significant contribution to the establishment of a circular economy and at the same time serving the global demand for hydrocarbon molecules.

Advantages

Recycling of plastic waste

Recycling of animal production by-products

Recycling of problem waste (e.g. grease separator fats) In addition, great potential through the cultivation of biomass on marginal land (=> binding of CO₂ and at the same time production of renewable fuel)

NEXXOIL is cheaper & higher quality

	NEXXOIL	HVO	Waste-based technologies	E-Fuels
Input	Processes waste materials (no high purity required)	High requirement for purity of raw materials	Biomass is processed into fuel	Electricity from wind & solar energy
End product	Oil of high quality and energy density (usable for many applications)	Oil of high quality, but worse specifications than NEXXOIL	Inferior pyrolysis oil	High quality, but not competitive oil
Efficiency	High	High	Low	Low
Process	Simple & easy to control	Logistical problems	Simple	High use of hydrogen / requires electricity from renewable energies
Production costs*	0,9-1,0€ / l	1,1-1,2€ / l	1,3 – 2,0€ / l	1,7 – 2,9€ / l

* in each case after GHG quota, before taxes, without feedstock

One-off payment & licence model

ONE-OFF SALE

€9,6M / plant

Purchase price: €8M/plant

In our model calculation, plant buyers
get back the capital invested within 4-
5 years.

LICENSING MODEL

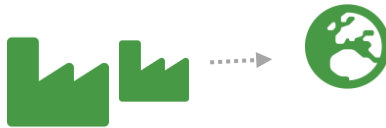
€50 / ton end product

With planned plant size €250,000
license income per year per plant

Growth through inbound & outbound

OUTBOUND

>400 customers in
the waste disposal
sector (DE)



We start with medium-sized supply & production
companies in DE, before we then begin global
licensing.

INBOUND



Already order enquiries from potential
customers due to activities of Prof. Willner

MULTIPLIERS



Memberships in associations



Negotiations with distribution partner for
South East Asia are already in process

Solid foundation for our growth

PARTNERSHIPS

Signed LOI, potential turnover with the contractual partners in the next three years approx. EUR 80m.

READY FOR WASTE OIL AND GREASE

Process development completed

READY FOR SOLID RAW MATERIALS

Developed on a laboratory scale, rapid development possible for various raw materials.

