Press release

Avantium First Half 2019 Results:

"Company is progressing its technologies towards commercialization"

AMSTERDAM, 20 August 2019, 07:00 CET - Avantium N.V. (Euronext Amsterdam and Brussels: AVTX), a leading technology development company and forerunner in renewable chemistry, today reports its 2019 half year results.

Key Business Developments in the First Half of 2019:

- Avantium Renewable Polymers (formerly known as Synvina) was successfully integrated within Avantium, leading to a revised Scale-up and Market Launch Strategy:
  - Intention to build a cash-flow positive flagship plant to start up in 2023 with a planned annual capacity of 5 kilotons of FDCA and PEF
  - The design of a flagship plant has commenced with leading engineering services company Worley (formerly Jacobs Engineering) commissioned to execute the detailed pre-engineering studies
  - Site selection in northwestern continental Europe is to be completed in the second half of 2019
- The most advanced technologies of Avantium Renewable Chemistries – Mekong and Dawn™ – are progressing towards commercialization:
  - Avantium secured €3 million in European Union grants for its Mekong and Dawn™ Technologies
  - The opening of the Mekong demonstration plant is scheduled for November 2019 in Delfzijl, the Netherlands

Key Financial Developments in the First Half of 2019:

- The cash position was €53.1 million at 30 June 2019 (31 December 2018: €83.3 million). The cash outflow in the first half of 2019 is mainly attributable to regaining full ownership of Renewable Polymers (€ 17.4 million) and investments in our Mekong demonstration plant (€3.1 million) in line with our strategic plan
- Total adjusted EBITDA decreased in line with plan to € -8.8 million in the first half of 2019 (€ -1.3 million in the corresponding period of 2018), mainly due to inclusion of Avantium Renewable Polymers as an Avantium business unit (€ -4.3 million) and investments in building the Mekong demonstration plant (€ -3.1 million)
- Consolidated first half 2019 revenues decreased by €1.2 million to €5.2 million (HY 2018: €6.4 million) mainly due to timing of Catalysis order intake – higher revenues in the first half of 2018 and new contracts negotiated towards the end of the first half of 2019 caused a shift in revenues, which was partly mitigated by Avantium Renewable Chemistries and Avantium Renewable Polymers revenue in HY 2019

- Operating expenses increased to €17.4 million (HY 2018: €9.9 million) due to the acquisition of 100% ownership of Synvina and its incorporation into Avantium's cost base as Avantium Renewable Polymers

Tom van Aken, Chief Executive Officer of Avantium, comments: "The year started with the acquisition of 100% ownership of the Synvina joint venture, a review of the company strategy and technology portfolio and financing going forward. Our focus is on those technologies with the highest value potential. Our plant-to-plastics YXY technology to produce FDCA and PEF is progressing towards commercialization with leading engineering services company Worley conducting detailed pre-engineering studies for a 5 kilotons flagship plant. Our focus remains on delivering the milestones on our journey towards opening this flagship plant in 2023. Avantium aims to secure funding and make the investment decision for construction of this flagship by the end of 2020.

The Renewable Chemistries business unit is focused on progressing our partnership opportunities along with opening the Mekong demonstration plant in November 2019 and successfully operating the Dawn™ pilot biorefinery. I am pleased that we have been awarded €3 million in EU grants for our Mekong and Dawn™ technologies. This support is a strong signal for continuing our work to create and commercialize sustainable chemistry technology solutions."

Operational Developments

Avantium Renewable Polymers (formerly known as Synvina) – Changing the Nature of Plastics

Avantium's YXY plants-to-plastics Technology catalytically converts plant-based sugars into FDCA (furandicarboxylic acid) and materials such as the new plant-based packaging material PEF (polyethylene furanoate). Avantium has successfully demonstrated its YXY Technology at its pilot plant in Geleen, the Netherlands.

In January 2019, Avantium has retaken full ownership of its YXY Technology through the purchase of BASF's shares in the Synvina joint venture. Avantium paid BASF €17.4 million, with the transfer taking place on 25 January 2019. Synvina became a business unit of Avantium, alongside the Catalysis and Renewable Chemistries business units. Avantium appointed Marcel Lubben Managing Director of the new business unit with a mandate to lead the commercialization of the YXY technology. In June 2019, the Synvina business unit was renamed Avantium Renewable Polymers.

After taking full ownership of the YXY Technology, Avantium has explored different scenarios with potential partners and customers to redefine the commercialization strategy of PEF that meets both market and capital requirements. This has led to a revised scale-up and market launch strategy that Avantium outlined at its Technology & Markets Day for investors and other stakeholder on 6 June 2019. Avantium intends to build a cash-flow positive flagship plant with a planned annual capacity of 5 kilotons of FDCA (built, owned and operated by Avantium) and 5 kilotons of PEF (produced in partnerships).

