



# AVANTIUM Annual General Meeting of Shareholders

19 May 2021

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# Agenda items

1	Opening
2	Annual Report for the financial year 2020
3	Remuneration Report 2020 (advisory vote)
4	Adoption of the Annual Accounts 2020 (voting item)
5a	Discharge from liability of members of the Management Board for the performance of their duties in financial year 2020 (voting item)
5b	Discharge from liability of members of the Supervisory Board for the performance of their duties in financial year 2020 (voting item)
6	Re-appointment of Mr T.B. van Aken as CEO and member of the Management Board (voting item)
7	Re-appointment of Ms M.G. Kleinsman as member of the Supervisory Board (voting item)
8a	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)
8b	Authorisation of the Management Board to repurchase shares in the share capital of Avantium on behalf of Avantium (voting item)
9	Appointment of PricewaterhouseCoopers Accountants N.V. as external auditor for the financial year 2021 (voting item)
10	Any other business (including Q&A)
11	Closing





# 1. Opening

# Attendees

## Supervisory Board



Edwin Moses,  
Chairman



Trudy  
Schoolenberg



Margret  
Kleinsman,  
Chair Audit  
Committee



Michelle Jou

Cynthia Arnold is unable to attend the AGM 2021

## Management Board



Tom van Aken,  
CEO



Bart Welten,  
CFO



Carmen  
Portocarero,  
General Counsel

## Other



Antoine Westerman,  
Partner PwC



Joyce Leemrijse,  
Notary A&O

## Issued capital

- On the record date (end of day), 21 April 2021, the issued capital of the company consisted of:  
  
31,253,392 total number of shares outstanding
- Total number of shares represented:  
  
17,813,766 representing 57% of the total number of shares outstanding on the record date.





# Review 2020





## 2. Annual Report for the financial year 2020



# Avantium in 2020 at a glance

Revenue  
(in € million)

9.9

2019: 13.8



-29%

Newly granted patents

18

2019: 31

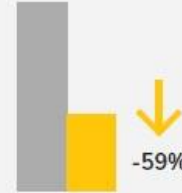


-42%

Investments  
(in € million)

3.5

2019: 8.5



-59%

Number of FTEs

218

2019: 209

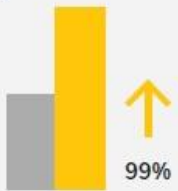


4%

Grant recognition  
(in € million)

8.4

2019: 4.2



99%

Newly reported inventions

41

2019: 87

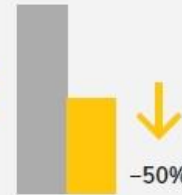


-53%

Cash outflow  
(in € million)

18.8

2019: 37.8



-50%

Nationalities employed

21

2019: 19



11%

Number of government grants

20

2019: 27



-26%

Number of safety accidents

1

2019: 1



# Key financial highlights 2020: revenues and other income

**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

## Revenue

in millions of €	2020	2019	% change
Catalysis	9.2	12.5	-26%
Renewable Chemistries	0.4	1.2	-66%
Renewable Polymers	0.3	0.2	68%
<b>Total revenue</b>	<b>9.9</b>	<b>13.8</b>	<b>-28%</b>

- Other Income increased by 99% to €8.4 million (FY 2019: €4.2 million), as a result of higher grant income

in millions of €	2020	2019	% change
Catalysis	0.2	0.1	176%
Renewable Chemistries	5.8	3.5	64%
Renewable Polymers	2.3	0.5	340%
Support	0.1	0.1	13%
<b>Total other income from grants</b>	<b>8.4</b>	<b>4.2</b>	<b>99%</b>

# Key financial highlights 2020: EBITDA

Total EBITDA for Avantium increased from €-17.0 million in 2019 to €-14.9 million in 2020:

## EBITDA

<i>in millions of €</i>	2020	2019	% change
Catalysis	2.6	3.7	-30%
Renewable Chemistries	-1.6	-3.0	-47%
Renewable Polymers	-7.3	-7.9	-8%
Company overheads/other	-8.6	-9.8	-12%
<b>EBITDA of business segments</b>	<b>(14.9)</b>	<b>(17.0)</b>	<b>-12%</b>

# Key financial highlights 2020: Cash

- 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)

