

## **Avantium announces 2020 results: Focused on the commercialisation of its key technologies**

**AMSTERDAM, 24 March 2021, 07:00 CET - Avantium N.V. (Euronext Amsterdam and Brussels: AVTX), a leading technology company in renewable chemistry, today reports its 2020 full-year results.**

### **Key business progress during 2020**

- Avantium Renewable Polymers made progress towards a Final Investment Decision (FID) concerning the construction of the planned FDCA (furandicarboxylic acid) flagship plant, but not all conditions for a positive FID were met by the end of 2020:
  - Avantium announced this morning that to date it has signed conditional offtake agreements with specialty chemical company Toyobo (Japan), specialty polyester film producer Terphane (USA), the beverage bottling company Refresco (Netherlands), and a major global food & beverage brand owner, representing in total 30% of the FDCA flagship plant capacity;
- Avantium Renewable Chemistries achieved the successful start-up and commissioning of the plantMEG™ (mono-ethylene glycol) demonstration plant;
- The COVID-19 pandemic delayed on-site projects with customers and impacted new system orders for Avantium Catalysis; the Catalysis contract research services business did, however, grow during the period.

### **Key financial developments during 2020**

- Total Revenues and Other Income increased to €18.3 million (FY 2019: €18.0 million):
  - Total revenues decreased by 29% to €9.9 million (FY 2019: €13.8 million), mainly due to the impact of COVID-19 on Avantium Catalysis;
  - Other Income increased by 99% to €8.4 million (FY 2019: €4.2 million), as a result of higher grant income;
- Net operating expenses were €33.2 million in 2020 (FY 2019: €35.1 million);
- Cash at 31 December 2020 was €26.6 million (31 December 2019: €45.4 million):
  - The reduced 2020 cash outflow of €18.8 million was a substantial reduction compared to the previous year (2019: €37.8 million), primarily due to the one-off payment in 2019 of €17.4 million to regain full ownership of Avantium Renewable Polymers;
- Loss for the period amounted to €22.8 million (FY 2019: €23.5 million).

Tom van Aken, CEO of Avantium commented: "2020 should have been the year in which Avantium celebrated its 20th anniversary and a year in which we planned to achieve the high ambitions set in 2019. However, with the outbreak of COVID-19 at the beginning of 2020, the year was not one of festivities but a year of considerable challenges instead. I am proud of our employees and the way we have handled the challenges caused by the crisis. Our in-house programmes continued to flourish in 2020. In contrast, some of our anticipated external progress was affected by COVID-19, and some of our objectives for 2020 were delayed. We remain fully committed to demonstrating the commercial potential of our technologies to the world and we will continue to work diligently to achieve our goals in 2021."

## **Business overview**

### *Avantium Renewable Polymers*

In 2020, Avantium Renewable Polymers was fully focused on reaching a positive FID in relation to the construction of a 5-kilotonnes FDCA flagship plant, planned to be built in Delfzijl, the Netherlands. Avantium had identified three key conditions required for a positive FID: (i) securing €150 million financing (excluding 20% contingency), (ii) obtaining offtake commitments for 50% of the capacity of the flagship plant, and (iii) finalising the engineering and establishing the supply chain. Avantium Renewable Polymers had earlier anticipated that it would be in a position to make the FID by the end of 2020. While progress was made during the year, the key conditions were not met by the end of 2020. Due in part to the global COVID-19 crisis, negotiations with financial, commercial, and other strategic partners have taken longer than previously foreseen.

On the financing side, Avantium made advances on securing equity investments for the project. In January 2021, Avantium signed a term sheet with leading engineering company Worley – already involved in the engineering of the FDCA flagship plant – to make a €10 million equity investment in Avantium Renewable Polymers. This term sheet is structured as an investment in kind and a risk-sharing mechanism over the engineering, procurement, and construction (EPC) phase of the FDCA flagship plant. Furthermore, the Groningen consortium<sup>1</sup> signed a term sheet for a €20 million equity investment in Avantium Renewable Polymers for the construction of the FDCA flagship plant. Additionally, the Groningen consortium intends to provide Avantium Renewable Polymers with €2.5 million of subordinated debt and in December 2020, the National Programme Groningen awarded Avantium a €7.5 million grant to support the construction of the FDCA flagship plant. This means that as of today, Avantium has conditionally secured €95 million of the total €150 million funding requirement, consisting of (i) the €20 million “PEference”-EU Horizon 2020 grant awarded by Bio-based Industries Joint Undertaking<sup>2</sup>, (ii) the €40 million conditional financing from the Groningen consortium and Worley, and (iii) Avantium's previously committed investment of €35 million (of which €24 million was invested by 19 March 2021). All financing elements, including the investments by Worley and the Groningen consortium, are subject to multiple conditions, including the fulfilment of the key conditions for the FID.

