PERPETUAL NEXT

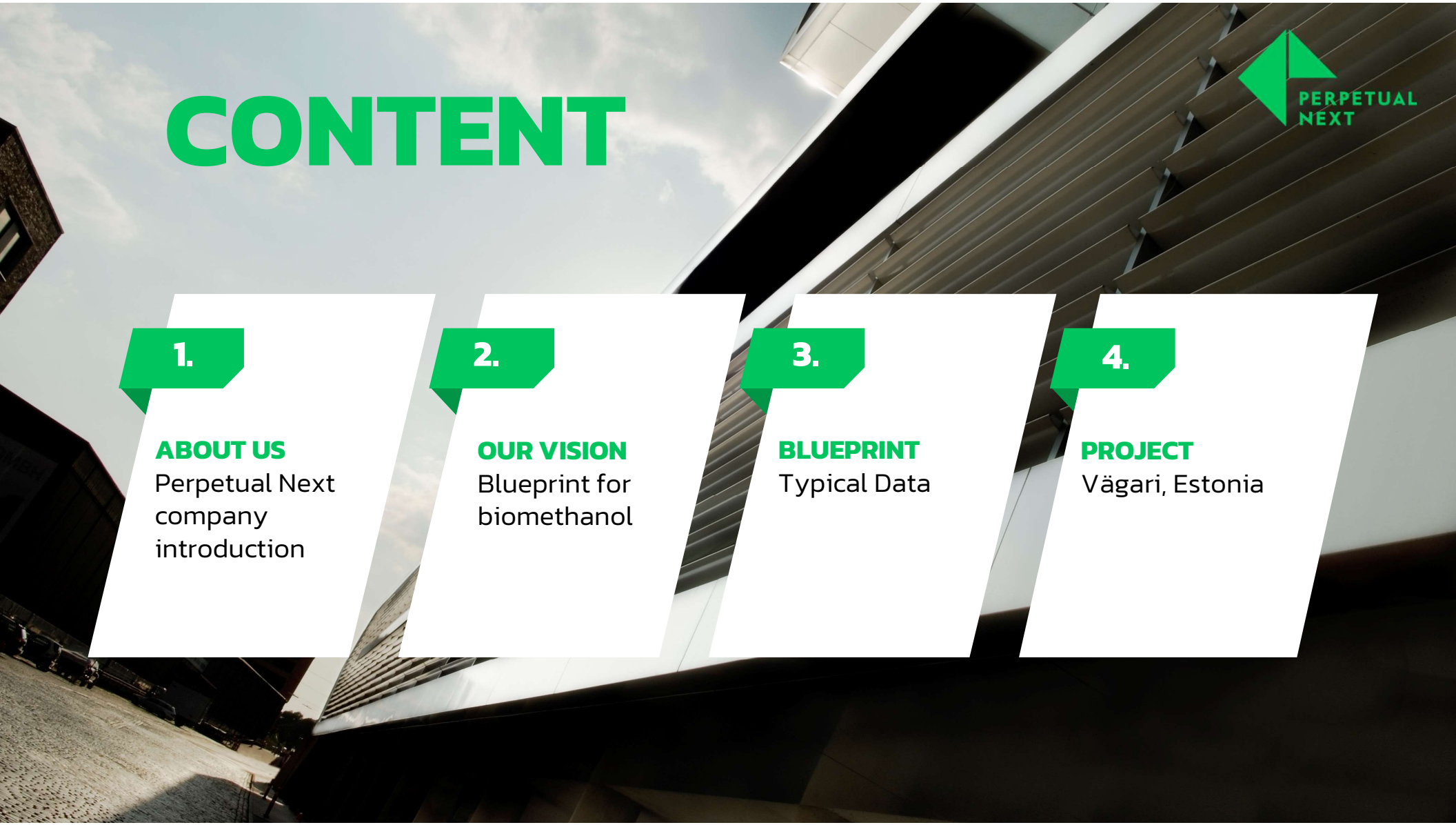
VÄGARI DEVELOPMENT

BLUEPRINT FOR A GREEN INDUSTRY

Purpose of this meeting:

1) To inform the Põltsamaa municipality about our Vägari development
2) To start the approval process with reference to the option selection to proceed with Detailed Planning (DP) and Strategic Environmental Assessment (SEA) for the Vägari development

