
Relevance of MENA in energy investment, trade, and innovation for energy sector transformation

Fourth IEF-EU energy day

The green new deal and circular economy: Session I

Dr Ivan Marten

BCG Senior Partner Emeritus. IEF Knowledge Partner

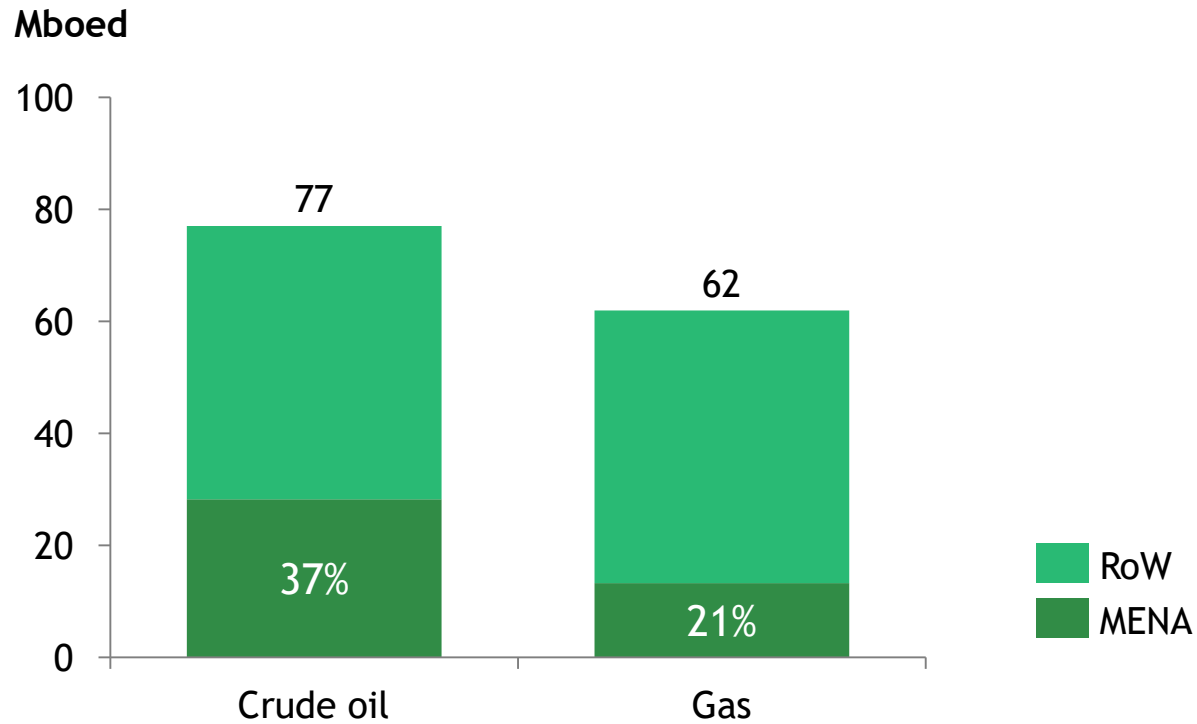
February 18, 2020

MENA is a very diverse region

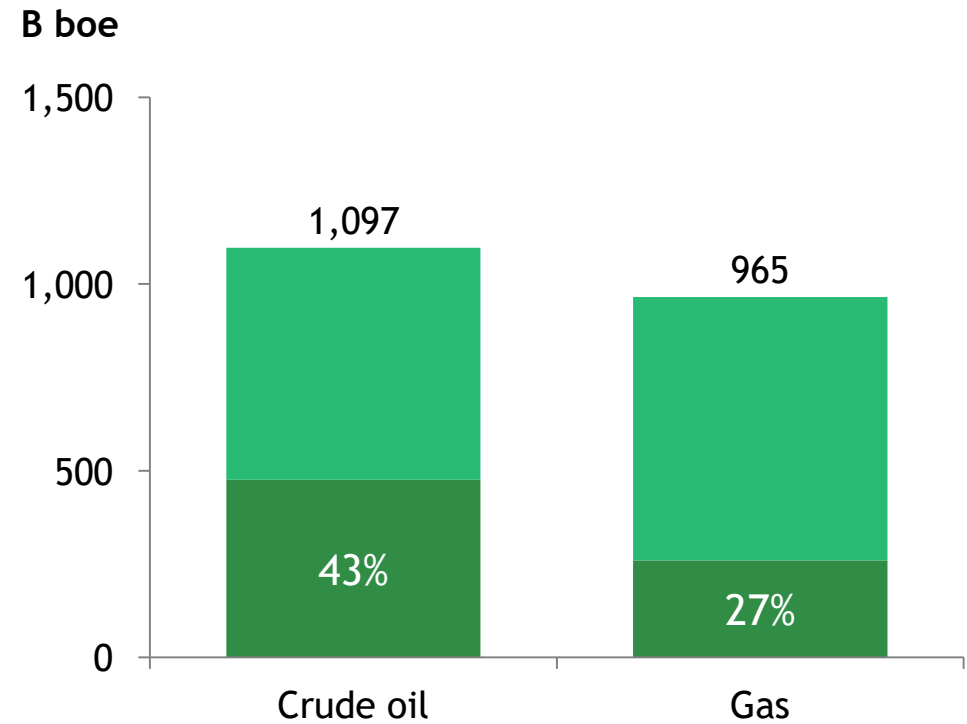


MENA holds 1/3 of global oi&gas production and resources

