

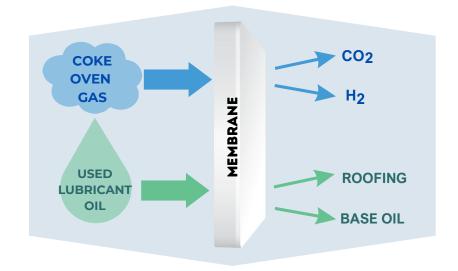


Customized membranes for green and resilient industries

#### **INTRODUCTION**

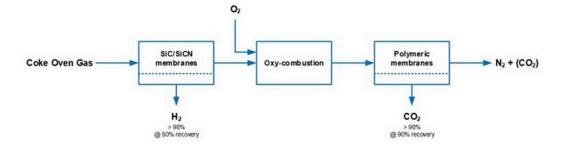
Increased energy and resource efficiency in industrial sectors is paramount to build a resilient and sustainable future. In this context, CUMERI is a European project which will develop and demonstrate at TRL7 advanced and customised membrane separation systems in two key industries:

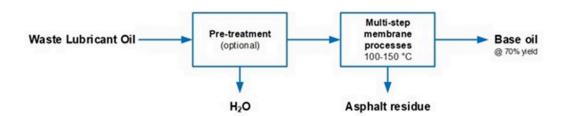
- Gas seperation in steel industry for H2 recovery combined with CO2 capture,
- Liquid treatment in oil and gas industry for base oil refining from used lube oil.



### **CUMERI PROCESS**

Target membrane processes with on-site demonstration at TRL7





# **CUMERI PARTNERS**

- Vlaamse instelling voor technologisch onderzoek N.V
- Fraunhofer gesellschaft zur forderung der angewandten forschung EV
- Fundacion tecnalia research & innovation
- Universiteit Maastricht
- Istanbul teknik universitesi
- Sintef AS
- Osilub
- Memsis cevre teknolojileri arastirma VE gelistirme limited sirketi
- Eregli demir ve celik fabrikalari turk AS
- Erdemir muhendislik yonetim ve danismanlik hizmetleri AS
- Saint-Gobain centre de recherches
- Rauschert kloster veilsdorf GMBH
- B4PLASTICS
- A-membranes
- Euroquality SARL
- Fachhochschule nordwestschweiz

## **MEMBRANES DEVELOPPED**

### Three types of customized membranes developed:

- Selective SiC / SiCN membranes for H2 recovery
- Bio-based and recyclable polymeric membranes for CO2 permeation
- Grafted porous ceramic membranes for used lube oil purification

