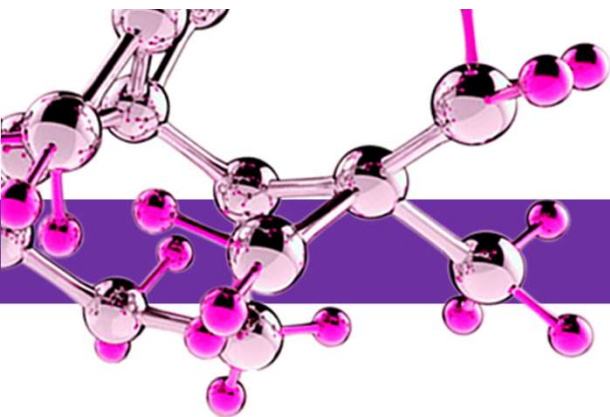




The MAGIC that MATTERS

**A unique surface treatment solution
enabling adhesion, release, barrier,
biomolecule immobilisation
and more....**



Our Roots

A successful combination of 2 spin-offs



January 2017
Technology transfer + 12
patents



License of 1 patent
Development partner

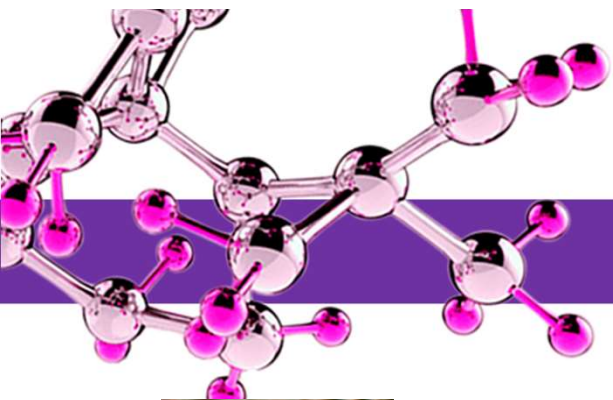
Ownership
3 Investors &
Management

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molecular plasma group

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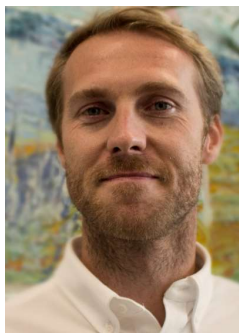
Molecular Plasma Group

Our Core Team



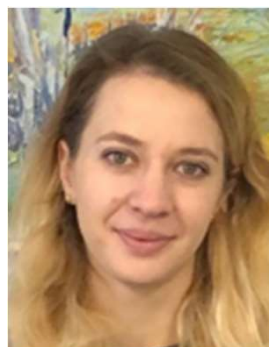
Regis Heyberger
CEO & shareholder

- DUT in Science
- PhD from the University of Strasbourg
- Masters in Quality and Innovation
- Expert in robust upscaling of innovative technologies
- 3 patents



Gill Scheltjens
CTO & shareholder

- PhD in Polymer Science
- Plasma technology expert
- Ex. VITO employee



Joanna Borek-Donten
Principal scientist

- PhD in Chemistry
- Nanotechnology specialist



Jan Vansant
Investor & board member

- Experienced entrepreneur
- Innovation expert
- PhD in polymer science and photochemistry
- 26 patents + several publications



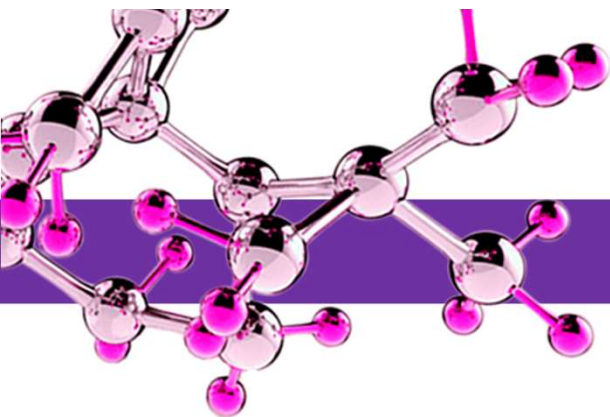
Marc Jacobs
Investor & chairman

- Experienced entrepreneur
- Masters in Engineering
- Sloan Masters in Leadership & Strategy from LBS (UK)



