



CEMVITA
FACTORY

— OUR MISSION

Cemvita deploys nature-inspired, economical solutions to empower the energy transition and create a brighter future

Plug and Play Processes to Upgrade Existing Energy, Chemicals, and Mining Infrastructure



Extraction | Production | Renewal

APPLIED INDUSTRIAL BIOTECH

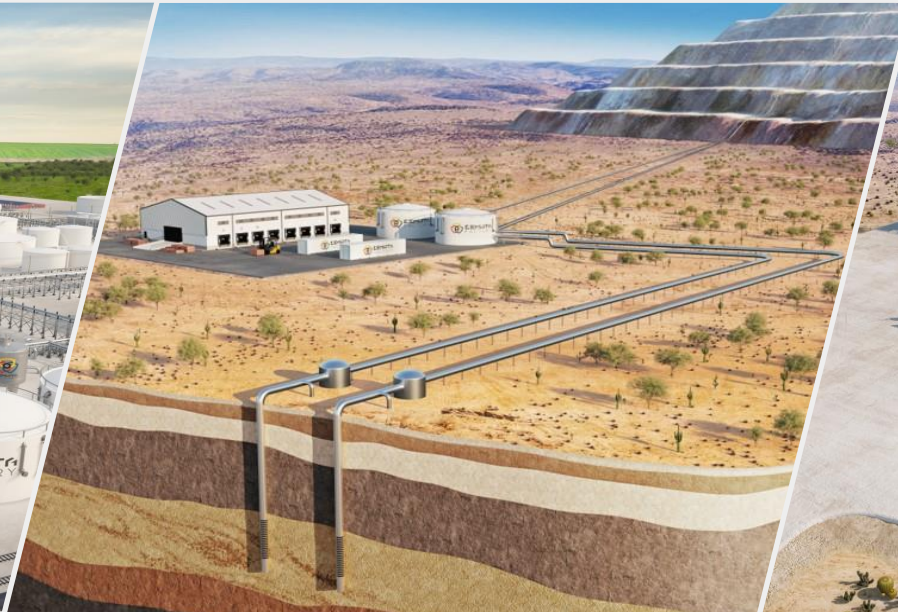
The Cemvita platform enables the low-cost, fast, and effective development of new business lines and products which are monetized in the marketplace through product sales, licensing, or partnership.

CO₂ BASED BIOMANUFACTURING



CO2 BASED PRODUCTS

BIOMINING



BIOLIXIVIANTS AND INOCULENTS

SUBSURFACE BIOMANUFACTURING



HYDROGEN

Hydrogen Color Spectrum

GREEN

Hydrogen produced by electrolysis of water, using electricity from renewable sources like hydropower, wind, and solar. Zero carbon emissions are produced.

TURQUOISE

Hydrogen produced by the thermal splitting of methane (methane pyrolysis). Instead of CO_2 , solid carbon is produced.

PINK/PURPLE/RED

Hydrogen produced by electrolysis using nuclear power.

BLACK/GRAY

Hydrogen extracted from natural gas using steam-methane reforming.

YELLOW

Hydrogen produced by electrolysis using grid electricity.

BLUE

Grey or brown hydrogen with its CO_2 sequestered or repurposed.

WHITE

Hydrogen produced as a byproduct of industrial processes.

BROWN

Hydrogen extracted from fossil fuels, usually coal, using gasification.



Note: There are no official definitions of these colors, but the above represents common industry nomenclature.

