

PROESA® :

cellulosic ethanol and biomass based biorefineries



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5200 employees



14 plants
(9 Italy, 4 Europe, 1 JV in Asia)



400 products



> 5 billion €
turnover



5 research centres
>310 patents

With an integrated industrial platform, **Versalis (Eni)** is the major Italian chemical company, offers to the market a wide portfolio of about 400 products and a **new range of chemical intermediates obtained by renewable raw materials**

Why PROESA® is unique



Versalis: biomass power plant restarted at Crescentino and bioethanol production onstream within the first half of the year

San Donato Milanese (MI), 8 February 2020 - Versalis, Eni's chemical company, has announced that all the plants at Crescentino (Vercelli, Piedmont) will be up and running by the first half of 2020. The plant, acquired in November 2018, is designed for industrial-scale production of bioethanol and has been upgraded with an investment of more than 15 million euro.

The biomass power plant for renewable electricity generation and part of the water treatment plant with biogas production have already been restarted and activities are ongoing to restart the bioethanol plant within the first half of 2020. The plant uses the PROESA® proprietary technology, one of the most innovative in the biomass chemistry sector.

The layout of the Crescentino plants makes it possible to use a system to completely recycle all water and also makes the site completely energy independent through the use of lignin

- **Technology scale up** was already **demonstrated** in Crescentino during 2016 -2017 by previous owner
- After aquisition Versalis started from existing production data to **further improve** the technology:
 - Optimizing process scheme
 - Evaluating solution to **reduce enzymes impact cost**
 - Reducing consumption of raw material and utilities
- As a proven technology, **PROESA® is ready** for industrial projects

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PROESA® Technology



CRESCENTINO SITE

- Industrial unit located in Italy, based on **PROESA®** technology
- Includes ethanol section, power generation, biogas generation integrated with WWT
- Several biomasses used as plant feedstock
- Ethanol production proven at industrial scale
- Power plant operated at 13 MWe
- Green energy excess sold to the grid