Avantium Renewable Polymers signed the first two conditional offtake agreements for the supply of PEF resin to manufacture food packaging for bottles and films in 2020. In 2021, Avantium has continued negotiating with potential partners to secure additional offtake commitments. To date, this has resulted in two additional offtake commitments, bringing the total now to four such contracts. Please see ‘Events occurring since 31 December 2020’ on page 11.

Avantium Renewable Polymers made good progress in the engineering design of the flagship plant and the establishment of the necessary supply chain. In January 2020, the Renewable Polymers business unit decided in the case of a positive FID, to locate the FDCA flagship plant at Chemie Park Delfzijl, in the north of the Netherlands. In March 2020, Worley completed the concept development phase of the engineering (process design package). The second engineering phase (front-end-engineering and design - FEED) of the flagship plant has reached its final stages. Similarly, site preparation and permit processes for the FDCA flagship plant all ran according to the planned schedule. In January 2021, Avantium Renewable Polymers and Worley agreed on the heads of terms for the flagship plant EPC contract.

<sup>1</sup> The Groningen consortium comprises the Province of Groningen, Groningen Seaports and regional investment funds NOM (Investment and Development Agency for the Northern Netherlands), Fonds Nieuwe Doen, Investeringsfonds Groningen and Groeifonds.

<sup>2</sup> PEference grant under Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme (grant agreement No 744409).

On the supply chain side, Avantium has agreed on the principal terms for a multi-year commercial FDCA polymerisation contract with global specialty polyester supplier Selenis.

Other progress was made in December 2020, when the Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland - RVO) awarded Avantium Renewable Polymers a €5.4 million grant, designated for the FDCA pilot plant in Geleen. Avantium will use this grant to set up a new pilot line for PEF and PEF/PET recycling and polymerisation, further de-risking the operations of the planned FDCA flagship plant.

#### *Avantium Renewable Chemistries*

Throughout 2020, Avantium Renewable Chemistries was able to maintain business continuity despite challenging circumstances caused by the COVID-19 pandemic, with the full focus on scaling up its technologies. New partnerships, however, were more difficult to establish in a virtual setting.

The Renewable Chemistries business unit made good technological and operational progress with its Ray Technology™ which converts industrial sugars into glycols: plantMEG™ (mono-ethylene glycol) and plantMPG™ (mono-propylene glycol). PlantMEG™ is a fully recyclable, plant-based, high purity chemical and an important component of plastic bottles and packaging, textiles for clothing and household items like upholstery and drapery, de-icing products and coolants. PlantMPG™ is a non-toxic, plant-based, high purity chemical used for de-icing and in unsaturated polyester resins (for example in heat transfer fluids in solar panels). In 2020, the RAY demonstration plant was successfully commissioned and became fully operational, showing that the technology works at scale.

Avantium Renewable Chemistries also focused on validating applications for its Dawn Technology™ during the year. Dawn Technology™ is Avantium's biorefining process, turning forestry and agricultural residues into industrial sugars and lignin. In April 2020, Avantium was awarded a €500,000 grant for participating in the CHAPLIN XL project<sup>3</sup> for the construction of a test road using lignin instead of fossil-bitumen to make asphalt, significantly reducing the carbon footprint of road construction.

Also within Avantium Renewable Chemistries is the Volta platform technology which converts CO<sub>2</sub> via electrochemistry into high-value ingredients including glycolic acid and glyoxylic acid, commodity building blocks, and even fuels. This technology is at the pre-pilot stage and during 2020, Avantium Renewable Chemistries continued improving the Volta technology, for example, by increasing process efficiency.

