



## BioGEVES

Laboratory of Molecular Biology and Biochemistry of GEVES  
For seed regulation, registration and protection of varieties & services for stakeholders



### MAIN ACTIVITIES

#### ➔ Conduct molecular analysis on Seed and Varieties :

- ✓ Characterize the varieties
  - Check identity and purity of varieties
  - Check for the presence of resistance genes
  - Evaluate technological characters
- ✓ Detection of GMO and pathogens

#### ➔ Improve and develop methods

- ✓ Scientific and technical surveys
- ✓ Research Programs
- ✓ Adaptation, optimization and validation of national and international protocols
- ✓ Participation in and monitoring of proficiency tests
- ✓ Advice and development on request



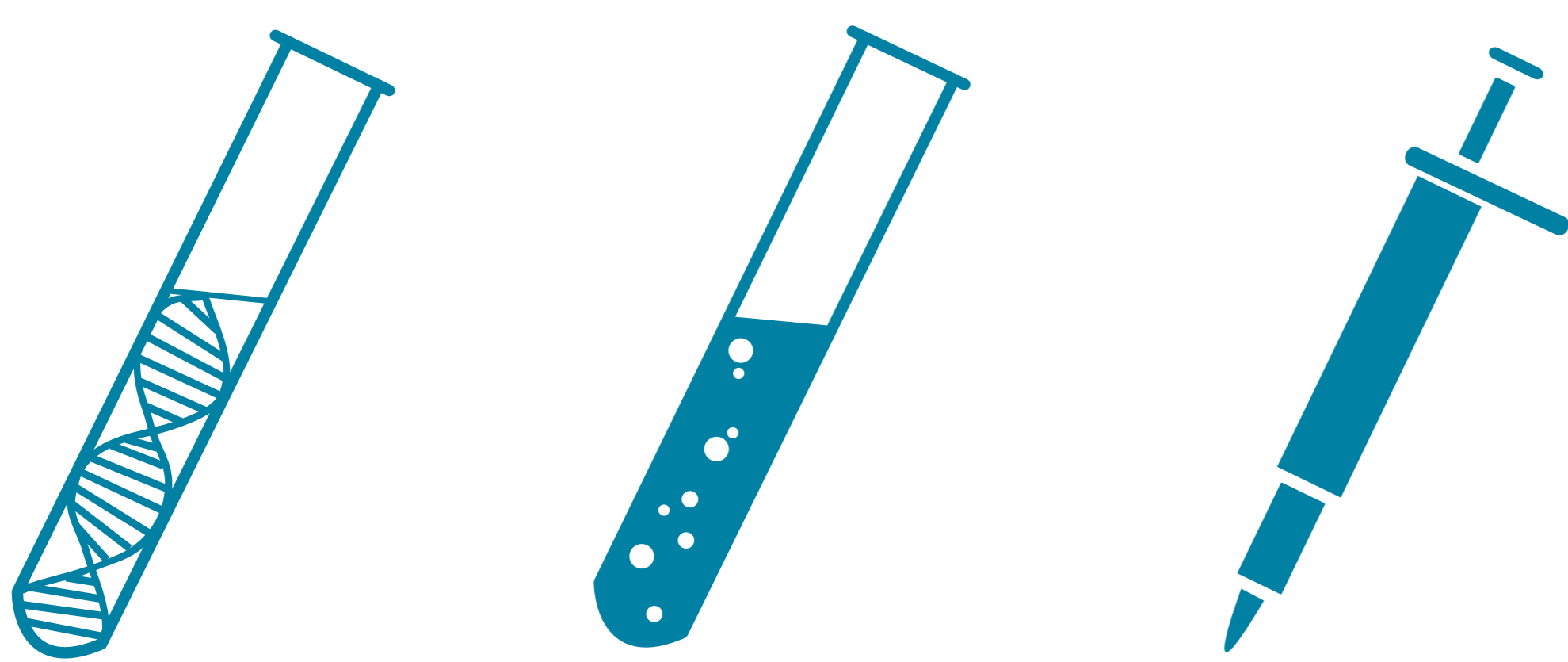
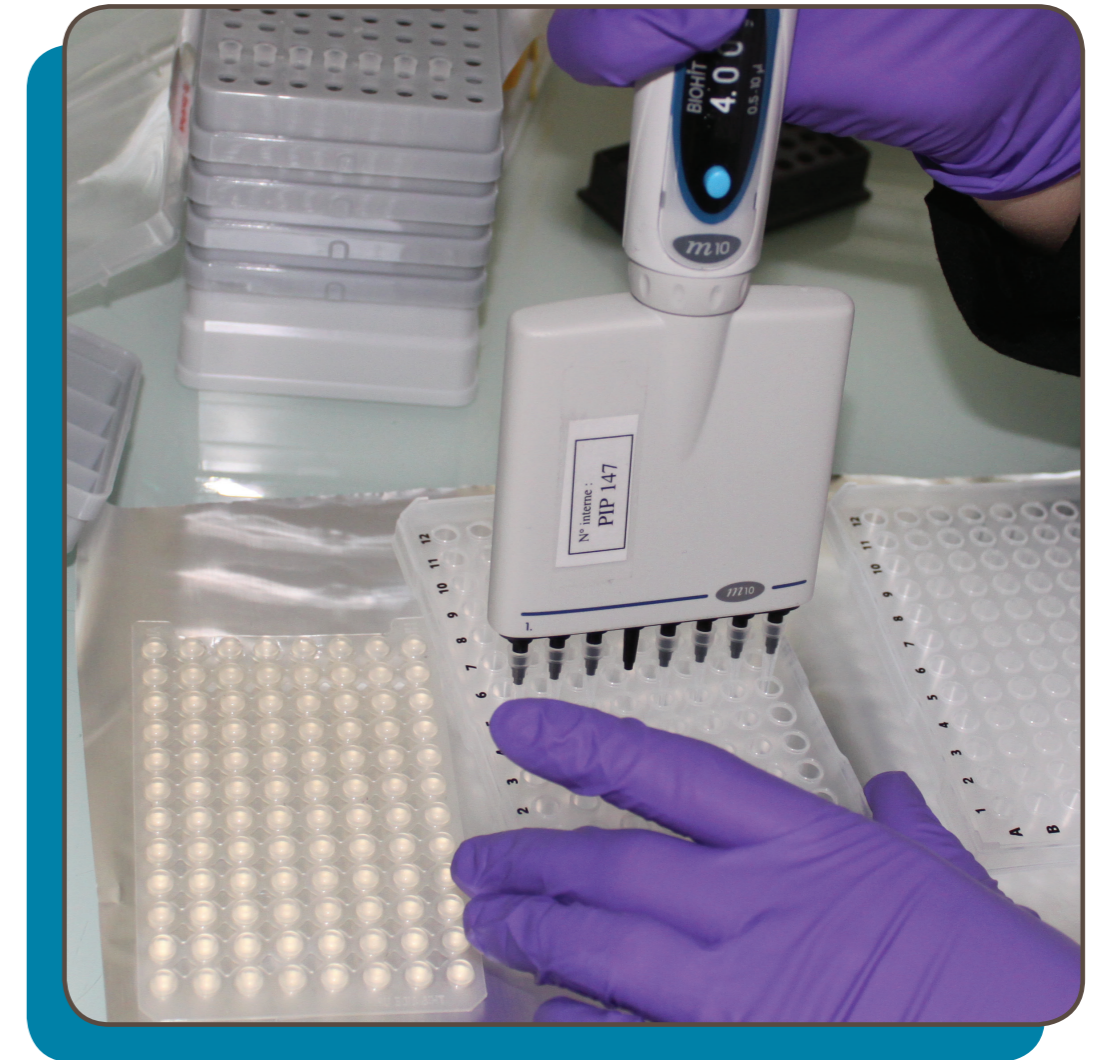
### ANALYSES & METHODOLOGICAL RESEARCH