## Cash Outflow

in millions of €	2020	2019	% change
EBITDA	(14.9)	(17.0)	-12%
One-off settlement for full ownership of Avantium Renewable Polymers	-	(17.4)	-100%
Lease payments	(1.9)	(2.0)	-5%
Working capital movement	1.2	6.0	-80%
Capital expenditures	(3.5)	(8.5)	-60%
Other <sup>1</sup>	0.2	1.1	-82%
<b>Net cash outflow</b>	<b>(18.8)</b>	<b>(37.8)</b>	<b>-50%</b>

- On 15 April 2021, Avantium successfully raised €28 million through an accelerated bookbuild offering

# Key financial highlights 2020: Expenses and Loss

- Net operating expenses were €33.2 million in 2020 (FY 2019: €35.1 million)

## Operating Expenses

in millions of €	2020	2019	% change
Raw materials and contract costs	(2.3)	(3.7)	-38%
Employee benefit expenses	(19.3)	(19.7)	-2%
Office and housing expenses	(2.0)	(1.8)	11%
Patent, licence, legal and advisory expenses	(4.2)	(3.2)	31%
Laboratory expenses	(3.7)	(3.6)	3%
Advertising and representation expenses	(0.7)	(1.4)	-50%
Expense due for onerous contract	0.5	(0.7)	-171%
Other operating expenses	(1.5)	(0.9)	67%
<b>Net operating expenses</b>	<b>(33.2)</b>	<b>(35.1)</b>	<b>-5%</b>

- Loss for the period amounted to €22.8 million (FY 2019: €23.5 million)

# 2020: full focus on commercialisation of our key technologies

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:

- Avantium Renewable Polymers made progress towards a Final Investment Decision (FID) in relation to the construction of the planned FDCA flagship plant, but not all conditions for a positive FID were met by the end of 2020
- Avantium Renewable Chemistries achieved the successful start-up and commissioning of the plantMEG™ 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 grow during the period





## Avantium Renewable Polymers

# Scaling-up FDCA/PEF: first-to-market advantages

## Achievements and next steps



### LABORATORY

- 2008
- Amsterdam
- Kilogrammes/annum
- Innovative research



### PILOT

- 2011 - today
- Geleen
- Tonnes/annum
- Technology development



### FLAGSHIP

- 2023 onwards
- Delfzijl
- 5 kilotonnes/annum
- Commercial launch



### INDUSTRIAL

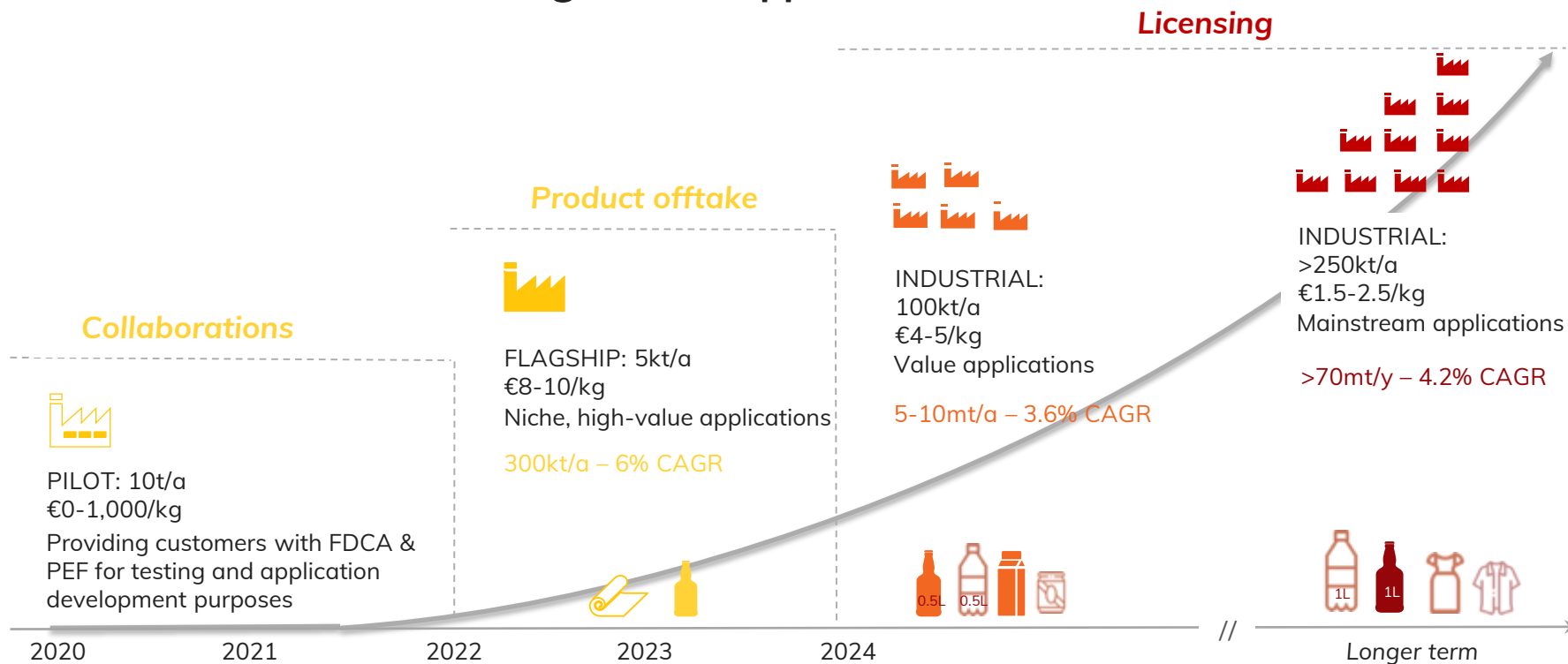
- 2024 and beyond
- Global
- >100 kilotonnes/annum/plant
- Licensing: cashflow and profit growth driver





