1. Opening & Welcome
2. Report of the Management Board for the financial year 2017
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Content

- Company Strategy
- Progress made in 2017
- Financial Results 2017
- Outlook 2018
Company strategy
Avantium strategy

- Lead the transition of the chemical industry to renewable chemicals and plastics
- Develop breakthrough technologies to make sustainable, biobased products that compete on performance and price
- Commercialize these technologies in partnership with industrial companies and monetize them through a licensing business model
- Underpinned by Catalysis business to maintain technological leadership in advanced catalysis R&D and through robust financial performance
Avantium – 3 business units

**Synvina: Joint Venture with BASF**
- 100% biobased, recyclable PEF with superior properties
- Major market potential in packaging materials and fibers

**Renewable Chemistries**
- Zambezi: sugar from non-food biomass
- Mekong: 1-step conversion to bio-MEG
- Volta: CO$_2$ to chemicals via electrochemistry

**Catalysis R&D business**
- Leading service and systems provider
- Blue chip clients
Progress in 2017
2017 - Highlights

Corporate

- Significant progress in renewable chemistries and catalysis
  - Consolidated revenues from continuing operations up 21% to €12.7 million
  - Cash position improved to €100.2 million at end-2017 (2016: €14.2 million)
  - Execution of strategy: operating expenses up to €22.7 million from €14.3 million
  - Net loss for 2017 €16.8 million

Synvina

- Avantium’s Joint Venture with BASF in renewable plastics
  - €25 million BBI subsidy granted to Synvina
  - European PET Bottle Platform has given interim approval for the recyclability of PEF
  - Delay of 24-36 months to start-up of its reference plant announced January 2018

On track

- Zambezi Pilot Plant construction initiated, to be located in Delfzijl (contract signed with AkzoNobel)
- Mekong: successful generation of process data for commercial scale feasibility
- Volta: secured new subsidies for electrochemistry development program amounting to €2.9 million for Avantium

Renewable Chemistries

Catalysis

Revenue growth of 22%

- €12.5 million (2016: €10.2 million) well above expectations
- Strong sales of Flowrence™ systems
2017 - Highlights (cont’d)

- **March 2017:**
  - IPO successfully completed: € 109 million gross proceeds raised with successful listing on Euronext Amsterdam and Brussels in March
  - Included in the Small Cap Index Euronext (AScX) since 19 June 2017.

- **June 2017:**
  - Zanna McFerson appointed as Chief Business Development Officer

- **November 2017:**
  - Kees Verhaar appointed as Chairman Supervisory Board
  - Launch of CO2 Value Europe, of which Avantium is one of the founding partners; 43 leading industrial and research stakeholders to implement solutions to convert CO2 into valuable products. Avantium’s Zanna McFerson is member of The Board of Directors.
Renewable chemistry, an emerging industry driven by global trends

Demographic change
- Shift in consumer preferences
- Brands want to become sustainability champions

Climate change
- Shift in government regulations (Kyoto 1997 and Paris 2016)

Resource stress
- Inevitable shift from fossil to bio-based feedstock

Developing and commercializing renewable and sustainable chemistry technology solutions with partners
The shift from fossil-based to renewable materials is especially relevant in the plastics industry.

Plastics production increased twenty-fold over the last 50 years...

...and is expected to almost quadruple by 2050.

To reduce dependency on fossil resources and related CO₂ emissions, the plastics industry must decouple the production of plastics from fossil feedstock.

Source: Ellen MacArthur foundation
Renewable Chemistries – developing the next YXYs

Coherent portfolio, each targeting blockbuster markets

- Zambezi
- Glucose
- FDCA
- MEKONG
- MEG
- PEF

Pursuing the most attractive opportunities through rigorous project management

- Gate Review
- Gate Review
- Gate Review

- Zambezi
- Mekong
- YXY

6 projects

- Concept stage
- Lab stage
- Pilot Plant stage
- Commercial stage
Zambezi – biorefinery process for sugars and lignin from non-food biomass

**Technology**

- **Biomass:** forestry or agricultural waste
- **Hemicellulose hydrolysis**
- **Cellulose hydrolysis**
- **Acid re-concentration & recycle**
- **Post hydrolysis**
- **Acid / sugar separation**
- **Lignin de-acidification**

**Benefits 2G feedstock**

- ✓ Reduce land use and environmental impact of 1G sugars
- ✓ Cascading the use of biomass for chemicals, materials and energy
- ✓ Suitable for locally sourced biomass
- ✓ Overcomes public concerns about competition with food