Engineering company Worley (formerly known as Jacobs Engineering) has started detailed pre-engineering studies for the intended FDCA flagship plant slated for a 2023 start-up. Site selection in northwestern continental Europe is aimed to be completed in the second half of 2019. Avantium expects to need €150 million (± 20% contingency) for the flagship plant, consisting of CAPEX (ISBL + OSBL), start-up costs, working capital and ongoing Renewable Polymers expenses until cash-flow positive (2019-2023). Avantium aims to have funding (national and regional grants, bank loans, own resources and resources from strategic partners) in place before the end of 2020. Avantium intends to make an investment decision for the construction of the flagship plant by the end of 2020.

The plant will produce products for high-value markets and performance applications. This includes specialty films that can be used in electronics and displays (LCD/OLED), PEF-enhanced bottles for premium beverages and cosmetics, and plant-based recycle-ready or recyclable flexible packaging. Avantium announced in April 2019 that it has produced the first plant-based pouches using its biaxially oriented polyethylene furanoate (BOPEF) film. Avantium has jointly developed BOPEF film together with Japan′s leading manufacturer Toyobo. The pouches consist of a two-layer laminate of BOPEF and a plant-based polyethylene (PE) sealing layer. The pouches are suitable for dry and liquid products, such as such as cheese & dairy, dry snacks, sauces and cosmetics. Avantium and Toyobo continue to find new features of BOPEF film for various applications.

In its launch strategy, Avantium particularly focuses on value chain partnerships: feedstock providers, future licensees, polymer converters and consumer brands. Discussions between Renewable Polymers and potential customers are progressing. Amongst them are both niche users that require PEF′s unique features, and premium first movers in larger markets.

Revenues of €0.2 million were realized from joint development and material transfer agreements.

Avantium Renewable Chemistries

The Renewable Chemistries business unit continues its focus on developing innovative chemistry technologies that utilize renewable sources of carbon instead of fossil carbon. The technologies enable the production of chemical building blocks and plastic materials. Significant progress has been made in the three lead programs of Avantium Renewable Chemistries in an effort to accelerate the transition to a fossil-free world. In the first half year of 2019, the revenues from collaboration agreements more than doubled to €0.5 million (HY 2018: €0.2 million).

<u>Mekong Technology</u>
Avantium’s proprietary Mekong Technology converts glucose into plant-based mono-ethylene glycol (MEG). This is a major drop-in component used in the production of many materials, including polyesters. Avantium will officially open a demonstration plant for its Mekong technology in Delfzijl, the Netherlands in November 2019. This demonstration plant is a pre-commercial facility with a nameplate capacity of 10 tons of plant-based MEG per year. In August, the demonstration plant will be delivered fully assembled and ready for commissioning to Avantium’s site at the Chemiepark in Delfzijl from engineering partner Zeton in Enschede, the Netherlands.

The opening of the demonstration plant is a major step forward in commercializing the Mekong technology in that Avantium will scale from lab to a size that mimics the conditions at a commercial-scale plant. Based on the results of the demonstration plant, Avantium will be able to validate the technical performance and refine the economic opportunity. If testing on demonstration plant scale is successful, Avantium intends to make an investment decision regarding a possible commercial-scale flagship plant in 2022.

In the first half of 2019, Avantium progressed its partnership opportunities to bring Mekong to full-scale commercialization by signing several collaboration agreements around the globe.

In March 2019, Avantium received a €2.0 million grant from the European Regional Development Fund, facilitated by Partnership Northern Netherlands (Samenwerkingsverband Noord-Nederland). This grant aims to accelerate innovation in the quest for a low-carbon economy.

In June 2019, Avantium announced that it has been awarded €1.3 million for both its Dawn™ and Mekong Technologies from the Bio Based Industries Joint Undertaking (BBI JU) under the European Union's Horizon 2020 Research and Innovation Program. This commits Avantium to participate in the VEHICLE consortium whose members aim to widen the business and market opportunities of existing and future biorefineries by demonstrating the applicability of their sugar streams in several downstream options. The role of Avantium in VEHICLE is to provide sugar streams from non-food feedstock over a 4-year program. This sugar is produced in the Dawn™ pilot biorefinery in Delfzijl, the Netherlands. Avantium will also convert industrial sugars from the consortium partners (including the sugars from Avantium's Dawn™ pilot biorefinery) into plant-based mono-ethylene glycol (MEG) through its Mekong Technology.

