

*Horizon 2020 Work programme*

Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy

*Call*

H2020-FNR-2020: Food and Natural Resources

*Topic name*

FNR-16-2020: ENZYMES FOR MORE ENVIRONMENT-FRIENDLY CONSUMER PRODUCTS

*FuturEnzyme:*

Technologies of the Future for Low-Cost Enzymes for Environment-Friendly Products

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First round of sequencing completed

MS10

## Document information sheet

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Summary

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# FIRST ROUND OF SEQUENCING COMPLETED

## 1. Scope of the Milestone

Data available – this milestone will attest to the realisation of the sequencing of the first selected bioresources found to be positive in the screen tests.

## 2. Methodology and Results

By applying a number of protocols extensively described in the deliverable D3.2, a number of bio-resources (enzymes, clones, microbes, microbial communities) were selected for sequencing. In details:

382 new bio-resources (strains: 191; clones: 3; pure enzymes: 188) were found positive for activities:

* Hydrolases (esterase/lipase/cutinase): 134
* Hydrolases (proteases): 48
* Hyaluronidases: 3
* Oxidoreductases: 58
* Others (proteases, amylases, etc.): 139

Sequence datasets have been generated/available for:

* Positive strains *Thermoleophilum album* (hydrolase +)
* Positive strain *Halorhabdus* sp. SivX81 (hyaluronidase +)
* Positive strain *Xylanivirga thermophile* (hydrolase +)
* >250 Gbp data available from microbiomes of plastic colonisers
* 180 Mbp data available from microbiomes of surface seawater
* 200 Gbp sequencing data of microbiomes from anaerobic bioreactors
* Sequencing data from biogas microbiome

Currently, the sequences are available at the laboratories of the partners performing the selection and sequencing, and soon will be made available at the intranet’s project website and the intranet’s repository at the Barcelona Supercomputing Center (BSC).