**Progress 2017**

- Important technical progress to validate the technology
- Commercial milestone: signed MoU announced with key partners for Flagship project in Delfzijl, the Netherlands
- Zambezi Pilot Plant construction started, opening ceremony planned for July 2018
- Located in Delfzijl: contract signed with AkzoNobel (utilities & services)
- Working with partners worldwide to deploy Zambezi technology

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**Developing commercial-scale wood-to-chemicals biorefinery, as next step following pilot plant phase.**
Zambezi pilot plant under construction
opening ceremony planned for July 2018
Mekong – catalytic process for making biobased (MEG)

**Technology**

- **Glucose**
- **Catalytic Conversion: Direct Hydrogenolysis**
- **Mono-Ethylene-Glycol (MEG)**

**Objectives:**
- Develop a feedstock flexible bioMEG process on the basis of proprietary MEKONG technology
- Superior economics over existing bioMEG production and competitive economics versus fossil MEG
- Demonstrate technology at pilot scale and attract partners for commercial production

**Market**

- MEG market: $25 billion
- Applications: polyester fiber, PET film, bottles, solvents, de-icing fluids.
- PET consists for approximately 30% of MEG
- Currently, approximately 1% of the MEG production (250,000 ton) is bio-based

1: Source: Tecnon Orbichem 2016

**Progress 2017**

- Execution of trials at manufacturing partner (USA). Successful generation of process data for commercial scale feasibility
- Engineering of Mekong pilot plant initiated in H2 2017
- Final investment decision for Mekong pilot plant expected in Q2 2018
Expected milestones

Clear roadmap from lab to commercialization

- **Zambezi**
  - Pilot plant design
  - Pilot plant construction
  - Application validation
  - Basic engineering
  - Start EP&C

- **Mekong**
  - Pilot scale trials
  - Pilot plant design
  - Pilot plant construction
  - Basic engineering
  - Start EP&C

- **Timeline**
  - H2 2016: Pilot plant design
  - 2020: Pilot plant construction, Application validation, Basic engineering, Start EP&C
  - 2021: Pilot plant construction, Application validation, Basic engineering, Start EP&C

- **Key Milestones**
  - Investment decision pilot plant
  - Site selection
  - Feedstock partnerships
  - Partnerships
  - Partner selection
  - Feedstock partnerships
  - Partnerships
  - Site selection
Volta – CO₂ to chemicals via electrochemistry

Opportunity of Electrochemistry

- Renewable electricity is expected to become cheaper and increasingly important in chemical processes
- Electrochemistry can:
  - Improve selectivity
  - Reduce process steps
  - Reduce waste
- To reduce CO₂ emissions by conversion to chemicals

Volta technology

- Avantium is working on electrochemistry since 2013, funded by €4.7m of subsidy
- To use electricity directly for purification, oxidation and reduction reactions
- Electrochemistry to convert CO₂ in chemicals
- Strong synergy with catalysis

Status and next steps

- Avantium acquired in December 2016 all assets and IP from Liquid Light (US)
- All Liquid Light’s assets have been transferred to Avantium’s laboratories in Amsterdam
- Improve productivity, by making electrochemical processes competitive with conventional technologies
- Preparing for piloting process

Liquid Light and other parties

- Princeton University spin out. Over US$ 35 million invested
- Global #3 in number of patents in organic electrochemistry
- #1 in 2014 Biofuels Digest’s 40 hottest small companies in the advanced bioeconomy and 2014 Rising Star of the Year in Global Cleantech 100
Multiple strategic routes to monetize Renewable Chemistries projects

- **Scale**
  - Lab-scale
  - Pilot plant
  - Reference plant
  - Industrial scale

- **Business model / earnings**
  - Sale of products
  - Licensing

- **Strategic choices**
  - Stand-alone
  - Partnering
  - Sell technology
Catalysis: Cash flow generating business, maintaining technological leadership in advanced catalysis R&D