CONTENT

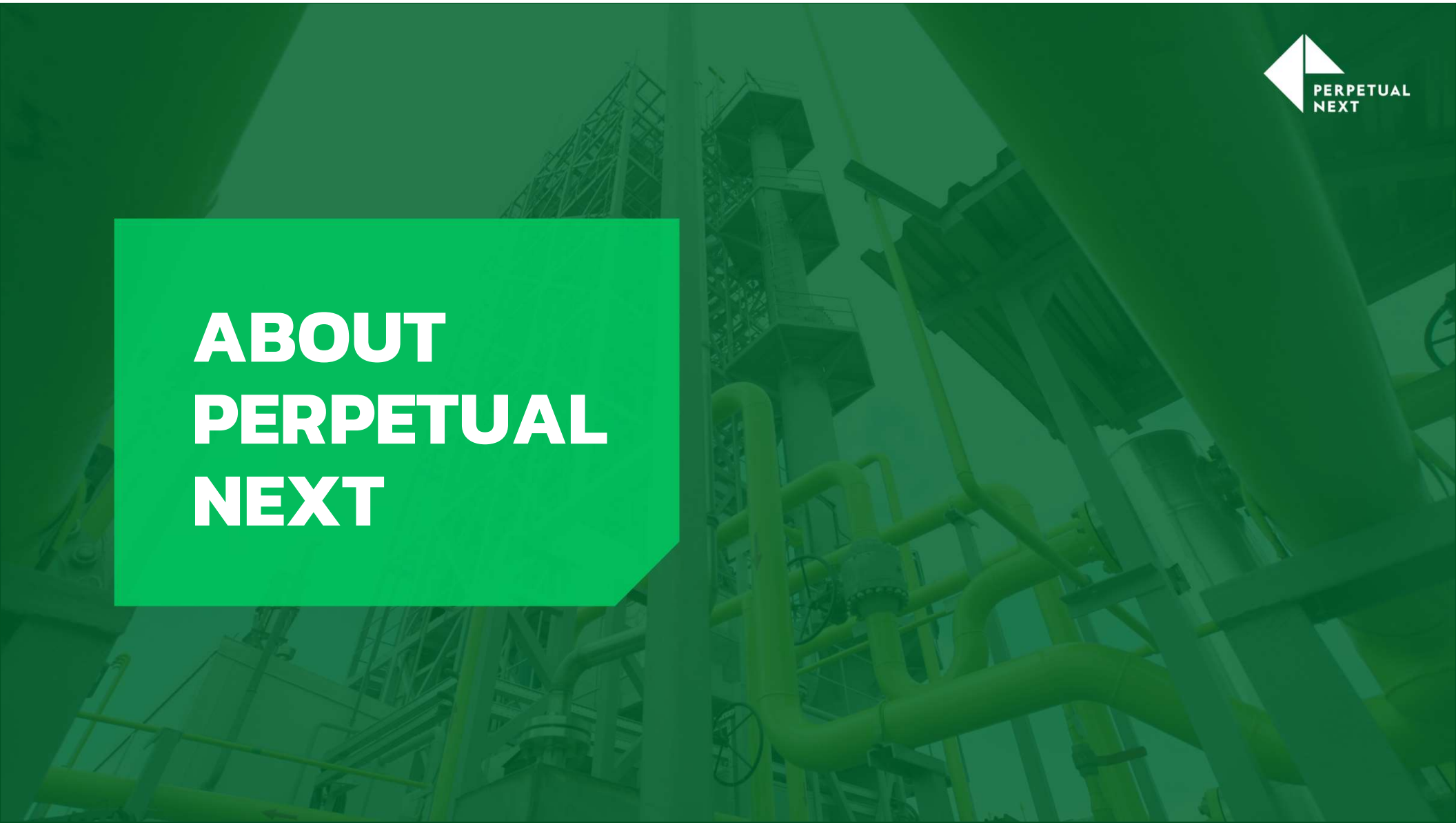


1. **ABOUT US**
   Perpetual Next company introduction

2. **OUR VISION**
   Blueprint for biomethanol

3. **BLUEPRINT**
   Typical Data

4. **PROJECT**
   Vägari, Estonia



ABOUT PERPETUAL NEXT

WE CONVERT ORGANIC WASTE INTO RENEWABLE COMMODITIES

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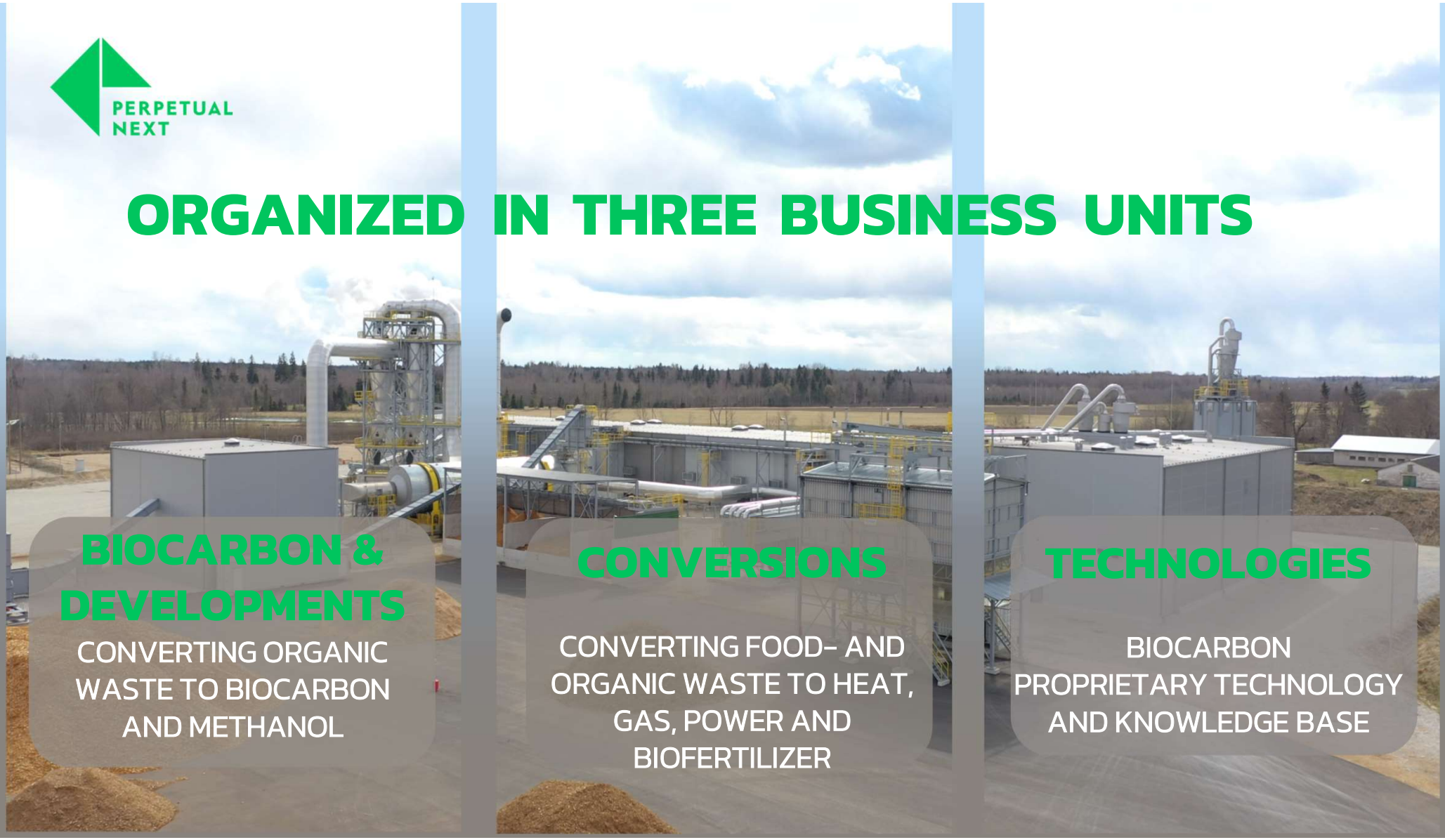
ORGANIZED IN THREE BUSINESS UNITS



