



**SOLVAY**

**FINANCE  
AVENUE**

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Solvay CEO

November 16, 2019

# FORENOTE



IFRS 16 has been implemented in the Group's financial statements since January 1, 2019. Comparative information for the first quarter of 2018 in the business review is presented on an unaudited pro forma basis as if the implementation had taken place on January 1, 2018. This information is labelled "pro forma" or "PF". The balance sheet evolution is compared with January 1, 2019, which includes the IFRS 16 impact versus December 31, 2018.

Besides IFRS accounts, Solvay also presents underlying Income Statement performance indicators to provide a more consistent and comparable indication of the Group's financial performance. The underlying performance indicators adjust IFRS figures for the non-cash Purchase Price Allocation (PPA) accounting impacts related to acquisitions, for the coupons of perpetual hybrid bonds, classified as equity under IFRS but treated as debt in the underlying statements, and for other elements that would distort the analysis of the Group's underlying performance.

## Safe harbor

This document may contain forward-looking information. Forward-looking statements describe expectations, plans, strategies, goals, future events or intentions. The achievement of forward-looking statements contained in this press release is subject to risks and uncertainties relating to a number of factors, including general economic factors, interest rate and foreign currency exchange rate fluctuations, changing market conditions, product competition, the nature of product development, impact of acquisitions and divestitures, restructurings, products withdrawals, regulatory approval processes, all-in scenario of R&I projects and other unusual items. Consequently, actual results or future events may differ materially from those expressed or implied by such forward-looking statements. Should known or unknown risks or uncertainties materialize, or should our assumptions prove inaccurate, actual results could vary materially from those anticipated. The Company undertakes no obligation to publicly update or revise any forward-looking statements.

# SOLVAY BY THE NUMBERS

**€10.3B**

net sales  
50% sustainable  
solutions

**€2.2B**

underlying EBITDA  
22% margin

**>50%**

revenue in  
faster growing  
economies

**24,500** people

**125** sites

**EVENLY  
BALANCED**

revenue across  
Europe, the Americas  
and Asia & RoW

**61** countries

**>100** nationalities

**€350M** in R&I

**2,200** R&I employees  
in 21 global locations

**75%**

of R&I pipeline revenue  
to be from "Sustainable  
Solutions"

**264** new patents in '18

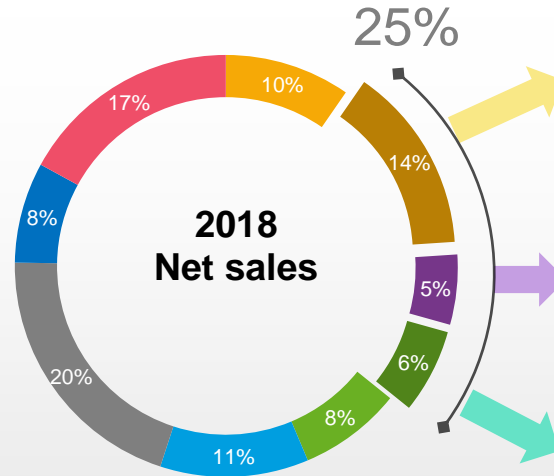
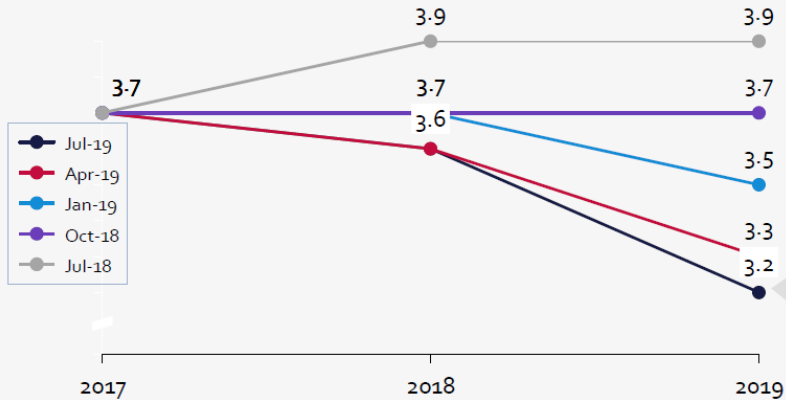
**2,800** patents in force

