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# **CELABOR: Walloon technological pilot platform for biomass refining and downstream processing**

Dr. Mahmoud Hamzaoui

*Pitch perfect and boost the European bio-economy event, 7 November 2018, Brussels Airport*

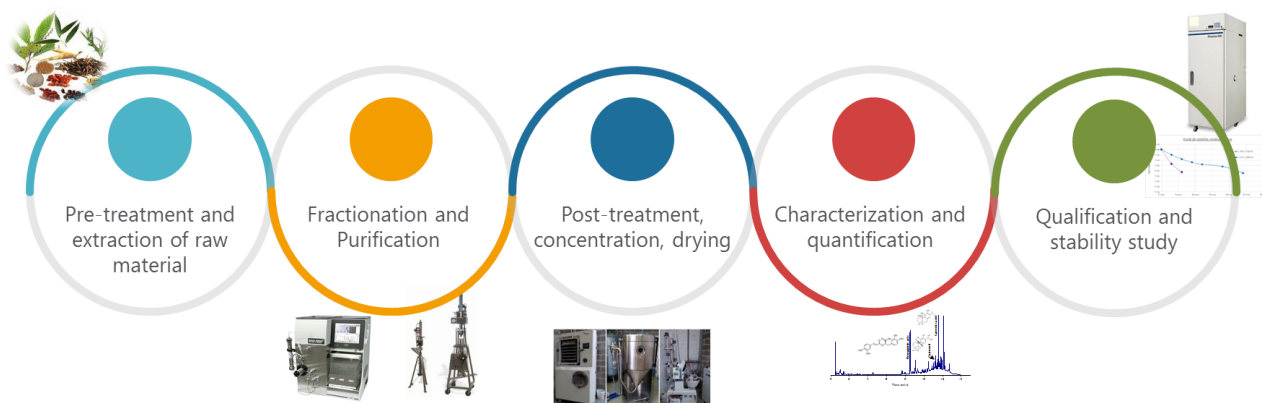
## CELABOR: Five departments in the heart of the “Bioeconomy” sectors



**CELABOR scrl.** is a Belgian scientific and technical center based in the Petit-Rechain industrial park near Verviers. CELABOR is offering scientific and technical support to companies involved in all sectors of **circular-economy** and **bioeconomy** including agrifood, green processes, packaging, textile and environment.



## “Extraction” & “Sustainable Materials – Packaging” departments



## Technological pilot platform (350 m<sup>2</sup>)

Two pilot plants **Supercritical Fluid Extractors SFE-CO<sub>2</sub>** (2x 6L/batch)

Pilot-scale **Subcritical Water Extraction (SWE)** (6L/batch)

Conventional **solvent extraction** (25L and 400L)

Pilot-scale **Pulsed Electric Field** (Solid: 0,5 kg/batch; liquid: 350L/batch)

**Ultrasounds & Microwave** assisted extraction (25L UAE/ 5L MAE)

**High Pressure Homogenisation** for NFC processing

Pilot-scale **post-treatment equipment** (Freeze-dryer, Spray-dryer, Evaporator, Centrifuge)

**Purification platform** (CPC, MPLC, Prep-HPLC)

Advanced **analytical lab** (UPLC-MS, GC-MS, ICP-MS, HPLC-DAD-ELSD)





## RESEARCH PROGRAM & COLLABORATIVE PROJECTS

The main mission of Celabor is to encourage technological innovation and the development of new products or processes through research and development. Celabor conducts private development and research on behalf of companies and also participates in research and development programs financed by **Europe** and the **Regions**.

**2016 & 2017**

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# THANK YOU

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