#### ➔ BioGEVES performs four major types of analyses, each designated by an activity:

- ✓ GMO's detection
- ✓ Detection of pathogens and other specific sequences
- ✓ Fingerprinting of varieties
- ✓ Analysis of biochemical constituents

#### ➔ Approximately 45 methods used routinely applying :

- ✓ DNA Amplification by PCR (Polymerase Chain Reaction) standard (SSR, SNP, ISSR,-CAPS...) and real-time
- ✓ Electrophoresis of proteins
- ✓ Chromatography
  - HPLC (High Performance Liquid Chromatography)
  - GC (Gas Chromatography)
- ✓ Spectrometry
- ✓ Near infrared spectroscopy (NIRS)
- ✓ Nuclear magnetic resonance (NMR)



### MEANS & ORGANIZATION

#### ➔ High level laboratories and equipment at two different sites, Beaucouzé (49) and Le Magneraud (17)



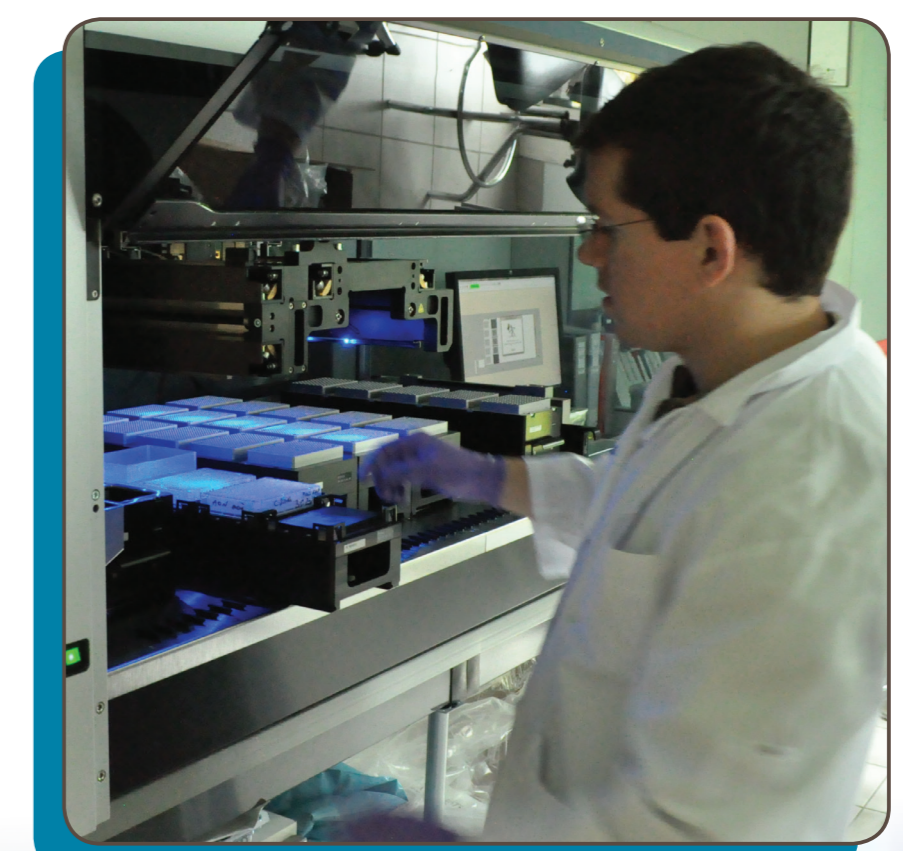
One organization – 3 teams

Genotyping Varietal characterization

Detection GMO and pathogens

Biochemistry Analysis of constituents

#### ➔ 20 engineers and technicians



## BioGEVES at a glance

More than **20 000** samples analyzed per year

Members of **AFNOR** commissions

Scientific publications, posters, oral communications, hosting of students

An expertise at an international level (ISHI, ISTA, ISO)