**1,500** intellectual  
property agreements

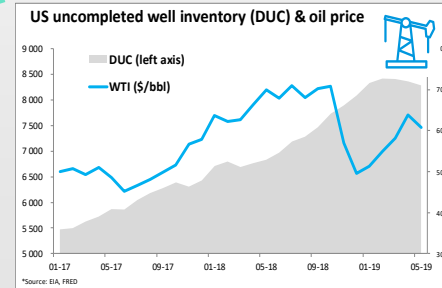
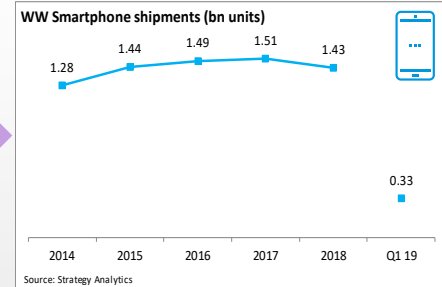
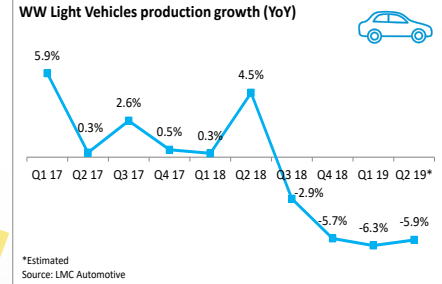


# OUR MARKETS AFFECTED BY CHALLENGING MACRO ENVIRONMENT





IMF estimates and projections of global growth  
By release date, %



- Aviation & autre transport
- Automobile
- Électrique & électronique
- Pétrol & gaz
- Autres ressources & environnement
- Agriculture & alimentation
- Applications industrielles
- Construction
- Biens de consommation & santé



# ACTIONS TAKEN SINCE MARCH 2019

-  Redefined structure and responsibilities of executive leadership team
-  Focused and incentivized organization on cost improvement and cash generation
-  Initiated comprehensive strategic review of every business
-  Mobilized organization to redefine a new sense of purpose as we move forward with one culture

# 9 MONTHS 2019 FINANCIAL RESULTS

## SOLID DELIVERY

	Net Sales	Underlying EBITDA	Free Cash Flow to Solvay shareholders
9 months	<b>€7.8B +1.6%</b> including forex & scope -0.7% Y/Y organically	<b>€1,796M -0.2%</b> including forex & scope -2.6% Y/Y organically Sustained margin at 23%	<b>€345M</b> +€217M Y/Y from continued operations
2019 Guidance reconfirmed		<b>-2% to -3%</b> organically	<b>~€490M</b> from continued operations



# Our New Strategy: G.R.O.W.

# INITIAL INSIGHTS

*We have a strong foundation ...*

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Attractive end markets aligned with key megatrends

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Leading market positions with further growth potential

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Proven technology and innovation expertise

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Safety First for our Passionate and talented people

*... with significant opportunity to accelerate value creation*

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Clear business mandates and differentiated KPIs

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Research & Innovation to better serve customers

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Operational synergies and efficiencies across our businesses

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Unified culture with a common purpose



# OUR BUSINESSES ARE ALIGNED TO POWERFUL MEGATRENDS

## Megatrends

### Electrification



### Lightweighting



### Resource efficiency



### Healthcare



### IoT / Digitalization



### Eco-friendly based solutions



## Macro Drivers

- Resource scarcity
- Climate change
- Consumer trends

- Responsible mobility
- Climate change
- Resource scarcity

- Safeguard ecosystem
- Resource scarcity
- Climate change

- Aging population
- Growing middle class
- Digitalization, mobility & wellness

- People connecting digitally
- Digitally interconnected ecosystems

- Health and wellness awareness
- Consumer trends
- Resource scarcity

## Growth Opportunity

- ~50% of global car production in EV or hybrid in 2030
- Global battery demand growth at 20%+ CAGR over the 2018-2030 period