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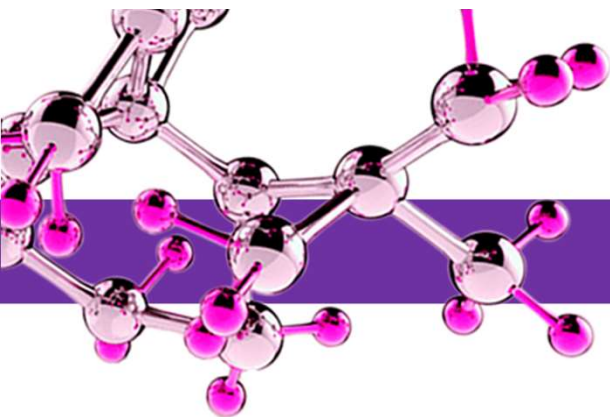


Our DNA

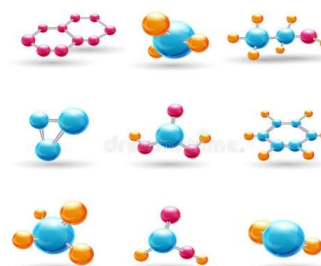
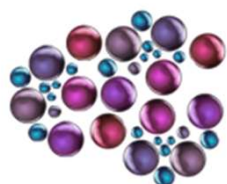
Customized solution design for advanced surface functionalization

- Adhesion improvement for difficult-to-bond materials or coatings
- Silicone-free anti-stick functionality
- New barrier solutions
- Superhydrophobicity & hydrophilicity
- Immobilization of biomolecules





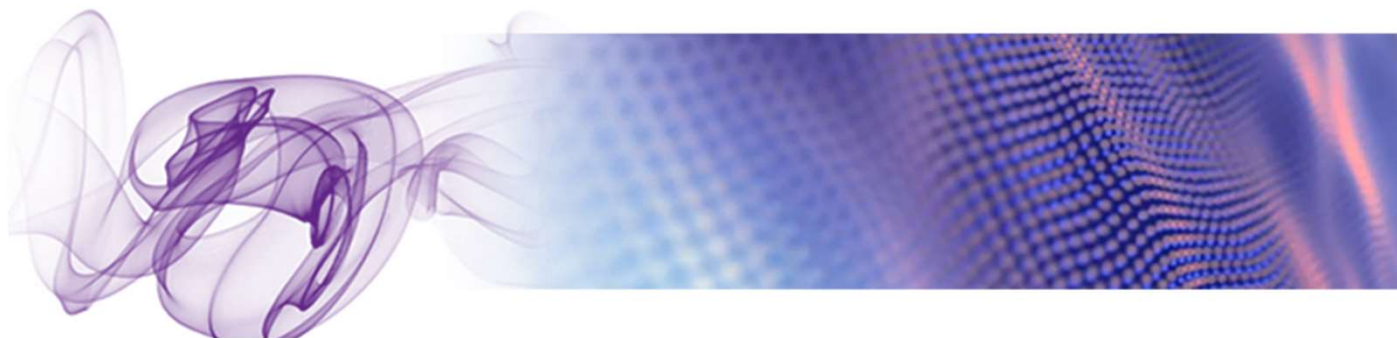
Low energy
atmospheric Plasma



Wide range of
molecules

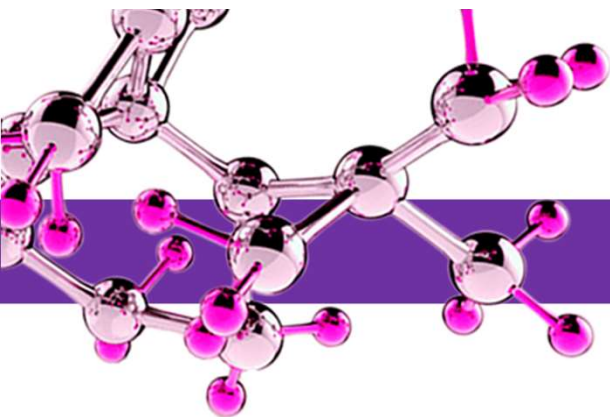


Functionalized
Surface



Plasma & Molecules

A Disruptive Combination

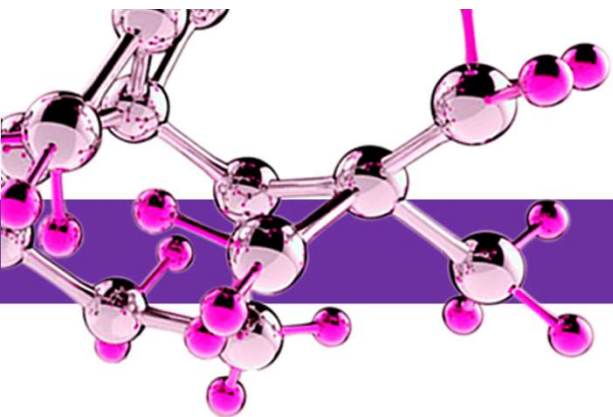


Soft Plasma & Molecules

Key differentiators

- **Single-step**, dry, low energy, easily scalable process
- 50 – 500 nanometer molecular layer **grafted with covalent bonds** onto the activated surface
- **Durable** modification of the chemical composition of the surface
- Extremely **wide range** of precursor **molecules** (organic, inorganic, biomolecules, nano-particles,...)
- On **any substrate**





