# 2016 Results

Presentation of 2016 full year results February 16, 2017

Gilles MICHEL - Chairman & CEO
Olivier PIROTTE - CFO



### **Disclaimer**

More comprehensive information about Imerys may be obtained on its website (www.imerys.com), under Regulated Information, including its Registration Document filed under No. D.16-0153 on March 17, 2016 with Autorité des marchés financiers. Imerys draws the attention of investors to the "Risk factors and Internal control" set forth in section 4 of the Registration Document.

This document contains projections and other forward-looking statements. Investors are cautioned that such projections and forward-looking statements are subject to various risks and uncertainties (many of which are difficult to predict and generally beyond the control of Imerys) that could cause actual results and developments to differ materially from those expressed or implied.

Crédits photographiques: Photothèque Imerys, Droits Réservés, xxx.



# 2016 Results

Highlights	4
Results	16
Outlook	25
Appendix	27



# **Highlights**



## **2016 Highlights**

#### Solid results

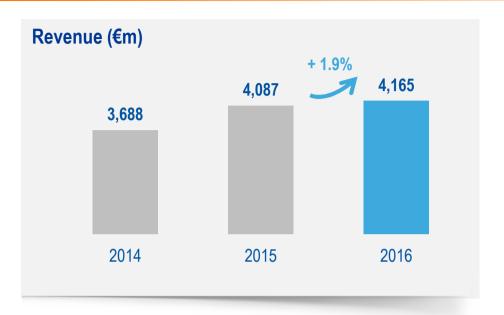
- ◆ On a full-year basis: current<sup>(1)</sup> EBITDA up + 9.9% and current operating income up + 8.2%; operating margin at 14.0%
- ◆ In Q4 2016: relative improvement in economic environment with + 1.4% organic growth<sup>(2)</sup> in revenue
- ◆ Firm free operating cash flow generation: €395 m
- Achievement of net income from current operations target: + 6.0%
- Net income from current operations per share up + 6.8 % and offering a further increase in the dividend per share at 1.87 € (+ 6.9%)
- New major step in external growth strategy: contemplated acquisition of Kerneos

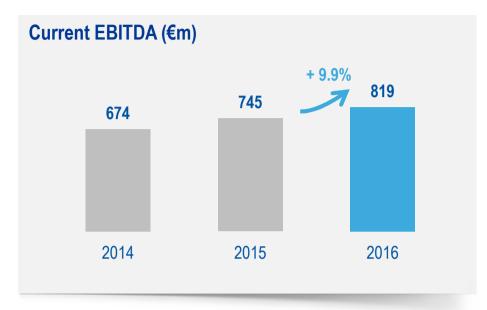


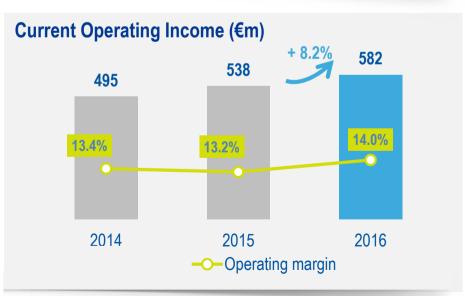
<sup>(1) &</sup>quot;Current" means "before other operating income and expenses"

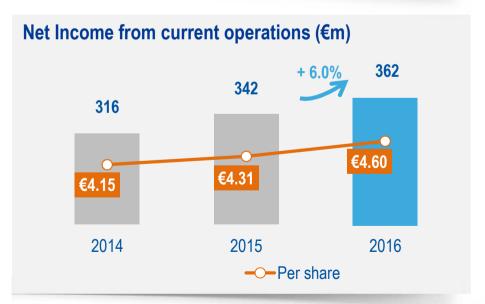
<sup>(2) &</sup>quot;Organic growth" or "LFL" (like-for-like) means "at comparable Group's structure and exchange rates"

# **Higher results in 2016**









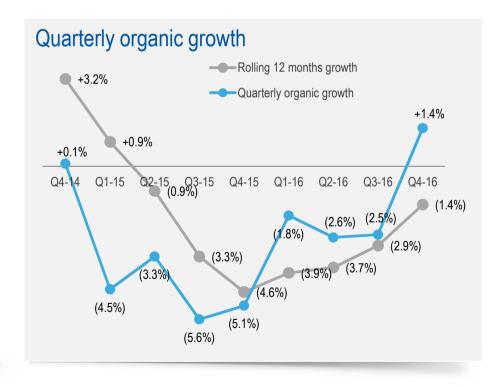


#### **Market environment**

R	evenue*	
Construction and renovation	19%	<ul> <li>Sustained growth of new single-family and multi-family housing starts in the US (+ 4.9% 2016 <sup>(1)</sup> vs 2015)</li> <li>Moderate and contrasted growth in Europe</li> </ul>
Current Consumption	15%	■ Firm current consumption (food and beverage, consumer electronics, cosmetics, etc.)
Paper	14%	<ul> <li>Decrease in printing and writing paper production in mature economies<sup>(2)</sup> (- 3.0% 2016 vs 2015)</li> <li>Increase in emerging countries (+ 1.0% 2016 vs 2015)</li> </ul>
Iron & Steel	12%	<ul> <li>Stabilisation of steel production in North America <sup>(3)</sup></li> <li>Smaller decline in Europe: - 2.3 % 2016 vs 2015 (- 6.1 % H1 2016/ H1 2015)</li> </ul>
Automotive	10%	<ul> <li>Firm car sales in the US (+ 2.0 % 2016 vs 2015) (4) at historically high levels</li> <li>+ 2.4 % increase in sales in Europe in 2016</li> </ul>
Roofing in France	7%	<ul> <li>Strong increase in new single-family housing starts + 8.4% 2016 vs 2015 <sup>(5)</sup>, renovation still declining</li> <li>Decline in roof tiles sales - 1.9% 2016 <sup>(6)</sup> vs 2015</li> </ul>
US non conventional oil exploration	< 1%	<ul> <li>Rise in oil prices in H2 2016; first signs of recovery, in particular in basins using mainly sand</li> </ul>

# + 1.4% quarterly organic growth in Q4 2016

- Relative improvement in some markets and geographic areas
- ◆ Favorable basis effect (- 5.1% in Q4 2015)





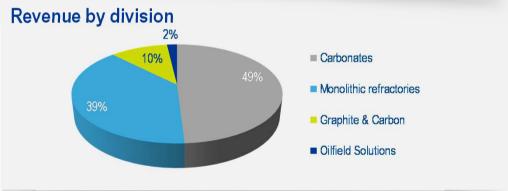
<sup>(\*) 2015</sup> estimates

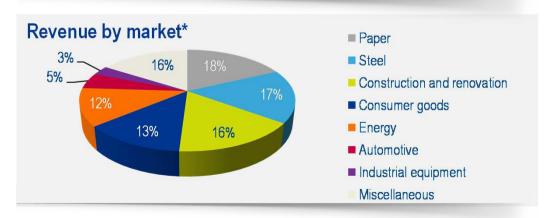
<sup>(1)</sup> Census (2) RISI (3) Worldsteel (4) IHS automotive, Wards (5) Commissariat Général au Développement Durable

