

Sarah CHUZEVILLE^a, Nelly COLOMB BOECKLER^a, Angélique HENNARD^a, Clara RENARD^a, Frédéric GAUCHERON^b

^aACTALIA, Unité Expertise analytique Laitière-Cécalait, Département Microbiologie laitière, 74801 La Roche Sur Foron Cedex, France

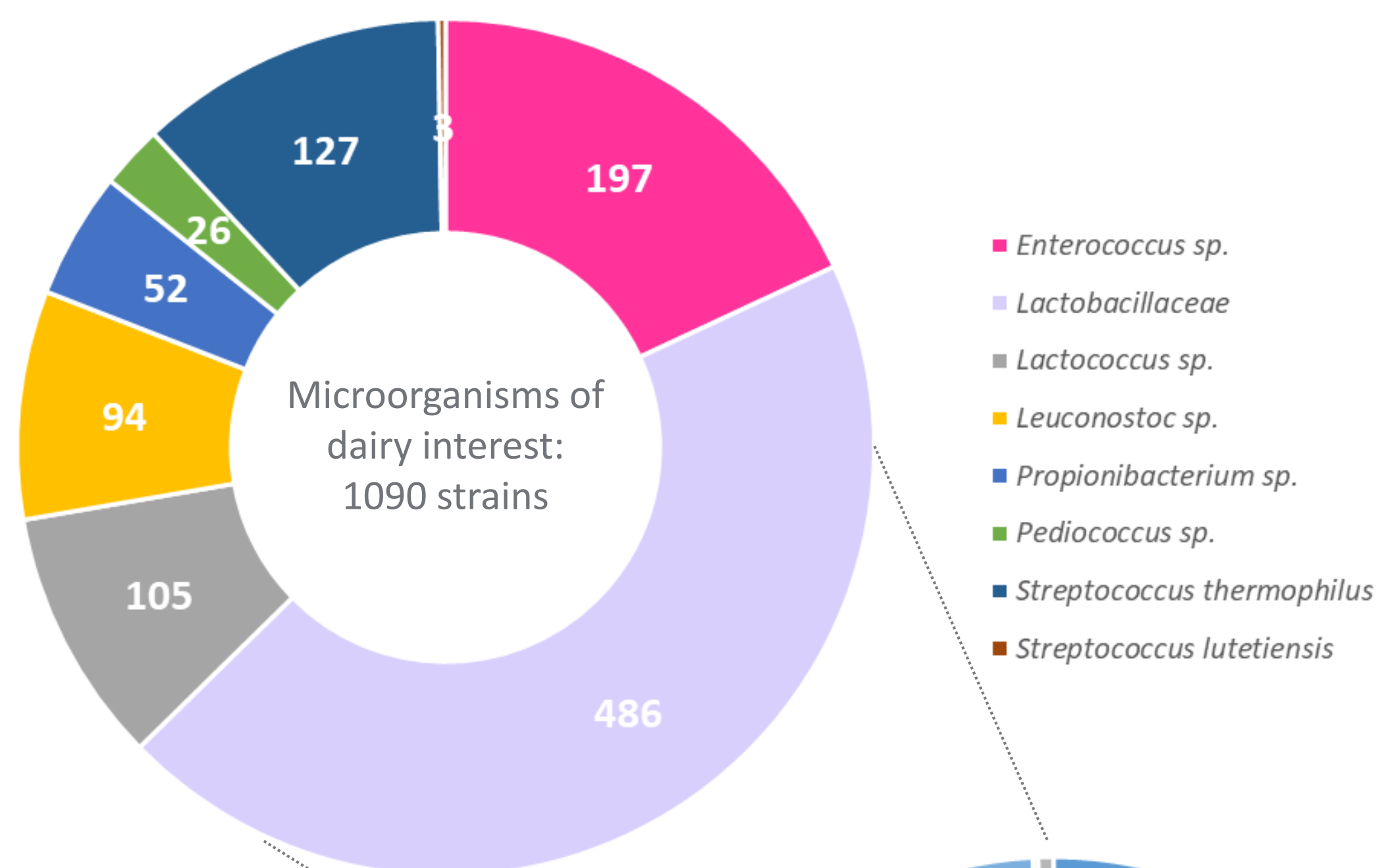
^bCNIEL, Centre National Interprofessionnel de l'Economie Laitière, 42 rue de Châteaudun, 75009 Paris