# Addressing \$200B+ markets

FDCA/PEF: focus on (high-)value applications



# FDCA flagship plant: expected start-up in 2023

Flagship plant: validate marketed products and production



## Scale

5 kilotonnes of FDCA/annum



## Location

Chemie Park Delfzijl



## Market focus

High-value applications



## Timing

Operational in 2023



## Objective

Market launch



## Partners

Committed partners throughout the value chain



## Earnings model

Unlocking licensing business in high-volume markets



## Funding

€150 million  
(excl. 20% contingency)

Rendered image of the Flagship Plant design  
Greenfield plot @ Chemie Park Delfzijl



# Update on the Final Investment Decision process

Avantium will take the Final Investment Decision (FID) concerning the construction of the FDCA flagship plant when the following Key Conditions are satisfied:



1. Securing €150m financing (excl. 20% contingency)



2. Obtaining sufficient offtake commitments



3. Engineering & supply chain

# Term sheets signed with Worley and Groningen Consortium

Subject to multiple conditions

Avantium Renewable Polymers (“RNP”)

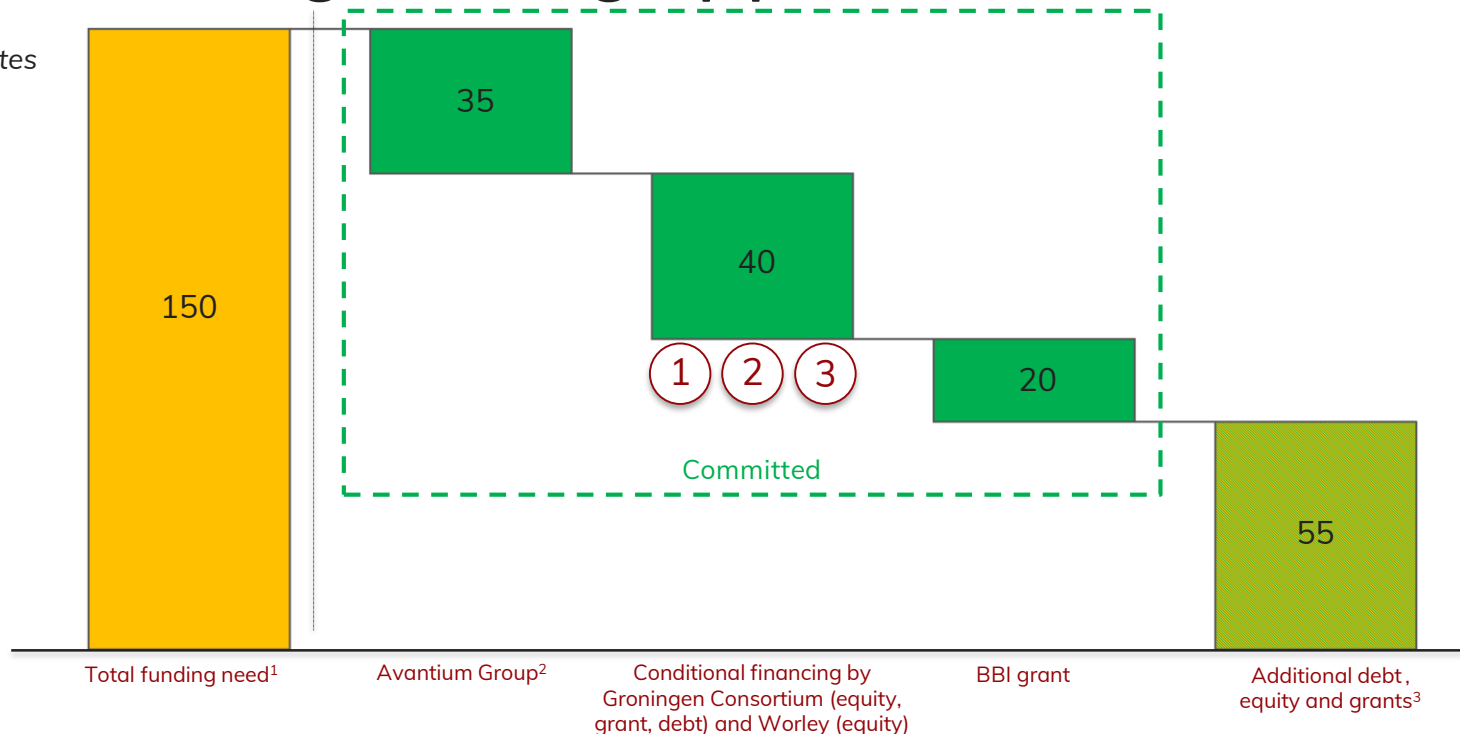
Groningen Consortium





# Update funding FDCA flagship plant (Avantium subsidiary)

Estimates  
in €m



1. Excl 20% contingency

2. €35 million will be funded by Avantium of which €24 million has already been invested as per 19 March 2021

3. Avantium Renewable Polymers is in continued discussions with a number of debt providers on funding the debt portion, including funding of the 20% contingency

# Key commercial condition satisfied

## Offtake commitments for >50% of the output of the FDCA flagship plant signed

- First five conditional offtake agreements signed for the supply of PEF resin to manufacture food packaging for bottles and films:



(Global)



(The Netherlands)



(Japan)



(USA)



(Belgium)

- This represents over 50% of the flagship plant FDCA production capacity