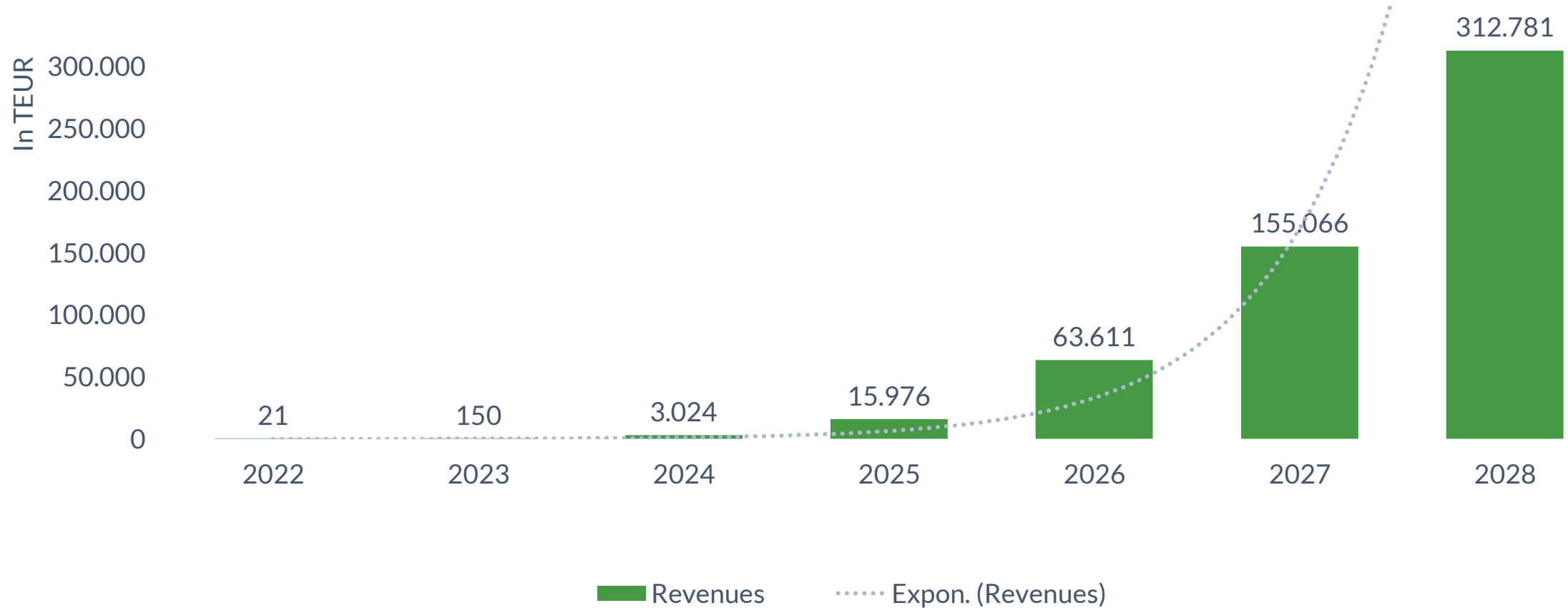
PATENTS

Technology protected by patents in Europe, USA, Canada, Brazil, India, Australia.

"THERE IS CURRENTLY NO COMPARABLE OFFER ON THE MARKET".

Comment from a potential partner

Strong growth after investment phase



No consideration of subsidies. Potential of up to 50% of the commercial demonstration plant.
(sh. <https://www.pnoconsultants.com/de/foerdermittel/regenerative-kraftstoffe>)

No consideration of licensing income (licensing of technology e.g. to partners in the USA)

Strong growth after investment phase

	2022	2023	2024	2025	2026	2027	2028
Sales plan							
Module READi1000 to			2				
Module READi 2500 to				4	18	30	50
Module READi 10000 to				1	3	8	16
Hydrogenation module 5000 to						2	5
Licence revenues (in TEUR)				100	1.100	4.850	12.600
Turnover (in TEUR)	20	150	3.024	15.976	63.611	155.086	312.781
Main costs							
Cost of materials (in TEUR)		0	-2.520	-13.230	-52.093	-125.197	-250.151
Personnel expenses (in TEUR)	-387	-820	-1.385	-2.139	-3.461	-4.645	-4.877
Staff (in FTE)		9	15	22	34	44	44
EBIT/DA (in TEUR)	-786	-1.140	-1.164	-2.871	4.226	15.014	36.348

Experienced management team



THORSTEN DUNKER

MD & CEO

>30 years of entrepreneurial
experience

20+ GF of BioMedion GmbH

Supervisory Board Lurch AG

biomedion



GEORG SCHLINGENSIEPEN

MD & CFO

>30 years of entrepreneurial experience

Managing partner of Nexxoil GmbH
since 2010

NEXXOIL

Supported by strong advisors



**PROF. DR.-ING.
THOMAS WILLNER**

Co-Founder

Inventor of READi technology

Chairman of Dechema's
Alternative Fuels
Committee Policy advisor

Numerous publications:
<https://nexxoil.com/publications>

s



**DR. WOLFGANG
BRYSCH**

Co-Founder

Serial Entrepreneur & Founder

U. A. in the fields of
pharmaceuticals, cosmetics,
nutritional supplements



HOLGER DUNKER

Investor

CFO of THIMM Packaging
Systems, an European leader in
packaging solutions.



And a young team with industry experience



PATRICK BIEDINGER

Process Engineer, M.Sc.



STEVEN DOSZ

Process Engineer, B.Sc.



BASSAM HAITHM

Process Engineer, M.Sc.



YASIN INCEDAG

Process Engineer, M.Sc.



SVENJA ISERLOTH

Process Engineer, M.Sc.



ALEXANDER KAMMANN

Project Engineer, MSc



ONUR DEMIRKAYA

Process Engineer, M.Sc.



WOLF LIMBURG

Process Engineer, M.Sc.

