



AVANTIUM Annual General Meeting of Shareholders

14 May 2020

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1. Welcome & Introduction

Attendees

Supervisory Board



Edwin Moses,
Chairman



**Margret
Kleinsman,**
Chair Audit
Committee



Denis Lucquin

Management Board



Tom van Aken,
CEO

Other



Bart Welten,
CFO



**Carmen
Portocarero,**
General Counsel



Michelle Jou



**Antoine
Westerman,**
Partner PWC



Joyce Leemrijse,
Notary A&O

Review 2019





2. Annual Report for the financial year 2019



Impact of the Coronavirus on Avantium - people

- **We do everything we can to safeguard the continuity of our business, while doing our part to prevent the further spread of the Coronavirus**
- **The health and safety of our people is of paramount importance:**
 - Majority of office employees working from home
 - Travel ban
 - Strict hygiene and social distancing guidelines
 - Corona crisis team at management team level coordinates all relevant aspects for operations and the health and safety on a daily basis



Impact of the Coronavirus on Avantium - business

- **Measures have been taken to minimise the impact of the pandemic and to continue operations in all our businesses**
- **Looking ahead, we see increased uncertainties following the COVID-19 worldwide outbreak and market volatility:**
 - Risk of lower revenues in Catalysis, Renewable Chemistries and Renewable Polymers business units due to travel restrictions, low petroleum prices and economic uncertainty
 - Risk of delays in achieving technical and commercial milestones
 - Risks of partners delaying decisions to collaborate with Avantium or not willing to enter into long-term commitments due to economic uncertainty
 - Higher volatility capital markets may impact our ability to secure financing



Avantium in 2019 at a glance

Number of safety accidents

1

2018: 0

Newly granted patents

31

2018: 15

Newly reported inventions

87

2018: 110

Investments

€8.5_{mln}

2018: €8.1 mln

Consolidated revenues

€13.8_{mln}

2018: €11.3 mln

Number of FTE's

209

2018: 169

Nationalities employed

19

2018: 17

Number of government grant projects

27

2018: 23

Government grants recognized*

€4.2_{mln}

2018: €3.6 mln

*Excluding WBSO

2019 was a pivotal year for Avantium

- **Renewable Polymers** made good progress with the implementation of its revised commercialisation strategy:
 - Chemie Park Delfzijl selected as the location for its flagship plant
 - The first important financing milestones were reached
 - The first part of the engineering (process design package) of Avantium's flagship FDCA plant has been completed in March 2020
- **Renewable Chemistries** advances its lead technologies (Ray, Dawn and Volta) towards commercialisation:
 - Secured €9 million in European and regional grants
 - Opening of Ray Technology™ demonstration plant in November 2019
 - Volta scaled up to pre-pilot units in Prodock
- **Catalysis** recorded strong revenue growth of 15%
- Avantium to be included again in Euronext Amsterdam SmallCap Index



Avantium Renewable Polymers

Renewable Polymers: scaling up YXY[®] Technology



LAB PHASE

- 2008
- Amsterdam
- Kilogrammes
- Innovative research



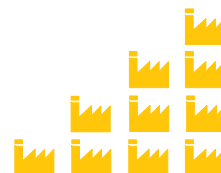
DEMONSTRATION PHASE

- 2011 - now
- Geleen
- Tonnes
- Technology development



COMMERCIAL PHASE

- 2023
- Delfzijl
- 5 kilotonnes
- Commercial launch FDCA & PEF



INDUSTRIAL PHASE

- 2024 and further
- Global roll-out
- Roll-out to industrial scale (> hundreds of kilotonnes)
- Licensing



Scale-up and Market Launch Strategy



Scale of flagship plant

5 kilotonnes a year



Purpose

- Market launch
- Enabling licensing in high-volume markets



Location

Chemie Park Delfzijl



Partners

Committed partners throughout the value chain



Market focus

High-value PEF applications



Timing

Investment decision end of 2020, with the goal to have the flagship plant operational in ~2023