<sup>(6)</sup> Fédération Française de Tuiles et Briques

### **Energy Solutions and Specialties** (30% of 2016 revenue)





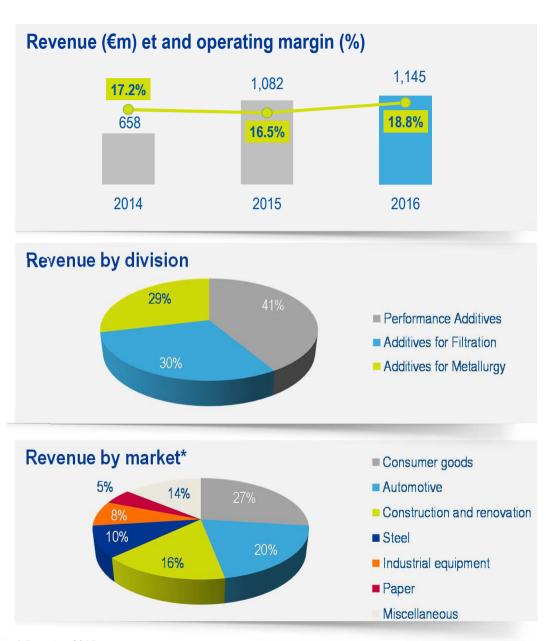


- 2016 revenue: stable on current basis,3.0% LFL
- Carbonates: market dynamism in the US and Southeast Asia; integration of specialty activities of Solvay
- Monolithic Refractories: smaller decline in European steel production at the end of the year; firm markets in India and Asia
  - Acquisitions for a full-year revenue of ca. €30 m (notably SPAR in the US, closed in Sept. 2016)
- Rapid growth of lithium-ion battery market for mobile energy: multi-year investment program initiated
- Ceramic proppants
  - Maintaining commercial and industrial activity
  - Negative contribution to current operating income:
    - €23 m, in line with forecasts



\* 2015 data

### Filtration & Performance Additives (27% of 2016 revenue)

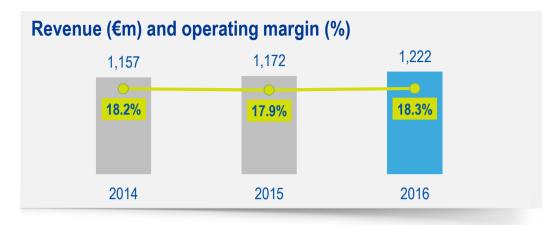


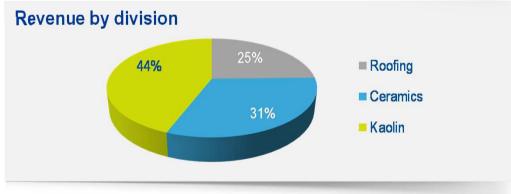
- 2016 revenue: + 5.8% on current basis,
   + 1.4% LFL
- S&B: 3-year synergies target met in 2016
- Dynamism of Performance Additives and Filtration divisions, sustained by new products and current consumption
- Satisfactory performance of the Metallurgy division
  - Acquisition of Damolin, present in industrial absorbents: €45 m of revenue in 2015 (closed in Jan. 2017)

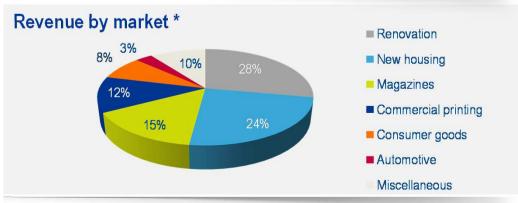


\* Données 2015

### Ceramic Materials (29% of 2016 revenue)





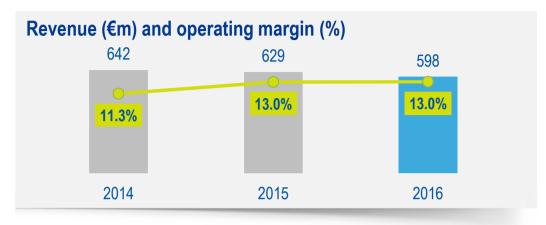


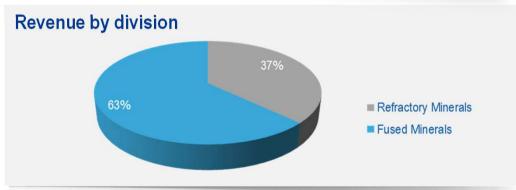
- 2016 revenue up + 4.2% on current basis,- 1.4% LFL
- Roofing: solid performance in a declining clay roof tiles market
- Good dynamics of the Kaolin division
  - Contribution of hydrous kaolin activities
  - Development in board packaging and specialty applications
- Ceramics: generally buoyant markets particularly in emerging countries
  - Continuing refocusing strategy (disposal of a business in Spain)

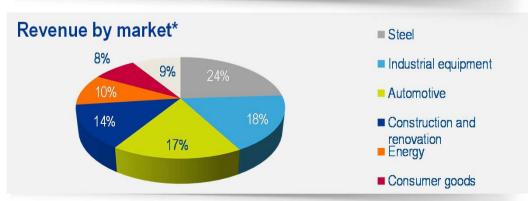


\* Données 2015

### High Resistance Minerals (14% of 2016 revenue)







2016 revenue: - 5.0% on current basis,- 3.1 % LFL

#### Fused Minerals: demand improvement in Q4

- Volume growth of the Bahrein fused alumina plant
- First sales of ultrafine alumina for high performance abrasives
- Acquisition of some specialty alumina activities of Alteo Group: 2015 revenue of €50 m (closed Dec. 31, 2016)

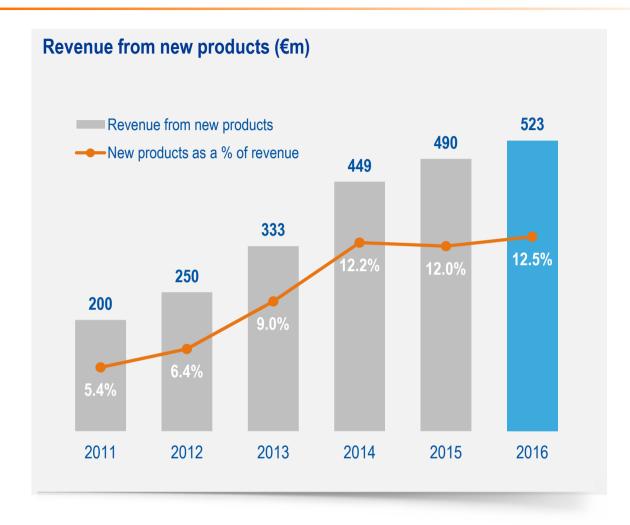
#### Refractory Minerals

- Still difficult market environment
- Continuation of operating excellence and industrial facilities restructuring programs, particularly in China