We have reached all milestones for 2022



**SUCCESSFUL
SERIES-A FUNDING**



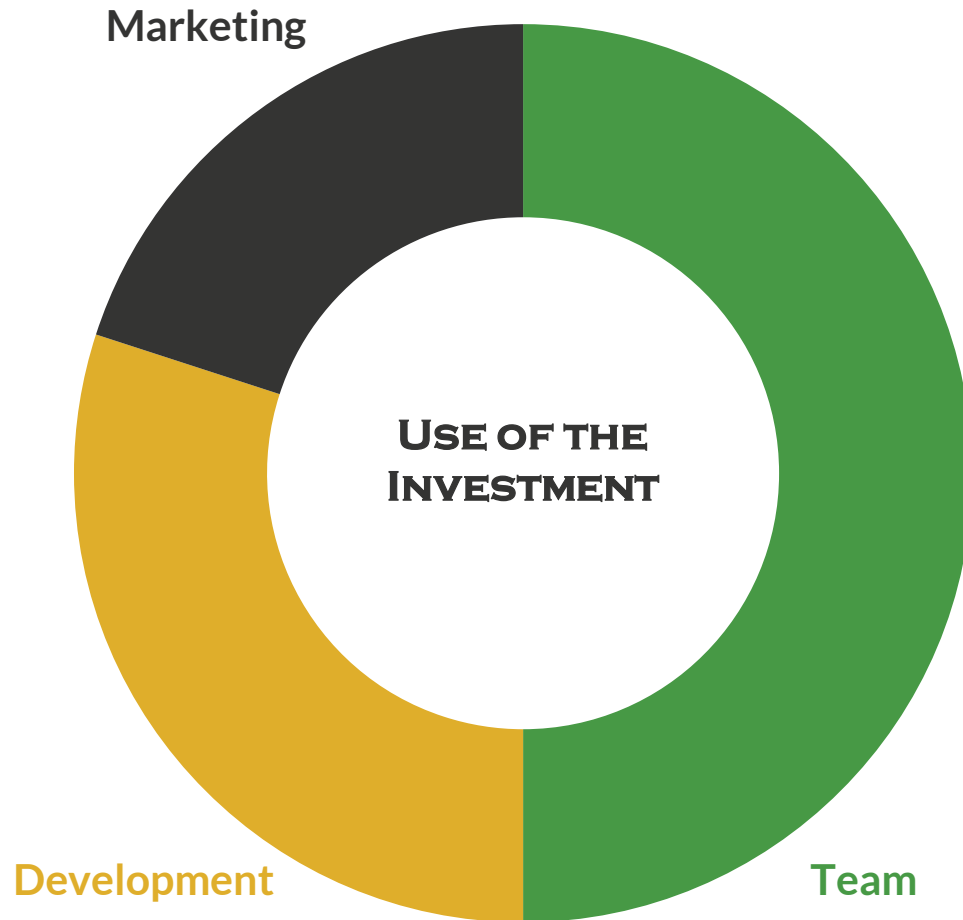
**ENLARGEMENT OF
THE TEAM**



COMPLETION OF THE PILOT PLANT

**...AND SUCCESSFUL PRODUCTION OF FIRST
SMALL QUANTITIES. NO SURPRISING
CHALLENGES SO FAR.**

Attractive investment condition Series B



€2,0M

Investment at a €12M pre-money valuation

€4M has already been invested in the company by the founders, about €1.6M in Series A. In addition, there is €16M in public funding.