- The commercial partners will purchase Avantium's FDCA at agreed price levels for a period of at least five years
- The commitments are subject to a positive FID and financial closing, other approvals and party-specific conditions



# Collaboration Agreement with Carlsberg Group



- Avantium and Carlsberg signed a collaboration agreement to jointly develop several PEF applications, among which the Green Fibre Bottle
- The aim of this collaboration agreement is to validate the circularity of PEF applications and to establish the demand for commercial production from Avantium's flagship plant
- Carlsberg has also recently joined the PEFerence consortium as a partner



# Partnerships throughout the PEF value chain

Validating the commercial production and driving commercialisation

Some examples:

Feedstock



Engineering



Polymerisation



Converters



Brand owners



Consumers



Funding partners (grants):



Funding partners (equity):





## Avantium Renewable Chemistries



# Scaling-up and commercialising plantMEG™ and plantMPG™

## Successful start-up and commissioning demonstration plant in 2020



### LABORATORY

- 2010
- Amsterdam
- Kilogrammes
- Innovative research



### PILOT

- 2020 start-up
- Delfzijl
- 10 tonnes
- Develop technology & economic feasibility



### FLAGSHIP

- 2024 - 2025
- Location TBD
- Scale TBD
- Commercial launch plantMEG™



### INDUSTRIAL

- TBD
- Global
- Industrial scale
- Licensing: cashflow and profit growth driver



Validation of technology and data: ~1 year after pilot plant is fully operational

Contemplated joint venture with Cosun Beet Co. to construct & operate commercial plant



Estimated timelines:

- ✓ Process Design Package 6 – 12 months
- ✓ Front-End Engineering Design 6 – 12 months
- ✓ Construction ~2 years

Technology leadership (i.e. no new inventions required)





# Avantium and Cosun Beet Company Join Forces

Ambition to jointly construct and operate the first plant-based glycols commercial plant