BIOCARBON & DEVELOPMENTS

CONVERTING ORGANIC WASTE TO BIOCARBON AND METHANOL

CONVERSIONS

CONVERTING FOOD- AND ORGANIC WASTE TO HEAT, GAS, POWER AND BIOFERTILIZER

TECHNOLOGIES

BIOCARBON PROPRIETARY TECHNOLOGY AND KNOWLEDGE BASE

WE BUILD, OWN AND OPERATE **PLANTS THAT PRODUCE BIOCARBON AND BIOGAS ON** AN INDUSTRIAL SCALE

WE OFFER **NON FOSSIL ALTERNATIVES** FOR THE INDUSTRY

WE DEVELOPED A **METHANOL** BLUEPRINT BASED ON **ENTRAINED FLOW GASIFICATION**

THE METHANOL VALUE CHAIN

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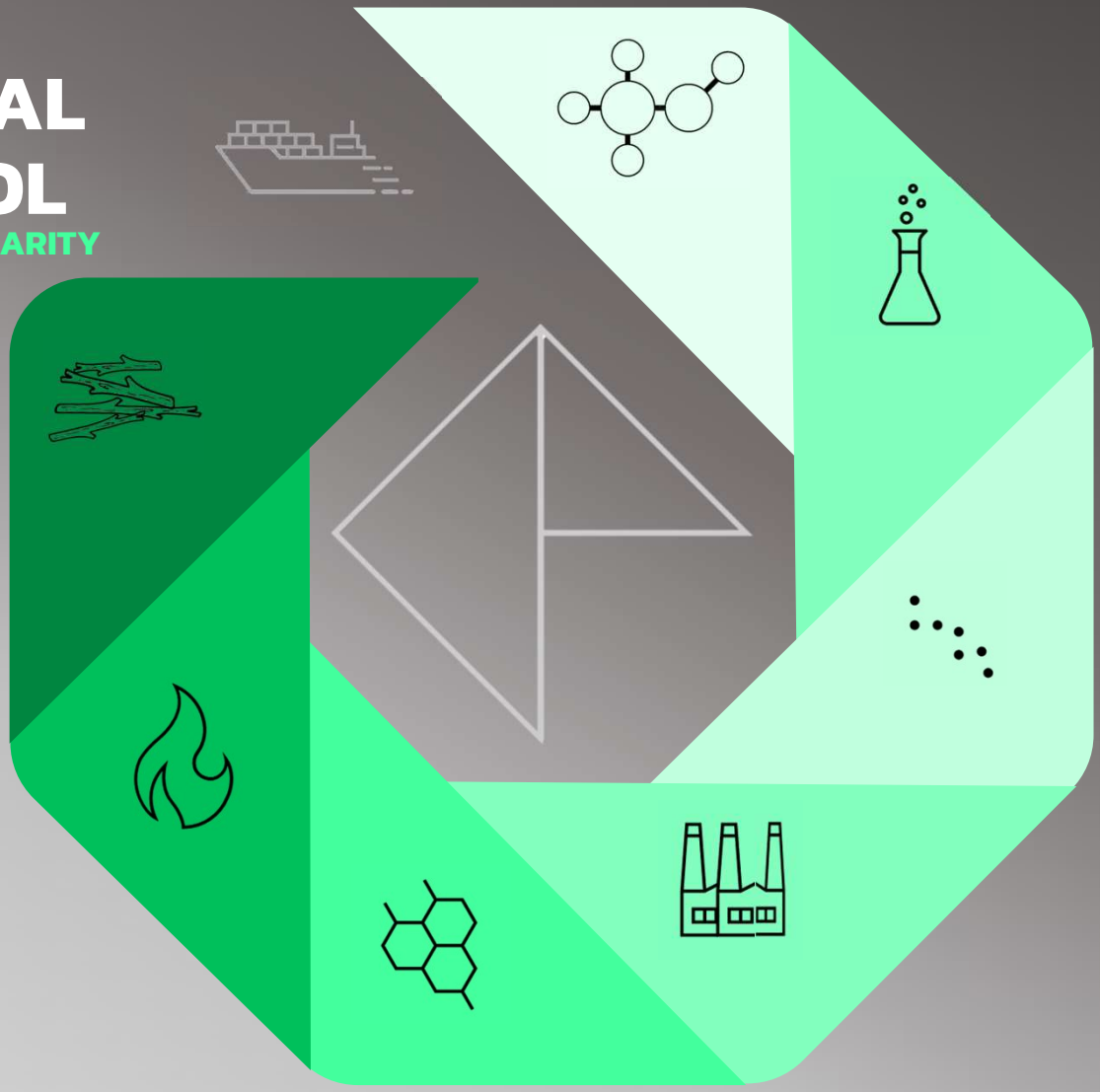
WHY METHANOL ?

- Transportable commodity
- Clean fuel for the maritime industry
- Precursor for green chemical manufacturing
- Torrefaction enables gasification at commercial scale
- Integration of available technologies & our torrefaction operational experience

PERPETUAL METHANOL

ROADMAP TO CIRCULARITY



1 Feedstock: Perpetual Next is able to work with a wide variety of residues

2 Torrefaction Perpetual Next's proprietary technology

3 Biocoal bringing to the same properties as fossil coal

4 Gasification of biocarbon to syngas

5 Syngas treatment – purification and bringing the syngas to the right properties

6 Methanol Synthesis , converting syngas to biomethanol using proven technology

7 Bio methanol can replace grey methanol 1-to-1

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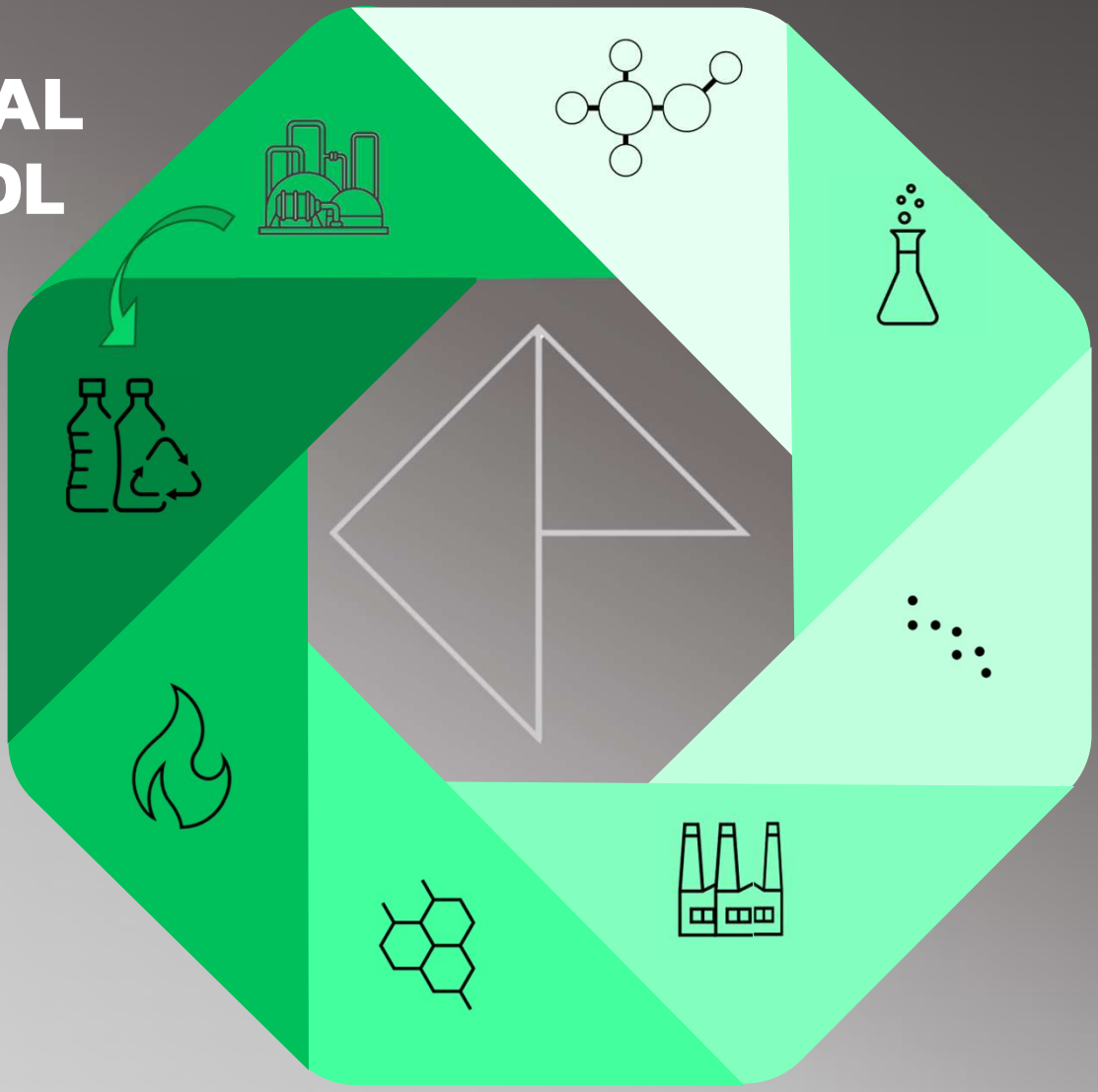
10

the future of

PERPETUAL METHANOL



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6 Methanol Synthesis , converting syngas to biomethanol using proven technology