Dawn Technology™ - The Future of Biorefining

Avantium's proprietary Dawn Technology™ produces industrial sugars and lignin from forestry residues in its pilot biorefinery in Delfzijl. These sugars are an excellent raw material for chemistry and fermentation processes to produce a broad range of chemicals and materials. The lignin is energy dense and ideal for energy generation as well as other higher value applications like asphalt. With proven technical and economic feasibility, the pilot biorefinery is the prelude to a commercial-scale flagship plant. The investment decision regarding a possible Dawn flagship plant is expected by 2021.

Dawn™ is a feedstock flexible technology which means that future biorefineries can use its own locally sourced non-food biomass like forestry and agricultural residues. Avantium aims to globally deploy the technology via licenses and is steadily progressing its partnership opportunities around the world.

Volta Technology

Avantium's Volta program is a platform technology that uses electrochemistry to convert CO_2 to higher value products and chemical building blocks. The Volta team is currently scaling up from lab scale towards pre-pilot installations. The first units aim to capture CO_2 from the atmosphere and are part of consortia where Avantium will operate the units at the Prodock building in the Port of Amsterdam.

Avantium actively participates in industry associations and currently cooperates with over 35 partners in European grant consortia, providing the company with over €5 million in grants.

Avantium Catalysis - Tomorrow's Catalysis Today

Avantium Catalysis provides advanced catalysis testing systems and contract R&D. The Contract R&D business offers the execution of in-house customized contract research projects. The Systems business comprises Avantium's unique and advanced Flowrence high-throughput catalyst testing systems, which are tailored to accelerate catalyst screening and to study catalyst deactivation.

Avantium Catalysis has developed a strong, international customer base, including several industry leaders. In May 2019, Shell renewed its long-running partnership with Avantium Catalysis for four additional years for the execution of catalyst testing programs with Avantium's Flowrence technology platform. In June 2019, Avantium decided to significantly expand its capacity to test commercial catalysts for hydrotreating and hydrocracking applications, to serve the strong demand for its independent refinery catalyst testing services.

In the first half of 2019, Avantium Catalysis further enhanced its presence in the growing Asian Systems market with the progress of several projects destined for China, new orders in Japan, and the first ever order in South Korea.

Avantium Catalysis recorded lower revenues of €4.6 million in the first half of 2019 (HY 2018: € 6.2 million) due to the later than anticipated signing of several sales transactions in 2018. New sales in the first half of 2019 totals € 7 million.

Financial results

Consolidated Statement of Comprehensive Income and Segment Reporting

Consolidated first half year revenues decreased 19% from €6.4 million in 2018 to €5.2 million in 2019 driven by later than anticipated signing of contracts in the Catalysis business unit, partly mitigated by higher revenues in Renewable Chemistries and Renewable Polymers.

In the first half of 2019, operating expenses increased to €17.4 million (HY 2018: € 9.9 million) mainly due to the incorporation of Renewable Polymers into Avantium's cost base following the 100% acquisition. Employee benefit expenses increased to €8.0 million mainly due to the full Renewable Polymers costs in P&L. The increase in depreciation, amortization and impairment charges of €2.9 million (HY 2018: €0.7 million) mainly reflects the new IFRS 16 accounting standard implementation which all lease liabilities moving to the balance sheet.

Net result for the first half year of 2019 amounts to € -12.6 million (HY 2018: € -6.5 million).

Total Adjusted EBITDA declined from € -1.3 million in the first half of 2018 to € -8.8 million in 2019. The Adjusted EBITDA of Catalysis declined as a result of decreased revenues. The lower Adjusted EBITDA of Renewable Chemistries is mainly due to investments in the Mekong demonstration plant. Renewable Polymers, with an Adjusted EBITDA of € -4.3 million, is a new business unit in Avantium following 100%

ownership in January 2019. This can be compared to the 49% share in the results of the joint venture in the first half of 2018, being € -3.1 million.

Balance Sheet and Financial Position

Balance sheet total decreased to €101.3 million (31 December 2018: €113.9 million) with net equity of €78.9 million. The decrease is mainly due to the 100% acquisition of Synvina and Avantium's investments in the Renewable Chemistries and Renewable Polymers programs. Cash and cash equivalents amounted to € 53.1 million in the first half of 2019 (31 December 2018: €83.3 million).

Outlook

The first half of 2019 was in line with expectations with revenues in Avantium Catalysis being below expectations. Avantium still aims to deliver top-line growth in Catalysis in the mid-to-high single-digit range. For Avantium Renewable Polymers, Avantium intends to complete the site selection of the location for the 5Kta plant in the second half of 2019. The Renewable Chemistries business unit will open the new Mekong demonstration plant in Delfzijl in November 2019.

Overall, Avantium remains confident to deliver on the strategic objectives.

Management Board Composition

In July 2019, Avantium announced that Frank Roerink, Chief Financial Officer and member of the Management Board, will leave Avantium at the end of 2019. He will continue to fulfill his responsibilities for the remainder of the year allowing Avantium to look for a successor in parallel.