- Composites in aerospace to grow 2x in next 10 years
- Composites in offshore oil pipes / risers to be worth >\$14B in 10 years
- Composites in auto to grow 30% CAGR in next 10 years

- Water treatment to grow at 4%+ CAGR over next 5 years
- Lithium supply to increase 6x by 2030 and copper to add ~4mtpa
- Energy-efficient glass to grow at 4.5% CAGR by 2025

- Global medical plastics to grow >6% in short-term
- Global medical implant to grow at 7% CAGR in short-term

- IoT sensors to grow >15% CAGR through 2023
- Display capacity to grow at 4% CAGR through 2023
- Semiconductors market to grow at 6% CAGR to 2022

- Organic shampoos to expand at 3.1% CAGR to 2025
- Natural vanillin to grow >10% CAGR by 2024
- Waterborne coatings to grow by 5.7% CAGR by 2025

## Addressable Market

>€25B

>€10B

>€50B

>€10B

>€50B

>€10B

# WE HELP CUSTOMERS LOWER TOTAL COST OF OWNERSHIP & INCREASE SUSTAINABILITY

## Megatrends

### Electrification



### Lightweighting



### Resource efficiency



### Healthcare



### IoT / Digitalization



### Eco-friendly based solutions



## Our Solutions & Value Proposition

### High-performance polymer technology portfolio

- Binders & membranes for Li-ion

#### Electrolyte technology

- Next-generation Li-ion

- Improving engine efficiency & downsizing

#### Thermoset composites

- Aerospace structures

- Flexible risers

#### Extraction technologies

- Cu flotation
- Li extraction

- Long-term implants
- Medical devices
- Dialysis membranes
- Pharma packaging

- New-generation OLED & flexible displays

#### High-purity chemicals

- Semiconductor industry consumables

#### Bio-based ingredients

- **Vanillin:** Flavors & fragrances
- **Guar:** Agro & nutrition Home & personal care products

#### Thermoplastic composites

- Aerospace industry
- Automotive industry

- Flexible risers

#### Soda ash, Peroxides & Silica

- Eco-efficient glass
- Air pollution control
- Eco-efficient tires

- Dialysis
- Disinfection

#### Waterborne solutions

- Coatings



Agreement with Baker Hughes to expand use of composite materials in oil and gas pipes

# OUR G.R.O.W. STRATEGY

*Distinct business mandates with capital and resource discipline to maximize profitable growth and stable cash flows to drive shareholder returns*

## Accelerate **G**rowth

We will prioritize investments in high margin Materials businesses with high **growth** potential, which are also our most sustainable solutions



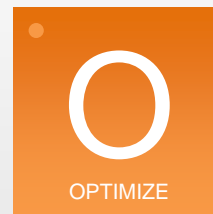
## Deliver **R**esilient cash

We will maximize cash flow generation from our **resilient** Chemicals businesses where we have a competitive advantage



## **O**ptimize returns

We will **optimize** our Solutions businesses to unlock value and increase returns



## **W**in

We are creating a **winning** team and operating model to support a performance-driven culture and win with our customers — Solvay ONE