#### *Avantium Catalysis*

The Catalysis business unit was significantly impacted by the COVID-19 pandemic, recording lower revenues of €9.2 million in 2020 compared to €12.5 million in 2019. In 2020, the customer service operations of Avantium Catalysis were hindered by travel restrictions, preventing Catalysis employees from installing, maintaining and upgrading the Flowrence® systems at customers' sites. Additionally, many Avantium Catalysis customers closed or scaled back their laboratories in line with the pandemic public health measures. The turmoil in the world's oil industry also had an impact on the operations of many of the Catalysis customers, leading to a reduction in orders. Despite those

<sup>3</sup> The CHAPLIN XL project is a collaboration between multiple industrial and academic parties. The aim of the collaboration is to test a new approach to substantially reduce CO<sub>2</sub> emissions from road construction.

challenges, Avantium Catalysis received an order in June 2020 from the KAUST Catalysis Center in Saudi Arabia for Flowrence® systems worth more than €3 million. Moreover, the contract research services revenues increased by 6% (€3.3 million) compared with 2019 (€3.1 million).

### **Patents**

Last year, 18 new patents were granted to Avantium, of which 10 are related to YXY® Technology to produce FDCA. In 2020, Avantium took steps to improve, secure, and defend its IP portfolio. For example, Avantium successfully defended its patents against third-party observations and oppositions in both Europe and Japan.

In September 2020, Avantium Renewable Polymers granted leading wood modification company Kebony a licence to use its humins patents, as well as the right to file additional patents in the application area. Humins are a valuable side stream from Avantium's process to produce FDCA. With these licence rights, Kebony has the potential to successfully commercialise wood modified with a mix of humins and furfuryl alcohol. This opens new avenues for further collaboration between Avantium and Kebony, and the commercialisation of humins from Avantium's planned FDCA flagship plant.

In February 2021, Avantium announced that Avantium Renewable Polymers signed a patent licence agreement with Eastman Chemical Company (see page 11, 'Events occurring since 31 December 2020').

### **Investor Relations and Share Performance**

On 23 March 2020, Avantium was promoted to the Euronext Amsterdam SmallCap Index (AScX), following Euronext's quarterly review. The AScX consists of the 25 listed companies ranked 51–75 (in terms of size) on Euronext Amsterdam, the Dutch stock exchange.

The Avantium share price increased by 104% in 2020 (31 December 2020: €6.42). The total number of Avantium shares traded also rose substantially in 2020 to 25.7 million shares (6.3 million shares in 2019).

### **Organisation**

#### *Management Board Composition*

Bart Welten joined Avantium as Chief Financial Officer (CFO) in January 2020 and was appointed as a statutory member of the Management Board for a term of four years at the Annual General Meeting of Shareholders (AGM) held on 14 May 2020. The Management Board now consists of Tom van Aken (CEO) and Bart Welten (CFO).

#### *Supervisory Board Composition*

There were several changes to the composition of the Supervisory Board during the year 2020. At the Annual General Meeting on 14 May 2020, Michelle Jou was appointed as a Supervisory Board member for a term of four years. At the end of an Extraordinary General Meeting (EGM) on 30 September 2020, Denis Lucquin retired as a member of the Supervisory Board, after serving on it for almost a decade. At the same EGM, Cynthia Arnold and Trudy Schoolenberg were appointed as Supervisory Board members for a term of four years. With the appointments of Cynthia Arnold and Trudy Schoolenberg, the percentage of women on the Supervisory Board is 80%, outperforming the target of 30% prescribed by Dutch legislation in terms of gender balance.

### *On-Site COVID-19 Safety Measures*

Avantium responded quickly to the COVID-19 pandemic to protect the health of employees and partners. Avantium asked office-based employees to work from home as much as possible, while critical operations in the offices, laboratories, and plants continued running on-site throughout 2020. Accordingly, Avantium increased its already strict safety and hygiene precautions by implementing stringent new protocols in the buildings. Avantium also used careful planning to limit the numbers of people coming into work at any given time, thereby ensuring good physical distancing and minimising the risk of transmission. A COVID-19 crisis team at management level was responsible for the day-to-day coordination of pandemic-related health and safety.

### **Sustainability**

Throughout 2020, Avantium worked diligently to create the brand-new sustainability plan 'Chain Reaction 2030', highlighting the company's ambitious vision to achieve a fossil-free chemical industry by 2050. Chain Reaction 2030 commits Avantium to a series of goals and targets which have the greatest impact on social and environmental issues. These include accelerating its technologies and operations to support the circular economy and driving responsible and sustainable business practices across the industry. The plan also includes the company's actions to empower its employees and to excite the next generation to accelerate the transition to a fossil-free world. Avantium will regularly report on its progress in meeting the outlined targets.