7 Bio methanol as feedstock for the chemical industry

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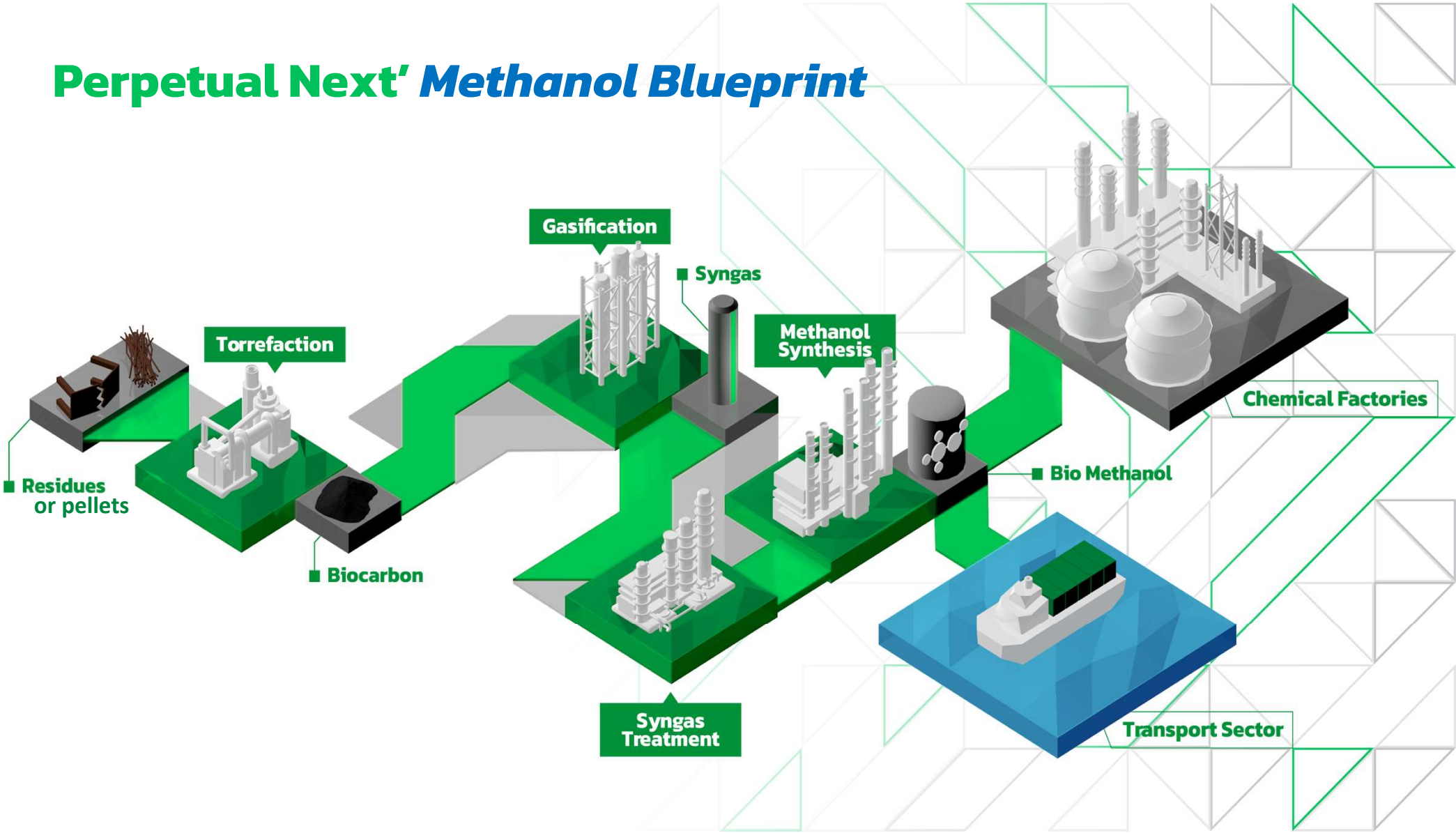
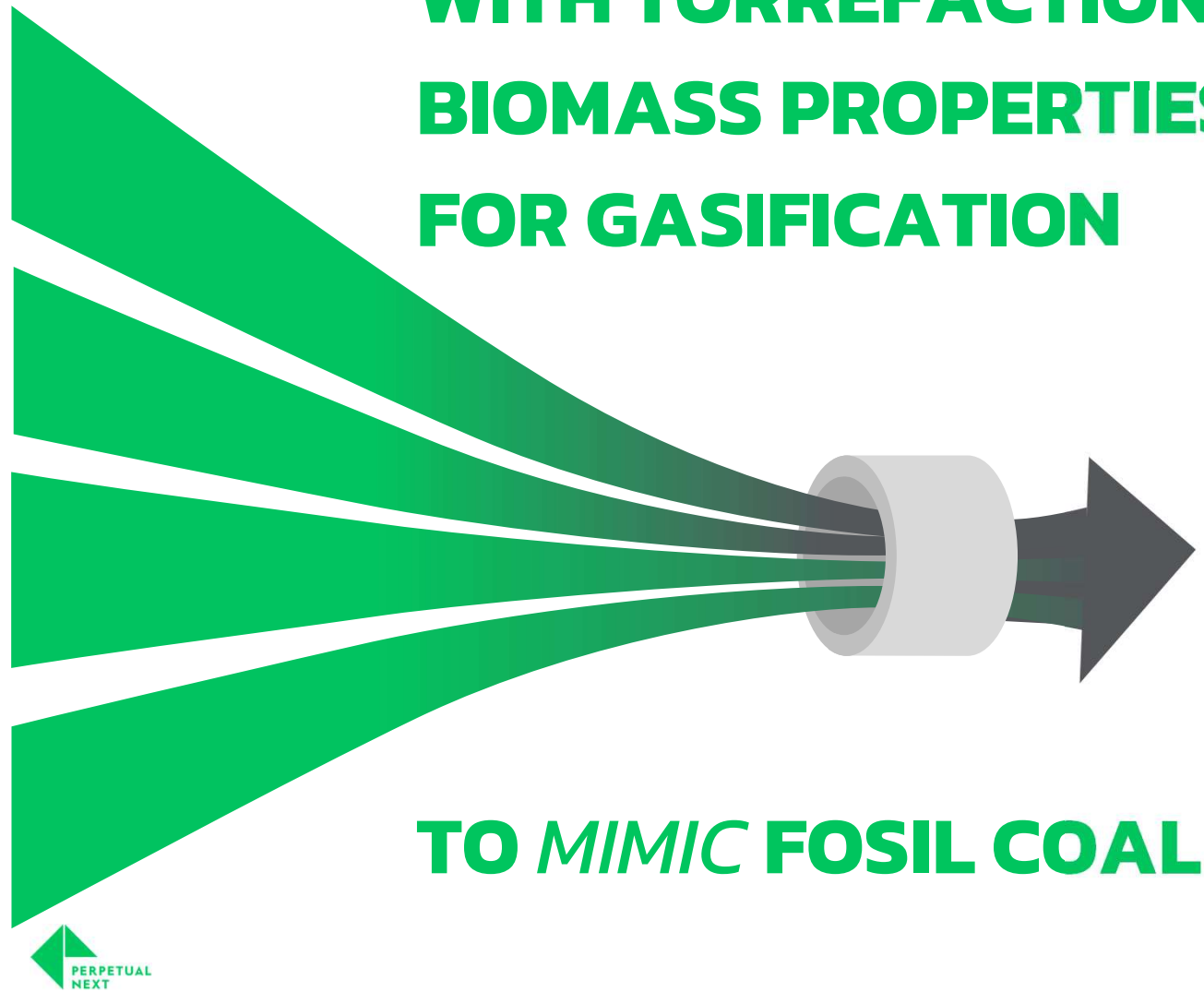
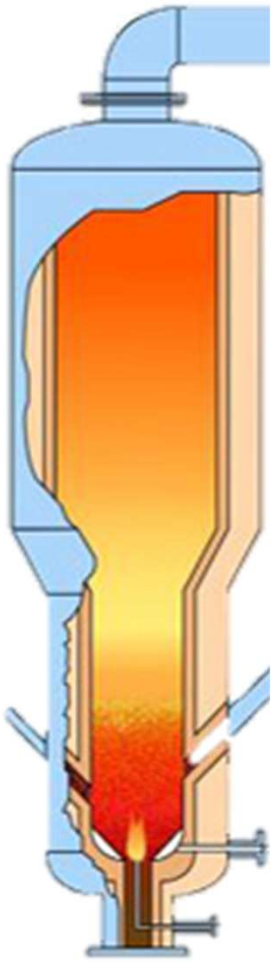
11