# DIFFERENTIATED BUSINESS MANDATES

# G

GROWTH

# R

RESILIENCE

# O

OPTIMIZE

# W

WIN

## MATERIALS

*Extend position as  
#1 pure-play advanced  
materials business*

### Accelerate growth

- Specialty Polymers
- Composite Materials

**~€3.1B**

2019 FY  
NET SALES

**~28%**

2019 FY  
EBITDA MARGIN

## CHEMICALS

*Become  
#1 cash conversion  
chemical player*

### Deliver resilient cash

- Soda Ash & Derivatives
- Peroxides
- Silica
- Coatis
- Rusvinyl

**~€3.2B**

2019 FY  
NET SALES

**~27%**

2019 FY  
EBITDA MARGIN

## SOLUTIONS

*Unlock  
value*

### Optimize returns

- Novecare
- Technology Solutions
- Special Chem
- Aroma Performance

**~€3.9B**

2019 FY  
NET SALES

**~17%**

2019 FY  
EBITDA MARGIN

*Enabled by Solvay ONE operating model*

# G

GROWTH

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RESILIENCE

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OPTIMIZE

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WIN

# MATERIALS

## #1 pure play advanced materials business

### Unique high-performance polymers & composite technologies

#### Strong growth opportunities

- Sustainable automotive
- Sustainable aerospace
- Healthcare
- Electronics



### Strategic intent *Accelerate growth*

#### INNOVATION

Research, digital and technical support

#### CUSTOMERS

Upgrade key account resources and e-commerce platforms

#### INVESTMENT

Prioritize investments for growth

#### Key levers

- Realign organization around growth opportunities
- Accelerate innovation with highest-growth customers
- Reallocate resources to thermoplastic composites and battery platforms to accelerate customer wins
- Improve operational efficiencies through simplification, order to cash optimization and digitalization

[1] Vitality index: % of sales coming from newly developed products in last 5 years

### Track record

**+7%**

EBITDA growth (organic 2014-2019)

**~28%**

EBITDA margin (2019)

**>25%**

Vitality index (2018) [1]

**Returns**

**> WACC**

(average 2014-2019)

# AUTOMOTIVE

*We make cars more efficient*

~15% net sales



## MARKET DRIVERS

Fuel efficiency / lightweighting regulations driving CO<sub>2</sub> reductions

- EU target 95g CO<sub>2</sub>/km by 2020
- US target 50% reduction on new vehicles by 2025

Shift to electrification

- ~**30% CAGR** hybrid & plug-in electric vehicles in 10 years
- Increasing polymer weight per car  
**6kg ICE → 12kg P(HEV)**
- Content doubles with move toward hybrid vehicles

## HOW WE WIN

Broadest portfolio of advanced materials

- Greater use of high-performance polymers to meet more critical applications

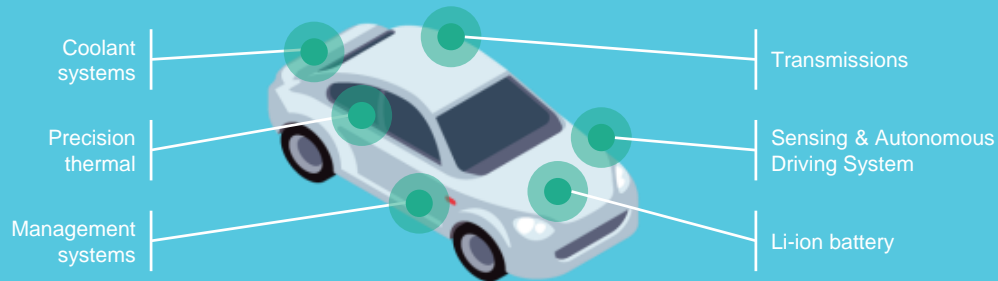
Deep customer relationships

- Strategic collaborations across OEMs
- Alliance on next generation battery development

Leveraging core competencies

- Knowledge to integrate design, materials and processes

*Solvay  
outpaces  
growth 3X*



# AEROSPACE

*We make aircraft  
lighter & more  
efficient*

~10% net sales



## MARKET DRIVERS

4.3% annual growth in passenger traffic

10% → 50% by weight

- Significant increase of composites on new aircrafts vs. legacy aircrafts

~40,000 new aircrafts in next 20 years

## HOW WE WIN

### Broad customer base

- Positions with major global OEMs in US, Europe, China & Russia
- Long-term contracts on key programs across commercial & military sectors

### Technology leadership

- Thermoset & thermoplastic composites
- Resin infusion & bonding technology
- LEAP engine technology
- Airbus A220 wing technology
- Winglet aerodynamic technologies



# THERMOPLASTIC COMPOSITES

*For aerospace,  
automotive and  
oil & gas*



## MARKET DRIVERS

### Fast cycle time

- Enabling increased build rates
- More efficient part assembly

### Performance and durability

- High strength
- Unrivalled toughness
- Weight reduction

### Environmental resilience

- Resistance to aggressive fluids
- Corrosion resistance

## HOW WE WIN

### Investments

- Capacity expansions in aero (Sept 2019)
- New capacity for oil & gas (Oct 2019)
- Two innovation center openings (Oct 2019)
  - Brussels
  - Atlanta USA

