

**The role of
innovative
technologies in the
sustainable
development of
companies during
the global energy
transformation**



Innopraktika

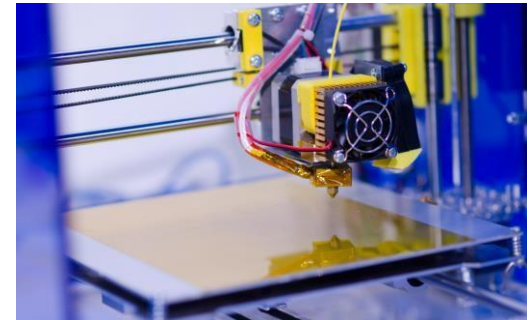
Innopraktika

Innopraktika

Foundation «National
Intellectual Resource»

Center of National
Intellectual Reserve
Lomonosov MSU

- Innopraktika is a non-government development institution which mission is to promote the growth of Russia's national human capital by establishing favorable conditions for the creation of new technologies and products.
- Innopraktika promotes the implementation of R&D results in the practice of leading Russian companies (total number of successfully completed projects has exceeded 120).



Innopraktika: partners

Innopraktika

Foundation «National
Intellectual Resource»

Center of National
Intellectual Reserve
Lomonosov MSU



Innopraktika: examples of our projects

Innopraktika

Foundation «National Intellectual Resource»

Center of National Intellectual Reserve Lomonosov MSU

- **Development of a microbial preparation for the disposal of oil pollution of the northern seas**

A microbial preparation based on psychrophilic microorganisms has been developed, which makes it possible to remove hydrocarbon pollution from water areas in the Arctic.



- **Treatment of associated petroleum gases (APG) on microporous membranes with pertraction and capillary condensation**

A technology for membrane desulfurization of APG has been developed, a pilot plant was launched.



- **Russian Ecological Atlases of the Seas**

A series of ecological atlases has been prepared on marine mammals of the Russian Arctic and the Far East, the Laptev Sea, the Kara Sea, the Barents Sea, the Black and Azov Seas.



R&D, technological development and ESG

Innopraktika

Foundation «National Intellectual Resource»

Center of National Intellectual Reserve Lomonosov MSU

- ESG issues generate new challenges for oil and gas companies.
- 3-5-10-20 years pass from the R&D stage to the full-scale implementation of technology in the company's business processes.
- Examples of promising technologies in the field of decarbonization (different stages of development):
 - Carbon capture and storage
 - Carbon dioxide enhanced oil recovery
 - In situ hydrogen generation



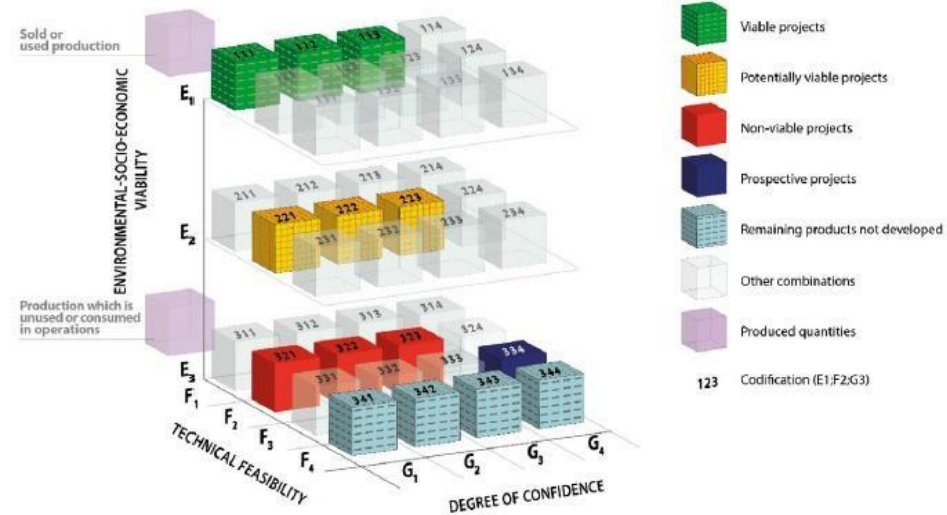
Source: <https://www.un.org/sustainabledevelopment/>

UNFC

- ✓ **Comprehensive project assessment**
Three fundamental criteria: environmental-socio-economic viability, technical feasibility, and degree of confidence in the estimate.
- ✓ **Universal approach**
Assessment of the feasibility of implementing projects of various types: hydrocarbons, minerals, nuclear fuels and water, sources of renewable energy, etc.
- ✓ **Bridging Document between the Oil and Fuel Gas Reserves and Resources Classification of the Russian Federation and UNFC.**



UNFC Categories and Examples of Classes



Source: United Nations Framework Classification for Resources. Update 2019