Financial objective

Cash flow positive



Funding

€150 million

Chemie Park Delfzijl



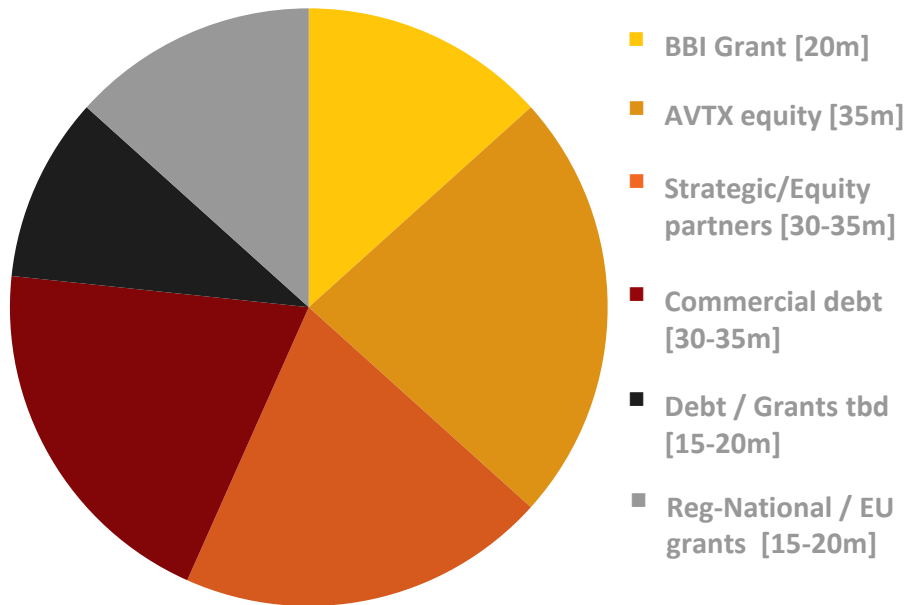
- Steam
- Water
- Electricity
- Nitrogen
- - - Fence around Chemie Park Delfzijl

Funding FDCA Flagship Plant

Total funding need

- € 150 million (\pm 20% contingency)
 - CAPEX
 - Start up costs
 - Working capital
 - Ongoing Renewable Polymers expenses (2019-2023)
- December 2019: **BBI grant** of approx. €20 million
- January 2020: €30 million financing package from a regional consortium, comprising **grants, debt and equity**
- Focus is now on strategic partners