### Customer partnerships

- Supplying aero for >30 years
- New customer agreement in oil & gas

Addressable market size (aero + oil & gas) €500M



Lightweighting



Resource  
efficiency



Enable build  
rate increase



20-25% more  
cost-effective



Part integration  
& lightweighting



# HEALTHCARE

*We improve comfort  
for others*

~5% net sales

## MARKET DRIVERS

### +5-7% CAGR

- Health care coverage in developing markets
- The growing care needs of elderly populations (ageing and growing populations and increasing life expectancy)
- Advances in treatments and health technologies
- High sterilization capabilities

## HOW WE WIN

**Patient care:** World leader in thermoplastics used for high performance membrane

**Pharma packaging:** World leader in high barrier polymers to package pharmaceuticals

### Medical devices

- Medical grade plastics for limited exposure applications
- Biomaterials for long-term exposure applications
- 3D additive manufacturing compatibility

*We improve comfort for over **2 million patients** undergoing a.o. dialysis, orthopedic (knee, hip, spine) or cardiovascular procedures.*

*We provide **50 to 90% reduction in medical device cost** while enabling greater design freedom and improved ergonomics through lightweighting.*

*We are in **1 in every 4 pharmaceutical blister packs** globally which is over 400 billion pills.*



Hemodialysis membranes



Packaging



Long-term implants



Surgical instruments



Case & trays

# G

GROWTH

# R

RESILIENCE

# O

OPTIMIZE

# W

WIN

# CHEMICALS

*#1 cash conversion chemical player*

## World-leaders in essential chemicals to daily life

### Mono-technology businesses

- Soda ash
- Peroxide
- Silica
- Phenol chain



Resource efficiency



Expanding healthcare

## Strategic intent *Deliver resilient cash*

### INNOVATION

Focus on process innovation

### CUSTOMERS

Leverage best-in-class global production assets

### INVESTMENT

Selectively invest in capacity

### Key levers

- Adapt organization to focus on cash and returns
- Drive focused productivity and rationalization programs
- Prioritize Capex to maintenance and invest selectively for compelling cash returns, e.g. natural soda ash
- Focus R&I on process innovation

[1] Cash conversion: (EBITDA – Capex) / EBITDA

## Track record

**+9%**

Cash flow growth  
(organic 2014-2019)

**~79%**

Cash conversion  
(2019) <sup>[1]</sup>

**~27%**

EBITDA margin  
(2019)

**Returns at WACC**

(average 2014-2019)

# SODA ASH & BICARBONATE

*Resilient demand & strong cash conversion*

**16%** net sales

**>10%**  
Cash flow growth <sup>[1]</sup>  
(average 2016-2019)

**~75%**  
Cash conversion <sup>[2]</sup>  
(2019)

[1] Operational cash flow after Capex and WC before payment of taxes and liabilities

[2] EBITDA – Capex / EBITDA



Resource efficiency



Expanding healthcare

## MARKET DRIVERS

### Resilient growing soda ash demand

- Mix of consumer and industrial-driven demand

### Environmental standards supporting future growth

- Insulation glazing & solar panels
- Plastics substitution in container glass
- Air pollution control from land facilities (power plants, incinerators) to shipping vessels
- Lithium extraction to fuel (EV) batteries

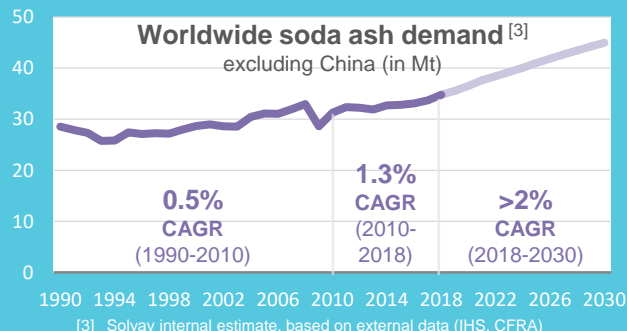
## HOW WE WIN

### We offer security of supply

- Global network of world-class and local assets
- Capacity addition of 1.4 Mt capacity in soda ash and bicarbonate by 2022

