Press release

Avantium makes steady progress in challenging year

AMSTERDAM, 27 March 2019, 07:00 CET

Key business developments full year 2018

- Acquisition of full ownership of Synvina and our YXY plants-to-plastics technology opens new avenues of commercialization; Marcel Lubben appointed Managing Director of our Synvina business unit
- Construction of the Mekong demonstration plant commenced in June 2018; €2.5 million granted by the European Innovation Council; plant opening in Delfzijl expected in second half of 2019
- Dawn Technology™ pilot biorefinery opened in Delfzijl in July 2018; €1.8 million subsidy granted by the Province of Groningen

Key financial developments full year 2018

- Consolidated revenues from operations decreased to €11.3 million (FY 2017: €12.7 million), due to a delay in closing new deals in Avantium's Catalysis System business. This was partly offset by first-time revenues in Renewable Chemistries (related to Dawn Technology™ and Mekong)
- Reported net loss for the year 2018 amounted to €68.4 million (FY 2017: €16.8 million), with an underlying loss of €18.4 million. The one-off expenses and impairment losses relating to Avantium acquiring 100% ownership of Synvina amounted to €50.0 million
- Cash position €83.3 million (31 December 2017: €100.2 million). The 2018 cash outflow was due to planned-for investments in our Renewable Chemistries programs, in line with our strategic plan

Tom van Aken, CEO of Avantium: "Last year was challenging for Avantium, with the dissolution of our Synvina joint venture with BASF leading to an adjustment of our plans for our YXY plants-to-plastics technology. We remain determined to bring the YXY technology to market and build a successful venture for all our stakeholders. I strongly believe that our unique know-how and the value chain we have built around YXY will allow us to unlock the market potential. Big-picture developments in our industry are encouraging; last year was pivotal for the plastics industry as circular thinking became enshrined in policy and legislation. Avantium applauds this development and is ready to move forward as we have advanced two of our other unique plants-to-plastics technologies – Dawn™ and Mekong – from laboratory to pilot scale."

Business overview

Synvina

Last year was difficult for the Synvina joint venture. After the pilot plant phase was extended in January 2018, BASF announced its exit from Synvina in December 2018. In January 2019, Avantium acquired full ownership of Synvina and its YXY technology, bringing Avantium's 49% stake in Synvina to 100%. Avantium paid BASF €17.4 million for full ownership of Synvina, with the transfer of shares taking place on 25 January 2019. Synvina became a business unit of Avantium, alongside the Catalysis and Renewable Chemistries business units. Industry veteran Marcel Lubben has joined from DSM and has been appointed Managing Director of Synvina, with a mandate to lead commercialization of the YXY technology.

Synvina made significant progress in advancing its technology. The issues announced in January 2018 have since been solved and we are convinced that the work done will spur the commercialization of FDCA and PEF and create value for all our stakeholders. The main drivers in the plastics market remain sustainability and circularity; consumers and brand owners increasingly demand environmentally friendly and recyclable materials. This is a strong basis for PEF, which is 100% plant-based and recyclable with unique properties of its own.

In 2018 we lost an important partner, BASF. Now that we have acquired 100% ownership of Synvina, Avantium can explore new avenues of commercializing our YXY technology. We have seen that on top of demand in packaging materials (for example bottles), there is also a strong market for PEF in higher value applications (for example high barrier films) which we should take into account.

Avantium is also exploring different scenarios with potential partners so that we redefine our strategy in a way that meets both market and capital requirements. We will make further announcements on this during our Technology Day on Thursday 6 June 2019.

Mekong

We advanced our Mekong technology by starting construction of a demonstration plant that will convert industrial sugars into mono-ethylene glycol (MEG), a component for making materials for everyday consumer goods such as PEF and PET and polyester textiles. The objective is to scale up our novel plant-based MEG technology and validate the technical and commercial feasibility of the process. We also plan to collect data to execute an independent environmental life-cycle analysis (LCA) quantifying the sustainability benefits of our Mekong technology. The European Innovation Council has awarded our Mekong technology a €2.5 million grant as part of its Horizon 2020 SME instrument. This grant supports groundbreaking innovative ideas for products, services or processes which are ready to conquer global markets. We also made strides in developing partnership

opportunities to bring this technology to full-scale commercialization globally by signing several collaboration agreements.
Yesterday, we announced that the Mekong demonstration plant will be located in Delfzijl, the Netherlands, close to our Dawn™ pilot biorefinery.