Our DNA

Development Service Provider with industrial follow-through

Customized Solution
Development Services

Leveraging

- Our Knowhow
- Our IP
- Our Technology



Lab Equipment



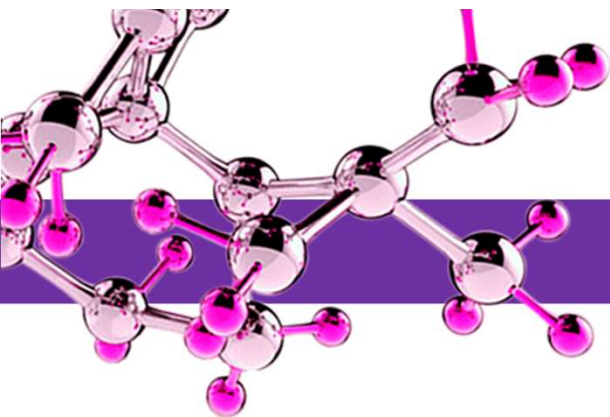
Customized
Industrial solutions



mpg.

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Molecular Plasma Technology

Applications and Markets

Adhesion & Release

- Composite structures
- Fibre treatment
- Film treatment
- Textile treatment
- Silicone-free release films

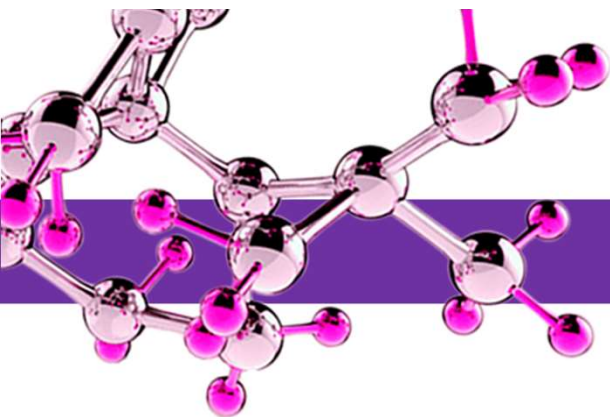
Biomolecule Immobilization

- Anti-microbial
- Wound dressings
- In Vitro Diagnostics
- Tissue engineering
- Organ-on-chip

Superhydrophobicity, Hydrophilicity & Barriers

- Water-proofing
- Anti-corrosion
- Easy de-icing
- Improved wetting
- Anti-condensation





Other examples

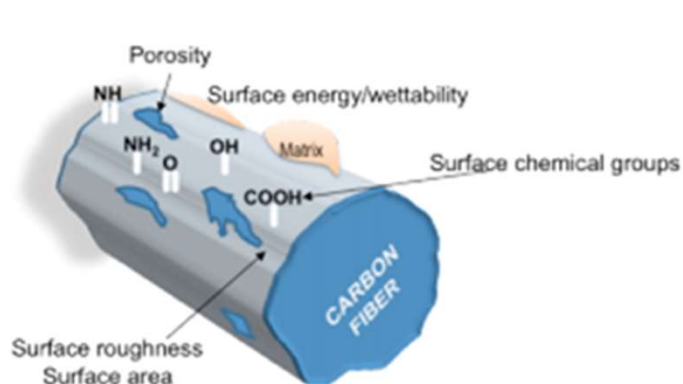
Carbon fibres

➤ Surface functionalization

- Remove weak boundary layer
- Enhance wettability
- Create active sites for chemical bonding
- Promote mechanical interlocking