Supervisory Board Composition

During the Annual General Meeting of Shareholders (AGM) held on 15 May 2019, the shareholders approved the appointment of Rob van Leen as member of the Supervisory Board for a term of four years. In addition, the AGM reappointed Denis Lucquin as member of the Supervisory Board for a term of two years. In this same meeting, Jonathan Wolfson and Gabrielle Reijnen stepped down and were discharged from liability for the performance of their duties as members of the Supervisory Board. The Supervisory Board now consists of: Kees Verhaar (chairman), Margret Kleinsman, Denis Lucquin and Rob van Leen. The Supervisory Board has started the selection process for a fifth Supervisory Board member.

Auditor's Involvement

This Interim Report for the six months ended 30 June 2019, and the Condensed consolidated financial statements included herein have not been audited or reviewed by an external auditor.

Risks

The management team of Avantium has regularly reviewed the risk profile of the company in the first half of 2019 and will continue to do so throughout the rest of the year. For those risks deemed material, comprehensive mitigation action plans are developed and reviewed by the management team. The outcome of the company's risk management process is shared and discussed with the audit committee of the Supervisory Board and with the Supervisory Board.

The risks as outlined in the risk management paragraph of the Avantium N.V. 2018 annual report remain and continue to require focused and decisive attention in the second half of 2019. Note that the specific risks in Renewable Polymers were thoroughly reviewed and included in the 2018 annual report published on 27 March 2019 ('post-RNP-acquisition'). No new risks were identified in the first half of 2019. It should be noted that no matter how good a risk management and control system is, it cannot be assumed to be exhaustive nor can it provide certainty that it will prevent negative developments in Avantium's business and business environment from occurring or that mitigation actions are fully effective. It is important to note that new risks could be identified that are not known currently.

Executive board compliance statement

The executive board of Avantium N.V. declares that, to the best of their knowledge, the condensed consolidated financial statements give a true and fair view of the assets, liabilities, financial position and the result of Avantium N.V. and its subsidiaries included in the condensed consolidated financial statements and the interim report includes a fair review of the information required pursuant to section 5:25d, subsections 8 and 9 of the Dutch Financial Markets Supervision Act (Wet op het financieel toezicht).

Amsterdam, 20 August 2019

Tom van Aken, Chief Executive Officer
Frank Roerink, Chief Financial Officer

Condensed consolidated statement of comprehensive income

(In Euro x 1,000)	Half-year	
	2019	**2018**
Revenues	5,219	6,439
Expenses		
Raw materials and contract costs	(1,426)	(1,707)
Employee benefit expenses	(8,036)	(4,060)
Depreciation, amortization and impairment charge	(2,914)	(691)
Office and housing expenses	(463)	(974)
Patent, license, legal and advisory expenses	(1,458)	(711)
Laboratory expenses	(1,469)	(826)
Advertising and representation expenses	(644)	(502)
Expense due for onerous contract	(724)	-
Other operating expenses	(265)	(392)
Operating loss	**(12,181)**	**(3,424)**
Finance income	20	12
Finance costs	(186)	(47)
Finance costs - net	**(166)**	**(36)**
Share in loss of joint ventures	(259)	(3,052)
Loss before income tax	**(12,607)**	**(6,512)**
Income tax expense	-	-
Loss for the half-year	**(12,607)**	**(6,512)**
Other comprehensive income		
Share of other comprehensive income of joint ventures accounted for using the equity method	-	-
Total comprehensive expense for the period	**(12,607)**	**(6,512)**
Loss attributable to:		
Owners of the parent	(12,607)	(6,512)
	(12,607)	**(6,512)**
Total comprehensive expense attributable to:		
Owners of the parent	(12,607)	(6,512)
	(12,607)	**(6,512)**

Earnings per share for profit attributable to the ordinary equity holders of the company	**30 June 2019 (euro)**	**30 June 2018 (euro)**
Basic earnings per share	(0.49)	(0.25)
Diluted earnings per share	(0.49)	(0.25)

Condensed consolidated statement of financial position

(In Euro x 1,000)	**30 June 2019**	**31 December 2018**
Assets		
Non-current assets		
Property, plant and equipment	25,671	15,186
Intangible assets	718	722
Right of use asset	10,996	-
Investments in joint ventures and associates	-	4,249
Total non-current assets	**37,385**	**20,157**
Current assets		
Inventories	1,142	1,160
Trade and other receivables	9,645	9,307
Cash and cash equivalents	53,127	83,302
Total current assets	**63,914**	**93,769**
Total assets	**101,299**	**113,926**
Liabilities		
Non-current liabilities		
Lease liabilities	9,694	-
Total non-current liabilities	**9,694**	**-**
Current liabilities		
Lease liabilities	1,458	-
Trade and other payables	11,083	9,525
Provisions for other liabilities and charges	165	13,244
Total current liabilities	**12,706**	**22,769**
Total liabilities	**22,400**	**22,769**
Equity		
Equity attributable to owners of the parent		
Ordinary shares	2,584	2,583
Share premium	204,296	204,296
Other reserves	9,662	9,331
Accumulated losses	(137,643)	(125,053)
Total equity attributable to the owners of the parent	**78,899**	**91,157**
Total equity and liabilities	**101,299**	**113,926**