### **Financial results**

Avantium 2020 financial reporting numbers are prepared on a going concern basis. Due to being a technology development company with significant R&D expenses and negative cash flows, Avantium is dependent on external funding and regularly needs to access new sources of finance. Given Avantium's cash balance at 31 December 2020 of €26.6 million and a negative forecasted cash flow over 2021 (cash spend during 2020 was €18.8 million), Avantium has to obtain new external funding to finance the ongoing operations and further development of its technologies such as the FDCA flagship plant. Failure to achieve new funding in a timely fashion could result in the company being unable to fulfill all its obligations. This indicates the existence of a material uncertainty that may cast significant doubt on Avantium's ability to continue as a going concern.

### *Income statement*

In 2020, Avantium recorded higher Total Revenues and Other Income: €18.3 million compared to €18.0 million in 2019. Avantium recorded lower Total Revenues of €9.9 million in 2020 (FY 2019: €13.8 million), mainly due to the impact of COVID-19 on Avantium Catalysis. Lower revenues were compensated by an increase in Other Income of 99% to €8.4 million (FY 2019: €4.2 million), as a result of higher grant income in 2020. This higher grant income is predominantly the result of four recently awarded grant programmes (PEference, IMPRESS, ChaplinXL, and ERDF)<sup>4</sup>. Avantium

<sup>4</sup> 1. **PEference** is a consortium of organisations aiming to replace a significant share of fossil-based polyesters with the 100% plant-based PEF. The PEference project has received funding under Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No 744409.

2. **IMPRESS** (grant agreement No 869993) is a consortium of ten organisations aiming to demonstrate a new biorefinery concept based on integrating novel processes such as Avantium's Dawn and Ray Technologies.

3. The Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland) awarded Avantium €0.5 million for its participation in the **CHAPLIN XL** project, collaboration between multiple industrial and academic parties with the aim to test a new approach to substantially reduce CO<sub>2</sub> emissions from road construction by using lignin as a substitute for fossil-based bitumen in asphalt.

4. The RAY demonstration plant is supported by a grant from the **European Regional Development Fund (ERDF)** through Samenwerkingsverband Noord Nederland (SNN). This grant aims to accelerate innovation in the quest for a low-carbon economy.

successfully secured additional grants in 2020, including a €7.5 million grant awarded by National Programme Groningen for the construction of the FDCA flagship plant and a €5.4 million grant from the Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland – RVO), designated for the FDCA pilot plant in Geleen.

Net operating expenses amounted to €33.2 million in 2020, a decrease of €1.9 million compared to 2019 (€35.1 million), primarily due to the one-off reversal of an onerous lease provision, lower advertising and travelling expenses and a lower spend on raw material. The lower net expense is partially offset by accelerated patent, licence, legal and advisory spending in preparation for a positive FID on the construction of the FDCA flagship plant.

Total EBITDA increased from €-17.0 million in 2019 to €-14.9 million in 2020. The 2020 EBITDA was influenced by a one-off reversal of an onerous lease provision taken during 2019 that amounted to €492,000. The EBITDA of Avantium Catalysis decreased slightly to €2.6 million (FY 2019: €3.7 million) as a result of lower revenues. The reduction in revenues was partially compensated by strict cost control and an increase in other income from government grants. The higher EBITDA in Avantium Renewable Chemistries and Renewable Polymers was mainly due to income from several government grants.

Avantium's net loss for the year 2020 amounts to €22.8 million (FY 2019: €23.5 million).

#### *Balance sheet and financial position*

The balance sheet total decreased to €70.0 million (31 December 2019: €96.5 million), with net equity of €46.2 million.

Cash and cash equivalents totalled €26.6 million as of 31 December 2019 (31 December 2019: €45.4 million). Net cash outflow for the year was €18.8 million, versus €37.8 million in 2019. While Avantium's cash outflow therefore improved by €19.0 million compared with the prior year, this was mainly due to the one-off settlement of €17.4 million paid by Avantium in January 2019 for the full ownership of Avantium Renewable Polymers. Furthermore, Avantium invested just €3.5 million in capital expenditures during 2020 compared with €8.5 million in 2019.