Global Oil & Gas Production

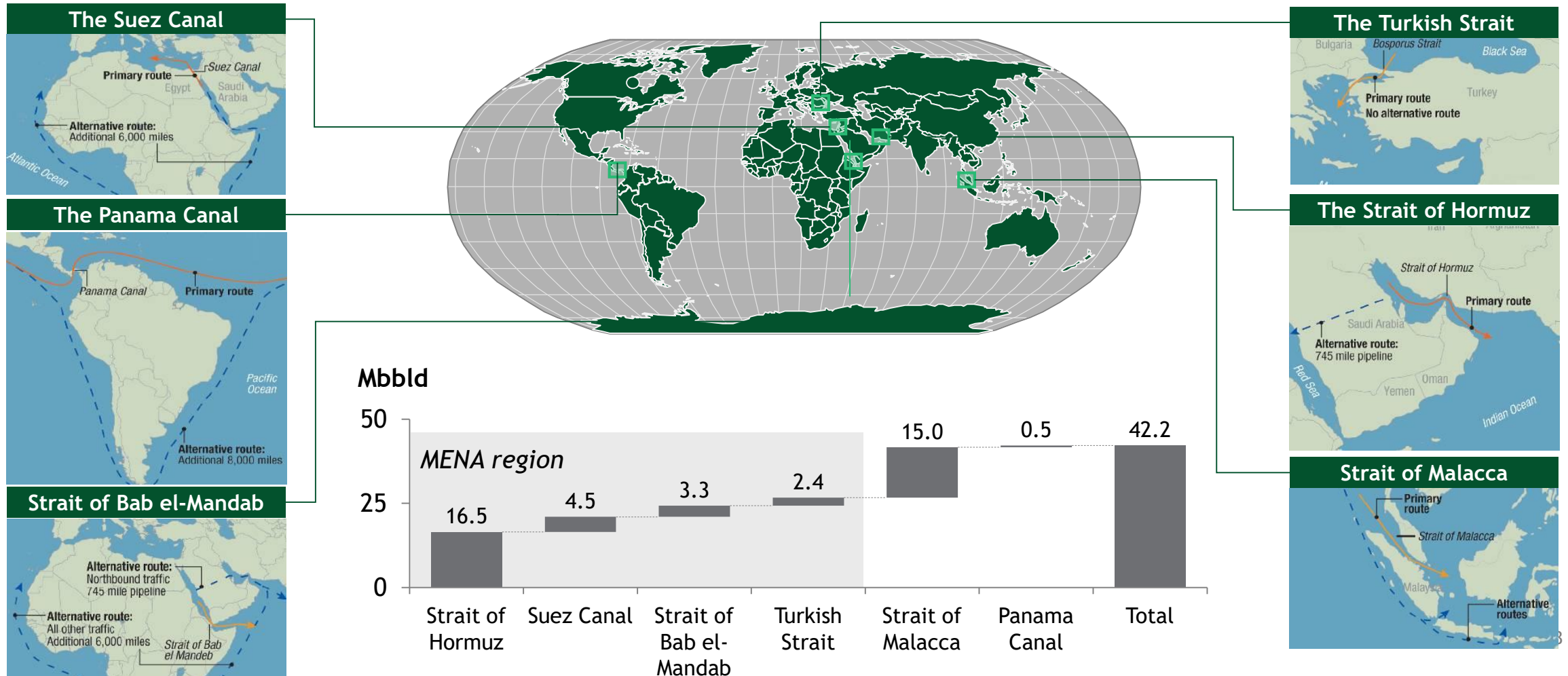


Global Oil & Gas Resources



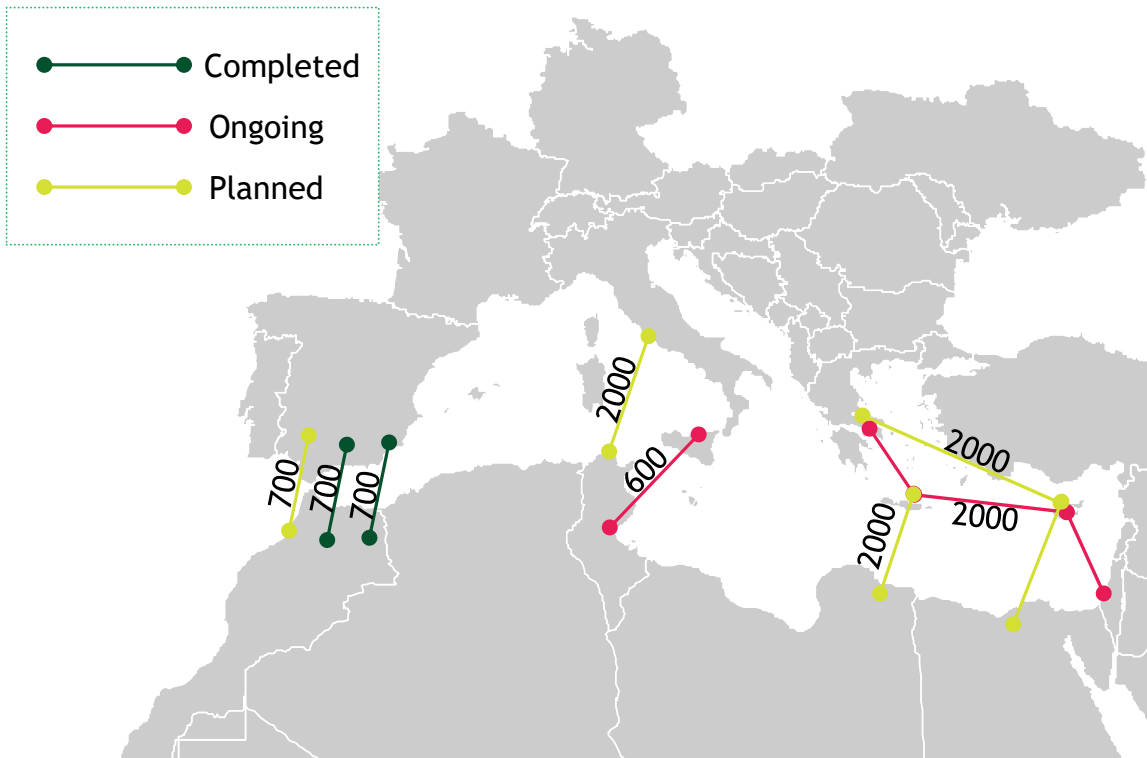
>50% of all seaborned traded oil transits through MENA

