

SoftSlide

New dynamic sealing generation

www.softslide.eu

TRANSFORMING EUROPEAN SEALING INDUSTRY

Low-friction and high performing dynamics seals to improve the energy efficiency and durability of industrial components

#

MASS PRODUCTION
DYNAMIC SEALS
RUBBER
MOULD
TEXTURING
FRICTION
COATING
ADVANCED
MANUFACTURING
PROCESSING
ENERGY EFFICIENCY
DURABILITY

New dynamic sealing generation

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.

SoftSlide project has created a mass production process that transfers micro-patterns during moulding stage to obtain low friction, high performing dynamic seals. This process can be easily adopted by dynamic seals manufacturers seals with an insignificant cost increase.

Benefits of SoftSlide technology



save
energy



improve
performance



increase
durability

- Double extended life compared non-textured dynamic seals.
- Up to 50% lower friction coefficient resulting in 7.5 to 12.5 % direct energy savings.
- Reduced leak and failure related energy efficiency losses, resulting in 5,5% overall energy savings.
- Reduced industrial investment. Texturing and coating a standard mould cost less than 25.000€ and no line modifications are needed, only the implementation of specific quality control procedures.
- Compatibility with most rubber, elastomer and plastic technologies, including low friction polymers and complex seal designs.
- Compatible with existing moulds.
- Quick return of investment, an initial 6€ investment may result in 540 € life cycle cost analysis savings.

SoftSlide consortium and roles of every partner

ML ENGRAVING

We are specialist in **laser engra-ving** and **laser texturing** on moulds for design new seals.

ReAgent

We are specialist on the **optimi-zation and industrial scale-up** of the **sol-gel release coatings** for demoulding.

ITAINNOVA

We are specialist in **characteri-zation of demoulding processes** and **modelling of seal functional behavior**.

SKM Aeronautics

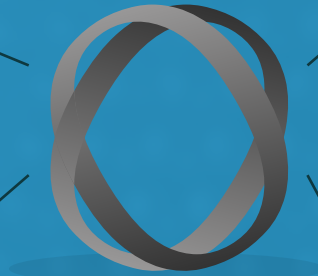
We are specialist in **producing molded and injected seals** for different industrial sectors.

LUH University

We are specialist in **experimen-tal and model based research** on **dynamics** and **tribology** for seals.

· Your Company ·

Discover how SoftSlide's technology can help your factory to **save energy**, to make **more durable products** and to be **more competitive**.



Any industrial sector that requires a hydraulic or pneumatic equipment



AUTOMOTIVE

Brake systems, engines.



FARMING

Hydraulic actuators, engines.



AEROSPACE

Hydraulic actuators, turbines.



MINING

Hydraulic pumps and motors.



CONSTRUCTION

Hydraulic pumps and motors.



OIL & GAS

Hydraulic pumps and motors.



MARINE

Hydraulic actuators, engines.



WASTE TREATMENT

Hydraulic and pneumatic actuators.

SoftSlide

New dynamic sealing generation



www.softslide.eu



 ReAgent

 SKM Aeronautics Ltd.

ITAINNOVA 
INSTITUTO TECNOLÓGICO DE ARAGÓN

 Leibniz
Universität
Hannover



European Union

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement N° 760680. Programme of the European Union