Condensed consolidated statement of changes in equity

(In Euro x 1,000)	Attributable to equity holders of the company				
	Ordinary shares	Share premium	Other reserves	Accumulated losses	Total Equity
Balance at 1 January 2018	**2,577**	**204,296**	**8,252**	**(56,765)**	**158,360**
Comprehensive income					
Result for the half-year	-	-	-	(6,512)	**(6,512)**
Other Comprehensive income for the half-year	-	-	-	-	**-**
Total Comprehensive income for the half-year	-	-	**-**	**(6,512)**	**(6,512)**
Transactions with owners					
- Employee share schemes – value of Employee services	-	-	12	-	**12**
- Issue of ordinary shares	6	-	-	-	**6**
Total transactions with owners	**6**	**-**	**12**	**-**	**18**
Balance at 30 June 2018	**2,583**	**204,296**	**8,264**	**(63,279)**	**151,865**
Balance at 1 January 2019	**2,583**	**204,296**	**9,331**	**(125,053)**	**91,157**
Comprehensive income					
Result for the half-year	-	-	-	(12,607)	**(12,607)**
Other Comprehensive income for the half-year	-	-	-	-	**-**
Total Comprehensive income for the half-year	-	-	**-**	**(12,607)**	**(12,607)**
Transactions with owners					
- Employee share schemes – value of Employee services	-	-	347	-	**347**
- Issue of ordinary shares	1	-	-	-	**1**
- Transfer value share scheme to retained earnings	-	-	(16)	16	-
Total transactions with owners	**1**	**-**	**331**	**16**	**348**
Balance at 30 June 2019	**2,584**	**204,296**	**9,662**	**(137,643)**	**78,899**

Condensed consolidated statement of cash flows

(In Euro x 1,000)	Half-year	
	2019	**2018**
Cash flows from operating activities		
Loss for the half-year	(12,607)	(6,512)
Adjustments for:		
- Depreciation	2,816	574
- Amortization	97	117
- Share of loss in joint ventures	259	3,052
- Share-based payment	347	484
- Finance costs - net	166	36
- Onerous contract expenses	724	
Changes in working capital (excluding exchange differences on consolidation):		
- Decrease in inventories	18	65
- Increase in trade and other receivables	(338)	(4,475)
- Decrease/(increase) in trade and other payables	1,558	(1,071)
- (Decrease)/increase in provisions	(13,079)	8
	(20,038)	**(7,723)**
Interest (paid)	(50)	(45)
Net cash used in operating activities	**(20,088)**	**(7,768)**
Cash flows from investing activities		
Purchases of property, plant and equipment (PPE)	(4,191)	(2,886)
Purchases of intangible assets	(99)	(33)
Payment for acquisition of subsidiary, net of cash acquired	(4,188)	-
Net cash used in investing activities	**(8,478)**	**(2,919)**
Cash flow from financing activities		
Interest received	79	12
Proceeds from issuance of ordinary shares	-	-
Principal elements of lease payments	(1,681)	-
Net cash generated from financing activities	**(1,602)**	**12**
Net decrease in cash and cash equivalent	**(30,168)**	**(10,674)**
Cash and cash equivalents at beginning of the year	83,302	100,237
Effect of exchange rate changes	(8)	(1)
Cash and cash equivalents from at end of half-year	**53,127**	**89,562**

Notes to the condensed financial statements

1. Significant changes in the current reporting period

Impact of implementation of the new accounting standard IFRS 16 Leases

The new IFRS standard "Leases" (IFRS 16) was adopted on 1 January 2019 and replaced the pre-existing standard, IAS 17. As assessed in the prior financial year, and based on the group's current financial position, the adoption of the new standard has a significant impact on the company's consolidated financial statements, as previous off balance sheet operating lease commitments are now being reported on the balance sheet as of 1 January 2019, affecting the balance sheet totals.

The implementation of IFRS 16 also had a favorable impact on the adjusted EBITDA, which forms part of the segment reporting in note 2 of this half-year report. The favorable impact on the adjusted EBITDA is a result of rent expenses previously recorded under operating leases replaced by depreciation expenses and interest expenses, which are reported below adjusted EBITDA. There was no significant impact on current ratios or other metrics used in the group.