\* 2015 Data

## Innovation: high level of new products

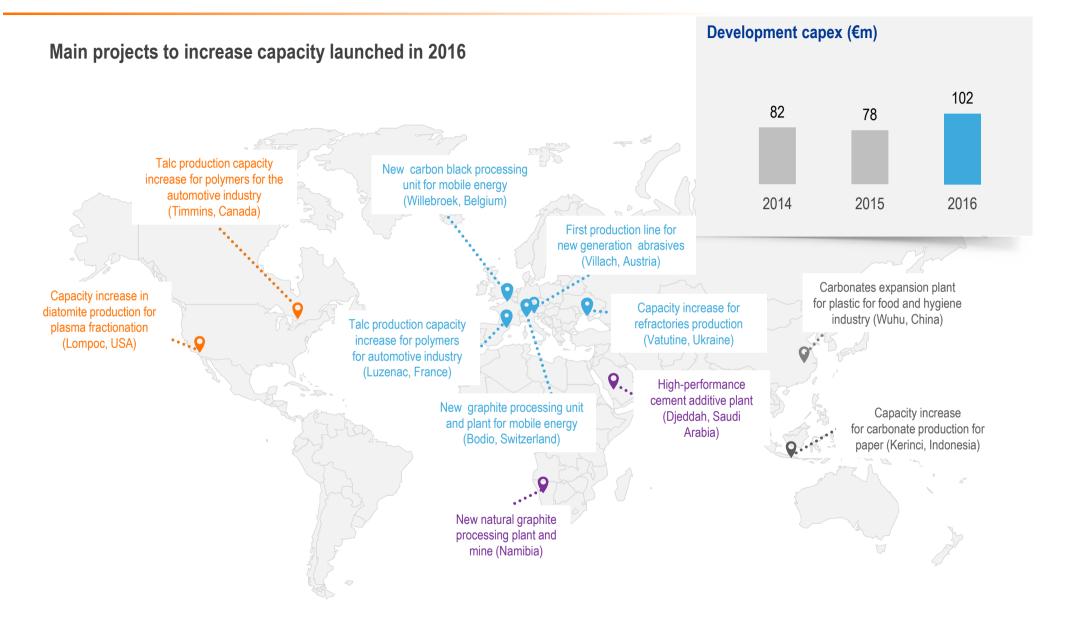


More than 90 new products launched in 2016



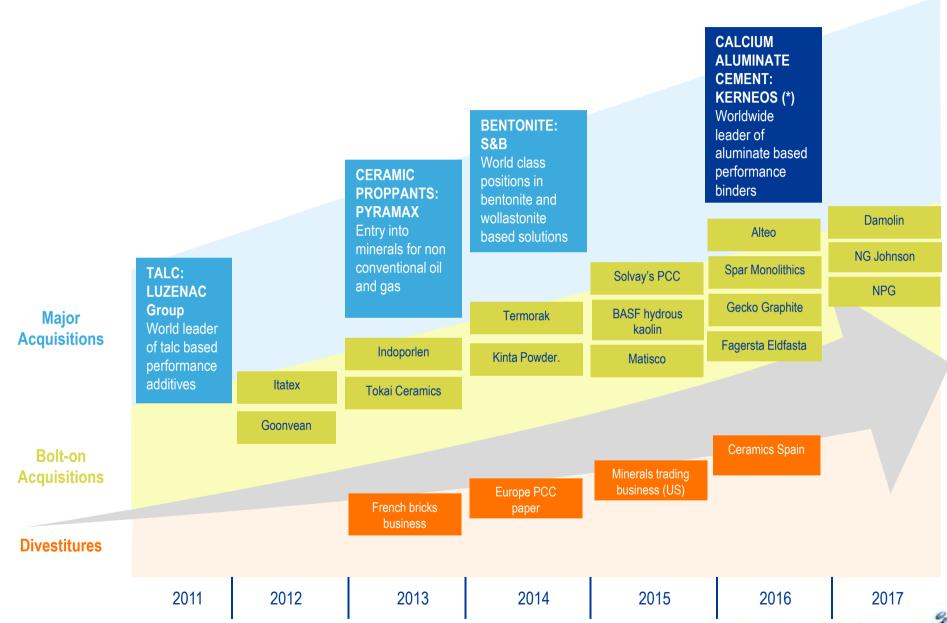


### **Sustained development capex**





## External growth, a contributor to Imerys growth





### Kerneos, a major step in external growth strategy

### Kerneos: global leader in aluminate-based performance binders Revenue of €415 m, EBITDA of €99 m <sup>(1)</sup>

- Worldwide #1 in aluminate-based performance binders for construction:
  - Additives for adhesives and mortars with selfleveling and quick drying properties
  - Faster growth than the construction markets
- Worldwide #1 in aluminate-based performance binders for refractories
  - Formulation of monolithic refractories
  - Excellent resistance to heat, mechanical wear and corrosion

- 9 industrial facilities, 2 red bauxite mines
- Enterprise value: ca. €880 m
  - Enhancing Imerys' operating margin and cash generation
  - Accretive acquisition to net income from current operations per share in the first full year
  - Value-creating acquisition with annual synergies estimated at €23 m
- Closing expected mid-2017 (2)

# Alteo, SPAR, Damolin, Fagersta Eldfasta, NG Johnson, NPG<sup>(3)</sup>: more than €100 m of contribution to 2017 revenue

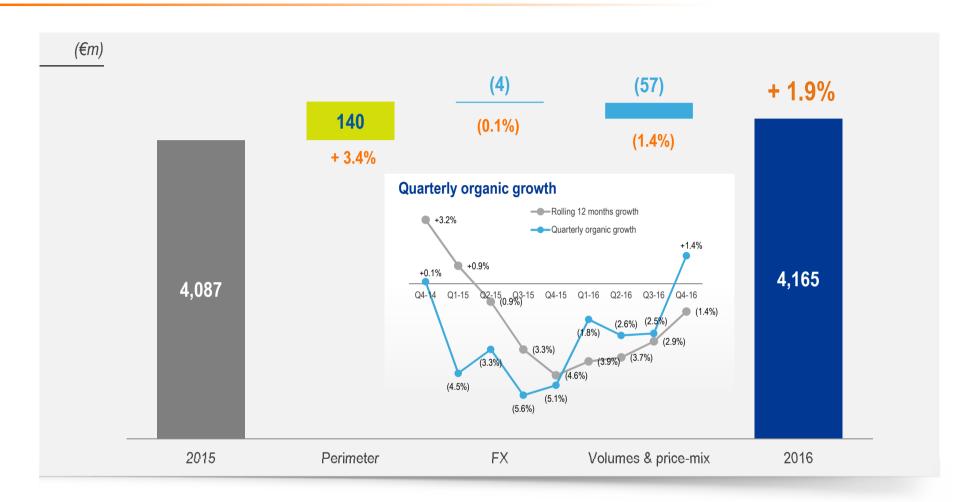
- (1) Last 12 months as of September 30, 2016
- (2) Subject to relevant workers' council consultation, as well as regulatory authorities
- (3) Acquisitions completed in 2016 and early 2017



# Results



## Revenue growth of + 1.9% to €4,165 m



- Contribution from acquisitions completed in 2015
- Contribution from new products: + 0.7% price-mix effect year-on-year
- Volumes back to growth in Q4: + 0.9% (- 2.1% year-on-year)



