# WaliBeam

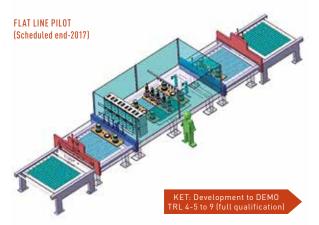
INDUSTRIAL ION IMPLANTATION TECHNOLOGIES FOR CUTTING-EDGE MATERIALS

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# **INDUSTRIAL ION IMPLANTATION TECHNOLOGIES FOR CUTTING-EDGE MATERIALS**

## YOUR GLOBAL SOLUTION IN THE FIELD OF ION IMPLANTATION WITH OUR OPEN INNOVATION INDUSTRIAL APPROACH

Surface modifications, to improve a specific function of an object, have limited robustness. Our Ion implantation technologies (based on Quertech-Ionics ECR sources) open the way to innovative and lasting surface functional products. WaliBeam, our technological platform, will host exceptional industrial pilot installations as Key Enabling Technologies (KET) for environmental friendly pre-industrial demonstration on more mature products (TRL 4-5 to TRL 9). Various shapes (flat, rigid, flexible, Powders, 3D objects) can be treated for all key-markets. Some key industrial partners in surface treatment of glass, metals or alloys and polymers already support this initiative to minimize their industrial risks and time-to-market. Collaboration is also through R&D activities on new cutting-edge materials with lower technological maturity (TRL 1 to 3-4) through a proof-of-concept approach.



## **IMPROVING MATERIALS** WITH ION IMPLANTATION

Ion impinging to a surface creates attractive surface conversion down to few µm into the bulk with no risk of delamination. Taming the ions beam improves several essential functions (e.g. wear/corrosion resistance or friction coefficient or surface wettability). Moreover, improving optical, electrical and catalytic efficiencies will also open the way to unlimited materials for future smart applications.

GLASS and Optical Ceramics Hardening and Anti-reflective



#### METALS

Hardening, Friction-less and Corrosion resistance



#### POLYMERS

Hardening, Friction-less and Anti-Static Polymers



## COLLABORATIONS AND SERVICES

- Collaborative R&D Projects (Proof-of-Concept, KET to DEMO)
- Line renting / Products manufacturing

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- ECR Ion Sources / Factory Tools
- Products Analysis & Qualification

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#### PARTNERS