Dawn Technology™

On 10 July 2018, Avantium opened a pilot biorefinery for our proprietary Dawn Technology™ in Delfzijl. Dawn Technology™ converts non-food feedstock to industrial sugars and lignin. The province of Groningen provided financial support for this pilot plant with a €1.8 million subsidy. The pilot biorefinery has maximum capacity of 20 tons of dry wood chips per year and its aims are to scale up and optimize the technology and validate the economics and applications. We are already preparing for a flagship plant for larger-scale commercial production. Avantium aims to license its Dawn Technology™ to partners.

To optimize Dawn™, Avantium founded a consortium of partners committed to developing a commercial biorefinery in Delfzijl, tapping into local expertise, utilities and infrastructure. Each partner in the industrial ecosystem brings specific expertise and functionality to the biorefinery. The consortium consists of chemistry company Nouryon, energy company RWE, which uses the lignin for energy generation, the Dutch forestry agency Staatsbosbeheer, which provides sustainably sourced woodchips, and Chemport Europe.

Our Dawn Technology™ has significant potential, particularly in areas with an abundance of biomass from agriculture or forestry residues. Discussions continue globally with potential partners who have expressed an interest in licensing the Dawn Technology™ for local deployment. In 2018, we performed techno-economic evaluations in 10 locations around the globe to assess whether converting biomass to industrial sugars could be commercially viable.

Volta

The Volta technology program, our platform to convert CO_2 to higher value chemicals, continues to progress at our laboratories in the Amsterdam Science Park. We are a founding member and have a board seat on the industrial association CO2 Value Europe. Here, we engage with companies and research institutions that share our belief that carbon capture and utilization technologies are part of our circular future.

Catalysis

Avantium Catalysis helps clients accelerate their catalyst research and development and consists of a service and a systems business. Our Services business offers the execution of in-house customized contract catalyst research projects. Our Systems business is comprised of our unique and advanced Flowrence high-throughput catalyst testing systems.

Catalysis performed below plan with revenue variability from one period to the next. We recorded lower revenues in 2018, due to a slowdown in signing several sales transactions for our Flowrence systems. We held a planned shutdown of our labs in Amsterdam in the summer of 2018, relating to an investment in the air treatment and ventilation systems. Our Services business performed well, particularly Refining Catalyst Testing. We also saw accelerating demand from Asia and conducted several projects for Chinese customers in the petrochemical industry.

Financial results

Consolidated statement of comprehensive income and segment reporting

Consolidated revenues from operations decreased 11% from €12.7 million in 2017 to €11.3 million in 2018, mainly driven by the lumpiness of landing larger deals in our Catalysis business unit. Lower revenues from the business unit were partly offset by higher first-time revenues in Renewable Chemistries (related to Dawn Technology™ and Mekong) in a number of collaborations.

Avantium's underlying loss for the year 2018 amounted to €18.4 million, with a reported net loss of €68.4 million (FY 2017: €16.8 million). The one-off expenses and impairment losses relating to Avantium acquiring 100% ownership of Synvina amounted to €50.0 million. This €50.0 million is made up of €36.9 million Synvina impairments, while €13.1 million relates to onerous contract expenses in 2018.

Due to the exit of BASF, management performed an impairment assessment on Synvina. Although the market, product and technology assumptions of the business case have not changed significantly, the probability of the original business case due to BASF's exit has decreased substantially. This triggers an impairment of Synvina's intangible assets, certain capitalized development expenses in relation to the reference plant and the unwinding of contractual obligations to BASF following the exit notice.

Based on the joint venture agreement, Avantium acquired all shares at the exit. To reflect this, management recorded an onerous contract provision amounting to €13.1 million in the 2018 financial statements. The table below shows the provision and the related expense with regard to the onerous contract.