Consolidated statement of comprehensive income

in Euro x 1,000

	Year ended 31 December	
	2020	2019
<b>Continuing operations</b>		
Revenues	9,863	13,821
Other income	8,403	4,217
<b>Total revenues and other income</b>	<b>18,266</b>	<b>18,038</b>
<b>Operating expenses</b>		
Raw materials and contract costs	(2,339)	(3,666)
Employee benefit expenses	(19,262)	(19,747)
Office and housing expenses	(1,990)	(1,800)
Patent, license, legal and advisory expenses	(4,204)	(3,185)
Laboratory expenses	(3,664)	(3,606)
Advertising and representation expenses	(679)	(1,438)
Expense due for onerous contract	492	(724)
Other operating expenses	(1,528)	(890)
<b>Net operating expenses</b>	<b>(33,173)</b>	<b>(35,056)</b>
<b>EBITDA</b>	<b>(14,907)</b>	<b>(17,018)</b>
Depreciation, amortisation and impairment charge	(7,597)	(5,948)
<b>EBIT</b>	<b>(22,504)</b>	<b>(22,966)</b>
Finance costs - net	(325)	(319)
Share in loss of joint ventures	-	(259)
<b>Loss before income tax</b>	<b>(22,830)</b>	<b>(23,544)</b>
Income tax expense	-	-
<b>Loss for the period</b>	<b>(22,830)</b>	<b>(23,544)</b>
<b>Total comprehensive expense for the year</b>	<b>(22,830)</b>	<b>(23,544)</b>
<b>Loss attributable to:</b>		
Owners of the parent	(22,830)	(23,544)
<b>Total comprehensive expense attributable to:</b>		
Owners of the parent	(22,830)	(23,544)
	<b>(22,830)</b>	<b>(23,544)</b>

	Year ended 31 December	
	2020	2019
<b>Earnings per share for profit from continuing operations attributable to the ordinary equity holders of the company</b>		
Basic earnings per share	(0.88)	(0.91)
Diluted earnings per share	(0.88)	(0.91)
<b>Earnings per share for profit attributable to the ordinary equity holders of the company</b>		
Basic earnings per share	(0.88)	(0.91)
Diluted earnings per share	(0.88)	(0.91)

Balance sheet and financial position

in Euro x 1,000

	As at 31 December	
	2020	2019
<b>Assets</b>		
<b>Non-current assets</b>		
Property, plant and equipment	25,198	27,677
Intangible assets	559	684
Right-of-use assets	9,042	9,732
<b>Total non-current assets</b>	<b>34,799</b>	<b>38,092</b>
<b>Current assets</b>		
Inventories	1,225	1,440
Trade and other receivables	7,333	11,541
Cash and cash equivalents	26,626	45,443
<b>Total current assets</b>	<b>35,184</b>	<b>58,425</b>
<b>Total assets</b>	<b>69,983</b>	<b>96,517</b>
<b>Equity</b>		
<b>Equity attributable to owners of the parent</b>		
Ordinary shares	2,591	2,583
Share premium	204,296	204,296
Other reserves	10,407	9,862
Accumulated losses	(171,057)	(148,527)
<b>Total equity attributable to the owners of the parent</b>	<b>46,238</b>	<b>68,215</b>
<b>Total equity</b>	<b>46,238</b>	<b>68,215</b>
<b>Liabilities</b>		
<b>Non-current liabilities</b>		
Lease liabilities	8,003	9,264
<b>Total non-current liabilities</b>	<b>8,003</b>	<b>9,264</b>
<b>Current liabilities</b>		
Lease liabilities	1,703	1,534
Trade and other payables	13,894	17,367
Provisions for other liabilities and charges	145	137
<b>Total current liabilities</b>	<b>15,742</b>	<b>19,038</b>
<b>Total liabilities</b>	<b>23,745</b>	<b>28,303</b>
<b>Total equity and liabilities</b>	<b>69,983</b>	<b>96,517</b>