Oil transit through chokepoints

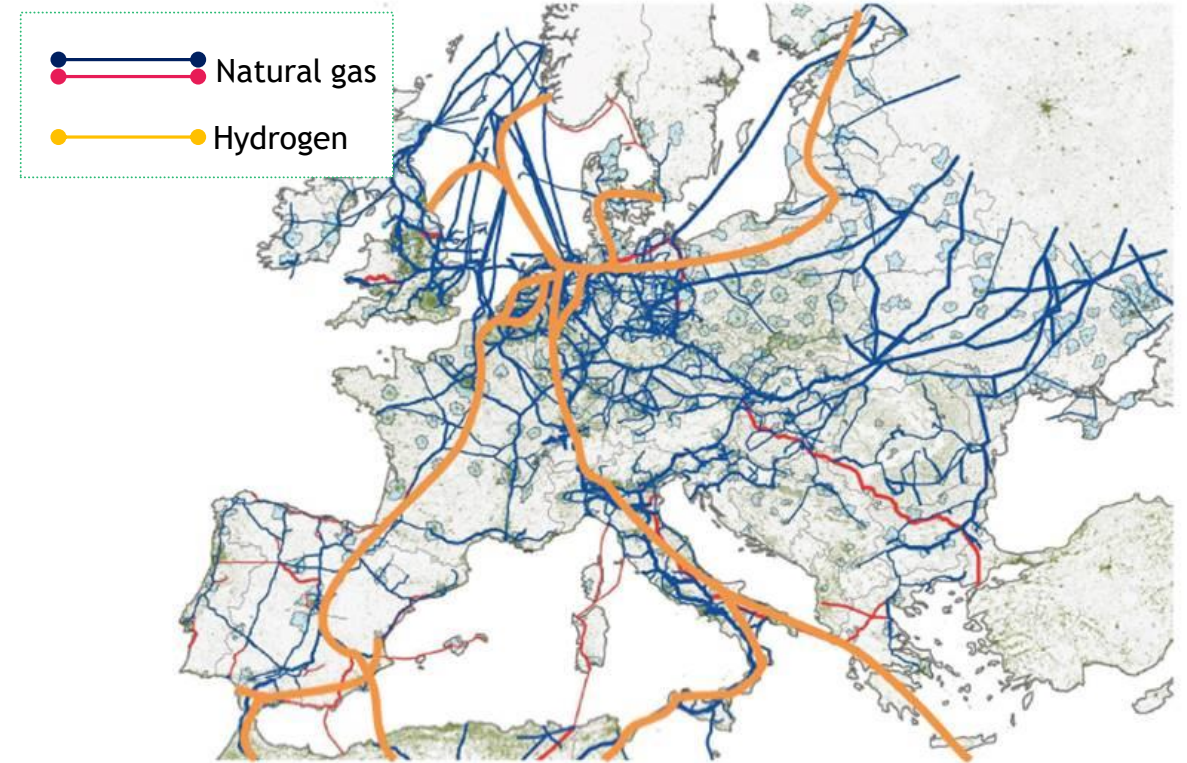


Growing interconnections with Europe

Power interconnections' capacity, GW

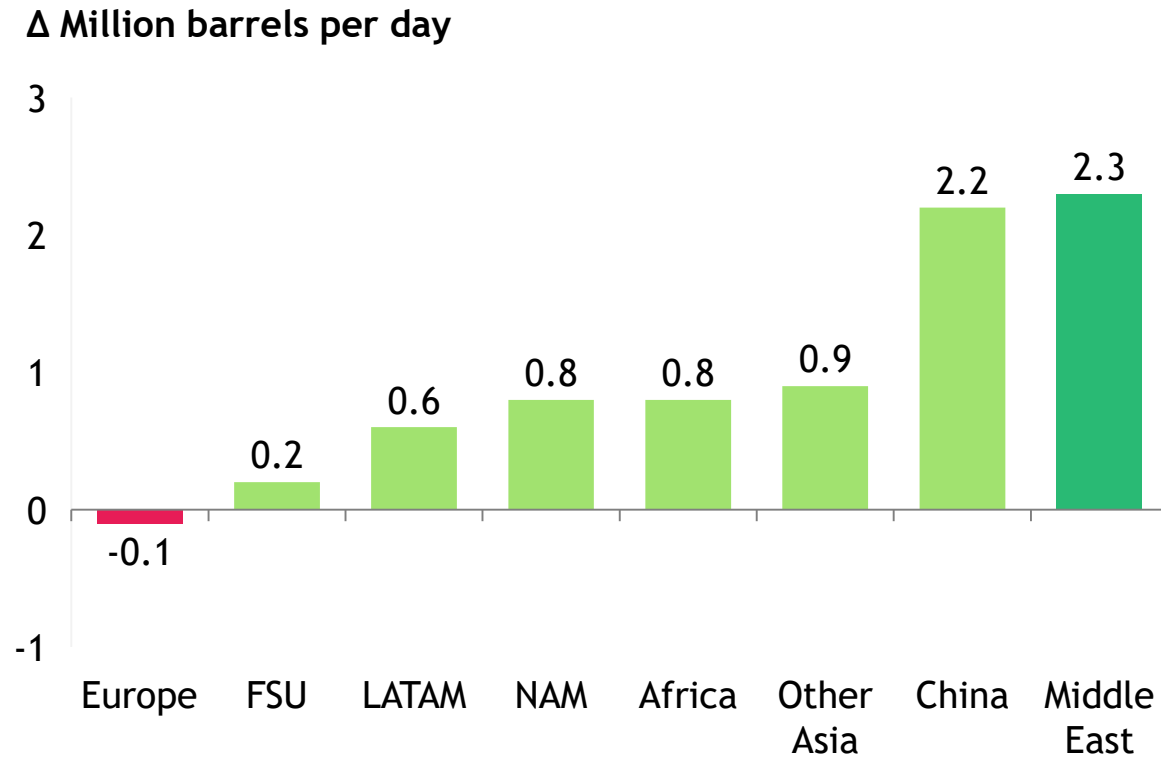


Existing Natural Gas infrastructure & outline for Hydrogen backbone