CHEAP, CLEAN HYDROGEN AT SCALE

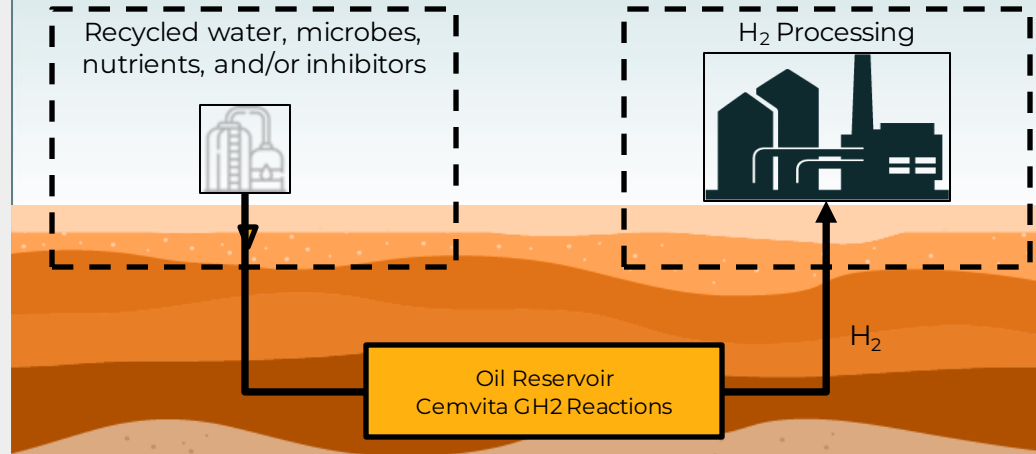
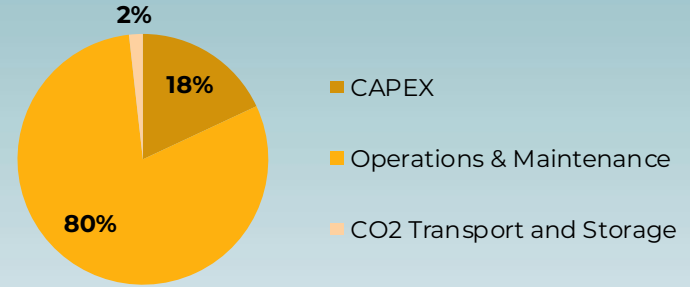
Cemvita's gold hydrogen platform allows for clean hydrogen production at less than \$1/kg, all while giving a second life to depleted oil reservoirs

Minimal surface-level equipment and using the reservoir as the reaction chamber allow for the low cost of hydrogen

Hydrogen carbon intensity is projected to be at or near green hydrogen and production is not subject to large economic swings due to variable OPEX

End product can be sold as hydrogen, power, or ammonia

Gold Hydrogen Cost Breakdown



GOLD H₂

DESCRIPTION:

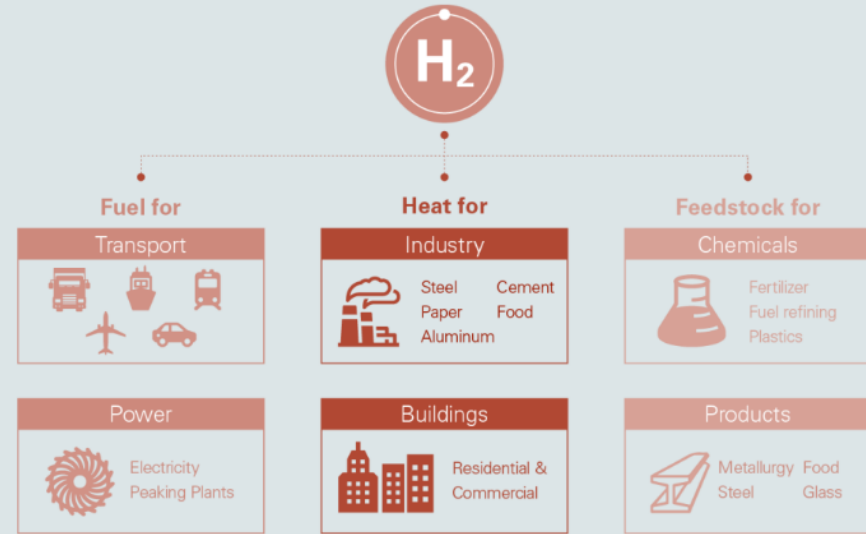
Gold H₂ is the process of injecting a microbe and nutrient package into depleted and abandoned oil reservoirs to convert the remaining in place oil into salable, low carbon hydrogen.

Partners and Customers:



Commercialization Plan: Gold H₂ LLC has been formed and funded to acquire fields, convert to H₂, and become a hydrogen producer as well as form partnerships with resource owners for conversion of their fields.

Gold H₂ will go to market either as H₂, power, or NH₃



GOLD H₂ PERMIAN BASIN FIELD TRIAL

DESCRIPTION:

Gold H₂ field trial confirmed success on July 27th, 2022, with the production of hydrogen officially detected in significant quantities.

The test proved that using the Cemvita factory package that hydrogen conversion occurred, and the hydrogen output was measured from the well.



PLANNED OR ONGOING PROJECTS



Next steps:

Commercial scale field trial.

Domestically complete field conversions or partnerships to produce hydrogen.

Qualify the technology internationally.

“The best way to predict the future is to create it.”

Abraham Lincoln

