



## CropEnergies segment

### At a glance

€ **1,091** million  
Revenues

€ **60** million  
Operating result

€ **540** million  
Capital employed

**11.1** %  
ROCE

#### Strategy

Fuels with higher ethanol blends (E10 to E85) can help to reduce GHG emissions; they offer high revenues potential for CropEnergies. Growth opportunities are also arising from the broadening of the raw material base to include residual and waste materials and the increasing demand for protein-containing food and animal feed products as well as the use of biogenic CO<sub>2</sub>. The strong demand growth for sustainable bio-based chemicals may give rise to new business opportunities for CropEnergies.

- Expand ethanol, neutral alcohol and protein-rich food and animal feed business activities; develop new businesses such as bio-based chemicals by drawing on the group's R&D expertise
- Establish new collaborative partnerships with customers and partners
- Focus on European and regional raw materials and supply chains



 <b>Production</b>	Germany (1), Belgium (1), France (1), UK (1)
 <b>Raw materials</b>	Grain, sugar syrup, raw alcohol, residues
 <b>Products</b>	Fuel-grade ethanol, neutral alcohol, protein-based food and animal feed, liquid CO <sub>2</sub>
 <b>Markets</b>	Europe
 <b>Customers</b>	Oil companies and traders, food and animal feed producers, beverage and cosmetics producers, industrial and pharmaceutical companies

## Markets

### Ethanol market

Global ethanol production reached 131 (127) million m<sup>3</sup> in 2023. Fuel ethanol accounted for around 85 % of this figure. The increase in total production is due to a significant rise in the production of fuel ethanol. In 2023, it was around 112 (107) million m<sup>3</sup> and is also expected to reach this level in 2024. The remaining alcohol volume is used as neutral alcohol in beverages, cosmetics and pharmaceutical and industrial applications.

#### EU Ethanol volume balance

million m <sup>3</sup>	2021	2022	2023	2024e
<b>Opening balance</b>	<b>1.1</b>	<b>0.8</b>	<b>0.9</b>	<b>0.7</b>
Production	7.7	7.8	7.6	8.1
of which fuel ethanol	5.7	6.0	5.9	6.2
Consumption	-9.4	-10.4	-10.5	-11.1
of which fuel ethanol	-6.5	-7.6	-7.9	-8.5
Net imports	1.4	2.7	2.7	3.2
<b>Closing balance</b>	<b>0.8</b>	<b>0.9</b>	<b>0.7</b>	<b>0.9</b>

Source: S&P Global Commodity Insights, March 2023; including UK.

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The EU 27 and the UK produced 7.6 (7.8) million m<sup>3</sup> of ethanol in 2023, slightly below the previous year's level. At the same time, ethanol consumption rose moderately to 10.5 (10.4) million m<sup>3</sup>. This was due to an increase in the consumption of fuel ethanol to 7.9 (7.6) million m<sup>3</sup> and a simultaneous decrease in neutral alcohol to 2.6 (2.8) million m<sup>3</sup>. In 2024, the consumption of fuel ethanol is expected to increase further to 8.5 (7.9) million m<sup>3</sup>. Net imports to the EU 27 and the UK remained at a consistently high level of 2.7 (2.7) million m<sup>3</sup> in 2023.

In Europe, ethanol prices fell noticeably from around 880 €/m<sup>3</sup> at the beginning of March 2023 to around 650 €/m<sup>3</sup> at the end of the financial year on 29 February 2024. The decline in ethanol prices reflects, among other things, the international price trend and high import volumes.

### Protein market

Prices on the markets for protein food and animal feed products are based primarily on international soybean prices and European rapeseed meal prices. According to the International Grains Council (IGC), the global soybean harvest in 2023/24 will be above last year's level at 390 (375) million tonnes. Demand is expected to grow slightly to 383 (369) million tonnes, while inventories are set to rise to 66 (59) million tonnes. Soybean prices dropped throughout fiscal 2023/24 from around 15 USD/bushel at the beginning of March 2023 to around 12 USD/bushel on 29 February 2024. The EU rapeseed harvest in the 2023/24 marketing year is unchanged at around 20 (20) million tonnes. Quotations for European rapeseed meal followed international trends and fell from around 350 €/t at the beginning of March 2023 to around 265 €/t at the end of February 2024.

### Raw material markets

Global grain production (excluding rice) is likely to reach a new record level of 2,304 (2,268) million tonnes in the 2023/24 grain marketing year (GMV; 1 July to 30 June). With global grain consumption of 2,306 (2,273) million tonnes, slightly lower inventories of 599 (602) million tonnes are expected.

According to the EU Commission, grain production in the EU is expected to be slightly above the previous year's level at around 270 (267) million tonnes in the 2023/24 grain marketing year. Consumption is likely to rise as well at 257 (255) million tonnes. European wheat prices on Euronext in Paris fell significantly in the

course of fiscal 2023/24. Wheat was quoted at around 270 €/t at the beginning of the financial year, but grain prices continued to fall in the course of the financial year. On 29 February 2024, the price of wheat was around 190 €/t, its lowest level since September 2020.

## Legal and political environment

### European Green Deal

The EU aims to reduce GHG emissions by at least 55 % by 2030. As part of the European Green Deal, the EU is also striving for climate neutrality by 2050. Following this objective, numerous initiatives to adapt EU climate and energy policy have been discussed in the European Parliament and Council over the past two years and have now been largely successfully completed.