<table>
<thead>
<tr>
<th>Flowrence XD</th>
<th>Refinery Catalyst Testing</th>
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<tbody>
<tr>
<td>▪ Launched new Catalyst Testing System for Early-Stage Discovery</td>
<td>▪ Expanded testing services to more refining processes.</td>
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<tr>
<th>Strategy Execution</th>
<th>Stable cash flow generating business</th>
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<tr>
<td>▪ Introduced high-value technologies to extend our leadership in accuracy, reliability and ease-of-use</td>
<td><strong>2017</strong></td>
</tr>
<tr>
<td>▪ Expanded to new geographic markets</td>
<td>▪ Revenue € 12.5 million</td>
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<td>▪ Increased focus on operational excellence</td>
<td>▪ Adjusted EBITDA € 2.8 million</td>
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Leading provider of superior catalysis systems and services, serving a blue chip customer base
Synvina: Avantium-BASF joint venture to commercialize PEF

Technology – scale up to commercialization

1. Sugar DeHydration (SDH)
2. Oxidation (OXI)
3. Purification (PUR)
4. Polymerization (POL)
5. Processing (ISBM)
6. Recycling

Markets – PEFerence

Product Performance

- Product performance versus PET confirmed: 10x stronger O2 barrier, 5x stronger CO2 barrier, 2x stronger H2O
- PEF applications beyond PET: glass, aluminium, multilayer, cartons, films

Progress 2017

- € 25 million BBI subsidy granted to Synvina
- European PET Bottle Platform has given interim approval for the recyclability of PEF
- Delay of 24-36 months to start-up of its reference plant announced January 2018

Synvina, BASF and Avantium fully focused on resolving technical challenges to ensure the best and most efficient product for current and future customers.
Financial Results 2017
Proceeds from IPO boosted cash position to €100.2 million

1. Reflects adjusted EBITDA (= operating profit / loss + depreciation & amortization -/- capex)
2. Reflects costs for infrastructure (facilities and QESH), overhead operating and investment costs (Finance, HR, IT, MarComm and MT)
3. Includes repurchase of shares via liquidity provider agreement with Kepler Cheuvreux and net interest
Segment information – revenues

- **Catalysis**
  - 2015: €10.3 million
  - 2016: €10.2 million
  - 2017: €12.5 million
  - CAGR +10.4%

- **Renewable Chemistries**
  - 2015: €0.0 million
  - 2016: €0.3 million
  - 2017: €0.0 million

Catalysis performance in 2017 well above expectations
Renewable Chemistries first milestone payment from partners in 2016
Changes to the Net Profit for the year: 2016 to 2017

1. Reflects the one off profit from discontinued operations, i.e. the transfer of the YXY operations to the JV, which was recognized on 30 November 2016
2. Increase in Catalysis revenues also resulting in higher raw materials and contract costs
3. Increase driven by increase in number of employees from 96.1 to 138.9 fte, predominantly in renewable chemistries programs
4. One off non-cash charge resulting from closure of the former option plan (accelerated vesting)
5. Increase predominantly driven by one off costs related to the IPO
6. Increase driven by laboratory consumables, external development costs, external and internal marketing, communications, travel and insurances
7. Reflects the reduction in the accrued interest costs on convertible loan (non-cash) until March 2017 and on innovation loan facility until April 2017
8. Increase driven by recognition of 12 months results of Synvina in 2017 versus 1 month in 2016
Outlook 2018
2018 - Outlook

Corporate
- On track to deliver on strategic objectives

Synvina
- Delay of 24-36 months to start-up of Synvina reference plant, continued full Avantium support to Synvina in execution of its strategy

Renewable Chemistries
- Completing and operating Zambezi pilot plant; developing partnerships on diversified non-food feedstock and end-applications
- Final investment decision Mekong pilot plant expected in Q2 2018, aim to be operational in 2019

Catalysis
- Focus remains on continued growth of top and bottom line
3. **Annual Accounts 2017**

a. Implementation of the remuneration policy in financial year 2017

b. Adoption of the Annual Accounts 2017
3. Annual Accounts 2017

a. Implementation of the remuneration policy in financial year 2017

b. Adoption of the Annual Accounts 2017
4. Discharge
   a. Discharge to the members of the Management Board for the financial year 2017
   b. Discharge to the members of the Supervisory Board for the financial year 2017
4. **Discharge**

   a. Discharge to the members of the Management Board for the financial year 2017

   b. Discharge to the members of the Supervisory Board for the financial year 2017
5. Appointment accountant
6. Composition of the Supervisory Board
7. Powers of the Management Board

a. Extension period during which the MB is authorised to issue (right to) shares
b. Extension period during which the MB is authorised to limit or exclude preemptive rights
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   a. Extension period during which the MB is authorised to issue (right to) shares
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8. Authorisation of the Management Board to have the Company repurchase shares
9. Any other business
10. Closing