(In Euro x 1,000,000)	
Net asset value Synvina as at December 31, 2018	**8.7**
Minus value of 49% stake Avantium	(4.3)
Net asset value to be acquired by Avantium	**4.4**
Intercompany settlement	(0.1)
Gross payment for equity stake in Synvina	(17.4)
Onerous contract provision	**(13.1)**

Underlying operating expenses in 2018 decreased slightly totaling €22.5 million (FY1 2017: €22.7 million), mainly due to €1.0 million lower expenses in raw materials and contract costs, which is directly related to the lower recognized revenues. This is partly offset by higher depreciation and amortization expenses of €1.8 million (FY 2017: €0.9 million), which are directly attributable to our increased investments in constructing the Dawn Technology™ pilot biorefinery and Mekong demonstration plant. Additionally, Avantium incurred onerous contract expenses of €13.1 resulting from Avantium acquiring 100% ownership of Synvina, as described above.

Total adjusted EBITDA decreased in line with plan from €-4.2 million in full-year 2017 to €-7.7 million in full-year 2018. Increased investments in building the new Dawn Technology™ pilot biorefinery in Delfzijl, construction of the Mekong demonstration plant and investments in early stage programs led to a lower adjusted EBITDA of Renewable Chemistries. The adjusted EBITDA of Catalysis declined as a result of lower revenues.

Condensed consolidated statement of comprehensive income

in Euro x 1,000	**Year ended 31 December**	
	2018	**2017**
Continuing operations		
Revenues	11,283	12,652
Expenses		
Raw materials and contract costs	(3,065)	(4,030)
Employee benefit expenses	(10,094)	(10,611)
Depreciation, amortization and impairment charge	(1,799)	(885)
Office and housing expenses	(2,208)	(1,649)
Patent, license, legal and advisory expenses	(1,897)	(2,122)
Laboratory expenses	(1,737)	(1,348)
Advertising and representation expenses	(1,311)	(1,130)
Expense due for onerous contract	(13,088)	-
Other operating expenses	(447)	(988)
Operating loss	**(24,362)**	**(10,111)**
Finance income	19	50
Finance costs	(87)	(667)
Finance costs - net	**(68)**	**(617)**
Share in loss of joint ventures	(43,948)	(6,032)
Loss before income tax	**(68,378)**	**(16,760)**
Income tax expense	-	-
Profit / (loss) for the period	**(68,378)**	**(16,760)**
Other comprehensive income		
Share of other comprehensive income of joint ventures accounted for using the equity method	**-**	**-**
Total comprehensive income / (expense) for the year	**(68,378)**	**(16,760)**
Profit / (Loss) attributable to:		
Owners of the parent	(68,378)	(16,760)
	(68,378)	**(16,760)**
Total comprehensive income / (expense) attributable to:		
Owners of the parent	(68,378)	(16,760)
	(68,378)	**(16,760)**

	Year ended 31 December	
Earnings per share for profit from continuing operations attributable to the ordinary equity holders of the company	**2018**	**2017**
Basic earnings per share	(2.65)	(0.72)
Diluted earnings per share	(2.65)	(0.72)
Earnings per share for profit attributable to the ordinary equity holders of the company		
Basic earnings per share	(2.65)	(0.72)
Diluted earnings per share	(2.65)	(0.72)

Balance sheet and financial position

The balance sheet total decreased to €113.9 million (31 December 2017: €168.8 million), with net equity of €91.2 million.

Condensed consolidated statement of financial position[1]

in Euro x 1,000	As at 31 December	
	2018	**2017**
Assets		
Non-current assets		
Property, plant and equipment	15,186	8,811
Intangible assets	722	833
Finance lease liabilities	-	
Investments in joint ventures and associates	4,249	48,197
Total non-current assets	**20,157**	**57,841**
Current assets		
Inventories	1,160	1,255
Trade and other receivables	9,307	9,478
Cash and cash equivalents	83,302	100,237
Total current assets	**93,769**	**110,970**
Total assets	**113,926**	**168,811**
Liabilities		
Non-current liabilities		
Borrowings	-	-
Total non-current liabilities	**-**	**-**
Current liabilities		
Borrowings	-	-
Trade and other payables	9,525	10,314
Provisions for other liabilities and charges	13,244	137
Total current liabilities	**22,769**	**10,451**
Total liabilities	**22,769**	**10,451**
Equity		
Equity attributable to owners of the parent		
Ordinary shares	2,583	2,577
Share premium	204,296	204,296
Other reserves	9,331	8,252
Accumulated losses	(125,053)	(56,765)
Total equity attributable to the owners of the parent	91,157	158,360
Total equity	**91,157**	**158,360**
Total equity and liabilities	**113,926**	**168,811**

[1] The consolidated statement of financial position has been prepared before appropriation of current year result.

