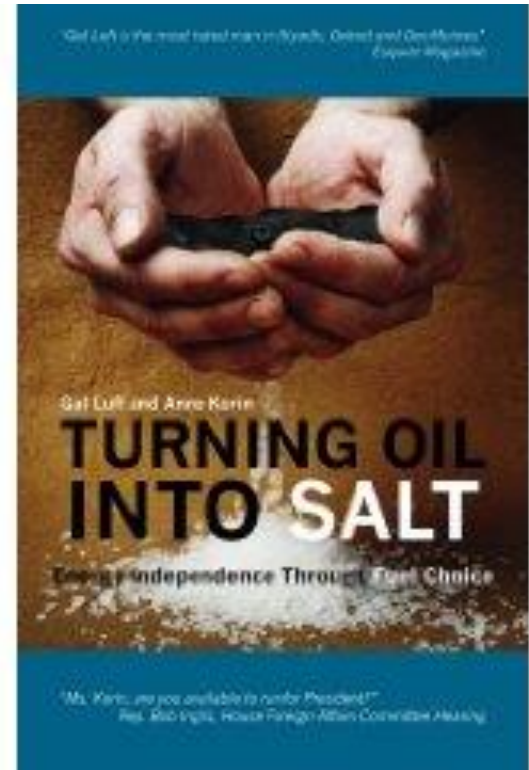


Israel's role in turning oil into salt



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What's wrong with this picture?

	1980	2010
World population	4.5 billion	6.8 billion
Number of automobiles	400 million	900 million
World GDP	11 trillion	60 trillion
Global oil demand	60 mbd	84 mbd
OPEC production	26 mbd	26.8 mbd

OPEC holds 78pct of world reserves yet it produces less than one third of global demand and its production hasn't grown in 30 years.

A flex fuel plug-in hybrid

Electricity
Ethanol
Methanol
Gasoline



What does one do with all that gas?