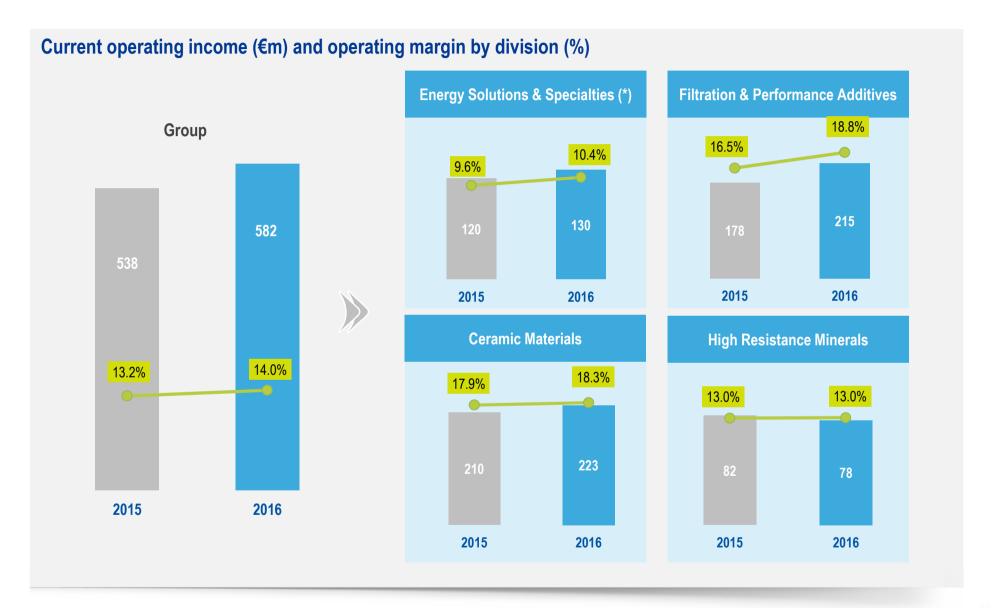
# **Current operating income up + 8.2%**

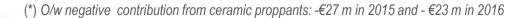


- Rise of synergies from acquisitions, completed a year ahead of schedule in respect of S&B
- Specialty product offering strengthened: price-mix contribution of + €21 m
- Variable and fixed costs improved by + €18 m, thanks to operational excellence programs and effective procurement



# 80 bps improvement in operating margin to 14.0%







## Net income from current operations up + 6.0%

(€m)	2015	2016	Variation
Current operating income	538.1	582.1	+ 8.2 %
Current financial expense	(55.5)	(63.9)	15.1%
of which: Interest expense, net	(49.1)	(52.7)	+ 7.3 %
Average net financial debt for the period	1,466.9	1,516.5	+ 3.4 %
Average cost of debt	2.5%	2.4%	- 0.1 point
Current income tax	(140.5)	(154.1)	
Current tax rate	29.1 %	29.7 %	+ 0.6 point
Minority Interests	(0.7)	(2.0)	
Net income from current operations, Group's share	341.5	362.1	+ 6.0 %
Net income from current operations, Group's share (in euros) (1)	4.31	4.60	+ 6.8 %
Other operating income and expenses, net and net income of assets held for sale	(273.1)	(69.3)	n.s.
Net income, Group share	68.4	292.8	n.s.

#### Other operating income and expenses

- ◆ Restructuring costs (of which €25 m of depreciation charge, particularly in Refractories in China)
- Acquisition costs

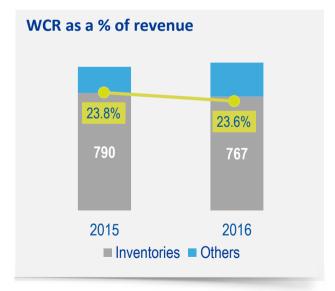


# Robust cash flow generation to €395 m

(€ millions)	2015	2016
Current EBITDA	745.4	818.9
Change in operating working capital requirement (WCR)	21.8	14.4
Paid capital expenditure	(271.6)	(278.5)
Notional tax	(156.7)	(173.1)
Autres	3.6	13.0
Current free operating cash flow	342.5	394.6

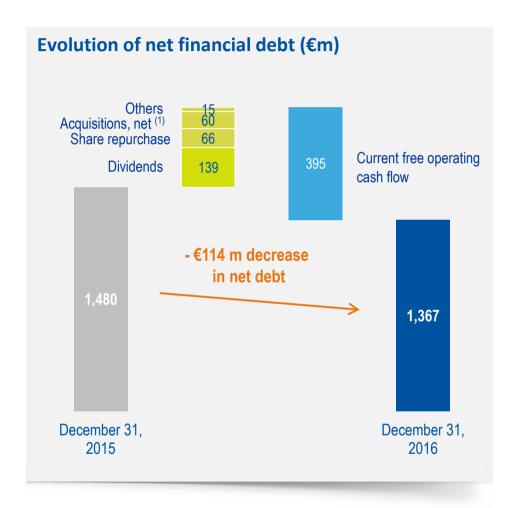








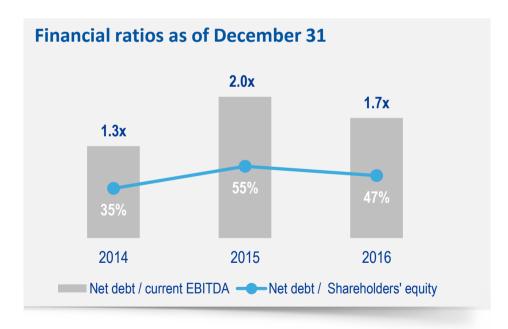
### **Sound financial structure**



#### Long term debt rating

◆ Moody's: Baa2, stable outlook

◆ S&P: BBB, stable outlook



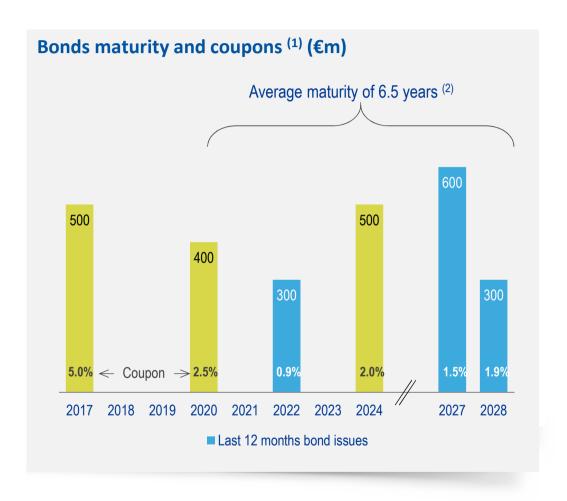
(1) Acquisitions, net of disposals and transactions on equity



## **Financial flexibility**

(€m)	12/31/2016
Bonds	2,088
Other debts	86
Gross debt	2,174
Cash	808
Net debt	1,367

- Financial resources as of Dec. 31, 2016
  - ◆ Total: €3.9 bn (maturity: 4.9 years)
  - ◆ Available resources excl. cash : €1.9 bn

