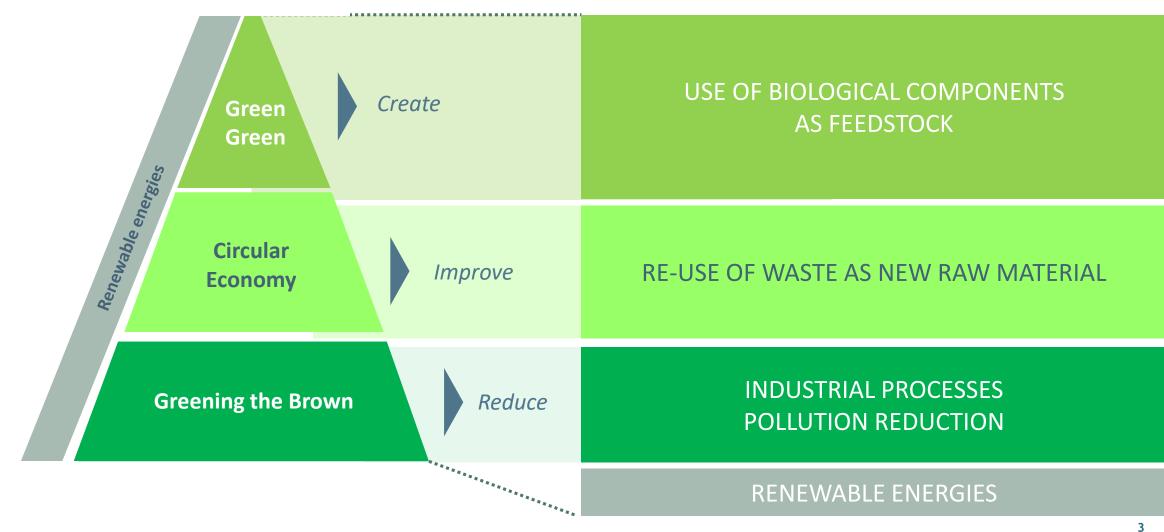




## NEXCHEM ROADMAP TO ENERGY TRANSITION

**MARKET FRAMEWORK** 





### **NEXTCHEM MAIN INITIATIVES**

DEVELOPMENT TIMELINE 2019-2020 2021-2023 > 2023

**Greening the Brown** 



POWER to CHEMICALS

High efficiency technology for the **conversion of Electricity** in **Hydrogen** (first step) and/or direct production of **Fuels** (second step).



Renewable Energy to Chemical & Fuels



ENABLING NATURAL GAS Industry

Technologies for the exploitation of Natural Gas field at high Sour gas contents



**Enabling Natural Gas industry** 

Circular Economy



Recycling

**Upcycling** of Plastic waste in High Value Polymers

Mechanical Recycling

Fuels

Integrated Recycling
(Mechanical and Chemical



Waste to Fuels and Chemicals

Utilization of **low costs waste** for production of Fuels and Chemicals

Chemicals

Green Green



**Bio-Fuels** 

Production of **second generation Bio-Fuels** and **Renewable fuels** from biogenic feed-stocks