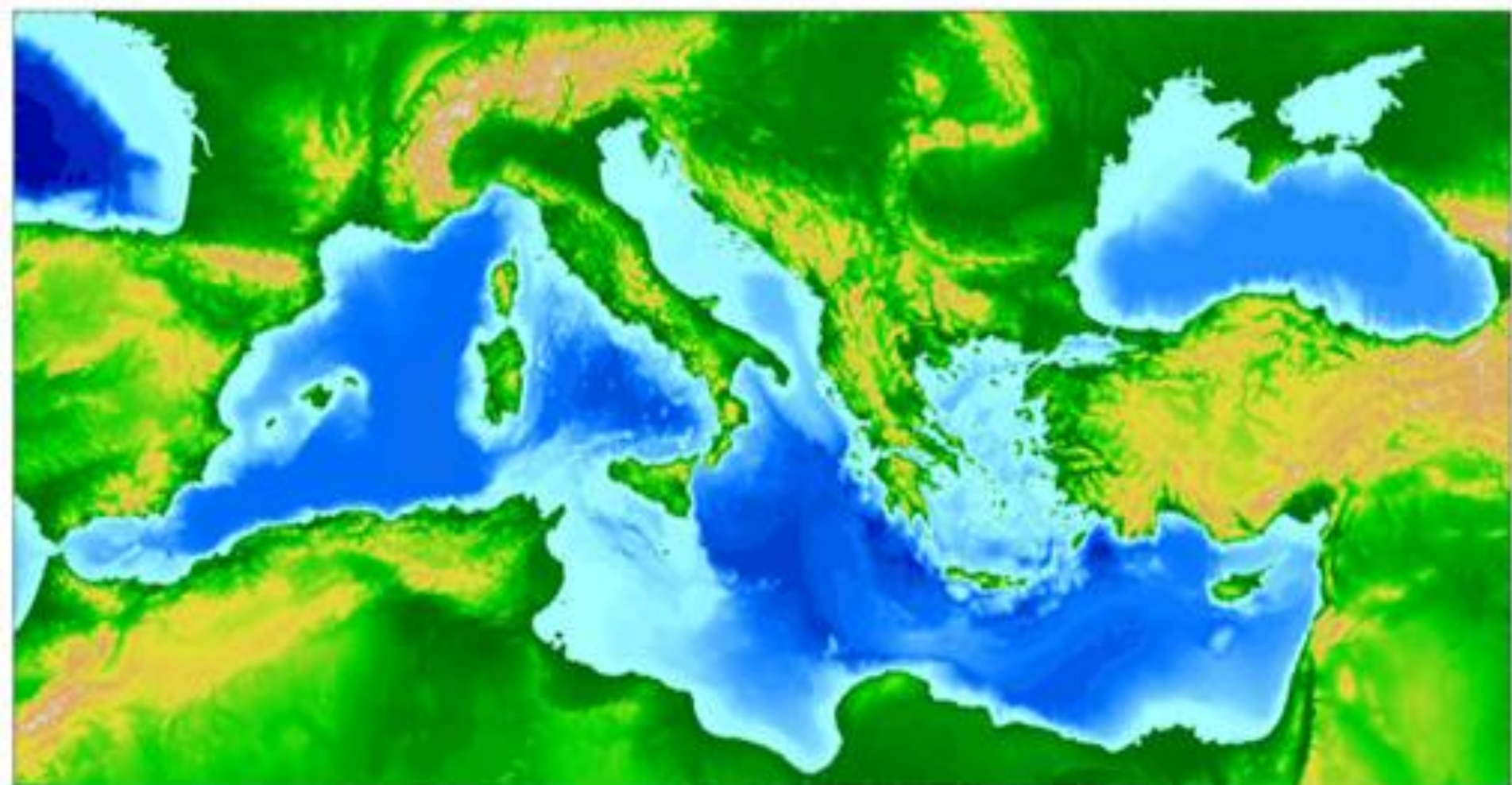
Export options



Pipeline to Cyprus and Greece – \$7-30 billion

Pipeline to Turkey – \$4 billion

LNG terminal – \$5-6 billion



6°W 4°W 2°W 0°E 2°E 4°E 6°E 8°E 10°E 12°E 14°E 16°E 18°E 20°E 22°E 24°E 26°E 28°E 30°E 32°E 34°E 36°E 38°E 40°E 42°E

-3900 m

-2600 m

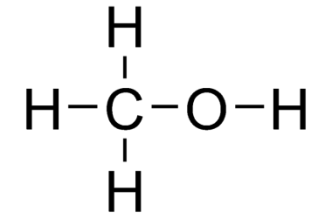
-1300 m

1300 m

2600 m

3900 m

What is Methanol?