### We are technology and cost leaders

- Strong asset base, based on scale, access to marine transport and natural soda ash
- Digitalization & manufacturing excellence drive cost competitiveness
- Focus on reducing CO2 footprint
- Development of sustainable bicarbonate solutions



Solvay sales (2018)



~15%  
Food packaging



~15%  
Home & health care



~30%  
Chemical industry



~15%  
Construction



~15%  
Resources & Environment  
(flue gas treatment, mining, ...)



10%  
Agro & Food

# G

GROWTH

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RESILIENCE

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OPTIMIZE

# W

WIN

## SOLUTIONS

*Unlock value*

### Unique formulation & application expertise

#### Selective opportunities to grow

- Natural food ingredients
- Crop care
- Coatings
- Mining solutions



### Strategic intent

#### Optimize returns

#### INNOVATION

Focus on eco-friendly solutions

#### CUSTOMERS

Digitalization, focus on key accounts

#### INVESTMENT

Selective in niche opportunities

#### Key levers

- Innovate selectively in specialty niche markets
- Fix shale oil & gas and other low-return businesses
- Drive efficiency and address fragmented industrial footprint

### Track record

**Returns**  
**< WACC**

(average 2014-2019)

**Flat**

Net sales & EBITDA growth  
(average 2014-2019)

**~17%**

EBITDA margin  
(2019)

# HOME & PERSONAL CARE

*Performant & convenient*

~10% net sales

## MARKET DRIVERS

Attractive market potential: GDP+

- Request for more natural and bio based solutions
- Growing customer base
- Enhanced performance and convenience
- Demand for Personalized and Premium Products
- Digital tools enabling the niche brands

## HOW WE WIN

We provide our customers with portfolio of innovative polymers and surfactants

- Homecare and I&I: solutions & ingredients for fabric care, dish care and surface care that enhance the performance
- Personal care: natural & synthetic polymers, surfactants, fragrances and precipitated silica serving the hair/skin/oral care and cosmetics markets
- Food packaging: high performance materials for safe, reliable and convenient food packaging
- Aroma: world's largest integrated producer of vanillin for the flavors & fragrances industries

*Our Products can be found in over **2.5B bottles of personal care products** every year, enhancing the lifestyle of millions of consumers around the globe.*



*We support more sustainable lifestyles in Home & Hygiene through our solutions for long lasting disinfection, low energy washing, and fabric enhancement, present in **over 1.5B bottles** every year.*



Eco-friendly solutions

# G

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WIN

# SOLVAY ONE: NEW GROUP OPERATING MODEL TO WIN

## LEGACY SOLVAY

### Multiple cultures

- Solvay + Rhodia + Cytec + ...

### Decentralized operating model

- Significant empowerment to deliver at business unit level
- Fragmented customer account management and culture
- Limited cross-business talent development

### Partial enterprise-wide efficiency programs

- Manufacturing excellence

### Non-differentiated mandates

- Same KPIs and incentives for all

## NEW SOLVAY

### Single purpose

### Enterprise leadership with strong performance management

- Strategic enterprise customer engagement
- Capital discipline & resource redeployment
- Group best practices, know-how and simplified processes
- Centrally driven talent development and deployment
- Business units empowered to deliver (P&L and cash)

### Repeatable cost and cash playbook

- Simplification, order-to-cash, indirect spend, Zero Based Budgeting
- Productivity measures