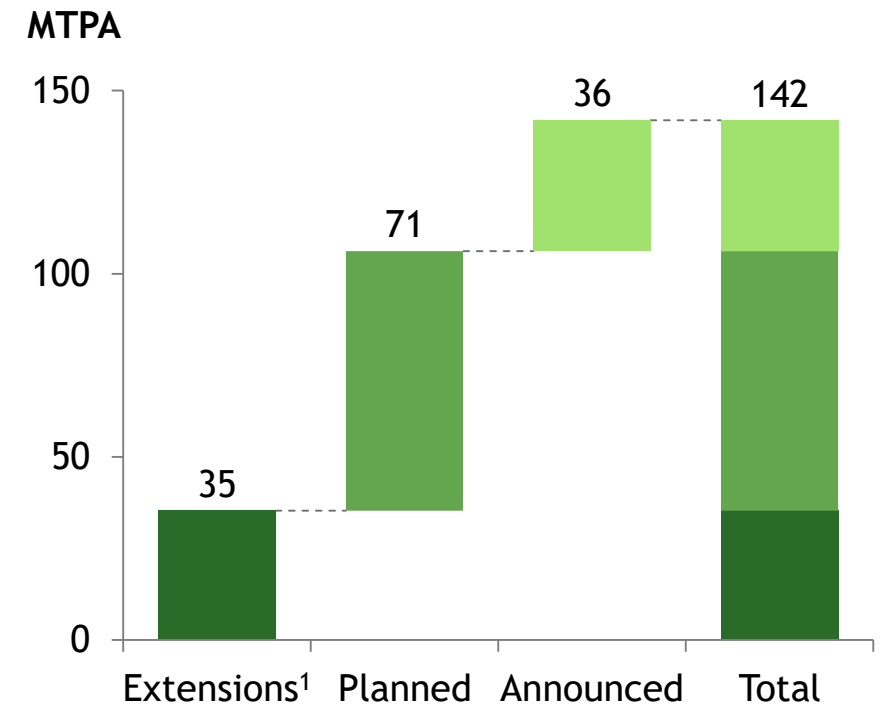


Investing heavily in Refining and Petrochemicals

Expected global crude distillation capacity Δ 2015 - 2021



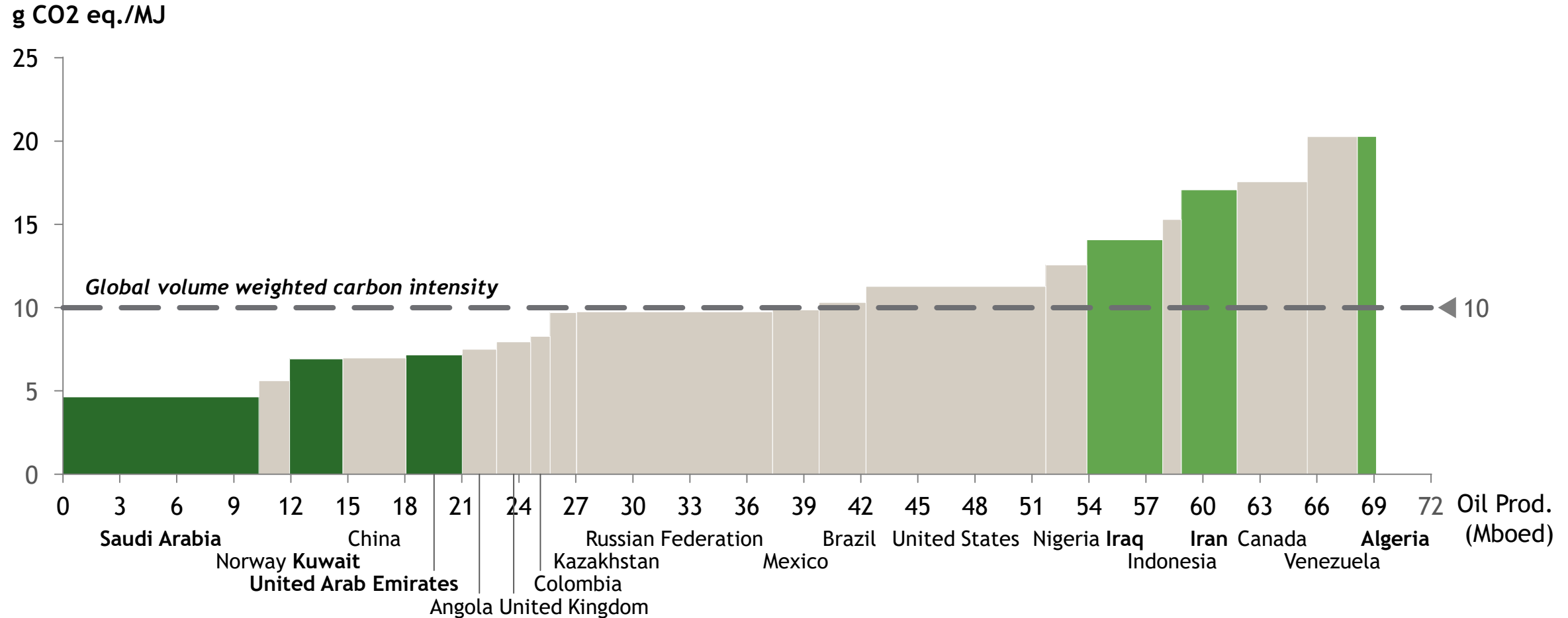
Petrochemical plants capacity additions, 2017-2025