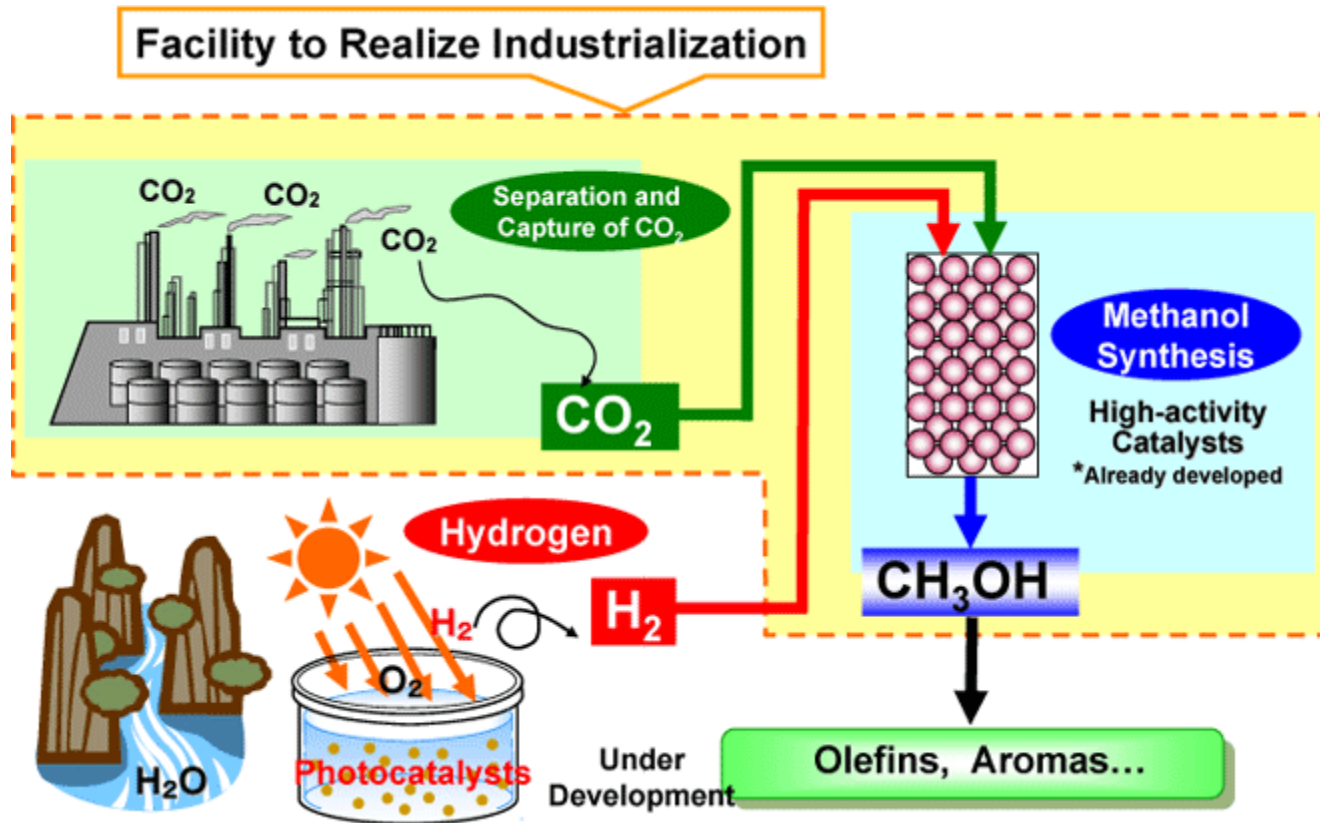
- Also known as Methyl Alcohol, Wood Alcohol, CH₃OH
- A high octane alcohol fuel
- Made from coal, natural gas, biomass, CO₂
- Formed by catalytically combining CO with hydrogen in a 1:2 ratio under high temperature and pressure
- Can run in flexible fuel vehicles
- Current spot price \$1.10

Methanol in China

- China's alternative fuel of choice: 14 provinces have standardized methanol.
- Production capacity 37 million tons (almost half of the world's production)
- Consumption of methanol grows at an annual average growth rate of 16%.
- China has over 200 methanol plants



CO₂ to methanol



Atlas Methanol Production Plant, Point Lisas, Trinidad and Tobago



One of the world's largest methanol plants

Capacity: 1.7 mt/y

Estimated cost: \$500-\$800 million

Israel's experience with Methanol

- A 1987 experiment by the Technion and Dor Chemicals demonstrated the possibility of adding 3pct methanol to the gasoline that powers the existing vehicle fleet in Israel.
- Throughout a period of 10 months more than 14,000 vehicles were fueled with a blend of 3pct methanol and 97pct gasoline.
- The conclusions of the experiment show that there were no technical hurdles to the deployment of low methanol blends in Israel.

Methanol deployment in Israel

- Blend 3-5pct methanol into gasoline sold in Israel, using the unused 96 octane infrastructure.
- Deploy high methanol blends in taxis, buses and military vehicles
- Encourage imports of FFVs
- Develop domestic gas-to-methanol industry
- Develop methanol trade relations with China
- Encourage R/D on renewable methanol from biomass and CO₂.

Conclusion

Methanol provides Israel with an opportunity to:

- Utilize the natural gas discoveries cost-effectively
- Reduce its oil dependence
- Build strong economic ties with China and other emerging countries
- Boost the Israeli chemical industry, create jobs and investment opportunities and generate export revenues
- Position itself in the forefront of the global effort to strip oil of its strategic status