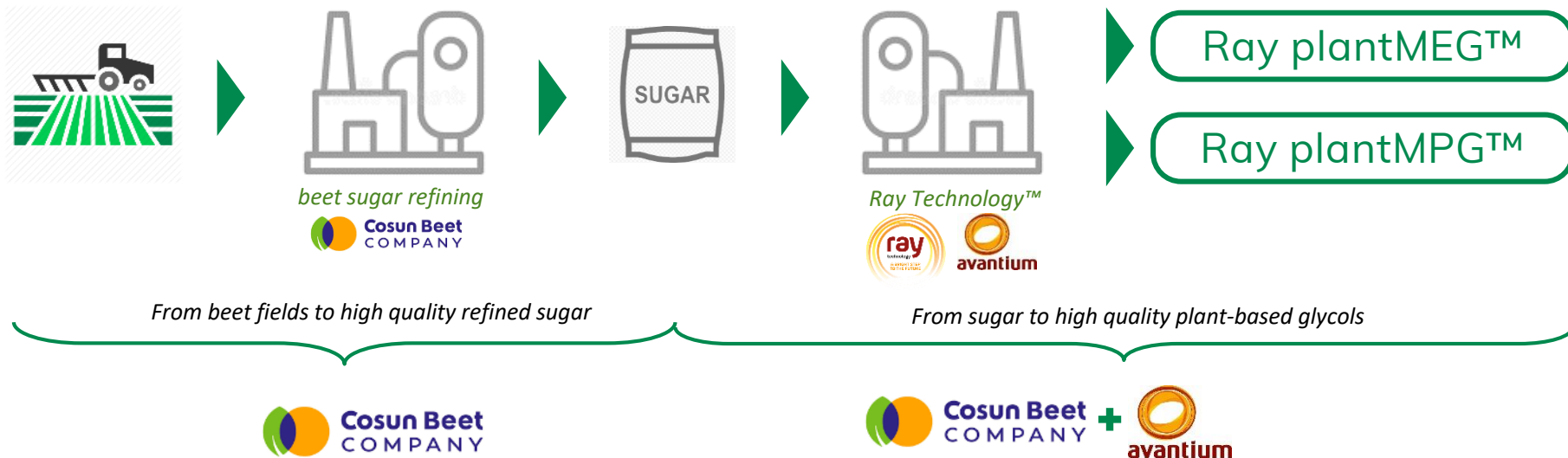
## Envisioned Commercial Plant:

- Jointly owned by Cosun Beet Co & Avantium
- Products:
  - Ray plantMEG™
  - Ray plantMPG™
  - Ray Glycerine
- Technology: Ray Technology™ license sale from Avantium
- Feedstock: Beet sugar from Cosun Beet Co.
- Location: Northwestern Europe
- Investment decision (FID): 2023
- Desired start-up: 2025



# Cosun Beet Company & Avantium

Complimentary capabilities to market plant-based glycols



# Renewable Chemistries: Dawn Technology™

Producing chemicals and materials from non-food biomass



## Benefits sugars from residual forestry and agricultural streams

- Proven technology with the increasing need of the chemical industry to reduce the reliance on oil
- Extracts the remaining valuable sugars from non-food sources
- Suitable for locally sourced biomass

## Current status

- Strong IP position and know-how (13 patent families)
- Our pilot biorefinery is operational in Delfzijl, the Netherlands, focused on improving efficiency and unit operations
- In 2020, we have focused on validating applications for our Dawn Technology™, running 40 campaigns on a variety of feedstocks
- We will work with partners on technology scale-up in line with timing of market demand

# Renewable Chemistries: Volta Technology

Converting CO<sub>2</sub> to chemicals via electrochemistry



## Benefits electrochemical CO<sub>2</sub> conversion

- Preventing CO<sub>2</sub> emissions of industrial parties
- Enabling cleaner chemical processes
- Turning waste into valuable products

## Current status

- Strong IP position and know-how (36 patent families): global top-5 in electrochemical CO<sub>2</sub> conversions
- Pre-pilot test units opened in 2019 in the Port of Amsterdam
- During 2020, Avantium Renewable Chemistries continued improving the Volta technology
- Pre-pilot containers entering the testing phase in preparation for placement at industrial sites in 2021: an RWE power plant in Germany and a Titan cement factory in Greece.
- Cooperation with >35 partners in European grant consortia, also providing >€5M of grants