1. New petchem capacity for plants already in place
 2. Not probability weighted
 Source: GlobalData; BCG analysis

MENA oil is on average cleaner than global oil

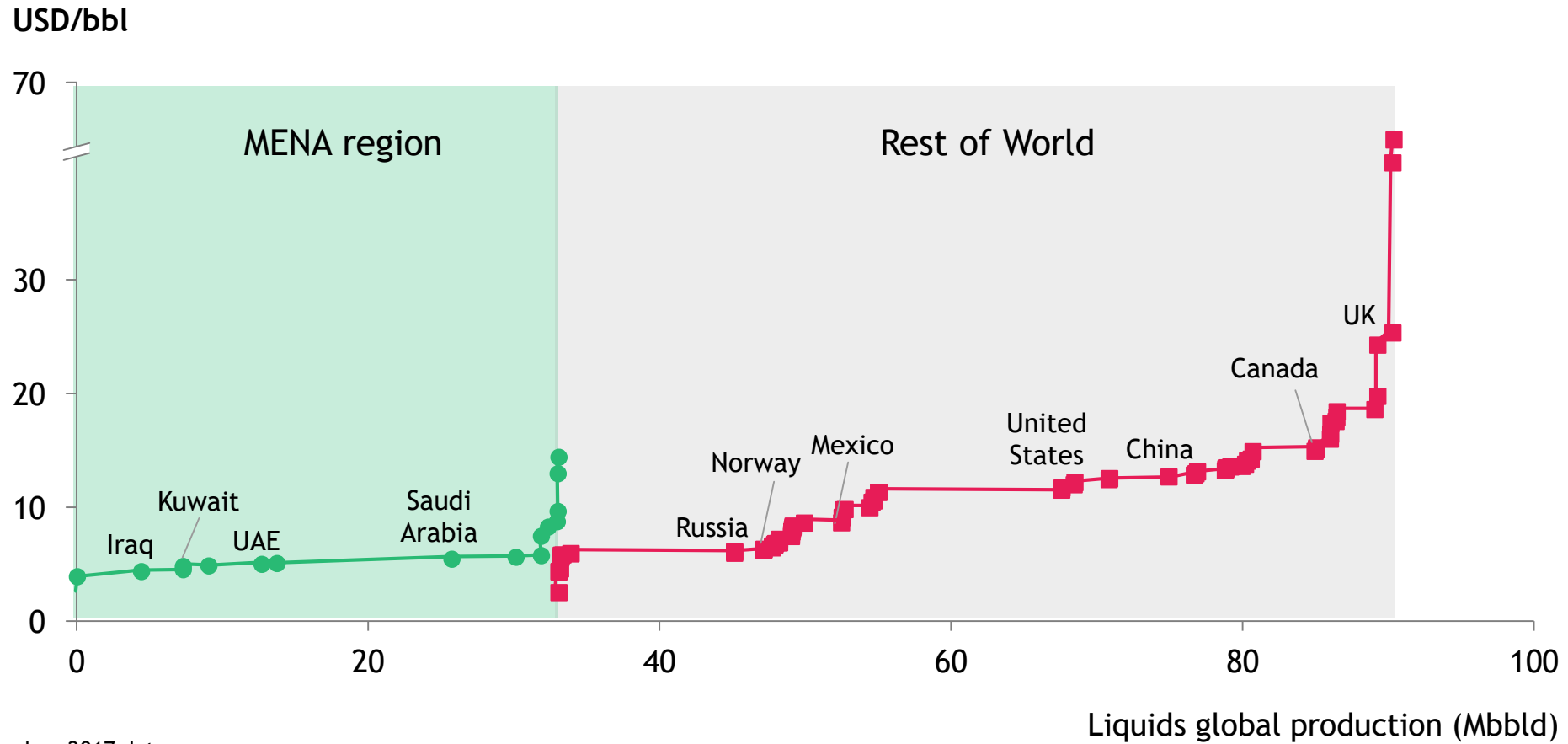
Average crude oil upstream GHG intensity



