

TEXT & DATA MINING

FOR BETTER

MICROBIOLOGY

One Trillion Species of Microbes Live On Earth

They can make food last longer, create new types of cheese and prevent food poisoning. To discover the full potential of microbes, scientists need faster and better ways of evaluating the growing mountain of research in this area.

TDM = FASTER MICROBIOLOGY



The French National Institute for Agricultural Research (INRA) has built a text mining process on the OpenMinTeD platform dedicated to microbiology. It quickly analyses and makes connections between millions of research papers and data. Microbiologists can access and query this mixed data using the Florilege application. <http://migale.jouy.inra.fr/Florilege>

FAST, INTELLIGENT, TRANSPARENT



INRA's text mining process analysed **350 million words in 24 hours.** That's **3,650 times faster** than the 10 years it would take a human to read the same amount of material.

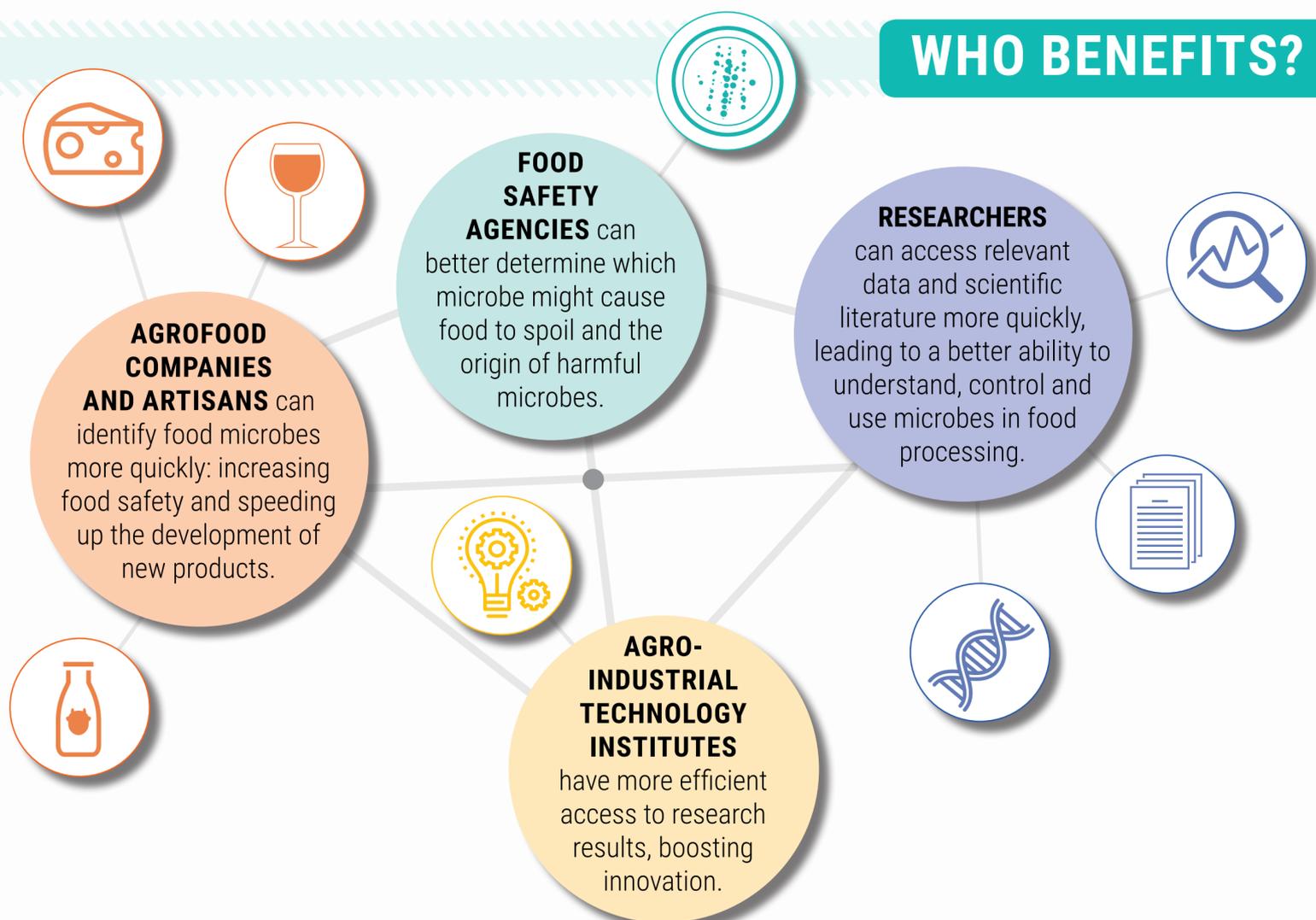


The Florilege Application uses **text mining** and **natural language processing** for smart searching. A query for 'cheese' and 'microbes' will return documents with those terms **as well as** 'camembert', 'roquefort' or '*listeria monocytogenes*'.



Search results are **downloadable as a table to be reused** with occurrence counts and displayed in their relevant categories.

WHO BENEFITS?



WHAT'S NEXT?

To better serve users, Florilege content will be enriched by new biological and textual data and be regularly updated. Bioinformaticians working on the Florilege application, and future users of the OpenMinTeD platform, will be able to reuse the TDM application for food microbiology on other resources or adapt it to new scientific purposes.



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