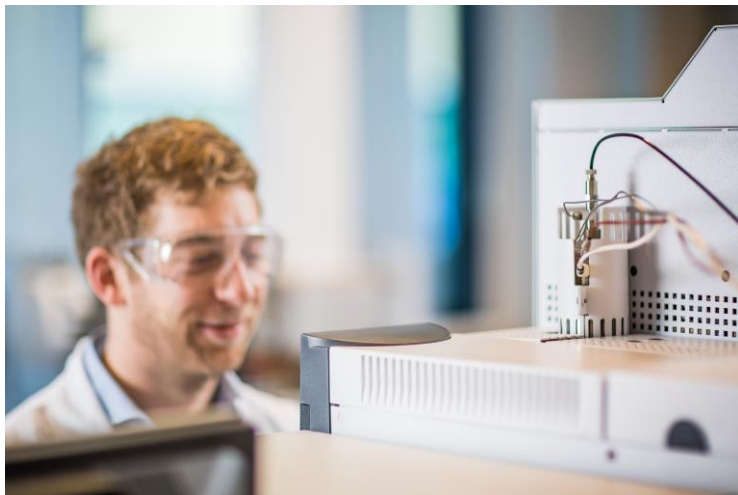


## Avantium Catalysis



# Avantium Catalysis

Customer service operations of Avantium Catalysis were hindered by travel restrictions



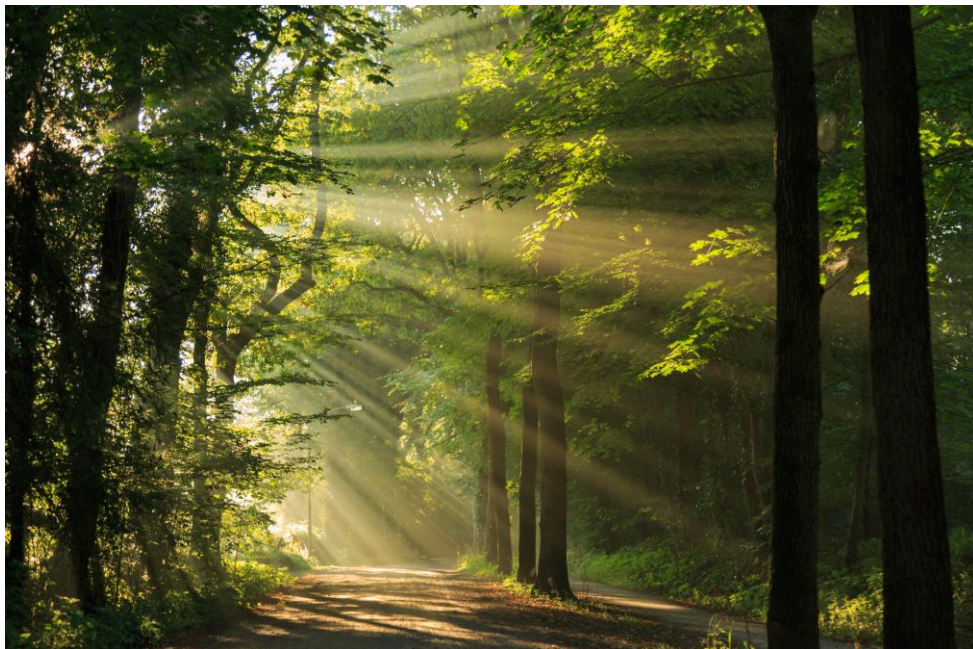
## Business

- Services: Sustainable solutions to develop innovative and improved chemical processes
- Systems: Capability to rapidly develop unique new hardware for chemical R&D

## Catalysis in 2020

- The Catalysis business unit was significantly impacted by the COVID-19 pandemic, recording lower revenues of €9.2 million in 2020
- Travel restrictions prevented Catalysis employees from installing, maintaining and upgrading the Flowrence® systems at customers' sites
- Despite COVID-19, Avantium Catalysis received an order in June 2020 from the KAUST Catalysis Center in Saudi Arabia for Flowrence® systems worth more than €3 million
- The contract research services revenues increased by 9% (€3.3 million) compared with 2019





# Sustainability

# ESG: our sustainability priorities

- At Avantium, sustainability is built into our very purpose. It drives our employees, informs our technology development and excites our commercial partners
- Every technology we develop affirms our commitment to helping create a fossil-free future for the planet
- In February 2021, Avantium published its Sustainability Plan 'Chain Reaction 2030': a pioneering roadmap to achieve a fossil-free chemical industry by 2050



# Chain Reaction 2030 – At a glance

## Our Technologies

We will accelerate innovation to deliver products that use renewable carbon and support the circular economy.

