Industrialization and commercialization of mass production processes for the texturing during moulding of dynamic seals in order to increase industrial equipment energy efficiency and durability

Fact Sheet

Project information

SOFTSLIDE

Grant agreement ID: 760680

Funded under:
H2020-EU.3.
H2020-EU.2.

Overall budget:
€ 2 585 910

EU contribution
€ 1 986 049,50

Coordinated by:
ML ENGRAVING SRL
Italy

Start date
1 May 2017

End date
31 October 2019

Objective

Softslide project’s main objective is to generate €60 M revenue, an EBIDTA of €19,9M and 350 new jobs with the commercialization of SoftSlide's technology estimated from a conservative sub-market share of 15% of the total elastomeric and plastic dynamic seals European market. SoftSlide technology will positively impact the seal industry by providing around €3315 M/year in energy savings for hydraulic and pneumatic end-users.

Energy losses caused by friction within dynamic seals in rotating, moving and reciprocating devices (e.g. motors, valves, air compressors, accumulators...) represent up to 25% of total energy consumption. In addition, dynamic seals related friction, damages the seal surface overtime, thus reducing its lifetime.

Although, it is of common knowledge that low-friction dynamic seals can be obtained by specifically designing and engraving micro-patterns on the seal contact area (area in contact with the moving mechanism), current seals’ mass production processes do not incorporate this crucial step. To get a low-friction dynamic seal, the micro-pattern needs to be individually engraved, seal by seal at an independent later stage, once the seal has been produced. This greatly increases the cost and limits the productivity of low-friction dynamic seals being impossible for end-users to include these in their systems. SoftSlide
The project has created a mass production process that transfers micro-patterns during the moulding stage to obtain low-friction, high-performing dynamic seals. This process can be easily adopted by dynamic seals manufacturers to seal with an insignificant cost increase.

**Field of Science**

/social sciences/economics and business/economics/production economics
/engineering and technology/environmental engineering/waste management/energy efficiency
/social sciences/economics and business/economics/production economics/productivity
/social sciences/economics and business/business and management/commerce

**Programme(s)**

H2020-EU.3. - PRIORITY 'Societal challenges'
H2020-EU.2. - PRIORITY 'Industrial leadership'

**Topic(s)**

FTIPilot-01-2016 - Fast Track to Innovation Pilot

**Call for proposal**

H2020-FTIPilot-2016-1

See other projects for this call

**Funding Scheme**

IA - Innovation action

**Coordinator**

ML ENGRAVING SRL
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Via Presolana 114
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Italy

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

EU Contribution
€ 574,350

Contact the organisation

**Participants** (4)
<table>
<thead>
<tr>
<th>Organisation Name</th>
<th>Country</th>
<th>EU Contribution</th>
<th>Address Details</th>
<th>Activity Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>REAGENT CHEMICAL SERVICES LIMITED</td>
<td>United Kingdom</td>
<td>€ 395 699.50</td>
<td>18 Aston Fields Road, Whitehouse Industrial Estate, Cheshire, Wa7 3dl Runcorn</td>
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<td>SKM AERONAUTICS LTD</td>
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<td>Spain</td>
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