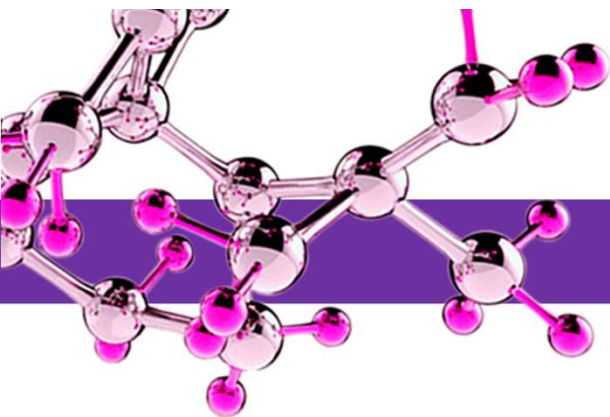
➤ Continuous treatment

- Fibres, tows and mats
- Universal for any type of fibre



This project was funded by the European Union for research and technological development





Molecular Plasma Technology

Applications and Markets

Adhesion & Release

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- Fibre treatment
- Film treatment
- Textile treatment
- Silicone-free release films

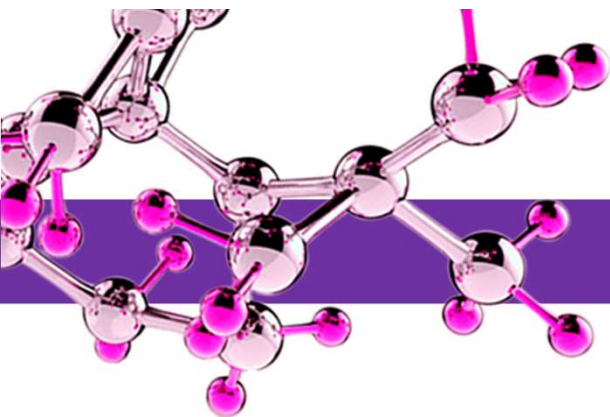
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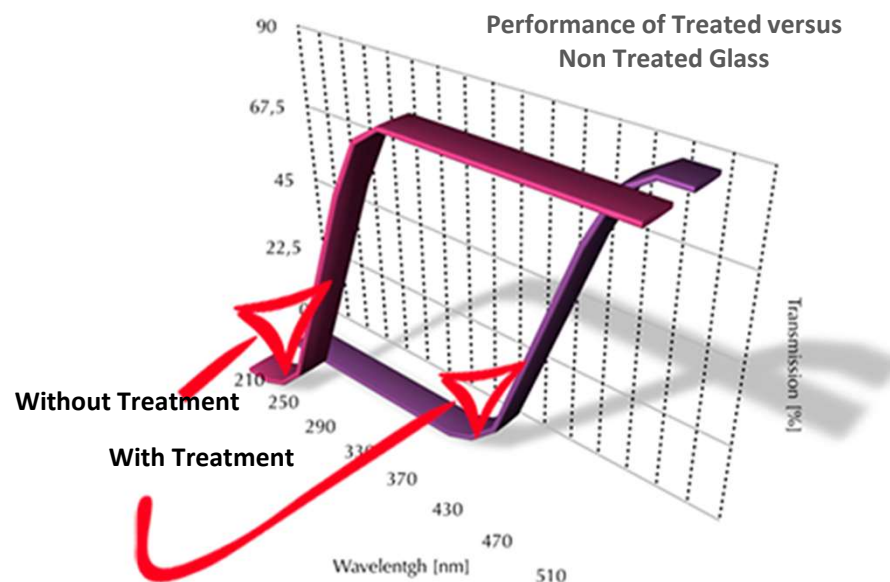


