



**MATERIA
NOVA** Materials
R&D Center



ANALYSIS AND CHARACTERIZATION UNIT

**MATERIA NOVA, THE TECHNOLOGICAL ACCELERATOR
FOR THE ANALYSIS AND CHARACTERIZATION
OF YOUR MATERIALS, SURFACES AND INTERFACES**



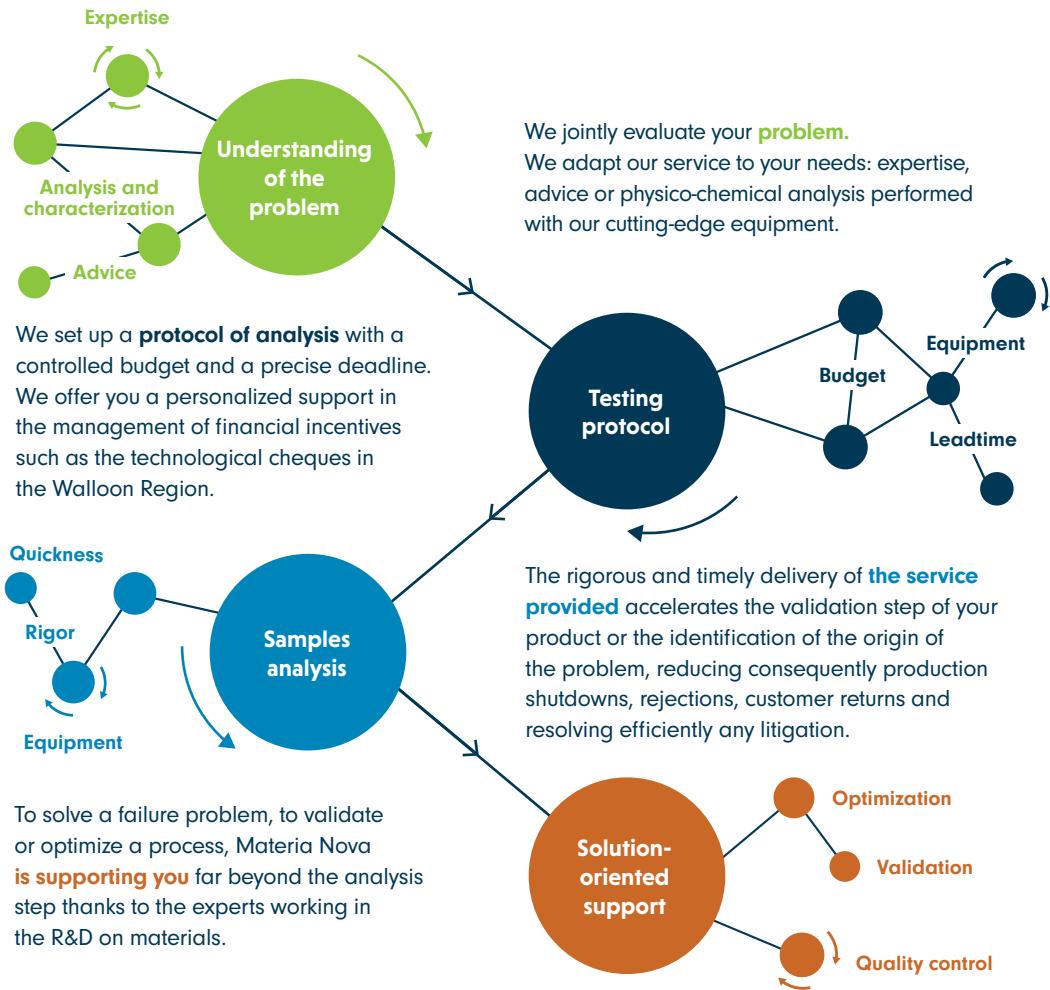
A support fitting your requirements

More than materials analysis, we offer tailor-made solutions:

- A multidisciplinary team experienced in solving problems of the industry and used to working with all types of materials: glass, polymers, ceramics, metals, paints ...
- A wide range of cutting-edge equipment
- A responsiveness and response time fitting the industrial requirements
- Financial incentives available with the technological cheques in the Walloon Region and other regional and European grants



A solution-oriented support



A complete range of analysis

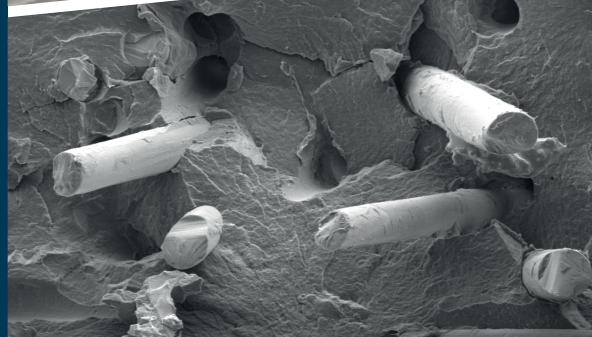
Observe and measure the properties of materials, surfaces and interfaces:

- Physical chemistry of the surfaces (XPS, ToF SIMS, FTIR, μ -RAMAN, SEM)
- Morphology of the surfaces (SEM, AFM, profilometry, ...)
- Wear resistance (tribology, hardness, lubrication, scratch resistance, ...)
- Ageing / corrosion (climate chambers, UV, salt spray ...)
- Crystallographic structures (XRD)
- Electrical measurements (4-tips resistance)
- Optical properties (UV-Vis-IR spectro)
- Anti-bacterial properties (E.coli, S.aureus)
- Thermo-mechanical properties (TGA, DSC, tension, ...)
- Fire resistance

An effective diagnosis

Identifying the origin of the problem and offering solutions:

- Contamination identification
- Corrosion
- Material failure
- Wear problems
- Adhesion failure
- Visual defects



Our strengths

- A multidisciplinary team of experts
- A wide range of cutting-edge equipment
- An open and collaborative innovation strategy at national and international level
- Innovative projects for and with industrial companies
- Collaborations with R&D centers and universities worldwide
- A strong network of companies, spin offs and start-ups (B-SENS, ESIX, IONICS and NANO4)



Our technologies and solutions

Our expertise in surface coatings and treatments, in polymers and composites and in biotechnology is fertile ground for:

- Developing new functional performances of materials,
- Taking up the energy and environmental challenges of our society,
- Protecting and promoting the health sector.



ABOUT MATERIA NOVA

Materia Nova is recognized as a technological accelerator of sustainable innovations in the field of new materials and processes.

The R&D center offers five different services:

- **Materials and Processes conception and innovation,**
- **Equipment Design and Process Upscaling,**
- **Analysis and Characterization,**
- **Life Cycle Thinking,**
- **Project Development and Management.**



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