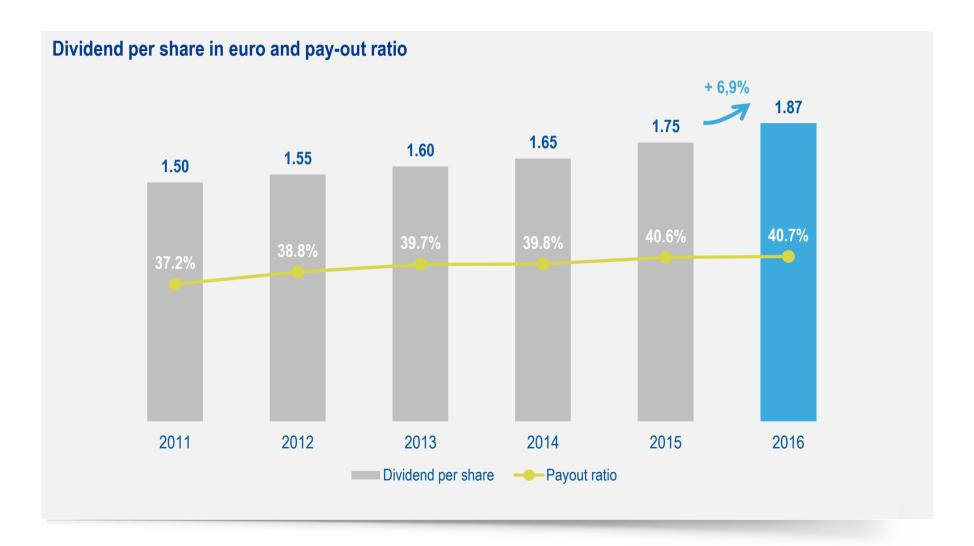




<sup>(1)</sup> Including €600 m bond issue on January 10, 2017 maturing in 2027

<sup>(2)</sup> Excluding 2007 bond issue maturing in April 2017

# Proposed dividend per share up + 6.9%





# **Outlook**



### 2017 Outlook

- Relative improvement in economic environment in Q4, yet to be confirmed for 2017, in light of geopolitical uncertainties
- Maintaining programs focusing on operational performance (innovation, industrial excellence, costs and cash flow management)
- Integration of acquisitions, and notably of Kerneos, expected to close mid-2017



# **Appendix**

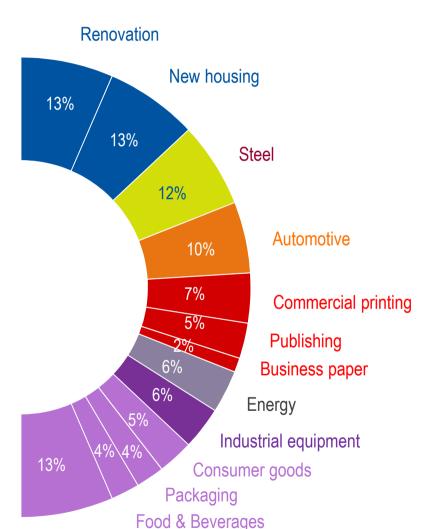
2016 Results 28

Kerneos 40

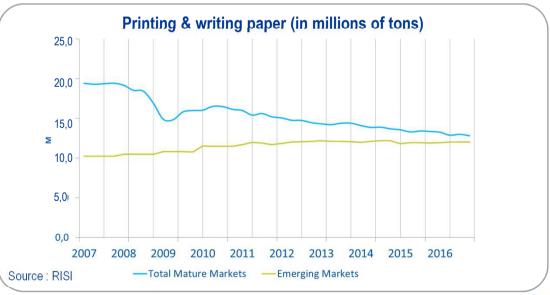


## Market indicators for construction, printing & writing paper

#### 2015 revenue







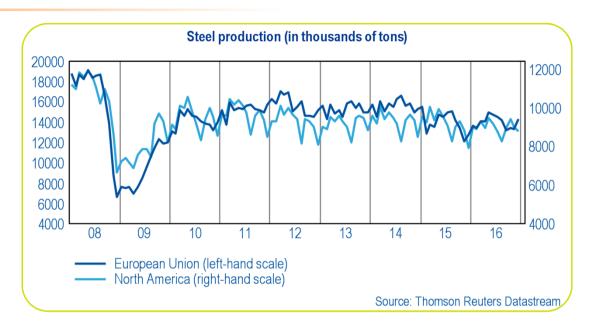


Others

## Indicators for steel production and passenger car registrations

#### 2015 revenue Renovation New housing 13% 13% Steel 12% **Automotive** 10% 7% Commercial printing 5% **Publishing** 6% Business paper 6% Energy Industrial equipment 13% Consumer goods Packaging