Perpetual Next' *Methanol Blueprint*



WITH TORREFACTION WE CAN TAILOR BIOMASS PROPERTIES FOR GASIFICATION





TO *MIMIC* FOSIL COAL

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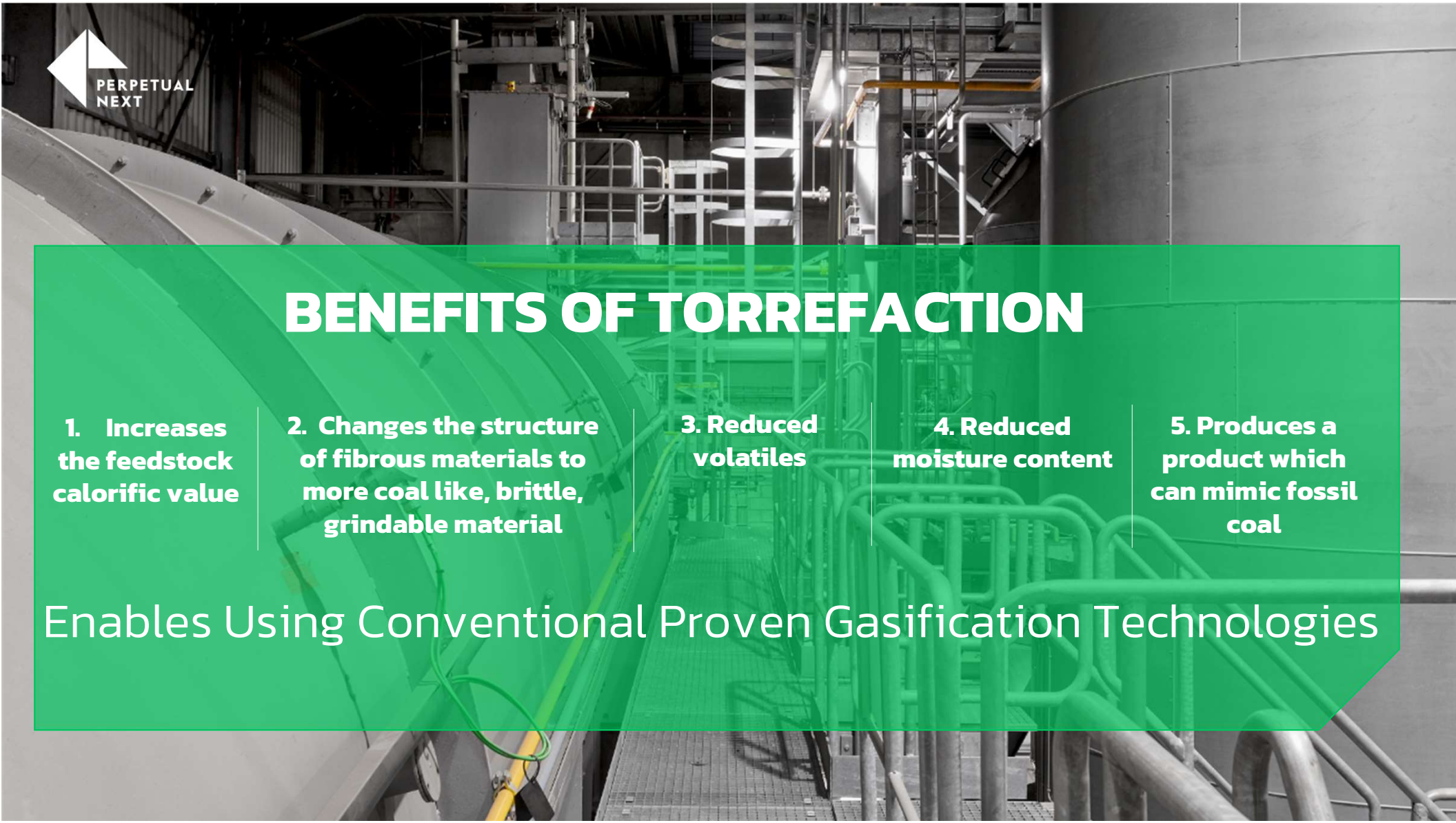

BENEFITS OF TORREFACTION

1. Increases the feedstock calorific value
2. Changes the structure of fibrous materials to more coal like, brittle, grindable material
3. Reduced volatiles
4. Reduced moisture content
5. Produces a product which can mimic fossil coal

Enables Using Conventional Proven Gasification Technologies

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Methanol Blueprint

Technical Information

PERPETUAL NEXT's METHANOL BLUEPRINT

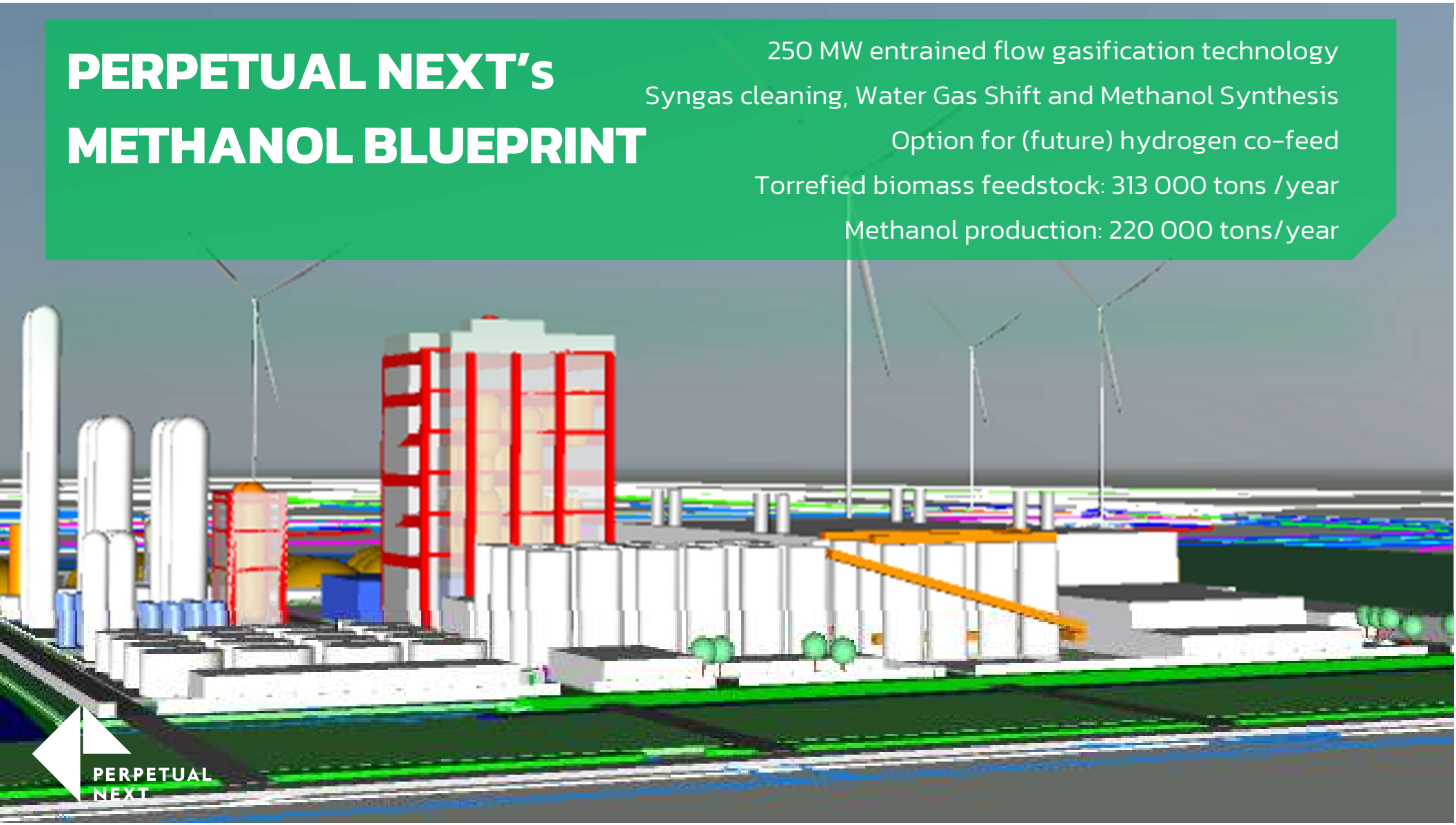
250 MW entrained flow gasification technology