### Distinct mandates with aligned incentives



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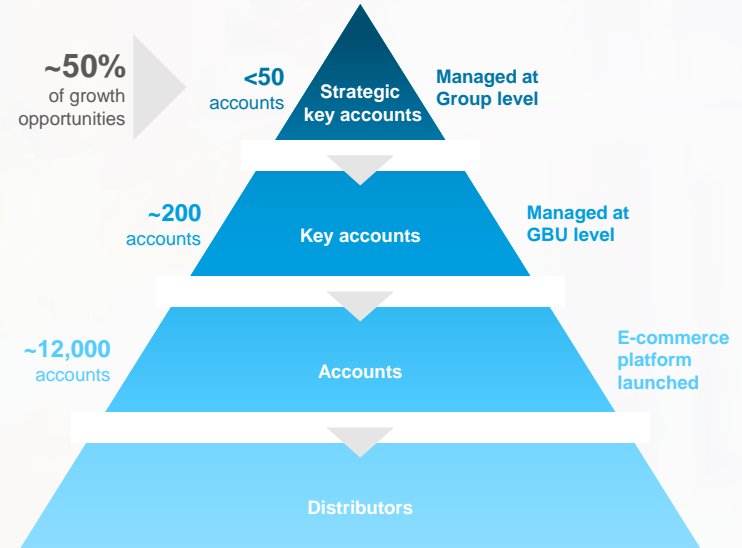
## SOLVAY ONE

*Organic growth fueled by differentiated customer engagement model*

### CUSTOMER CENTRICITY

- Tailor service and approach based on customer segmentation to drive innovation
- Deploy talent to new strategic account roles centered around key accounts
- Incentives to align with customer value creation and NPS <sup>[1]</sup>
- Deploy Specialty Polymers e-commerce global platform across the Group, with first sales in 2019
- Leverage Group distribution channel for efficient order-to-cash process

[1] Net Promoter Score



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# COMMITTED TO DELIVERING ENHANCED VALUE

## MID-TERM FINANCIAL TARGETS

	2019 estimate	2020 – 2024	
Underlying EBITDA growth	-2% to -3%	Mid-single digit / year average	
FCF conversion <sup>[1]</sup>	Around 22%	Exceed 30% by 2024	
ROCE	Around 8%	Exceed 11% by 2024	

2020 outlook to be communicated in February 2020  
All targets are on an organic basis (at constant forex and scope)

[1] FCF Conversion: FCF to Solvay shareholders (before netting of dividends paid to Non Consolidated Interests) divided by the EBITDA  
[2] FCF to Solvay shareholders



# WELL-POSITIONED TO BENEFIT FROM A MORE ESG-FOCUSED WORLD

## Sustainable Products

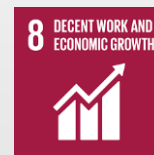
- Deliver financial growth and profitability through materials and compounds that help address climate change, resource efficiency and improve quality of life

## Sustainable Employer

- Offer a safe, engaging and diverse workplace to maximize our employee potential and help achieve operational excellence
- Since 2012, reduced safety incident rates by 32%

## Sustainable Planet

- Reduce environmental impact through lower resource consumption, emissions and waste generation
- Ex: 1 million tonne absolute Scope 1+2 greenhouse gas reduction



**AAA**

*MSCI ESG (on a scale of AAA-CCC)*

**#2 out of 42**

*Diversified Chemicals - Sustainalytics*

**92<sup>nd</sup> percentile**

*FTSE4GOOD*

**Top 10 of 159**

*WBCSD*

# WHY INVEST?

- ✓ Attractive secular trends drive long term growth
- ✓ Leadership positions >75% of portfolio
- ✓ Strong ESG credentials
- ✓ Best-in-class margins
- ✓ Resilient cash, investment-grade
- ✓ Growth and cash generation to drive stable and growing dividends

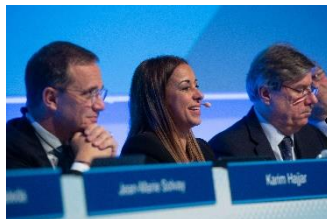
*G.R.O.W. strategy to enhance shareholder value*

# STRONG TRACK RECORD OF CONTINUED SHAREHOLDERS' DISTRIBUTION

OUR POLICY IS TO PROPOSE A DIVIDEND INCREASE TO OUR SHAREHOLDERS WHENEVER POSSIBLE



For more than 35 years, the dividend has been stable or has gradually increased, and has never been reduced.



Dividend CAGR since 1982

**~5.5%**





**SOLVAY**

asking more from chemistry®

### Investor Relations

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