Furthermore, IFRS 16 has an impact on the company's consolidated statement of comprehensive income, as the depreciation increased due to the right-of-use asset that was recorded, interest expenses increased due to the lease liability that was recorded, and other categories such as housing and car rental expenditures decreased.

For further information on the impact of implementation of IFRS 16, please refer to note 5.1(c).

Impact of BASF departure from JV and incorporation of Avantium Renewable Polymers B.V. into Avantium

On 18 December, BASF notified Avantium of its exit from the Synvina Joint venture. In accordance with the JV agreement, Avantium had a legal obligation to take back Synvina upon the exit of BASF. This one-off event triggered an onerous contract expense that was provided for in 2018 due to the exit notice of BASF. The provision for an onerous contract was based on the unavoidable costs Avantium incurred due to the exit notice received from BASF.

On 15 January 2019 (i.e. the economic transfer date), Avantium acquired full ownership of Avantium Renewable Polymers B.V., bringing the 49% stake of Avantium in the B.V. to 100%. Avantium regained full control of the B.V and therefore is a wholly owned subsidiary within the group.

On 24 January 2019, Avantium paid BASF €17.4 million for the full ownership of Avantium Renewable Polymers B.V. (formerly known as Synvina C.V.), with the legal transfer of shares taking place on 25 January 2019.

For further information on the changes in composition of the entity, please refer to note 6 and 7.

2. Segment information

Adjusted EBITDA

The main KPI of the company within the profit & loss account is an Adjusted EBITDA figure. Note that the Adjusted EBITDA number excludes overhead. The Adjusted EBITDA is calculated in the following manner:

Operating profit / loss + depreciation & amortization +/- CAPEX

	Half-Year	
(In Euro x 1,000)	**2019**	**2018**
Catalysis	739	1,706
Renewable Chemistries	(5,246)	(2,957)
Renewable Polymers	(4,294)	-
Total adjusted EBITDA	**(8,802)**	**(1,251)**

Total Adjusted EBITDA changed from € -1.3 million in HY 2018 to € -8.8 million in HY 2019. This is mainly as a result from the addition of Avantium Renewable Polymers as a business unit of Avantium as of 2019.

Revenues per segment

	Half-Year	
(In Euro x 1,000)	**2019**	**2018**
Catalysis	4,606	6,239
Renewable Chemistries	450	200
Renewable Polymers	163	-
Total segment revenue	**5,219**	**6,439**

Total segment revenue decreased from € 6.4 million in HY 2018 to € 5.2 million in HY 2019, mainly due to delays in closing new deals in Avantium Catalysis, which is partially offset by the additional revenues from Avantium Renewable Chemistries and Avantium Renewable Polymers.

Reconciliation

	Half-Year	
(In Euro x 1,000)	**2019**	**2018**
Total adjusted EBITDA	**(8,802)**	**(1,251)**
Amortisation	(97)	(117)
Depreciation	(2,816)	(574)
Finance costs - net	(166)	(36)
CAPEX	4,290	2,919
Share based compensation	(347)	(484)
Rent	355	(527)
Share in loss of joint ventures	(259)	(3,052)
Expense for onerous contract	(724)	-
Other	(4,040)	(3,390)
Profit before income tax	**(12,607)**	**(6,512)**

3. Fair value measurement of financial assets and financial liabilities

The fair value of financial assets and financial liabilities is included at the amount at which the instrument could be exchanged in a current transaction between knowledgeable willing parties, other than in forced or liquidation sale. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy defines a three-level valuation hierarchy for disclosure of fair value measurements as follows:

- Level 1: Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2: Observable inputs that reflect quoted prices for identical assets or liabilities in markets that are not active; quoted prices for similar assets or liabilities in active markets; inputs other than quoted prices that are observable for the assets or liabilities; or inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3: Unobservable inputs reflecting the company's own assumptions incorporated in valuation techniques used to determine fair value. These assumptions are required to be consistent with market participant assumptions that are reasonably available.

The carrying amounts of cash and cash equivalents, trade receivables, trade payables and other receivables and payables reported in the condensed consolidated statement of financial position approximate their respective fair values because of the short term nature of these instruments.

4. Related party transactions

Except as disclosed below, there are no material changes to the company's related parties, related party transactions (including their terms and conditions) and (future) obligations towards related parties, compared to 31 December 2018.

During 2019, the composition of the Supervisory Board changed, since Jonathan Wolfson and Gabrielle Reijnen stepped down and Rob van Leen was appointed as a member to the Supervisory Board.
In July 2019, Avantium announced that Frank Roerink, Chief Financial Officer and member of the Management Board, will leave Avantium at the end of 2019. He will continue to fulfill his responsibilities for the remainder of the year. This allows Avantium to start looking for a successor.