Syngas cleaning, Water Gas Shift and Methanol Synthesis

Option for (future) hydrogen co-feed

Torrefied biomass feedstock: 313 000 tons /year

Methanol production: 220 000 tons/year



Typical 3D Impression BioMethanol Plant

BaltaNor:

Gas cleaning
Water Gas Shift
Distillation

Methanol Synthesis

Gasifier Structure

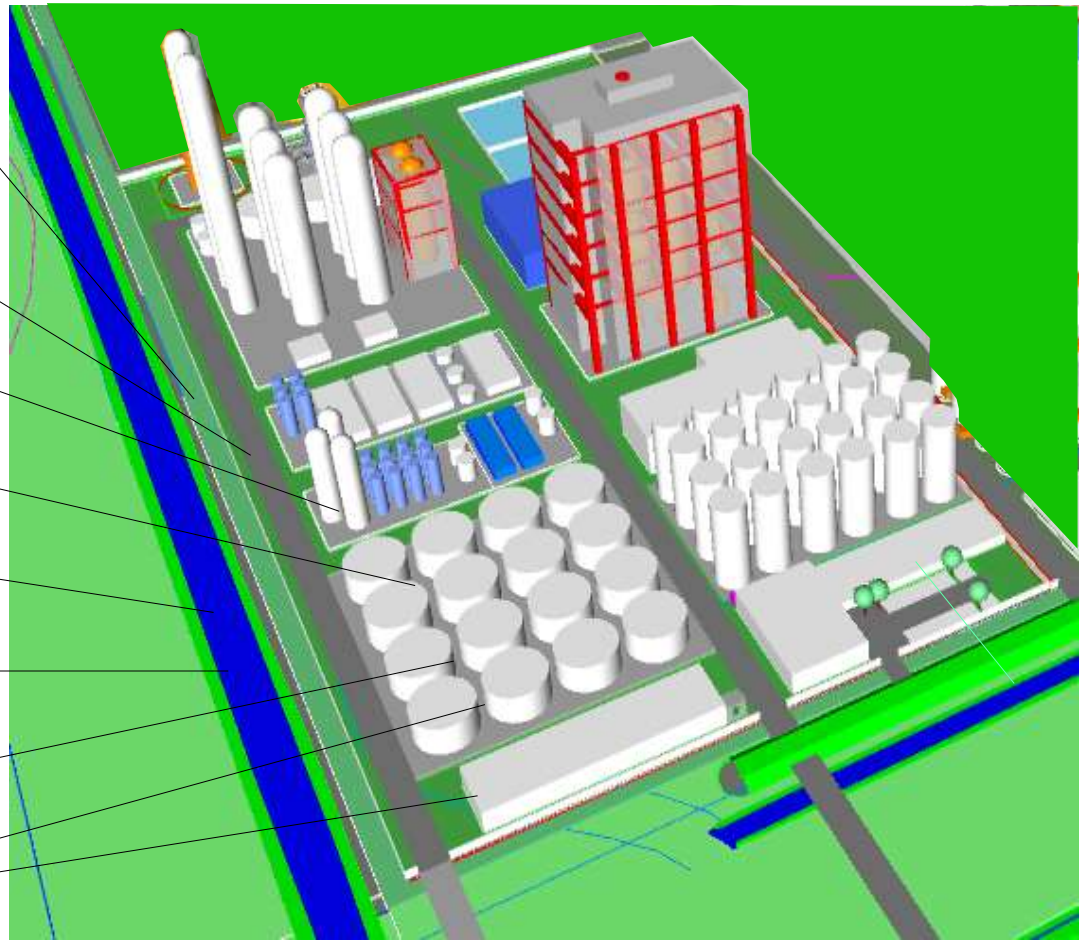
Biocarbon Milling

Air Separation Unit

Methanol Storage

BioCarbon Storage

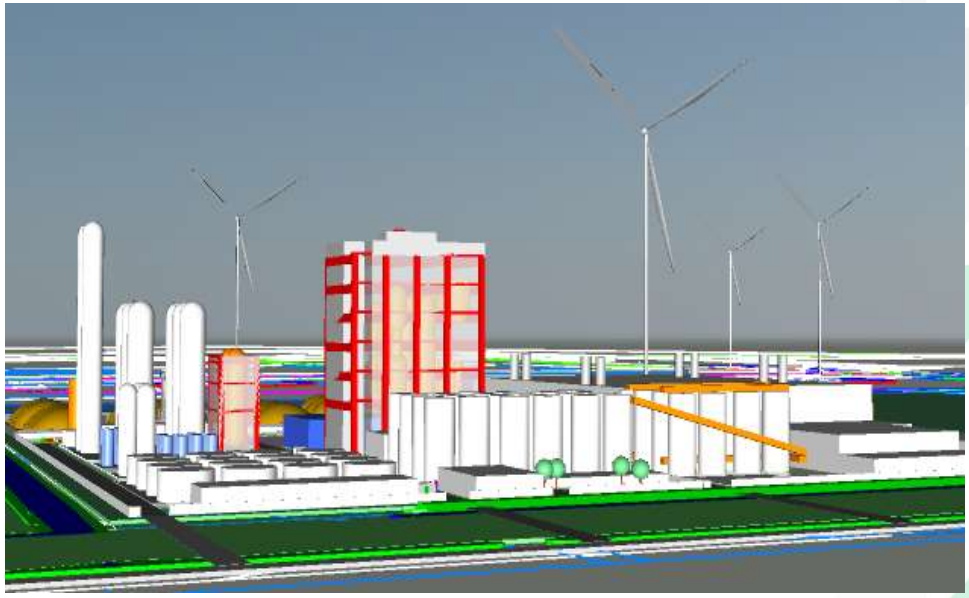
Offices/ Control Room / Maintenance Building