1<sup>st</sup> Generation

2<sup>nd</sup> Generation To 3<sup>rd</sup>

To 3<sup>rd</sup> Generation



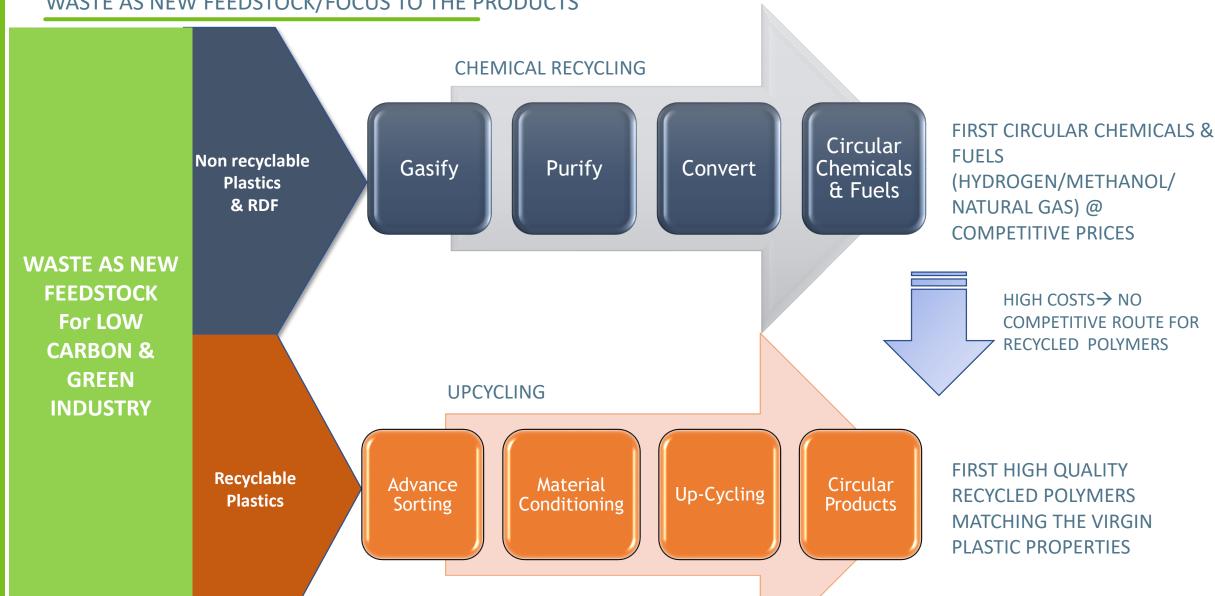
**Bio-Polymers** 

Production of **high value Bio-Polymer** from Renewable Resources

High Value Applications

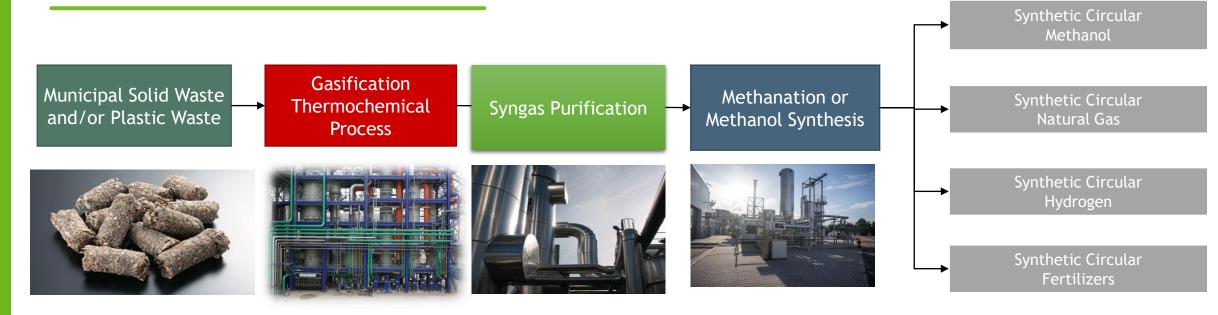


# WASTE AS NEW FEEDSTOCK/FOCUS TO THE PRODUCTS





#### NON RECYCLABLE PLASTIC WASTE TO CIRCULAR FUELS





Refuse derived fuel (RDF) or Non Recyclable Plastics Gate Fees

Gasification of the Waste Waste are converted in Syngas Syngas Purification
Syngas quenching,
purification ready
to conversion

## Renewable fuels convesion

CO and H<sub>2</sub> coming from gasification are fixed into:

- 1. Circular Methanol via Methanol Conversion
- 2. Circular Natural Gas via Methanation
- 3. Circular Hydrogen
- 4. Circular Fertilizers







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