

A background image of green grass blades, blurred to create a sense of motion. The grass is set against a light blue sky. The bottom portion of the image is framed by a thick, curved green border.

ASTARTA

**Bioethanol from sugar beet
in the conditions of Ukraine**

ASTARTA history and business structure

The Group's history

- **1993** - foundation of the Group
- **1996** - started agricultural business
- **1999** - first sugar plant in Poltava region
- **2006** - Astarta' IPO on Warsaw Stock Exchange
- **2007** - the Group actively expands by acquiring new agricultural companies and increasing the area of agricultural land in lease
- **2008** - sugar plant and farming assets in Western Ukraine
- **2009** - consolidation of production assets into integrated business units
- **2013** - sugar plant in Poltava region, commissioning of soybean processing and biogas plants
- **2014** - replacing natural gas with biogas in the sugar factory in the town of Globino. Building pipe of biogas to soybean processing plant
- **2015** - replacing natural gas with biogas at soybean processing plant

The Group's assets location



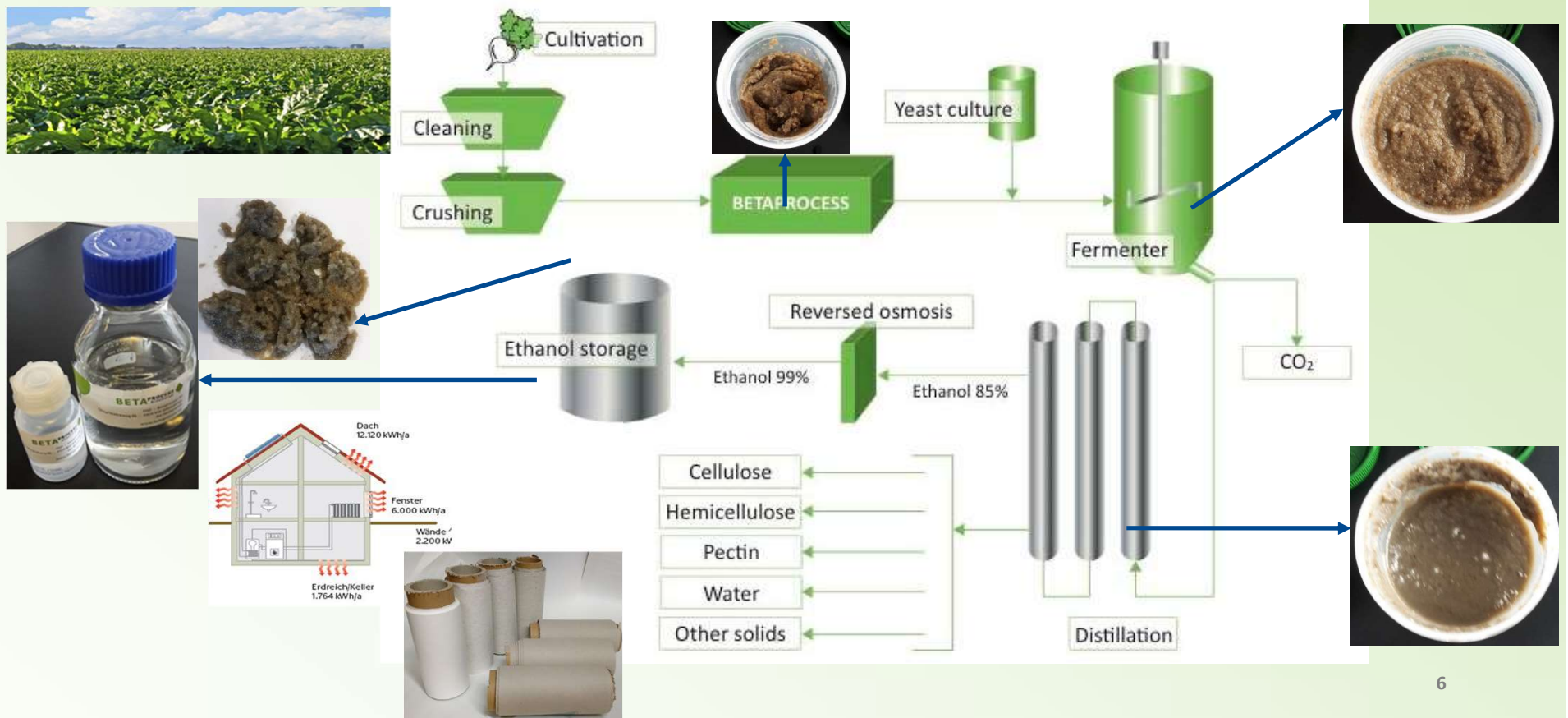
**ASTARTA 's business unit usually combines: agricultural land under cultivation, grain storage facilities, machinery and transportation vehicles, sugar plant, forage factory, and cattle farms*