In the current reporting period there were 615,000 additional options granted to existing employees, including management, under the company's Employee Stock Options Plan (ESOP).

After the step up acquisition of Synvina C.V., Avantium N.V. acquired the residual controlling interest in the joint venture and consequently the interest in associates was reclassified to investments in subsidiaries.

5. Basis of preparation of half-year report

Avantium N.V. (‘the company’) and its subsidiaries (together ‘the group’) is a company limited by shares, incorporated and domiciled in The Netherlands. Its registered office and principal place of business is at Zekeringstraat 29, 1014 BV in Amsterdam.

The information is reported on half-year-to-date basis ending 30 June 2019. Where material to an understanding of the period starting 1 January 2019 and ending 30 June 2019, further information is disclosed. The interim financial statements were discussed and approved by the Executive Board and the Supervisory Board. The interim financial statements have not been audited.
The interim financial statements should be read in conjunction with Avantium N.V.’s consolidated financial statements in the 2018 annual report as approved on 27 March 2019, which has been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and IFRS Interpretations Committee (IFRS IC) applicable to companies reporting under IFRS. The interim financial statements have been prepared in accordance with IAS 34 ‘Interim financial reporting’.

The significant accounting policies applied in these consolidated interim financial statements are consistent with those applied in Avantium N.V.’s consolidated financial statements in the 2018 annual report for the year ended 31 December 2018, except for the adoption of new and amended standards as set out below.

<u>New and amended standards adopted by the group</u>
The new IFRS standard "Leases" (IFRS 16) became applicable for the current reporting period. The impact of the adoption of the new leasing standard is described below.

5.1) Changes in accounting policies
This note explains the impact of the adoption of IFRS 16 Leases on the group’s financial statements and discloses the new accounting policies that has been applied from 1 January 2019 in note 5.1(b) below.

(a) Transition Method and Practical Expedients utilized
The group has adopted IFRS 16 using the modified retrospective approach with initial application as of 1 January 2019. In applying IFRS 16 for the first time, the group has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics;
- adjust the asset on transition by the amount of any previously recognised onerous lease provision, as an alternative to performing an impairment review;
- the accounting for operating leases with a remaining lease term of less than 12 months as at 1 January 2019 as short-term leases.

The group has also elected not to reassess whether a contract is, or contains a lease at the date of initial application. Instead, for contracts entered into before the transition date the group relied on its assessment made by applying IAS 17.

The group leases various offices, an apartment for PhD students and a number of vehicles. Rental contracts are generally made for fixed periods of 3 to 10 years but may have extension options. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes. Until the end of 2018 financial year, leases of property, plant and equipment were classified as operating leases. Net payments made under operating leases were charged to the consolidated statement of comprehensive income on a straight-line basis over the period of the lease.

From 1 January 2019, leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the group. Each lease payment is allocated between the lease liability and finance cost. The finance cost is charged to the statement of comprehensive income over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. Right-of-use assets are depreciated on a straight-line basis over the remaining term of the lease or over the remaining economic life of the asset, if this is judged to be shorter than the lease term.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payment that are based on an index or a rate
- decommissioning costs
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee’s incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- onerous contract provisions

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise IT-equipment and small items of office furniture.

The amount of short-term and low-value leases included in the statement of comprehensive income for the period amounted to €4,000 and €10,000 respectively.

5.1(b) Adjustments recognised on adoption of IFRS 16

On adoption of IFRS 16, the group recognised lease liabilities in relation to leases, previously classified as 'operating leases' under the principles of IAS 17 Leases. These liabilities were measured at the present value of the remaining lease payments, discounted using the respective incremental borrowing rate as of 1 January 2019. The weighted average incremental borrowing rate applied to the lease liabilities on 1 January 2019 was 2.1%.

(In Euro x 1,000)

Operating lease commitments disclosed as at 31 December 2018	10,170
(Less): short-term leases recognised on a straight-line basis as expense	-
(Less): Low-value leases recognised on a straight-line basis as expense	-
Add/(less): effect of extension options reasonably certain to be exercised	-
Add/(less): adjustments in the index or rate affecting variable payments	-
Undiscounted lease future lease payments	10,170
(Less): effect of discounting using the incremental borrowing rate as at the date of initial application	(713)
Lease liability recognised as at 1 January 2019	**9,457**
Of which are:	
Current lease liabilities	1,106
Non-current lease liabilities	8,352
	9,457

The associated right-of-use assets recognised by the group was measured at the amount equal to the lease liability, adjusted by any amounts prepaid or accrued payments relating to the lease recognised as at 1 January 2019.

There was one onerous lease contract that required an adjustment to the right-of-use assets at the date of initial application, estimated at €492,000.

