LoCoMaTech

Project ID: 723517
Funded under: H2020-EU.2.1.3.

Low Cost Materials Processing Technologies for Mass Production of Lightweight Vehicles

From 2016-09-01 to 2019-08-31, closed project

Project details

<table>
<thead>
<tr>
<th>Total cost:</th>
<th>Topic(s):</th>
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<tbody>
<tr>
<td>EUR 7 997 725</td>
<td>NMBP-08-2016 - Affordable weight reduction of high-volume vehicles and</td>
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<td></td>
<td>components taking into account the entire life-cycle</td>
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<td>EU contribution:</td>
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<tr>
<td>EUR 7 997 725</td>
<td>Funding scheme:</td>
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<tr>
<td>Coordinated in:</td>
<td>RIA - Research and Innovation action</td>
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<tr>
<td>United Kingdom</td>
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Objective

The overall aim of LoCoMaTech is, in the first place, to enable the novel HFQ® process, (patented by ICL) in its latest most advanced form, which includes 10 recently patented refining technologies (TRL4), to be used for the manufacture of lightweight, high strength body and chassis structures and components for low-cost vehicles, by establishing a prototype, full scale pilot production line (TRL6), supported by a supply chain ranging from raw material to end of life. This will be the first low-cost technology in the world enabling manufacture of high-strength lightweight complex-shaped aluminium parts and low environmental impact. The 1st generation of HFQ technology has already been commercially used in manufacturing 4 types of niche vehicles. This project aims at bringing the materials and manufacturing cost significantly down, through introducing newly patented technological measures, by which the technology could be used for producing low-cost vehicles. The low-cost HFQ® technology will be used first for mass production of aluminium car body and chassis structures (eventually for all vehicles), which will lead to substantial improvement in energy efficiency, performance and travel range of low-end vehicles. LoCoMaTech will construct a world first low-cost HFQ® aluminium production line (prototype), targeting reduction of energy consumption per vehicle by 15.3-22%, and cost-effective weight savings from 8.55 to 2.16 €/kg-saved and improvement of LCA environmental impact by 15.39-26.8%. LoCoMaTech plans to assist in creating 53 commercial production lines and 1700 jobs, in year 6 from the completion of the project. The potential market for low-cost HFQ® technology for passenger cars alone is over €160 billion pa, and double this, if buses, trucks, trains and aircraft are considered. This will create huge wealth for Europe and place European automotive industry in a world leading position for lightweight manufacturing technologies for low-end vehicle production.

Related information

Report Summaries

Periodic Reporting for period 1 - LoCoMaTech (Low Cost Materials Processing Technologies for Mass Production of Lightweight Vehicles)
Coordinator

IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE
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EU contribution: EUR 1 305 092,50

Activity type: Higher or Secondary Education Establishments

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Participants

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EU contribution: EUR 332 221,25

Activity type: Research Organisations

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EU contribution: EUR 373 625

Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

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EU contribution: EUR 259 656,25

Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

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EU contribution: EUR 133 056,25

Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

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Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)
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EU contribution: EUR 301 021,25

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EU contribution: EUR 132 331,25

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Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)
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EU contribution: EUR 331 943,75

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EU contribution: EUR 659 266,25

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Activity type: Research Organisations
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EU contribution: EUR 337,893,75
EU contribution: EUR 635,643,75
EU contribution: EUR 374,743,75
EU contribution: EUR 369,968,75
EU contribution: EUR 353,106,25
THE UNIVERSITY OF BIRMINGHAM
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EU contribution: EUR 582 146,25

Activity type: Higher or Secondary Education Establishments
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EU contribution: EUR 673 140

Activity type: Higher or Secondary Education Establishments
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Hungary

EU contribution: EUR 327 743,75

Activity type: Higher or Secondary Education Establishments
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EU contribution: EUR 363 825

Activity type: Higher or Secondary Education Establishments
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