Raw materials and bioethanol production from sugar-based raw materials

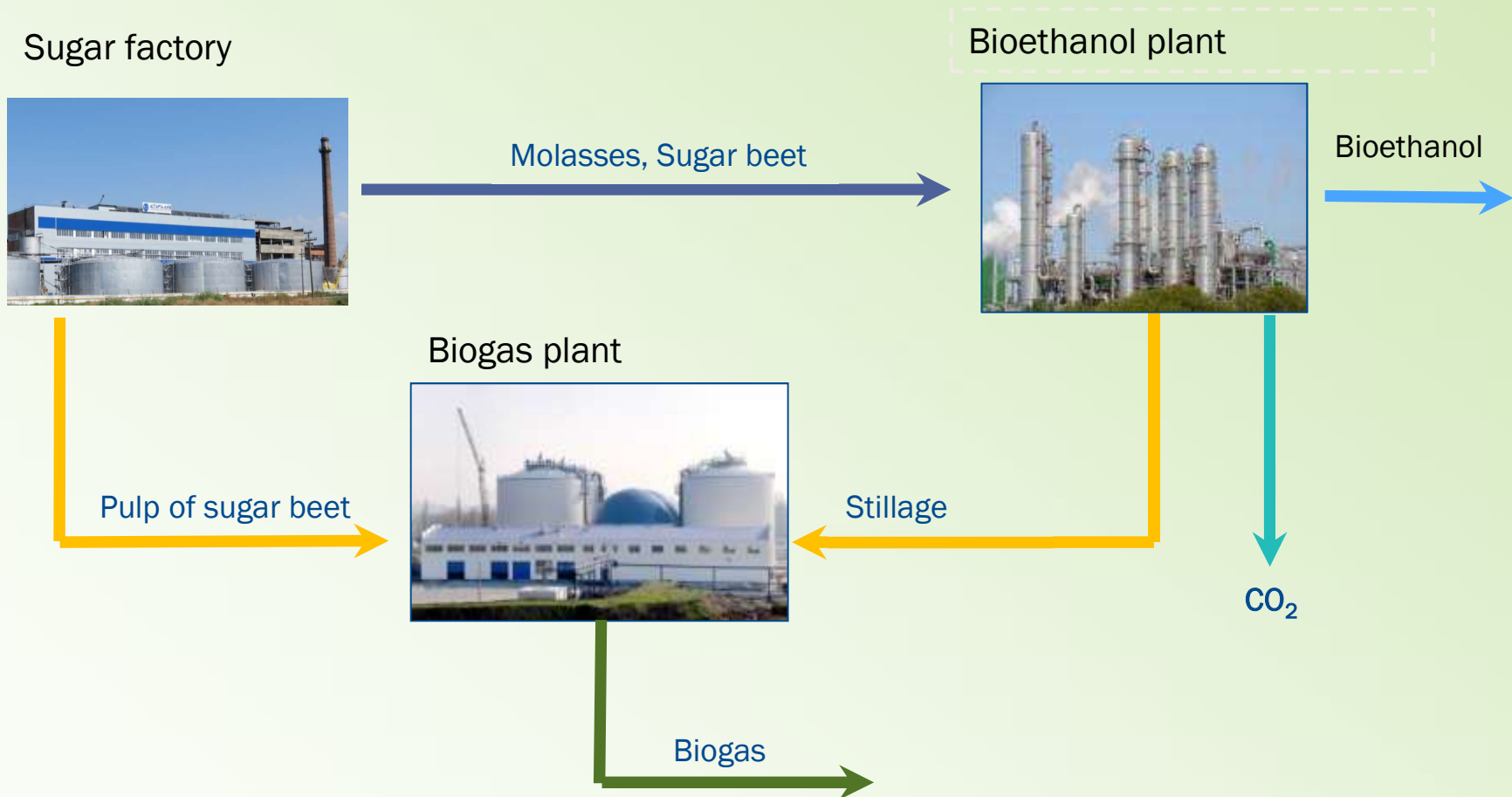
Bioethanol is traditionally produced by fermentation of carbohydrate components of plant materials. The most commonly used raw materials are grain (corn), sugar cane and beet or molasses.



Using BetaProcess in the production of bioethanol



Advantages of integration of the project with existing business



Advantages of integration of the project with existing business

- **Having own raw material - sugar beet and molasses**
- **Utilization of bards, loading of a biogas plant for a year**
- **Convenient logistics location in the center of Ukraine**
- **Ability to process intermediate products of a sugar plant (diffuse juice and dehydration)**

Risks

- **The European bioethanol market is saturated**
- **The Ukrainian market is not transparent and not predictable**
- **To achieve the economic performance of the project, clear and transparent legislation in Ukraine is required**
- **There is no infrastructure for blending and storing bioethanol fuel**



Thanks for your attention!

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