### Renewable Energy Directive

The Renewable Energy Directive (RED III) was amended as a key element of the Fit for 55 initiatives to promote the use of renewable energy. After more than two years, the legislative process was completed with the publication of RED III in the Official Journal of the EU on 31 October 2023. The Renewable Energy Directive (RED III), which came into force on 20 November 2023 and must be transposed into national law by 21 May 2025, now stipulates that the energy share of renewable energies in the transport sector should increase to at least 29 % (previously: 14 %). Alternatively, the member states may also set a GHG reduction target of at least 14.5 %. The share of renewable fuels from arable crops in the member states is to remain unchanged at up to one percentage point above the level achieved in 2020, up to a maximum of 7 %. The agreement also sets a binding sub-target of 5.5 % for renewable biofuels from waste and residues as well as synthetic fuels in 2030. Synthetic fuels are to account for at least one percentage point.

## Germany

In Germany, the GHG reduction quota is to gradually rise to 25 % by 2035. A further step in this process was taken with the increase from 8 to 9.25 % on 1 January 2024. The energy share of renewable fuels from arable crops should be able to contribute up to 4.4 %. The share of advanced biofuels is to be gradually increased to at least 2.6 % in 2030.

Other renewable fuel alternatives are to be subsidized in addition to the established biofuels, including synthetic fuels, which will count double and renewable electricity, which will count triple towards the GHG quota. Advanced biofuels that are blended in excess of the minimum quota can also count double towards the GHG reduction quota.

## Business performance

### Revenues and operating result

CropEnergies segment revenues fell markedly to € 1,091 (1,390) million. On the one hand, this was due to significantly lower sales volumes following scheduled maintenance shutdowns and, on the other hand, significantly lower prices. The ethanol prices, which reached record levels in fiscal year 2022/23, thus dropped to a significantly lower level since November 2023.

Compared to an exceptionally strong previous year, the operating result dropped significantly to € 60 (251) million, in line with the development of sales volumes and prices. Given the very low price level in the final months of the 2023/24 financial year, only a balanced result was achieved in the fourth quarter.

### Capital employed and return on capital employed (ROCE)

Capital employed was on a par with the previous year at € 540 (535) million. On the back of a significantly lower operating result of € 60 (251) million, ROCE fell to 11.1 (46.9) %.

### Result from restructuring and special items

The result from restructuring and special items in the CropEnergies segment totaled € –1 (0) million and related to the start-up costs for the ethyl acetate production plant at the Zeitz location in the 2023/24 financial year.

### Investments in fixed assets

Investments in fixed assets totaled € 72 (47) million. A second biomass boiler was put into operation at the Wanze location in Belgium; power supply is now predominantly based on renewable raw materials. At the Zeitz location, planning progressed for the conversion of the energy supply from coal to gas; work also began on the construction of a plant for the production of renewable ethyl acetate. The total investment volume for the construction of the plant is between € 120 million and € 130 million. Additional measures were taken to increase plant availability and improve plant safety at Ensus in Wilton, UK. A project to significantly reduce

### Business performance – CropEnergies segment

		2023/24	2022/23	+/- in %
<b>Revenues</b>	€ million	<b>1,091</b>	<b>1,390</b>	<b>-21.5</b>
<b>EBITDA</b>	€ million	<b>105</b>	<b>294</b>	<b>-64.3</b>
EBITDA margin	%	9.6	21.2	
Depreciation	€ million	-45	-43	4.7
<b>Operating result</b>	€ million	<b>60</b>	<b>251</b>	<b>-76.1</b>
Operating margin	%	5.5	18.1	
Result from restructuring/special items	€ million	-1	0	-
Result from companies consolidated at equity	€ million	0	0	-
<b>Result from operations</b>	€ million	<b>59</b>	<b>251</b>	<b>-76.5</b>
Investments in fixed assets and intangible assets	€ million	72	47	53.2
Investments in financial assets/acquisitions	€ million	1	4	-75.0
<b>Total investments</b>	€ million	<b>73</b>	<b>51</b>	<b>43.1</b>
Shares in companies consolidated at equity	€ million	3	5	-40.0
Capital employed	€ million	540	535	0.9
Return on capital employed	%	11.1	46.9	
Working capital	€ million	135	163	-17.2
<b>Employees</b>		<b>515</b>	<b>480</b>	<b>7.3</b>

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primary energy consumption was also kicked off, which is scheduled for completion in mid-2024 and will make an important contribution to reducing Ensus' fossil carbon footprint.

### Investments in financial assets

Investments in financial assets of € 1 (4) million related to the increase in existing shareholdings in Syclus B.V., Maastricht, Netherlands, and East Energy GmbH, Rostock, Germany. In the previous year, shareholdings of less than 20 % in LXP Group GmbH, Teltow, Germany, 50 % in Syclus B.V., Maastricht, Netherlands, and 25 % in East Energy GmbH, Rostock, Germany, were acquired for the first time.

## Raw materials and production

CropEnergies can produce 1.3 million m<sup>3</sup> of ethanol, more than 1 million tonnes of food and animal feed, and 400,000 tonnes of carbon dioxide, which can be liquefied for use in the food sector, among other applications. Ethanol production in fiscal 2023/24 was below the previous year's level at 1.0 (1.1) million m<sup>3</sup>; food and animal feed production was also down on the previous year. Production capacity utilization in the course of the financial year was monitored in line with market conditions and in order to carry out regular maintenance work. The volume of CO<sub>2</sub> sold for liquefaction was also lower than in the previous year.