### Targets



By 2030, our technologies will deliver 1.5 million tonnes of CO<sub>2</sub> savings across the chemical industry.



By 2030, we will become a circular business.



By 2030, 100% of our plant-based feedstock for Renewable Polymers and Renewable Chemistries will come from sustainable sources.

## Our Leadership

We will be the leading advocate for greater action by the chemical industry to address the climate emergency.

### Targets



By 2030, 100% of our advocacy will focus on transforming the chemical industry to becoming circular and fossil-free.

## Our Operations

We will minimise the impact of our own operations and have net-zero carbon emissions.

### Targets



By 2030, our own operations will achieve net-zero carbon emissions.



By 2025, we will send zero non-hazardous waste to incineration and landfill.



By 2023, all our plants will achieve an ISO45001 certification (healthy and safe working environment).

## Our People

We will mobilise our colleagues and the next generation of scientists to help solve the climate's most pressing problems.

### Targets



By 2030, Avantium will be one of the 10 best companies to work for in the Netherlands.



By 2030, we will have engaged 100,000 students about using chemistry to create a fossil-free world.



By 2025, we will improve upon our baseline of being an inclusive and diverse company, ensuring that we are representative of the societies and communities we operate within.





# Questions?





### 3. Remuneration Report 2020 *(advisory vote)*



# Remuneration Report 2020



## Remuneration Report 2020



Reference is made to the Remuneration Report 2020, published on the website of Avantium





# Questions?



## 4. Adoption of the Annual Accounts 2020 (*voting item*)



# Annual Accounts 2020



Annual Report 2020



Achieving a fossil-free world

- Reference is made to the Annual Report 2020, published on the website of Avantium
- Mr Westerman, partner PricewaterhouseCoopers Accountants N.V., presents the Auditor's Report



# Questions?

# Discharge of liabilities





5a. Discharge from liability of members of the Management Board for the performance of their duties in financial year 2020 (*voting item*)



5b. Discharge from liability of members of the Supervisory Board for the performance of their duties in financial year 2020 (*voting item*)

# Composition Management Board





## 6. Re-appointment of Mr T.B. van Aken as CEO and member of the Management Board (*voting item*)



# Re-appointment Tom van Aken



See the proposal in the explanatory notes to the agenda





# Composition Supervisory Board





## 7. Re-appointment of Ms M.G. Kleinsman as member of the Supervisory Board (*voting item*)

## Re-appointment Margret Kleinsman



See the proposal in the explanatory notes to the agenda



# Authorisation shares





- 8a. Designation of the Management Board to issue up to 5% ordinary shares and to exclude pre-emptive rights in connection with Avantium's long term incentive and share-based compensation plans (*voting item*)



8b. Authorisation of the Management Board to repurchase shares in the share capital of Avantium on behalf of Avantium (*voting item*)



## Other (corporate) affairs





9. Appointment of PricewaterhouseCoopers Accountants N.V. as external auditor for the financial year 2021 (*voting item*)





## 10. Any other business (including Q&A)

## Preliminary voting results

No.	Agenda item	Outcome
3	Remuneration Report 2020 (advisory vote)	Adopted
4	Adoption of the Annual Accounts 2020	Adopted
5 (a)	Discharge from liability of members of the Management Board for the performance of their duties in the financial year 2020	Adopted
5 (b)	Discharge from liability of members of the Supervisory Board for the performance of their duties in the financial year 2020	Adopted
6	Re-appointment of Mr T.B. Van Aken as CEO and member of the Management Board	Adopted
7	Re-appointment of Ms M.G. Kleinsman as member of the Supervisory Board	Adopted

# Preliminary voting results

No.	Agenda item	Outcome
8 (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
8 (b)	Authorisation of the Management Board to repurchase shares in the share capital of Avantium on behalf of Avantium	Adopted
9	Appointment of PriceWaterhouseCoopers Accountants N.V. as external auditor for the financial year 2021	Adopted



## 11. Closing