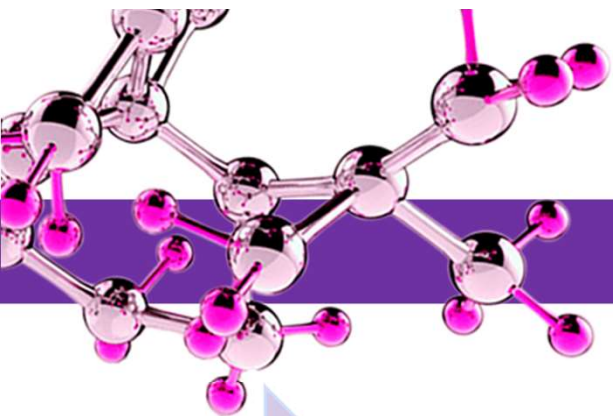


UV Protection

Tunable performance

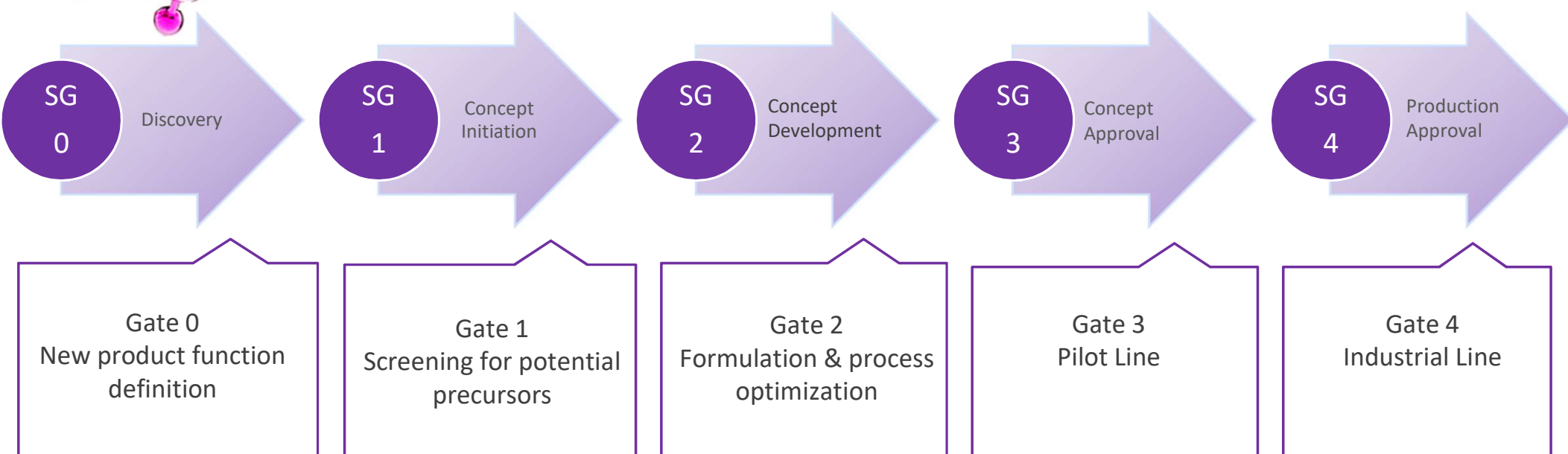
- Stable UV protection
- Tested on several substrates: PC, Glass, etc.
- Tunable



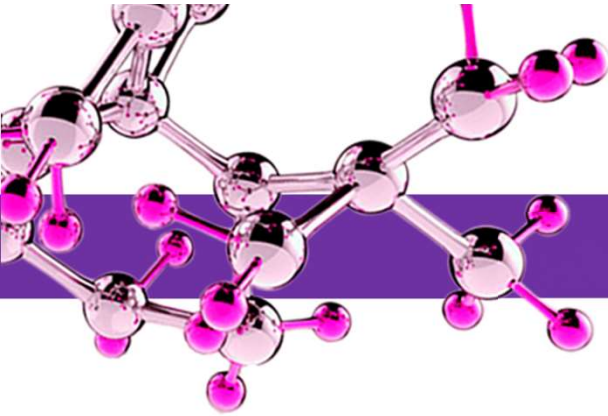


Our Approach

A stage gate process



Our Key Partners



University
of Antwerp



LUXEMBOURG
BIOHEALTH
CLUSTER



LUXEMBOURG
MATERIALS &
MANUFACTURING
CLUSTER



vito
vision on technology

LUXEMBOURG
INSTITUTE OF SCIENCE
AND TECHNOLOGY

LIST



Cold Jet
the force of nature



UNIVERSITEIT
GENT



UNIVERSITÉ DU
LUXEMBOURG



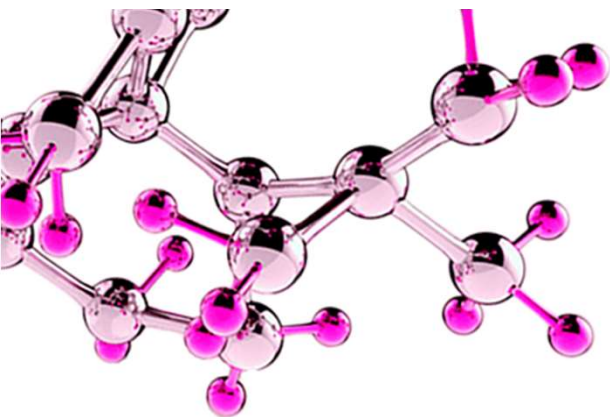
LUXINNOVATION
TRUSTED PARTNER FOR BUSINESS



ECCO FINISHING

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to find out how our
technology can bring
value to you

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LET'S MAKE IT HAPPEN