The recognised right-of-use assets relate to the following types of assets:

in Euro x 1,000	**30 June 2019**	**1 January 2019**
Properties	10,674	8,604
Motor vehicles	312	361
Total right-of-use assets	**10,986**	**8,965**

The change in accounting policy affected the following balance sheet positions on 1 January 2019:

- Right-of-use assets – increased by €8,965,000
- Lease liabilities – increased by €9,457,000.

The net impact on retained earnings on 1 January 2019 was nil.

Included in the right-of-use assets balance position for properties as at 30 June 2019, is the lease liability acquired during the Step up acquisition of Synvina C.V. The carrying value as at 30 June 2019 of this right-of-use asset is €2,664,000. For further information on the balance position acquired on 15 January 2019, refer to note 6.

5.1(c) Impact on disclosures on adoption of IFRS 16

i) Impact on segment disclosures

Adjusted EBITDA increased by €383,000 as a result of the change in accounting policy. The favorable impact on the adjusted EBITDA is a result of rent expenses previously recorded under operating leases replaced by depreciation expenses and interest expenses, which are reported below adjusted EBITDA.

ii) Impact on the consolidated statement of comprehensive income

Depreciation increased by €851,000 due to the depreciation of the right-of-use assets that was recorded on properties and vehicles of €802,000 and €49,000, respectively. Interest expenses increased by €132,000 due to the finance expense on the lease liability that was recorded, and other categories such as housing and car rental expenditures decreased with a similar amount.

6. Business combination

On 15 January 2019 Avantium N.V. acquired 51% of the issued shares in Synvina C.V., for a consideration of €17.4 million.

Given Avantium N.V., before the full acquisition of Synvina, held 49% investment in the Joint venture, the full acquisition of Synvina is considered to be a step-acquisition, and is accounted for using the acquisition method at the acquisition date.

The assets and liabilities recognised as a result of the acquisition are as follows:

(In Euro x 1,000)	**15 January 2019**
Property, plant and equipment	8,226
Right of use assets	2,869
Inventories	137
Cash and cash equivalents	12,435
Other receivables	1,249
Other payables	(5,495)
Other current liabilities	(8,373)
Lease liabilities	(2,869)
Net identifiable assets acquired	**8,179**
Less: Interest in associate and joint venture held	(3,990)
Onerous contract expense recorded in 2018	13,088
Onerous contract expense recorded in 2019	232
Less: Other intercompany settlements	(100)
	17,409

The group’s previously held interest in Synvina was remeasured to its fair value at acquisition-date. Given the composition of the assets acquired in Synvina, mainly consisted of recently acquired PPE, receivables/payables and other financial assets, the assets fair value was deemed to be equal to their respective carrying values as at 15 January 2019. For this reason, the consideration transferred for the controlling interest in the Subsidiary, amounted to €4,189,000 with existing interest valued at €3,990,000.

No goodwill was recorded, as the difference between the consideration paid and fair value of assets and liabilities obtained was recorded as onerous contract provision in 2018 and 2019, respectively.

7. Interests in associates and joint ventures

On 15 January 2019, Avantium N.V. acquired the residual controlling interest in the joint venture, bringing the 49% stake of Avantium in Synvina C.V. to 100%. Consequently, Avantium N.V. gained full control over this investment and the investment was reclassified from interests in associates to investments in subsidiaries.

The carrying amount of the equity-accounted investments changed as follows:

(In Euro x 1,000)

At December 31, 2018	**4,249**
Share in loss of joint venture	(259)
At January 15, 2019	**3,990**
Unwinding of Joint venture	(3,990)
At June 30, 2019	**-**

7. Events occurring after the reporting period

The Mekong demonstration plant is fully assembled at Zeton in Enschede and will be delivered to the Chemiepark in Delfzijl in August 2019. Opening of the demonstration plant is scheduled for November 2019.

Calendar and contact details

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On Tuesday 20 August 2019 at 08:00 am (CET) Avantium will host a conference call for analysts.
The interim report and transcript of the analyst call will be available at www.avantium.com

Financial calendar 2020

Date	Event
25 March 2020	Publication full-year results 2019 and publication annual report 2019
14 May 2020	Annual General Meeting
12 August 2020	Publication of half-year results 2020

About Avantium

Avantium is a leading technology development company and a forerunner in renewable chemistry. We develop technologies that enable production of sustainable products from plant-based raw materials. We work in partnership with like-minded companies around the globe to create revolutionary renewable chemistry solutions from invention to commercial scale. We also help clients in catalytic research by providing proprietary systems and services to improve their products and processes. Avantium's shares are listed on Euronext Amsterdam and Euronext Brussels (symbol: AVTX). 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 behavior 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.

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