Food & Beverages



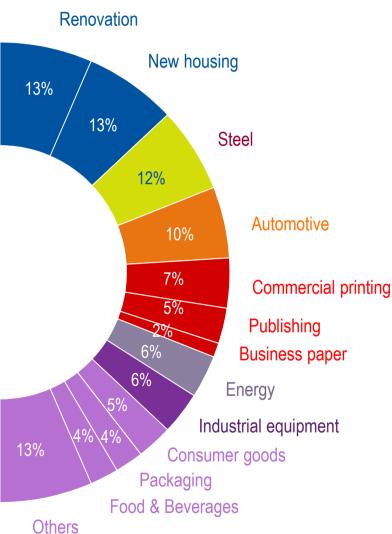


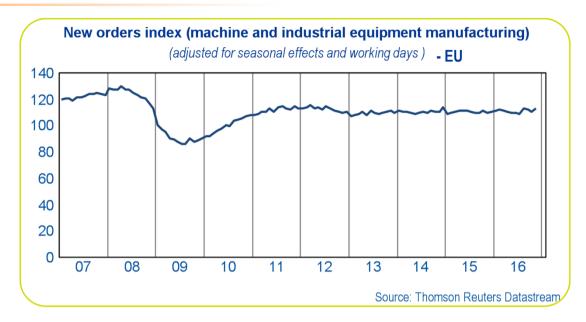


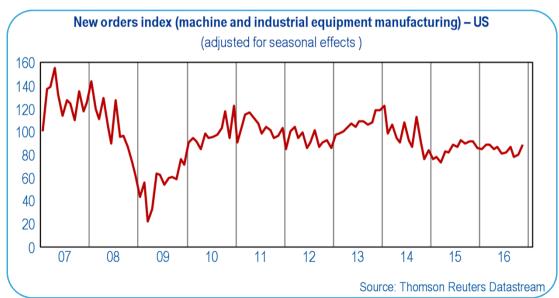
Others

## Industrial production indicator: industrial equipment

# 2015 revenue

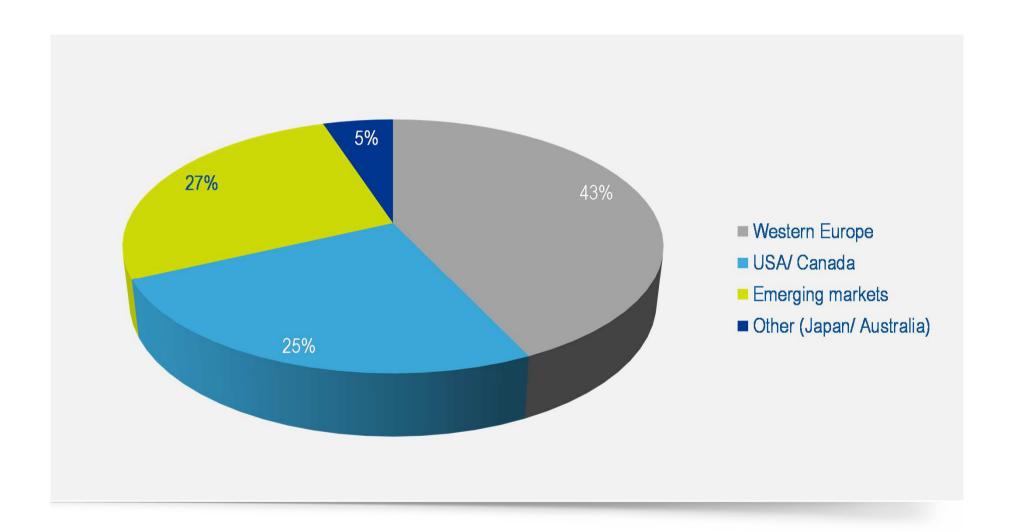






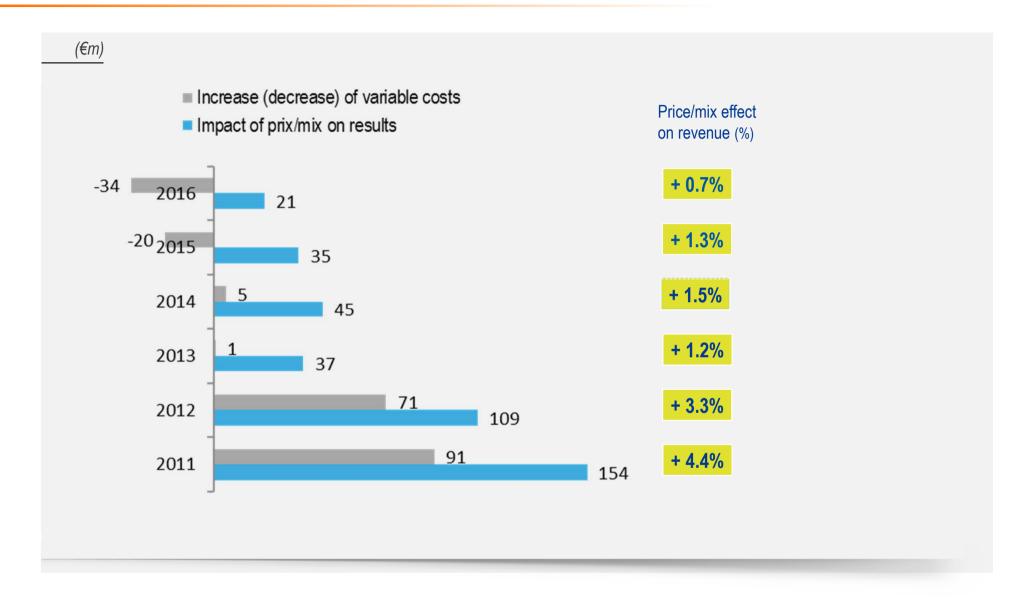


# Breakdown of revenue by geography in 2016





# Contribution of price-mix and variable costs to current operating income





# **Revenue and Current Operating Income by quarter**

Revenue (€m)	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Energy Solutions & Specialties	303.2	321.1	338.9	315.5	312.5	323.5	314.1	303.0	300.8	316.2	319.6	314.0
Filtration & Performance Additives	159.0	165.8	167.8	165.4	218.9	306.2	284.5	271.9	278.2	292.1	282.0	292.2
Ceramic Materials	289.5	292.5	295.1	279.7	291.0	301.4	285.8	294.2	323.2	311.4	293.8	293.6
High Resistance Minerals	163.3	165.6	154.2	158.6	165.3	165.0	156.0	143.1	148.3	151.5	146.5	151.4
Eliminations & Holding companies	(10.9)	(11.2)	(12.2)	(12.7)	(14.1)	(12.4)	(13.2)	(10.2)	(12.4)	(12.6)	(12.1)	(12.5)
Total revenue	904.1	933.8	943.8	906.5	973.6	1,083.7	1,027.2	1,002.2	1,038.1	1,058.6	1,029.8	1,038.7
LFL growth	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Energy Solutions & Specialties	+ 8.3 %	+ 10.3 %	+ 12.5 %	+ 4.6 %	- 4.7 %	- 3.5 %	- 9.7 %	- 8.1 %	- 6.8 %	- 2.9 %	- 3.2 %	+ 1.2 %
Filtration & Performance Additives	+ 5.9 %	+ 3.2 %	+ 6.3 %	+ 0.8 %	+ 2.8 %	+ 3.6 %	- 0.1 %	+ 2.7 %	+ 2.3 %	- 1.7 %	- 0.5 %	+ 6.0 %
Ceramic Materials	+ 1.4 %	- 0.1 %	- 2.0 %	- 2.6 %	- 6.3 %	- 1.7 %	- 4.4 %	- 4.7 %	+ 2.8 %	- 2.3 %	- 2.1 %	- 3.8 %
High Resistance Minerals	+ 4.4 %	- 1.7 %	- 4.3 %	- 3.0 %	- 7.4 %	- 10.4 %	- 3.4 %	- 10.5 %	- 6.4 %	- 4.4 %	- 5.5 %	+ 4.9 %
Total LFL growth	+ 5.0 %	+ 3.7 %	+ 3.9 %	+ 0.1 %	- 4.5 %	- 3.3 %	- 5.6 %	- 5.1 %	- 1.8 %	- 2.6 %	- 2.5 %	+ 1.4 %
Current operating income (€m)	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Group current operating income	117.3	130.4	127.0	119.8	123.2	150.8	135.0	129.1	135.4	157.7	148.5	140.6
Operating margin (%)	13.0 %	14.0 %	13.5 %	13.2 %	12.7 %	13.9 %	13.1 %	12.9 %	13.0 %	14.9 %	14.4 %	13.5 %



# **Revenue and Current Operating Income by semester**

Current Operating Income (€m)	H1 2012	H2 2012	H1 2013	H2 2013	H1 2014	H2 2014	H1 2015	H2 2015	H1 2016	H2 2016
Solutions pour l'Energie & Spécialités	77.5	65.7	67.9	60.2	72.1	77.5	64.4	55.3	67.0	62.9
Filtration & Additifs de Performance	45.4	44.9	51.3	49.6	58.0	55.4	88.0	90.1	105.0	109.6
Matériaux Céramiques	112.5	97.0	108.5	111.2	104.4	106.7	106.8	103.3	113.7	109.7
Minéraux de Haute Résistance	53.6	41.6	37.4	32.7	36.5	36.3	41.4	40.2	40.0	38.0
Eliminations & Holdings	(23.6)	(26.6)	(21.0)	(20.7)	(23.2)	(29.0)	(26.5)	(24.8)	(32.7)	(31.1)
Group Current Operating Income	265.4	222.7	244.0	233.0	247.7	246.9	274.0	264.1	293.0	289.1