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Our cash and cash equivalents totaled €83.3 million as at 31 December 2018 (31 December 2017: €100.2 million). We have no debt. The cash outflow of 2018 was planned for and resulted from investments in our Renewable Chemistry programs, in line with our strategic plan. We continued to operate according to strict working capital management and reduced capital expenditures to protect the cash position of our company. We will continue our risk management strategy of minimizing our foreign exchange and interest volatility. Although this impact is not material, and as such does not require financial hedging, we continue to monitor this exposure periodically and adjust where necessary. We will continue to carefully manage our capital risk, as expressed in our solvency ratio.

The facility agreement the company holds with Rabobank includes a €4.0 million committed credit facility, and a €2.0 million committed bank guarantee facility. Avantium did not make use of the credit facility and will keep the facility as an additional buffer. At year-end, we received a waiver statement with regard to the financial covenants as agreed with Rabobank, mainly related to tangible net worth requirements, as Avantium did not comply with this definition at the time. The waiver statement relates to an amendment to the original agreement and a new financial covenant being at least €60.0 million tangible net worth, following the notice of BASF to exit the joint venture Synvina.

Condensed consolidated statement of cash flows

in Euro x 1,000	Year ended 31 December	
	2018	**2017**
Cash flows from continuing operations		
Cash flows from operating activities		
Loss for the year from continuing operations	(68,378)	(16,760)
Adjustments for:		
- Depreciation	1,550	723
- Amortization	249	162
- Share in loss of joint ventures	43,948	6,032
- Share-based payment	1,169	2,783
- Finance costs - net	68	617
Changes in working capital (excluding exchange differences on consolidation):		
- (Increase) in inventories	95	(65)
- (Increase) in trade and other receivables	171	1,513
- Increase in trade and other payables [1]	(789)	(847)
- Increase in provisions	13,107	(29)
	(8,810)	**(5,871)**
Interest (paid)	(24)	(48)
Net cash used in operating activities	**(8,834)**	**(5,919)**
Cash flows from investing activities		
Purchases of property, plant and equipment (PPE)	(7,958)	(4,828)
Purchases of intangible assets	(120)	(188)
Net cash used in investing activities	**(8,078)**	**(5,017)**
Cash flow from financing activities		
Interest received	19	50
Proceeds from issuance of ordinary shares	-	108,602
Incremental costs paid directly attributable to IPO [2]	-	(6,314)
Repurchase of shares	-	(624)
Repayments of borrowings	-	(4,722)
LTIP investmestment shares granted	-	-
Other interest received	43	-
Other interest paid and financing costs	(80)	(40)
Net cash generated from financing activities	**(18)**	**96,953**
Net increase / (decrease) in cash, cash equivalents	**(16,930)**	**86,017**
Cash and cash equivalents at beginning of the year	100,237	14,223
Effect of exchange rate changes	(5)	(3)
Cash and cash equivalents from continuing operations at end of financial year	**83,302**	**100,238**

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

The adjusted EBITDA figures of the company segments are as follows.

(In Euro x 1,000)	**2018**	**2017**
Catalysis	1,982	2,810
Renewable Chemistries	(9,672)	(7,095)
YXY	-	73
Total adjusted EBITDA	**(7,690)**	**(4,211)**

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

Revenues per segment

(In Euro x 1,000)	**2018**	**2017**
Catalysis	10,873	12,504
Renewable Chemistries	410	-
YXY	-	147
Total segment revenue	**11,283**	**12,652**

Reconciliation

(In Euro x 1,000)	**2018**	**2017**
Total adjusted EBITDA	**(7,690)**	**(4,211)**
Amortisation	(249)	(162)
Depreciation	(1,550)	(723)
Finance costs - net	(68)	(617)
CAPEX	8,058	5,015
Share based compensation	(1,384)	(2,783)
Rent	(1,006)	(717)
Share in loss of joint ventures	(43,948)	(6,032)
Expense for onerous contract	(13,088)	-
Other	(7,452)	(6,530)
Profit before income tax from continuing operations	**(68,378)**	**(16,760)**

The ‘Other’ costs category consists mainly of company overhead costs. The increase in other costs in 2018 was mainly due to organizational growth and investments in the company’s operating segments.