Perpetual Next Deltanor Delfzijl, Netherlands

Key Figures

Methanol Production	220 000 tonnes/ year
Torrefied Biomass Feedstock	313 000 tonnes/year
CAPEX	630 MM EUR
EBITDA	90 MM EUR
Permit Application:	Q3 2024
FID planned for	Q4 2025
Planned start of operation	Q1 2028



Combining proven large scale technologies, including Perpetual Next's Patented Torrefaction

Cooporation with market leaders in gasification and gas treatment technology

Cooporation with parties in the chemical industy and biomass feedstock sector

Plot reservation 16 ha in the industrial area of Delfzijl

Constructive relations with local authorities and stakeholders

Consultant Witteveen + Bos contracted to perform and coordinate M.E.R. (Environmental Impact Assessment)

Project BALTANOR (Interal codename)

Vägari, Estonia

PERPETUAL NEXT

THE METHANOL BLUEPRINT PLOTTED ON THE EXISTING **PERPETUAL NEXT** SITE AS AN ADD ON TO OUR TORREFACTION PLANT IN ESTONIA

Perpetual Next Baltanor Vägari, Estonia

Key Figures

Methanol Production	220 000 tonnes/ year
Torrefied Biomass Feedstock	313 000 tonnes/year
CAPEX	530 MM EUR
EBIDA	95 MM EUR
Permit Application:	Q3 2024
FID planned for	Q4 2025
Planned start of operation	Q4 2027

Combining proven large scale technologies, including upscaling existing Baltania facility (Perpetual Next)

Cooperation with market leaders in technology

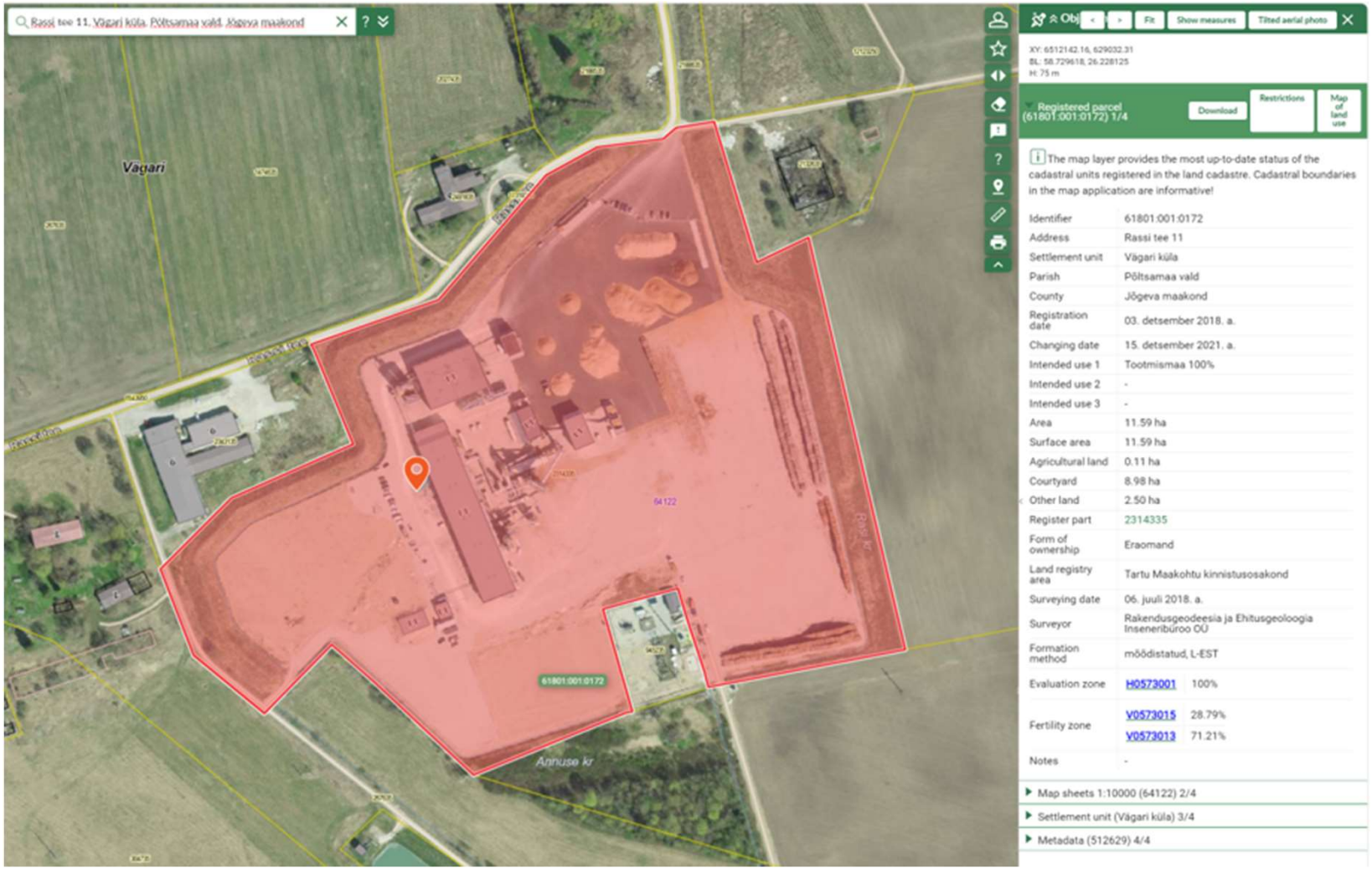
Synergy with the existing Baltania torrefaction plant

Plot (10ha) with industry designation owned by Perpetual Next

Constructive relations with local authorities, municipality, equipment suppliers and stakeholders

Estonian consultant contracted to perform and coordinate. Environmental Impact Assessment process and permit application.