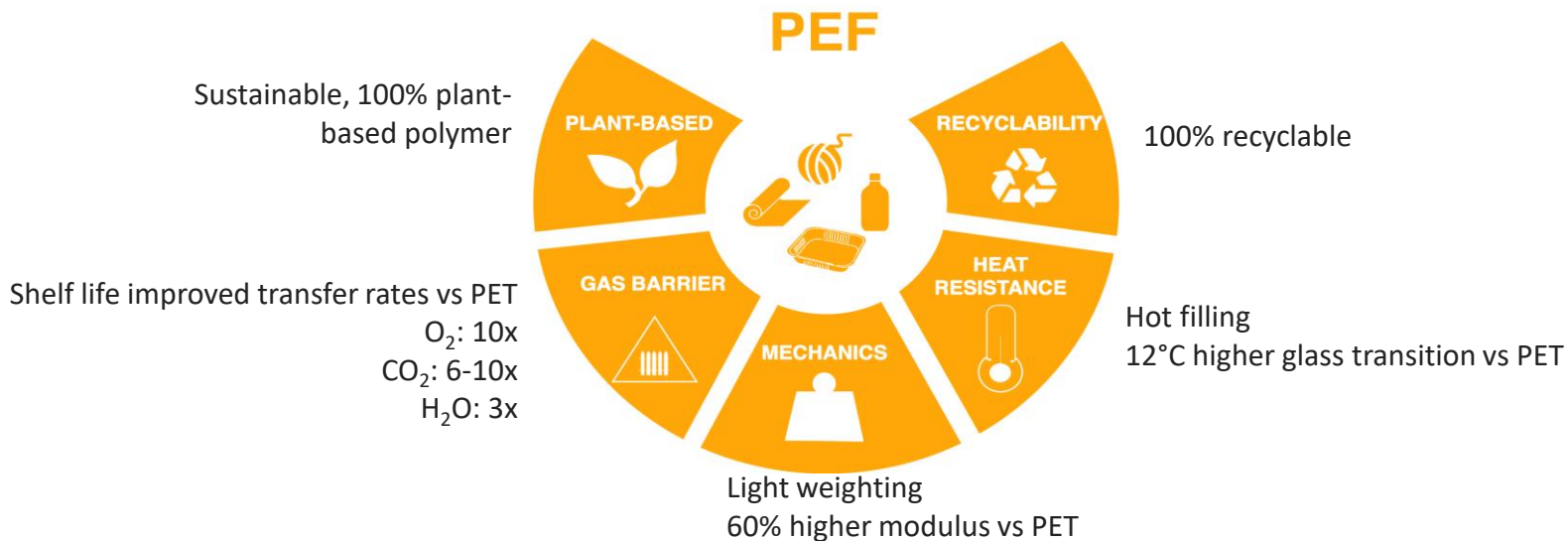
Funding sources



PEF, the polyester of the future

Highly differentiating performance characteristics

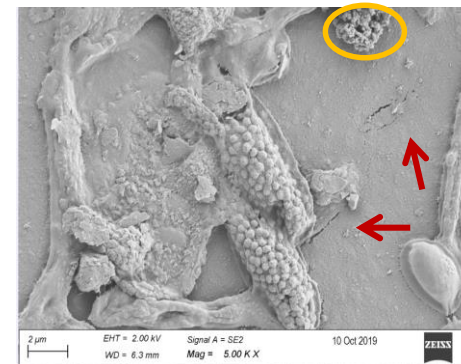
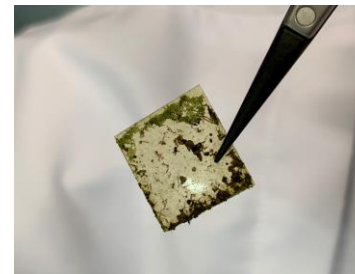
- Improved barrier properties, leading to longer shelf life of packaged food and drinks
- Higher mechanical strengths and numerous shaping possibilities
- Renewable, re-usable and light weighting



PEF benefits

After use

- Designed for recycling and reuse
 - Proven fit with existing sorting and recycling facilities
 - 100% recyclable
 - Addressing goals set by governments
(e.g. in the EU, all plastic bottles will need to contain at least 30% of recycled material by 2030)
- What happens if PEF ends up in nature?
 - Tests degradation of PEF by Organic Waste Systems (OWS), Gent, Belgium show that PEF is degradable under industrial composting conditions (250-400 days with air / oxygen @ 58°C in soil)
 - Degradability of PEF under ambient conditions is currently under investigation under an Avantium-led 10 year field trial



High-value PEF applications



Multilayer packaging

Replace with single material PEF layers, reducing cost of packaging while enabling recycling



Enhanced bottles

PEF in small volume CSD/beer bottles or as barrier layer providing performance and enabling recycling



Optical film

Enable thinner LCD/OLED displays

Example: Carlsberg Paper Bottle

- Avantium joined the Paper Bottle Company (Paboco®) to develop a paper bottle
- Paper Bottle Project is an innovation community joining leading brands including Carlsberg, Coca-Cola Europe, L'Oréal and The Absolut Company
- Carlsberg presented the first prototypes of the paper bottle in October 2019:
 - PEF will provide the Paper Bottle with the high barrier properties (the ability to withstand gas permeability through the bottle) needed for beverages such as beer and carbonated soft drinks