Consolidated statement of cash flows

in Euro x 1,000

Notes	Year ended 31 December	
	2020	2019
<b>Cash flows from operating activities</b>		
Loss for the year from continuing operations	(22,830)	(23,544)
Adjustments for:		
- Depreciation of property, plant and equipment	5,818	4,130
- Amortisation	152	183
- Depreciation of right of use assets	1,589	1,635
- Share in loss of joint ventures	-	259
- Share-based payment	839	599
- Finance costs - net	325	319
- Non cash portion of onerous contract expense	(492)	492
- Impairment of property, plant and equipment (PPE)	38	-
Changes in working capital (excluding exchange differences on consolidation):		
- Decrease/(increase) in inventories	215	(280)
- Decrease/(increase) in trade and other receivables	4,251	(2,192)
- (Decrease)/increase in trade and other payables	(3,228)	8,442
- Increase/(decrease) in provisions	7	(13,107)
	<b>(13,315)</b>	<b>(23,064)</b>
Interest (paid) on current accounts	(69)	(17)
<b>Net cash used in operating activities</b>	<b>(13,383)</b>	<b>(23,080)</b>
<b>Cash flows from investing activities</b>		
Purchases of property, plant and equipment (PPE)	(3,425)	(8,458)
Purchases of intangible assets	(27)	(86)
Acquisition of subsidiary	-	(4,189)
<b>Net cash used in investing activities</b>	<b>(3,453)</b>	<b>(12,734)</b>
<b>Cash flow from financing activities</b>		
Interest received from current accounts	37	27
Principal elements of lease payments	(1,946)	(2,021)
Other interest received	-	56
Other interest paid and financing costs	(72)	(94)
<b>Net cash generated from financing activities</b>	<b>(1,981)</b>	<b>(2,032)</b>
<b>Net decrease in cash and cash equivalents</b>	<b>(18,817)</b>	<b>(37,846)</b>
Cash and cash equivalents at beginning of the year	45,443	83,302
Effect of exchange rate changes	(1)	(12)
<b>Cash and cash equivalents from continuing operations at end of financial year</b>	<b>26,626</b>	<b>45,443</b>

## Segment information

### EBITDA

The EBITDA figures of the company segments are as follows.

<i>(In Euro x 1,000)</i>	<b>2020</b>	<b>2019</b>
Catalysis	2,582	3,735
Renewable Chemistries	(1,605)	(2,971)
Renewable Polymers	(7,331)	(7,941)
<b>Total EBITDA of business segments</b>	<b>(6,353)</b>	<b>(7,177)</b>

Revenue is only generated from external customers and no transactions with other segments have taken place.

### Revenues per segment

<i>(In Euro x 1,000)</i>	<b>2020</b>	<b>2019</b>
Catalysis	9,173	12,456
Renewable Chemistries	405	1,195
Renewable Polymers	285	170
<b>Total segment revenue</b>	<b>9,863</b>	<b>13,821</b>

### Other income per segment

<i>(In Euro x 1,000)</i>	<b>2020</b>	<b>2019</b>
Catalysis	235	85
Renewable Chemistries	5,764	3,467
Renewable Polymers	2,288	531
Unallocated items	116	134
<b>Total segment other income</b>	<b>8,403</b>	<b>4,217</b>

### Reconciliation

<i>(In Euro x 1,000)</i>	<b>2020</b>	<b>2019</b>
<b>Total EBITDA of business segments</b>	<b>(6,353)</b>	<b>(7,177)</b>
Amortisation	(152)	(183)
Depreciation	(5,856)	(4,130)
Depreciation of right of use assets	(1,589)	(1,635)
Finance costs - net	(325)	(319)
Share based compensation	(895)	(813)
Rent	(179)	(193)
Share in loss of joint ventures	-	(259)
Expense due for onerous contract	492	(724)
Company overheads/other	(7,972)	(8,112)
<b>Loss before income tax from continuing operations</b>	<b>(22,830)</b>	<b>(23,544)</b>

**Events occurring since 31 December 2020**

In February 2021, Avantium announced that Avantium Renewable Polymers signed a patent licence agreement with Eastman Chemical Company for the right to operate under Eastman's FDCA-related patent portfolio.

In March 2021, Avantium announced that Avantium Renewable Polymers has signed two additional conditional offtake agreements for the supply of PEF resin to manufacture bottles and films, bringing the total now to four such contracts. The partners involved include specialty chemical company Toyobo (Japan), specialty polyester film producer Terphane (USA), the beverage bottling company Refresco (Netherlands), and a major global food & beverage brand owner. The offtake commitments signed so far represent 30% of the plant's annual FDCA production capacity. Those commitments are subject to a positive FID, financial closing, other customary approvals and party specific conditions. The partners will purchase Avantium's FDCA at agreed price levels for a period of at least five years, depending on both the product application and the specific terms and conditions included in each agreement.

Additionally, Avantium announced that it has signed a collaboration agreement with Carlsberg Group to jointly develop several PEF applications, including the Green Fibre Bottle, with the aim to validate the circularity of the applications, which should lead to additional demand for FDCA from Avantium's flagship plant. As a further sign of their commitment, Carlsberg has recently joined the PEFerence consortium.