Note: Selected countries considered
 Source: M.S. Masnadi et al. Science 361, 851 (2018)

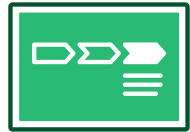
MENA oil is the most resilient to price crashes

Cash costs without royalties

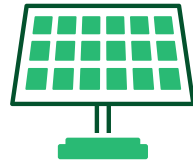


Note: Analysis based on 2017 data
Source: Rystad Energy

Power sector in MENA is becoming greener



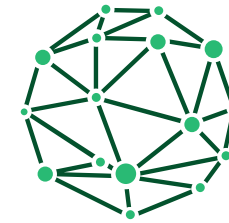
Ambitious
renewable
targets



Competitive
renewable
tenders



Energy price
reforms

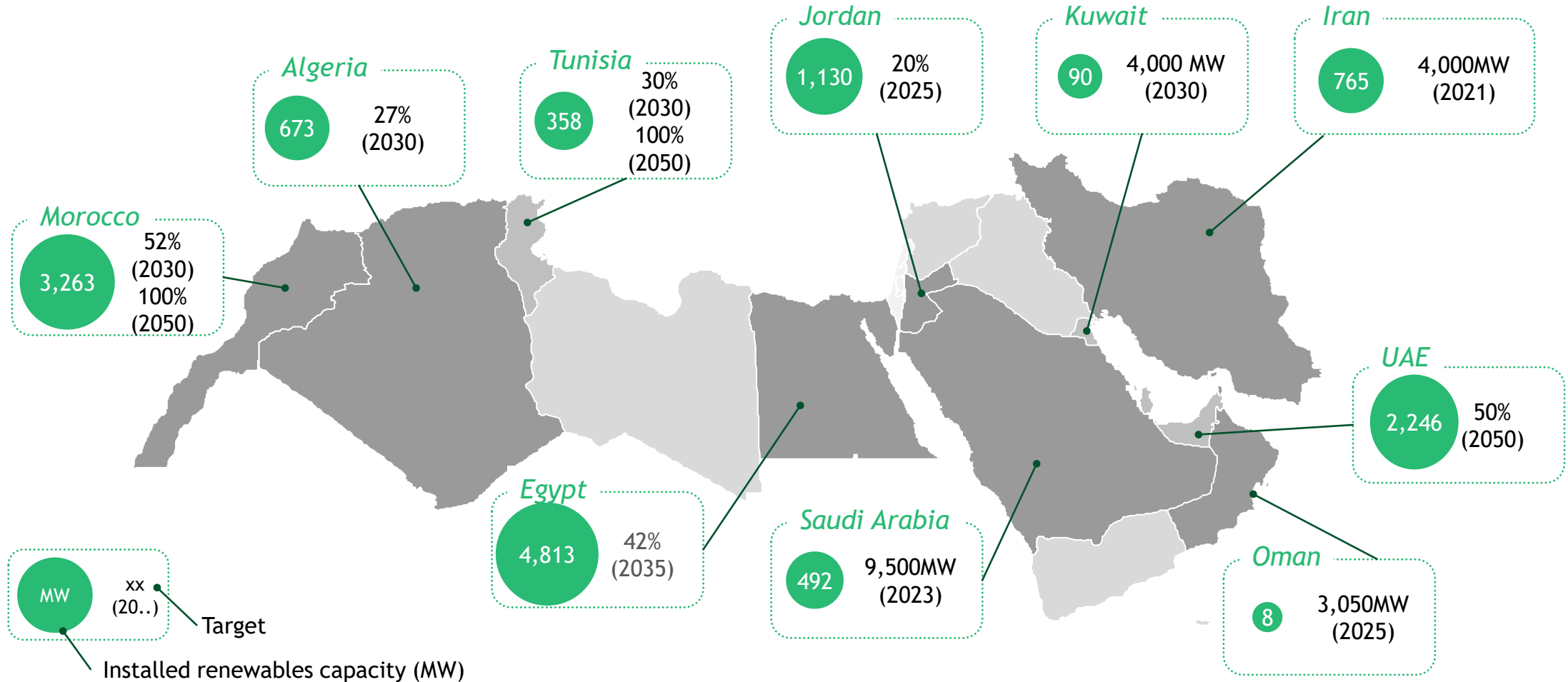


Distributed
generation
policies

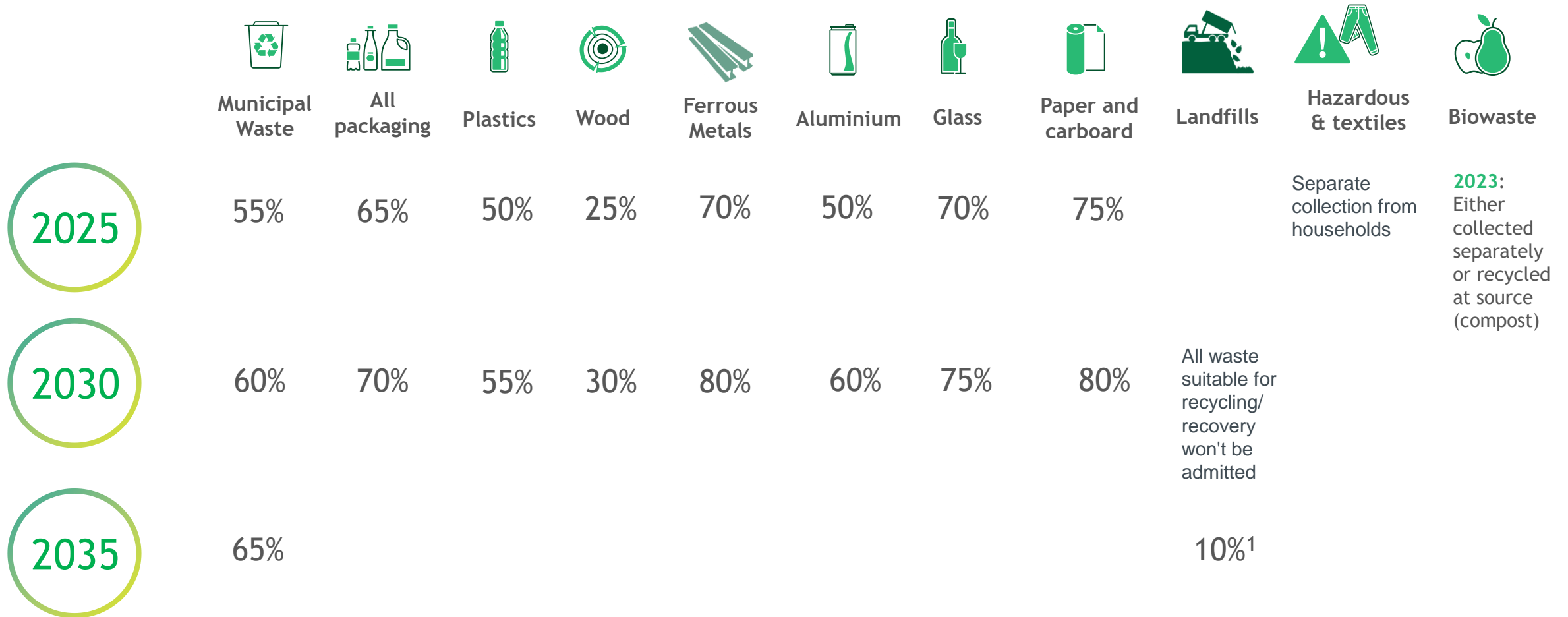


Energy
efficiency
initiatives

MENA has embarked on ~67GW of clean energy projects



EU determined to be at the forefront on Circular Economy



1. Amount of MW landfilled
 2. Source: European Council of the European Union (after Dec 2017 revision)

Summary

A very diverse region...

... that plays a key role in the global security of supply...

... requiring high investments in energy and industry in pursuit of economic development and stability...

... and rightfully addressing the challenge of energy sustainability energy efficiency and circular economy

Relevance of MENA in energy investment, trade, and innovation for energy sector transformation

Fourth IEF-EU energy day

The green new deal and circular economy: Session I

Dr Ivan Marten

BCG Senior Partner Emeritus. IEF Knowledge Partner

February 18, 2020