Existing location Baltania torrefaction plant

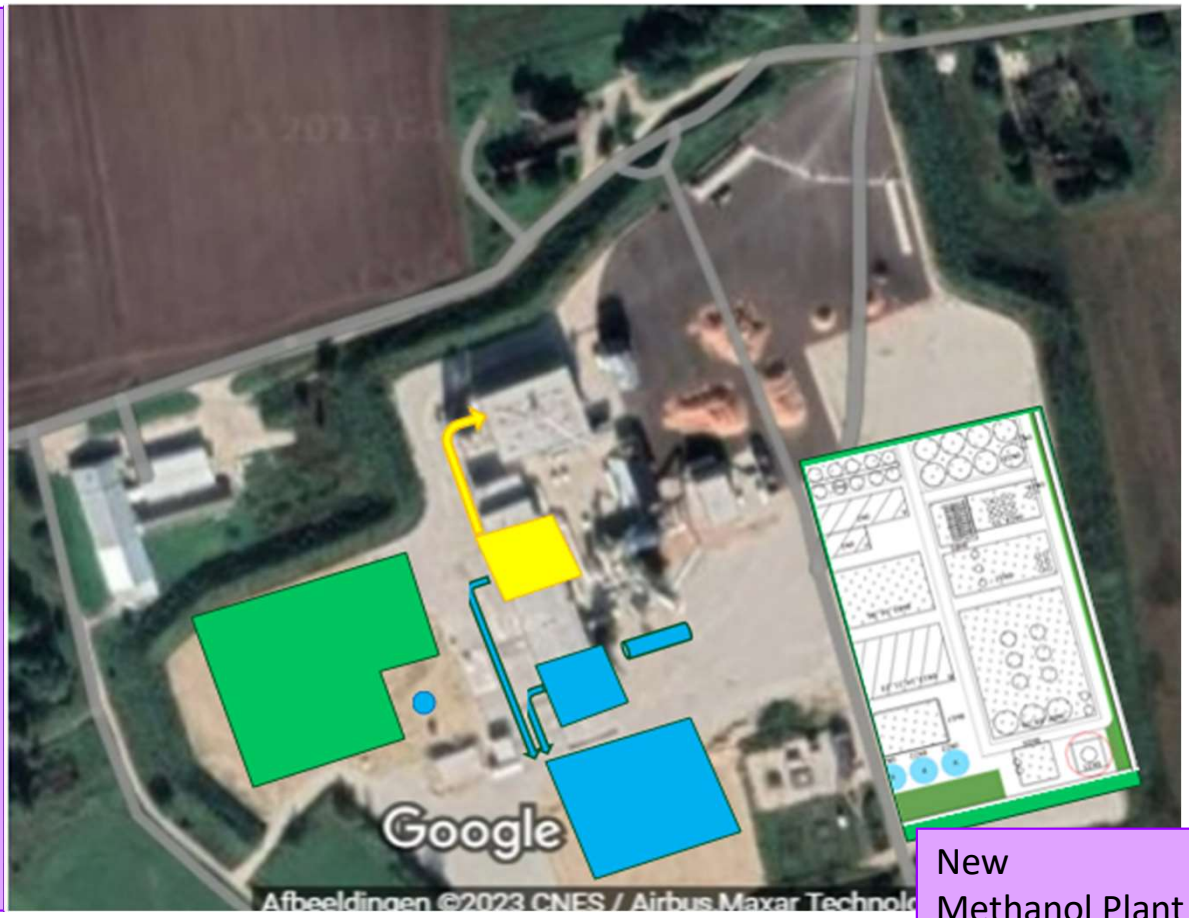


Land property of Perpetual Next

3D Impression

BaltaNor space allocation:

Yellow:
for Torrefaction reactors 1 and 2(existing)
Blue:
for dryer 2 and Torrefaction reactors 3 & 4 (extension) and biocarbon storage
Green:
for non-hazardous utilities(new) to the west of the existing buileding.



New
Methanol Plant

Typical Schedule (depending on IEA plan)

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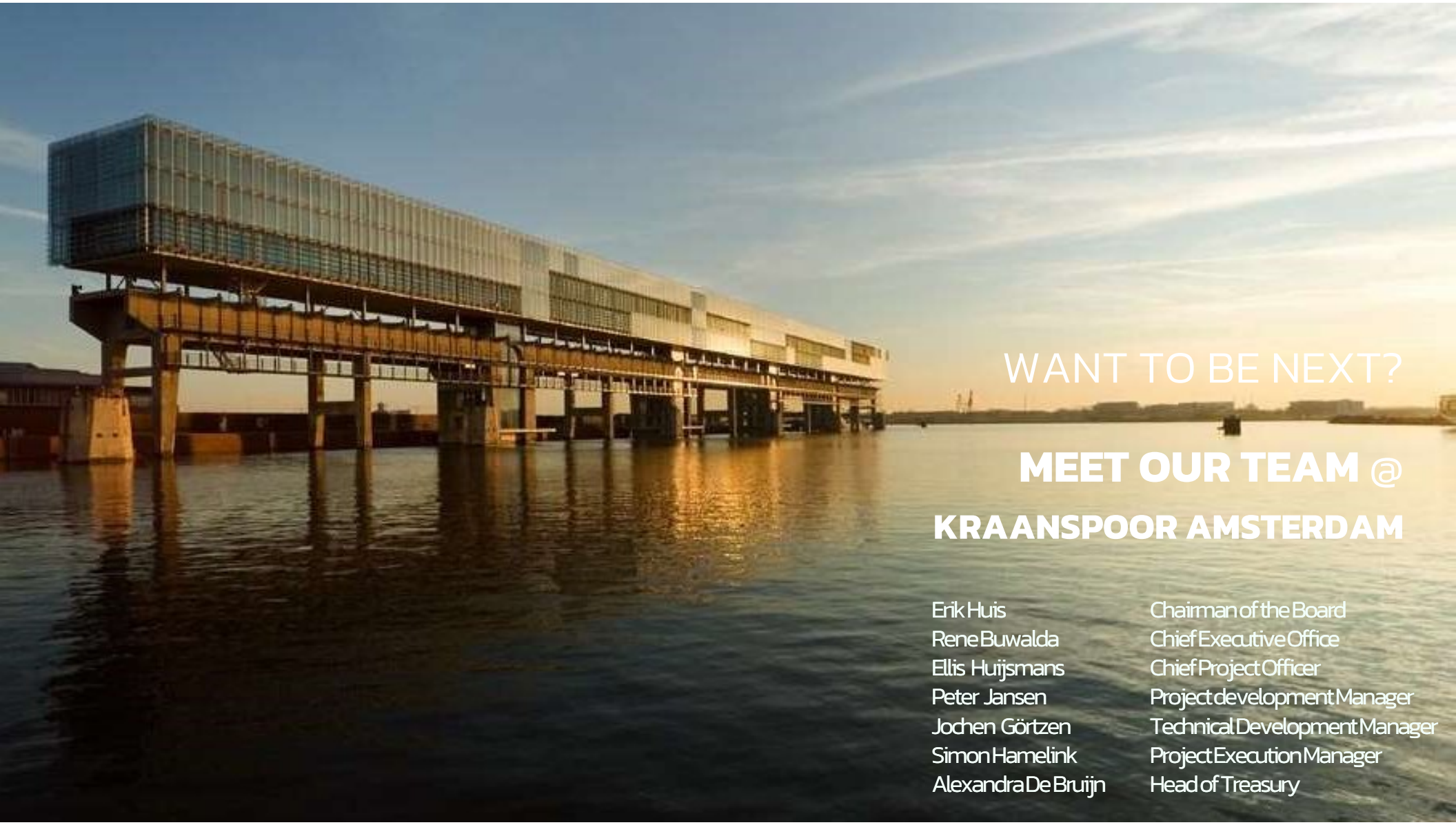
Benefits of the development

1. Green initatives to process local produced feedstock to methanol. High end product
2. Breeding ground for initiatives to new enterprices.

3. Local and regional direct benefits:
   - Investment of 530 million Euros
   - More staff (120+) to operate and maintain the plant (24/7)
   - More staff requires local housing, shops and lesure provisions
   - Possibility to supply heat to heating distribution system
   - Increase of gross regional product
   - Training and education of staff

4. Local and regional indirect benefits:
   - Maintenance firms (5-10 million maintenance budget per year)
   - Housing and hotels provisions for contractors and maintenance firms
   - Catering industrie


WANT TO BE NEXT?
MEET OUR TEAM @
KRAANSPOOR AMSTERDAM
Erik Huis
Chairman of the Board
Rene Buwalda
Chief Executive Office
Ellis Huijsmans
Chief Project Officer
Peter Jansen
Project development Manager
Jochen Görtzen
Technical Development Manager
Simon Hamelink
Project Execution Manager
Alexandra De Bruijn
Head of Treasury


MERÇI
Dank u
Thank you
ありがとう
VIEL DANK
GRA S
谢谢
كرًا لك
Дяку о