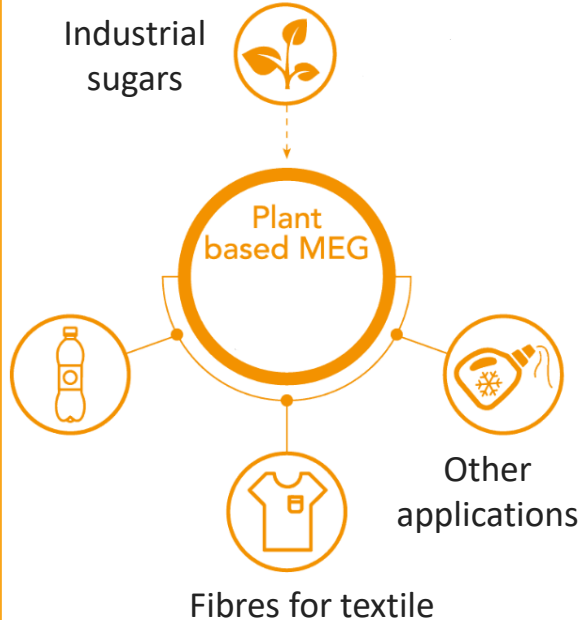




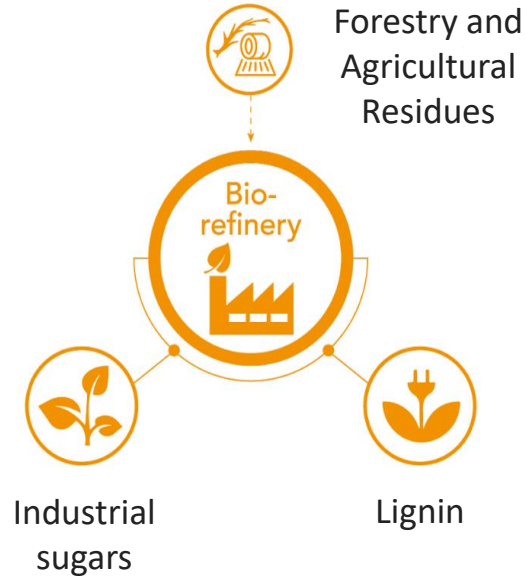
Avantium Renewable Chemistries

Three leading renewable chemistry programs

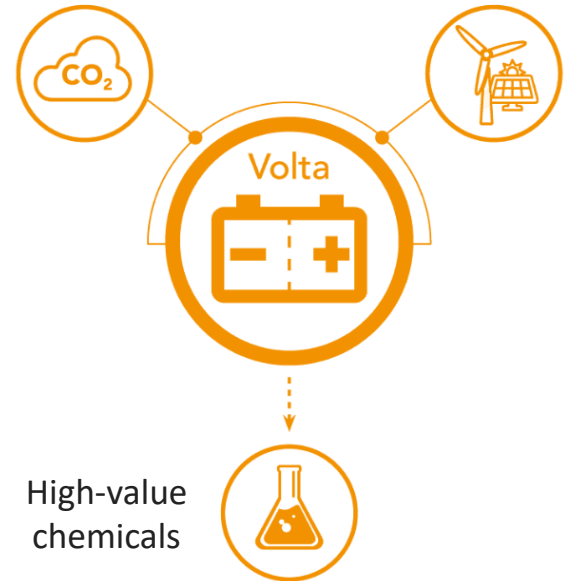
Ray Technology™



Dawn Technology™



Volta Technology



Securing over €9 million in EU and regional grants

- In 2019, Avantium secured over €9 million in European Union and regional grants for **Ray Technology™** and **Dawn Technology™**:
 - a €2 million grant from the European Regional Development Fund
 - a €1.3 million grant from the Bio-Based Industries Joint Undertaking (BBI JU)
 - A €6 million EU grant as part of a SPIRE grant
- As part of this SPIRE grant, Avantium is coordinating a four-year research programme called IMPRESS:
 - Aim is to demonstrate a new biorefinery concept based on integrating novel processes such as Avantium's **Dawn and Ray Technologies** for the first time
 - Also intends to develop new separation and purification methods by using the advanced high throughput R&D systems of **Avantium Catalysis**

Renewable Chemistries: scaling up Ray Technology™

Opening Ray Technology™ demonstration plant November 2019



LAB PHASE



DEMONSTRATION PHASE

- Opening Demonstration plant 7 November 2019 (Delfzijl)
- Proving the technology
- Proving the economic feasibility



COMMERCIAL PHASE



INDUSTRIAL PHASE



Renewable Chemistries: scaling up Dawn Technology™

Completed first full year of operations of pilot biorefinery in 2019

- In 2019, the Dawn Technology pilot biorefinery ran several feedstock trials for partners
- In April 2020, Avantium's Dawn Technology™ was awarded €0.5 million to produce lignin for the development of bio-based asphalt
 - DAWN Drive: At the end of 2020, a road will be constructed @Groningen Seaports, which is made from Avantium's plant-based lignin as a substitute for fossil-based bitumen in asphalt