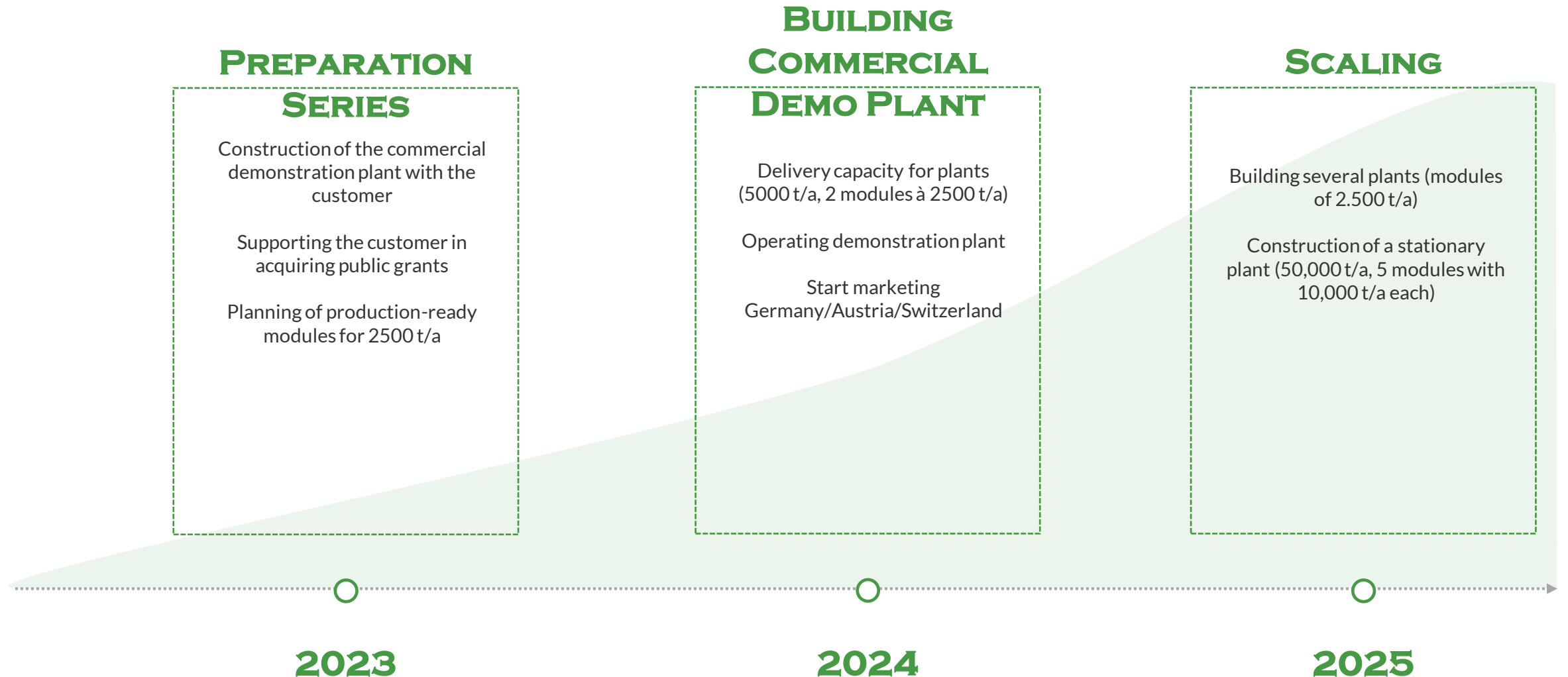
Investment milestones



EXIT-SZENARIO

We aim to sell the company to a strategic investor within the next four years. Interested parties e.g. plant manufacturers, large waste disposal companies, mineral oil companies.

Piloting & scaling of the technology





Let's change fuel technologies together

Thorsten Dunker

E-Mail: thorsten.dunker@nexxoil.com

Phone: 0157-38397841

<https://nexxoil.com/investoren>



Sources & additional material

After concluding a non-disclosure agreement, we will be happy to send you our business plan, providing detailed references to sources for our information. Here is just a small selection:

[Greenea Horizon 2030 - Which investments will see the light in the biofuel industry - Greenea](#)

Expansion of the greenhouse gas reduction quota:

<https://www.bmu.de/media/beschlossene-anpassungen-der-treibhausgasminderungsquote-thg-quote>

Fuel consumption in Germany e.g. at FNR:

<https://mediathek.fnr.de/biokraftstoffe-in-deutschland.html>

Unresolved problems in the expansion of the electricity grid:

<https://www.handelsblatt.com/politik/deutschland/energiewende-stromtrassen-verteilernetze-deutschlands-probleme-beim-netzausbau/20827146.html>

Publications Prof. Willner:

<https://nexxoil.com/publications>

Patent situation

	Thermochemical Biomass conversion	Biorefinery process	Process for the cleavage high molecular weight organic waste	Process for the thermal conversion of heteroatomic crude oils into low heteroatom light and medium oils
International Registration date	22.06.2010	22.06.2010	03.03.2011	19.06.2013
Germany (Prio)	+	o	+	o
Europa	o	o	-	o
USA	+	+	+	-
China	+	+	+	+
Canada	+	+	+	+
Brazil	+	+	+	+
India	+	+	+	
Australia	+	+	+	
Israel	+	+	+	

+ : granted x : grant announced o : pending - : rejected