Operating margin	H1 2012	H2 2012	H1 2013	H2 2013	H1 2014	H2 2014	H1 2015	H2 2015	H1 2016	H2 2016
Solutions pour l'Energie & Spécialités	11.8 %	10.4 %	10.9 %	9.6 %	11.5 %	11.8 %	10.1 %	9.0 %	10.9 %	9.9 %
Filtration & Additifs de Performance	14.3 %	14.2 %	15.9 %	15.9 %	17.9 %	16.6 %	16.8 %	16.2 %	18.4 %	19.1 %
Matériaux Céramiques	17.3 %	15.7 %	17.4 %	19.1 %	17.9 %	18.6 %	18.0 %	17.8 %	17.9 %	18.7 %
Minéraux de Haute Résistance	13.9 %	11.7 %	11.1 %	10.3 %	11.1 %	11.6 %	12.5 %	13.4 %	13.3 %	12.8 %
Marge opérationnelle consolidée	13.4 %	11.7 %	13.0 %	12.8 %	13.5 %	13.3 %	13.3 %	13.0 %	14.0 %	14.0 %



# **Current financial expense**

(€m)	2015	2016
Interest expense, net	(49.1)	(52.7)
Unwinding of long-term provisions and change in other provisions	(3.9)	(3.7)
Net interest expense on pensions	(11.0)	(6.9)
Currency translation, other financial income and expense and financial instruments	8.5	(0.5)
Current financial expense	(55.5)	(63.9)



## **Energy Solutions & Specialties**

#### Carbonates

Natural (GCC) and Precipitated (PCC) Calcium
 Carbonates used as filling or coating pigment for paper production and functional additives for paints, plastics etc...

#### Monolithic Refractories

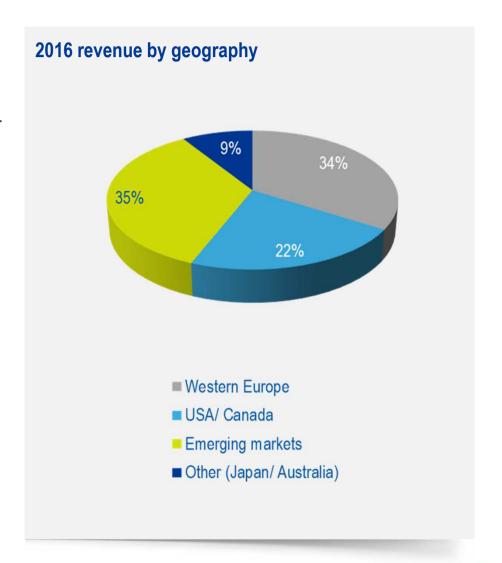
- Unshaped refractory materials used to protect industrial equipment from high temperatures in heavy industries (steel, cement, power generation, petro-chemicals, etc.)
- Protection for furnaces, kilns, crucibles and incinerators

### Graphite & Carbon

 High performance graphite powder for mobile energy, electronics and engineering, refractories for the transport and automotive markets

#### Oilfield Solutions

 Production of ceramic proppants for non-conventional oil and gas exploration





## Filtration & Performance Additives

#### Performance Minerals

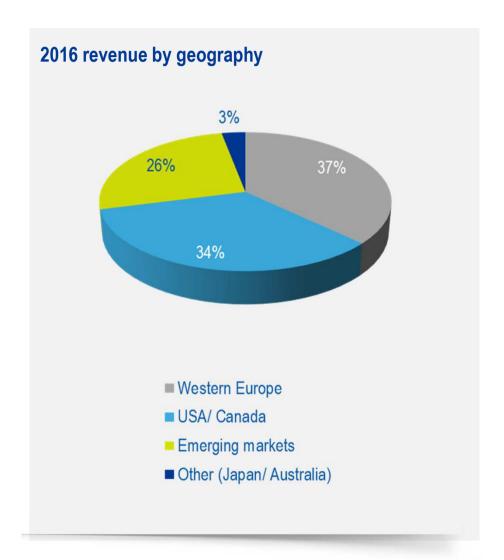
- Additives for paints, plastics, polymers, rubbers, adhesives, sealants, pharma
   & personal care (mainly talc, mica and wollastonite, etc.)
- Perlite based solutions used in building materials and horticulture

#### Minerals for Filtration

 Filtration minerals providing filter aid for edible liquids such as beer, wine, oil, fruit juice, etc. (mainly diatomite and perlite)

## Additives for Metallurgy

 Bentonite (binders for foundry, sealing solutions, additives for drilling and for consumer products) and continuous casting fluxes for the steel industry





## **Ceramic Materials**

## Roofing

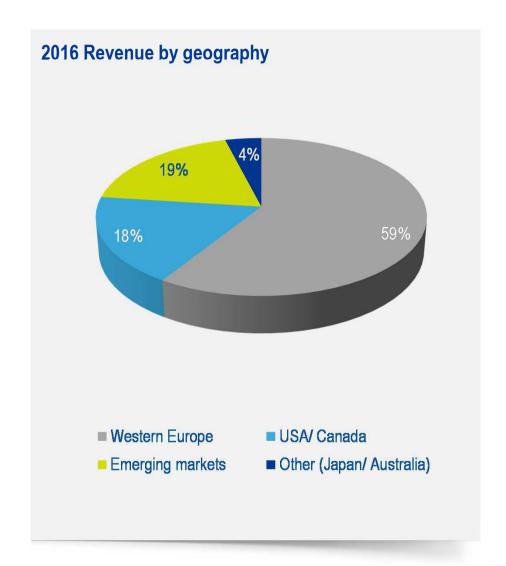
◆ Clay roof tiles in France

#### Ceramics

 Raw materials and bodies for tableware, sanitary and floor tiles, quartz, technical ceramics

#### Kaolin

◆ Kaolin for applications in the paper, paints, plastics, ceramics and refractories markets, etc.





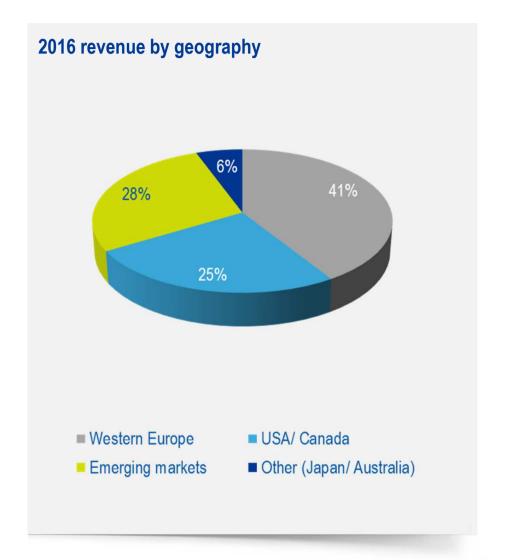
# **High resistance minerals**

#### Fused Minerals

 Fused alumina and bauxite for abrasives (cutting, grinding and polishing mills, sandpapers), zirconium for refractories, oxygen sensor

## Refractory Minerals

 Production of acidic refractory minerals including andalusite, chamottes





# Kerneos: a new platform to grow Imerys' minerals-based specialties



## **Main strategic rationale for Imerys**



- A world class technology platform
- Entering into a new and growing market segment
  - Leveraging growing adoption rate of aluminate technologies in construction
  - ◆ Enhancing Imerys financial performance with above Groupaverage top line growth, profitability and cash flow generation
- Close fit with Imerys' business model
  - Leading technologies, high quality assets with global footprint, secured access to mineral reserves
  - Leadership position: worldwide # 1 in calcium aluminates performance binders
  - High-functional value products with multiple key properties, for a small share of client input costs
  - Innovation leadership and customer focus
  - Shared culture of excellence