Renewable Chemistries: scaling up Volta Technology

Beyond lab phase

- Avantium's Volta team cooperates with over 35 partners in European grant consortia, also providing Avantium with over €5m of grants
- In 2019, Avantium opened a pre-pilot test unit for the Volta technology at the Port of Amsterdam





Avantium Catalysis



Strong revenue growth Avantium Catalysis

- Avantium Catalysis recorded strong revenue growth of 15%, mainly driven by increased systems sales:
 - **Catalysis Systems** further enhanced its presence in the growing Asian market
 - There is a growing demand for the smaller testing unit Flowrence XD, with 5 units delivered in 2019
- **Catalysis Services** has developed a strong, international customer base:
 - Renewal long-running partnership with Shell for four additional years
 - Expansion of our Refinery Catalyst Testing capacity to better serve the strong demand from customers



Publication date: 25 March 2020

**Along with the 2019 Annual Report and Earnings, we also published
Avantium's Sustainability Manifesto**

Sustainability priorities

We structure our sustainability priorities under
three pillars



By the end of 2020, we will develop and publish a time-bound action plan setting out ambitious 2030 targets across all these areas



Key financial developments during 2019

- **Consolidated revenues** from operations increased by 22% to €13.8 million (FY 2018: €11.3 million), mainly driven by increased systems sales by Avantium Catalysis
- Reported net **loss** for 2019 amounted to €23.5 million (versus loss of €68.3 million in 2018)
- **Cash** position at 31 December 2019 was €45.4 million (31 December 2018: €83.3 million)
 - Excluding a one-off payment of €17.4 million to regain full ownership of Avantium Renewable Polymers (formerly known as Synvina), cash out of operations was €21 million



3. Remuneration Report 2019 *(advisory vote)*

Remuneration Report 2019



Reference is made to the Remuneration Report 2019, published on the website of Avantium