**Outlook**

Avantium continues to closely monitor the impact of the COVID-19 virus and the consequences of the turmoil in the petroleum industry. The ultimate impact of COVID-19 on Avantium's business going forward is still impossible to accurately predict. This will depend amongst other things on the speed with which the pandemic is contained and the rate at which the current (travel) restrictions are lifted.

In the Renewable Polymers business unit, Avantium will work diligently with the aim of achieving all key conditions required for a positive FID concerning the construction of the FDCA flagship plant. Avantium Renewable Polymers is in continued discussions with a number of debt providers on funding the debt portion, including funding of the 20% contingency. Avantium Renewable Polymers is also involved in negotiations with multiple potential partners for additional offtake commitments.

Avantium Renewable Chemistries aims to validate the potential commercial uses for plantMEG™ - specifically textile applications in a broad range of products from clothing to upholstery, drapery and auto fittings. Moreover, the Renewable Chemistries business unit has the ambition to establish new partnerships and investigate additional licensing opportunities. For Volta Technology, the focus will be on finding industrial partners that are interested in scaling up first to a pilot plant and then to commercialisation.

Avantium Catalysis will pursue strategic growth initiatives in the fields of batch testing and adsorption, improving its technologies and striving for improved profitability as the demand for sustainable chemistry increases.

Avantium is also exploring multiple options to strengthen its financial position and provide the company with strategic choices.

### Calendar and contact details

*More information about this press release:*

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*Presentation of the full year 2020 results on 24 March 2021:*

On Wednesday 24 March 2021 at 08:00 am (CET) Avantium will host a conference call for analysts. The transcript of this call will be made available at [www.avantium.com](http://www.avantium.com).

This press release, the 2020 Annual Report and the 2020 Remuneration Report are available at [www.avantium.com](http://www.avantium.com).

*Financial calendar 2021*

Date	Event
24 March 2021	Publication full-year results 2020 and publication annual report 2020
19 May 2021	Annual General Meeting
11 August 2021	Publication of half-year results 2021

### About Avantium

Avantium is a leading technology development company and a forerunner in renewable chemistry. Avantium develops novel technologies based on renewable carbon sources as an alternative to fossil-based chemicals and plastics. The company currently has three technologies at pilot and demonstration phase. The most advanced technology is the YXY<sup>®</sup> plant-to-plastics-technology that catalytically converts plant-based sugars into a wide range of chemicals and plastics, such as PEF (polyethylene furanoate). Avantium has successfully demonstrated the YXY<sup>®</sup> Technology at its pilot plant in Geleen, the Netherlands. The second technology is the Dawn Technology<sup>™</sup> that converts non-food biomass into industrial sugars and lignin in order to transition the chemicals and materials industries to non-fossil resources. In 2018, Avantium opened the Dawn Technology<sup>™</sup> pilot biorefinery in Delfzijl, the Netherlands. The third technology is called Ray Technology<sup>™</sup> and catalytically converts industrial sugars to plant-based MEG (mono-ethylene glycol): plantMEG<sup>™</sup>. Avantium is scaling up its Ray Technology<sup>™</sup> and the demonstration plant in Delfzijl, the Netherlands opened in November 2019. Next to developing and commercialising renewable chemistry technologies, the company also provides advanced catalysis R&D services and systems to customers in the refinery and chemical industries. Avantium works in partnership with likeminded companies around the globe to create revolutionary renewable chemistry solutions from invention to commercial scale.

Avantium's shares are listed on Euronext Amsterdam and Euronext Brussels (symbol: AVTX). Avantium is included in the Euronext Amsterdam SmallCap Index (AScX). Its offices and headquarters are in Amsterdam, the Netherlands.

**Forward-looking information / disclaimer**

This press release may include forward-looking statements. Other than reported financial results and historical information, all statements included in this press release, including, without limitation, those regarding our financial position, business strategy and management plans and objectives for future operations, are forward-looking statements. These forward-looking statements are based on our current expectations and projections about future events and are subject to risks and uncertainties that could cause actual results to differ materially from those expressed in the forward-looking statements. Many of these risks and uncertainties relate to factors that are beyond Avantium's ability to control or estimate precisely, such as future market conditions, the behaviour of other market participants and the actions of governmental regulators. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this press release and are subject to change without notice. Other than as required by applicable law or the applicable rules of any exchange on which our securities may be traded, we have no intention or obligation to update forward-looking statements.