Innovative Catalytic Technologies & Materials for Next Gas to Liquid Processes

From 2009-11-01 to 2013-10-31, closed project | NEXT-GTL Website

Project details

| Total cost: | Topic(s): |
| EUR 12 214 925,87 | NMP-2008-4.0-2 - Catalysts and sustainable processes to produce liquid fuels from coal and natural gas |

| EU contribution: | Call for proposal: |
| EUR 8 242 925,92 | FP7-NMP-2008-LARGE-2  | See other projects for this call |

| Coordinated in: | Funding scheme: |
| Italy | CP-IP - Large-scale integrating project |

Objective

The project addresses from one site the most critical and costly step to produce liquid fuel from natural gas using conventional routes, e.g. the stage of syngas production, and from the other side explores alternative routes to convert natural gas to liquid transportable products. The general objective is to explore novel and innovative (precompetitive) routes for transformation of natural gas to liquid products, particularly suited for remote areas to facilitate the transport. The aim is an integrated multi-disciplinary approach to develop in a long term vision the next-stage catalysts and related precompetitive technologies for gas to liquid conversion, in full consistence with the indications of the call. For this reason, we have excluded to consider as part of the project catalytic technologies, such as FT synthesis and hydrocracking. In addition, we have excluded to investigate coal to liquid, both due to environmental impact of the use of coal, and to focus R&D. We have thus focused the project on three cluster lines: 1. new, not conventional routes for catalytic syngas formation from natural gas which include steps of separation by membrane and eventual reuse of byproducts; 2. direct catalytic conversion of methane to methanol/DME; 3. direct catalytic conversion of methane to aromatics under non-oxidative conditions followed by upgrading of the products by alkylation with ethane/propane.

Related information

| Result In Brief | A cheaper way to convert natural gas to liquid fuel |
Coordinator

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EU contribution: EUR 85,481

EU contribution: EUR 435,500

EU contribution: EUR 281,120

EU contribution: EUR 316,478

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EU contribution: EUR 162 600

EU contribution: EUR 195 600

EU contribution: EUR 829

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