4. Adoption of the Annual Accounts 2019 (*voting item*)

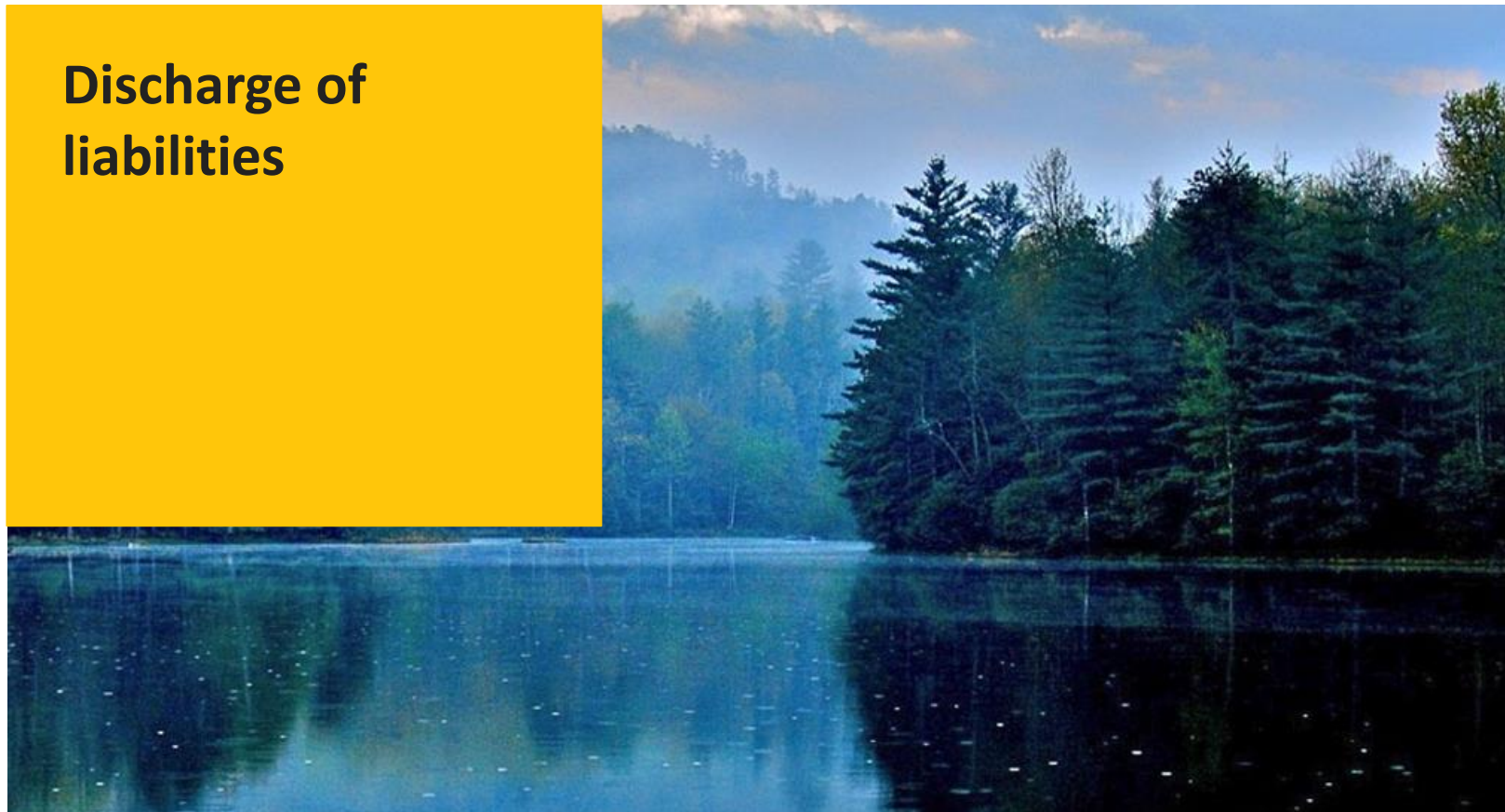
Annual Accounts 2019



Reference is made to the Annual Report 2019, published on the website of Avantium



Discharge of liabilities





5a. Discharge from liability of members of the Management Board for the performance of their duties in financial year 2019 (*voting item*)



5b. Discharge from liability of members of the Supervisory Board for the performance of their duties in financial year 2019 (*voting item*)

Remuneration Policies





6a. Adoption of the remuneration policy for the Management Board (*voting item*)



6b. Adoption of the remuneration policy for the Supervisory Board (*voting item*)

Composition Management Board





7. Appointment of Mr B. Welten as a statutory member of the Management Board (*voting item*)



Composition Supervisory Board



8. Appointment of Mrs M. Jou as member of the Supervisory Board (*voting item*)

Authorisation shares





- 9a. Designation of the Management Board to issue up to 5% ordinary shares and to exclude pre-emptive rights in connection with the Company's long term incentive and share-based compensation plans (*voting item*)



- 9b. Designation of the Management Board to issue 20% ordinary shares and to exclude pre-emptive rights (*voting item*)



- 9c. Authorisation of the Management Board to repurchase shares in the share capital of Avantium on behalf of Avantium (*voting item*)

Other (corporate) affairs



10. Appointment of PricewaterhouseCoopers Accountants N.V. as external auditor for the financial year 2020 (*voting item*)



11. Any other business

Preliminary voting results

No.	Agenda item	Outcome
3	Remuneration Report 2019 (<i>advisory vote</i>)	Adopted
4	Adoption of the Annual Accounts 2019	Adopted
5 (a)	Discharge from liability of members of the Management Board for the performance of their duties in the financial year 2019	Adopted
5 (b)	Discharge from liability of members of the Supervisory Board for the performance of their duties in the financial year 2019	Adopted
6 (a)	Adoption of the remuneration policy of the Management Board	Adopted
6 (b)	Adoption of the remuneration policy of the Supervisory Board	Adopted
7	Appointment of Mr B. Welten as a statutory member of the Management Board	Adopted

Preliminary voting results

No.	Agenda item	Outcome
8	Appointment of Mrs M. Jou as member of the Supervisory Board	Adopted
9 (a)	Designation of the Management Board to issue up to 5% ordinary shares and to exclude pre-emptive rights in connection with the Company's long term incentive and share-based compensation plans	Adopted
9 (b)	Designation of the Management Board to issue 20% ordinary shares and to exclude pre-emptive rights	Adopted
9 (c)	Authorisation of the Management Board to repurchase shares in the share capital of Avantium on behalf of Avantium	Adopted
10	Appointment of PriceWaterhouseCoopers Accountants N.V. as external auditor for the financial year 2020	Adopted



12. Closing (including Q&A)