Contacts: s.chuzeville@actalia.eu and fgaucheron@cniel.com

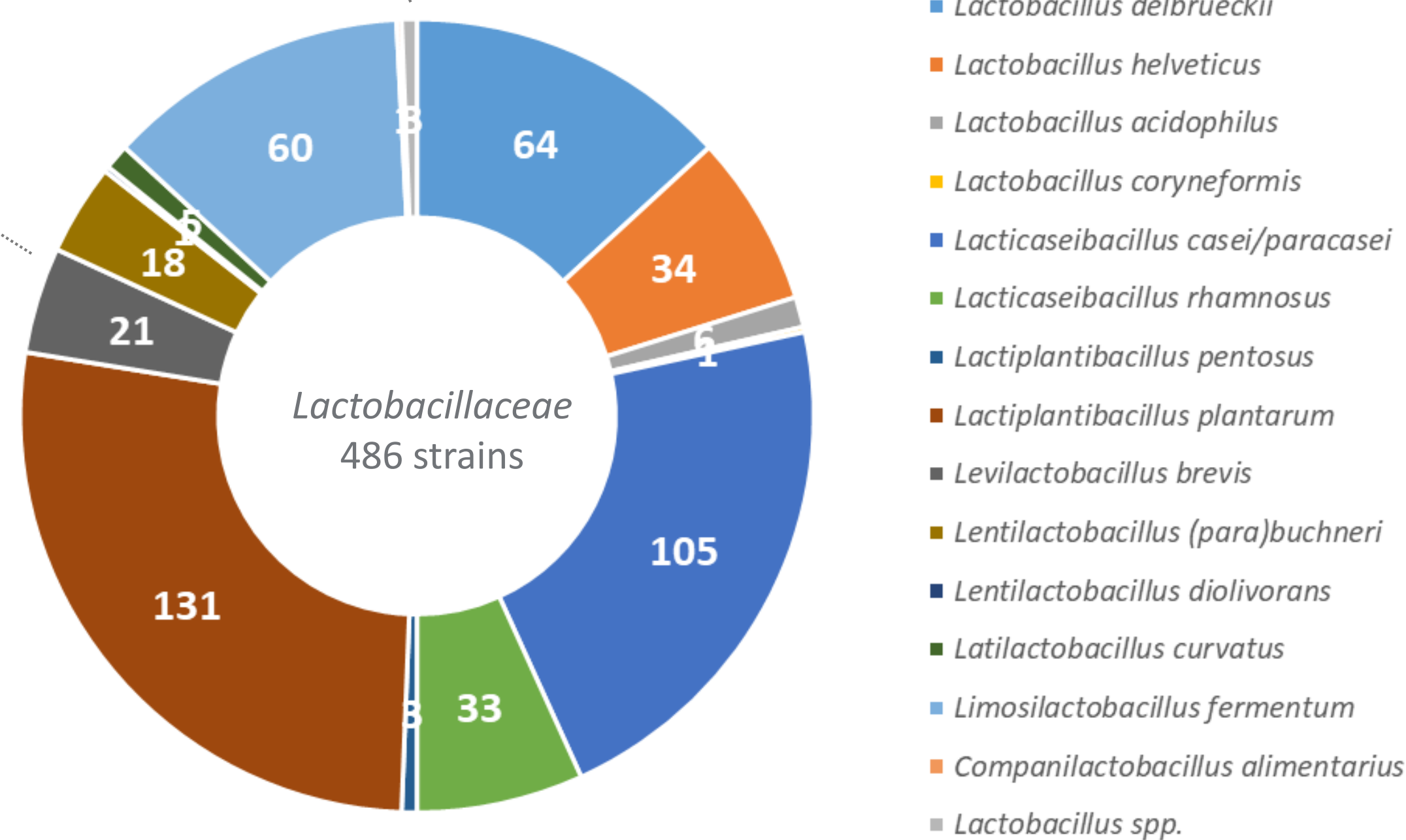
The Interprofessional Collection of Dairy Microorganisms (FRANCEMIL) comprises **1,651 microorganisms, mostly bacteria.**

Established and enriched throughout research initiatives and the recovery of neglected collections, it now houses 389 pathogenic bacteria and 157 bacteriophages, serving both Research and Development, and surveillance objectives.

Particularly, the richness of the collection lies in the large number of bacteria belonging to taxa that may be **assets for dairy processing**, both in the acidification and ripening stages (1,105). 1,090 strains are openly accessible for Research and Development purposes.



- It includes a large part of **Lactobacillaceae** and genus such as **Streptococcus**, **Lactococcus**, **Leuconostoc**, **Enterococcus**, **Pediococcus** and **Propionibacterium**.
- These strains were primarily isolated in France between 1982 and 2013, mainly from dairy products or dairy environments.



Extensive technological characterization on the collection has been undertaken in recent years. The work was mainly focused on bacteria belonging to *Streptococcus thermophilus*, *Lactococcus lactis* and *Leuconostoc spp* species. Key parameters have been explored such as genetic diversity, bacteriophage resistance, acidification capabilities, sugar metabolism, and the production of aromatic and texturizing compounds, as well as potential biopreservation molecules.

- These studies have revealed **promising bacterial strains suitable for use as starters in the dairy industry**. Ongoing efforts aim at characterizing the remaining strains in the collection.
- All strains are **openly accessible for R&D** at www.francemil.fr, with commercial use permitted under certain conditions.