Events after the balance sheet date

In December 2018, BASF announced its exit from the Synvina joint venture as per 15 January 2019. On 25 January 2019, Avantium acquired 100% ownership of Synvina, paying BASF €17.4 million for its 51% equity stake in Synvina. Synvina became an Avantium business unit, alongside Renewable Chemistries and Catalysis.

The pro forma balance sheet below is intended to clarify the balance sheet movements between 31 December 2018 and 31 January 2019 relating to the acquisition of the 51% BASF stake on 25 January 2019. Note that all other balance sheet movements not relating to the acquisition are left out. The main elements to highlight are:

1. Cash & cash equivalents reduced by €17.4 million, which relates to the gross cash payment made to BASF.
2. Property, plant & equipment increased by €8.0 million, relating to Synvina's assets being recorded into the Avantium balance sheet.
3. Investments in joint ventures and associates decreasing by €4.2 million, i.e. the unwinding of the JV.
4. Provisions for other liabilities and charges decreasing by €13.1 million, i.e. the provision for an onerous contract booked as per 2018 year-end relating to the dissolution of the Synvina joint venture.

Consolidated balance sheet Avantium N.V. *in Euro x 1,000*	Proforma 31 January 2019	Audited 31 December 2018
Assets		
Non-current assets		
Property, plant and equipment	23,186	15,186
Intangible assets	722	722
Finance lease liabilities	-	-
Investments in joint ventures and associates	-	4,249
Total non-current assets	**23,908**	**20,157**
Current assets		
Inventories	1,160	1,160
Trade and other receivables	9,307	9,307
Cash and cash equivalents	65,793	83,302
Total current assets	**76,260**	**93,769**
		0
Total assets	**100,168**	**113,926**
Liabilities		
Non-current liabilities		
Borrowings	-	-
Total non-current liabilities	**-**	**-**
Current liabilities		
Trade and other payables	9,525	9,525
Provisions for other liabilities and charges	(103)	13,244
Total current liabilities	**9,422**	**22,769**
		0
Total liabilities	**9,422**	**22,769**
Equity		
Equity attributable to owners of the parent		
Ordinary shares	2,583	2,583
Share premium	204,296	204,296
Other reserves	9,331	9,331
Retained earnings	(125,465)	(125,053)
Total equity attributable to the owners of the parent	**90,745**	**91,157**
Total equity and liabilities	**100,168**	**113,926**

In March 2019, Avantium decided to site the new demonstration plant for its Mekong technology in Chemie Park Delfzijl. A key factor behind Avantium's decision to build the Mekong plant in Delfzijl is a €2 million grant from the European Regional Development Fund, facilitated by Partnership Northern Netherlands (Samenwerkingsverband Noord-Nederland). This grant is intended to accelerate innovation in the quest for a low-carbon economy.

Outlook

In January 2019, Avantium acquired full ownership of the Synvina business including the YXY plants-to-plastics technology. Avantium strongly believes in the YXY technology and the unique properties of PEF. PEF can fulfil the demand of leading brands and consumers for next-generation materials that are environmentally friendly and recyclable, and has the potential to be a game changer in the circular economy. Avantium is redefining the path to commercialization for the YXY technology and will make further announcements on its new strategy to commercialize YXY during our Technology Day on Thursday 6 June 2019.

For our Mekong technology, the construction of a demonstration plant is on track, with the opening scheduled for the second half of 2019. This demonstration plant will have a nameplate capacity of around 10 tons per year to produce plant-based MEG.

Building on the success of the Dawn Technology™ pilot biorefinery, Avantium estimates that the design of the Dawn Technology™ flagship biorefinery will commence in late 2019. Avantium expects to make further strides in building licensing partnerships for our Dawn Technology™ in 2019.

In Catalysis we aim for gradual profitable growth in the segments of the catalysts market we already operate in and continue to expand in new markets.

Calendar and contact details

More information about this press release:

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Presentation of the full year 2018 results on 27 March 2019

On Wednesday 27 March 2019 at 08:00 am (CET) Avantium will host a conference call for analysts.

This press release and the 2018 annual report are available at www.avantium.com.

Financial calendar 2019

Date	Event
27 March 2019	Publication full year results 2018 and publication annual report 2018
15 May 2019	Annual General Meeting
6 June 2019	Technology Day
20 August 2019	Publication of half-year 2019 results

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.