# Kerneos: global leadership positions with proven track record of growth and profitability



Revenue by segment

for construction

technologies

Worldwide #1 in CAC

performance binders



# Worldwide #1 in CAC performance binders 32% for refractories Refractory technologies Construction technologies & other specialty applications

- Proven track-record of growth and resilient profitability at high level
  - ◆ Revenue: + 3.3% CAGR 2012-2016<sup>(1)</sup>. of which + 7.1% organic growth p.a. in construction technologies between 2012 and 2015
  - ◆ 24% EBITDA margin in 2016
- Strong free cash flow
  - ◆ €74m<sup>(2)</sup> in 9 months 2016 LTM vs. €43m in 2012

68%

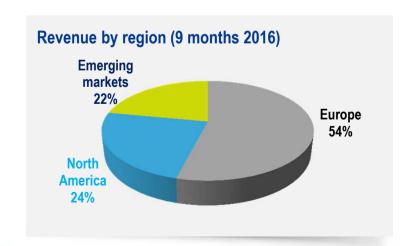


<sup>(1)</sup> Last 12 months as of September 30, 2016

<sup>(2)</sup> Free cash flow before taxes, excluding exceptional and non recurring items, as % of reported EBITDA. Free cash flow excludes financial lease charges

# With Kerneos, Imerys would complement its global footprint...

- Global presence: 1,500 employees in 9 industrial facilities and 17 sales offices
- Competitive industrial base located in key markets
- Secured access to required minerals (including ownership of red bauxite mines)
- Strong customer focus with recognized technical support and expertise
- Significant presence in growing geographies: ca. 50% of revenue in North America and emerging markets:



#### Sole CAC player with global footprint

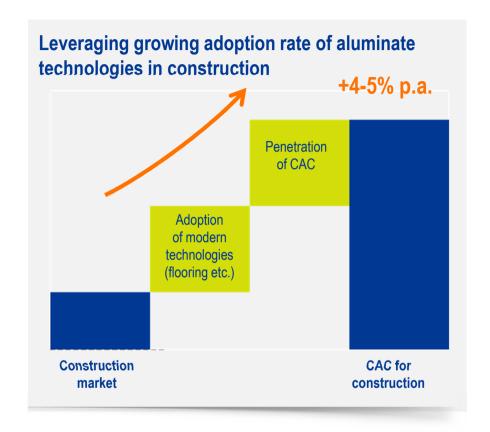


- Production Plants
- Commercial Offices
- Integrated Bauxite mining sites
- Countries with Industrial Sites



# ... and enhance its profile with 2/3 of Kerneos activities offering growth potential

- Construction technologies and specialty applications: long-term growth outperforming construction markets
  - Self leveling and quick drying properties
  - Cost effective solution
  - High penetration potential of mortars using CAC technology in the US
  - Continuing CAC penetration in all European markets (France, Germany and the UK)
  - Customer base including premium players (Sika, Bostik, Weber, Mapei, Thomsit, etc.)



#### Other specialty applications

- ◆ CAC products for wastewater treatment, mining industry, metal refinery, engineering jobs and specialized concrete producers
- Bauxite mining activities



## Refractory technologies: high value offering

#### Serving primarily as binders for refractory products (monolithics)

- Performance binders are critical to the performance of client products
- ◆ Represents a small share of client input cost in refractories

#### Benefiting from a resilient performance

- Selling almost exclusively added value CAC products with high level of technical service
- ◆ Serving several high temperature industries (steel, cement, glass, petrochemical, incinerators, etc.)
- Substitution from bricks to monolithic refractories

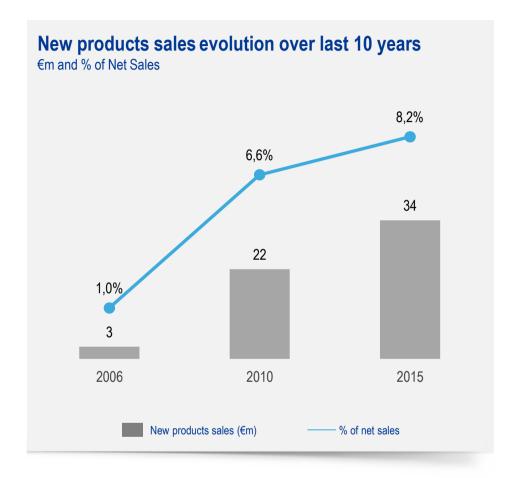
## CAC market for refractories prospect

- Expectations of mature countries recovery, India growth and increasing CAC penetration in emerging markets
- Expectation of markets with growing demand of modern standard



# Innovation leadership supported by strong R&D capabilities

- High quality R&D strengthening Imerys' innovation capabilities
  - ◆ 2 R&D centers dedicated to Construction technologies (France) and Refractories (China)
  - 5 application laboratories worldwide offering customers' support
  - Large cooperation network with universities and institutes



Selected trademarks





# **€23** m run-rate annual synergies identified

## Leveraging geographical coverage

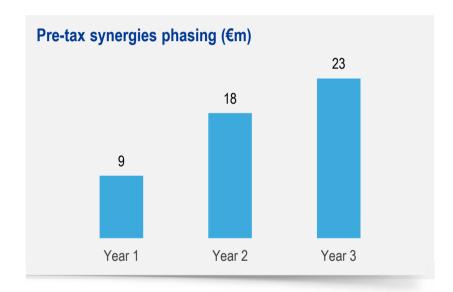
Kerneos stronger presence in some geographies

## Enhancing innovation potential

- New technologies/ applications
- Cross fertilization opportunities

## Cost optimization

- Procurement efficiencies
- Industrial set up





## **Imerys and Kerneos: a value creative transaction**

- Estimated enterprise value of c.€880 million
  - ◆ €23m annual run rate synergies from third full year of consolidation
  - ◆ 8.9x 2016 LTM EBITDA¹ and 7.2x post run-rate annual synergies
- Financed from Imerys' available resources
  - Available cash and secured financing
  - ◆ Complies with our objective to maintain an investment grade rating
  - Ensures financing flexibility: deleveraging thanks to solid cash generation
- Value creative acquisition
  - ◆ ROCE above WACC within 3 years, in line with Imerys stringent acquisition criteria
  - ◆ High single digit EPS² accretion from first full-year of consolidation
- Closing expected mid 2017, subject to relevant workers' council consultations and regulatory approvals







<sup>2.</sup> Net income from current operations per share



# Kerneos, a further step in Imerys' development strategy that matches all our value-creation criteria

World class technology platform Entry into a new growing market segment **Enhancement of Imerys growth and profitability profile Excellent fit with Imerys business model** Strong innovation capabilities Significant synergies identified Consistent with investment grade objective



# Calcium Aluminates: specialty minerals with multiple key properties

- Calcium aluminates are synthetic minerals obtained by reacting lime and alumina at high temperature
  - Lime generally coming from limestone
  - Alumina contained in natural minerals such as bauxite
- The product of this reaction after cooling is a hard mineral called calcium aluminates clinker
- Depending on the alumina content of products, three categories of calcium aluminates can be defined
  - 1 BTA: "Basse Teneur en Alumine" i.e. Low Alumina Content (< 50%)
  - MTA: "Moyenne Teneur en Alumine"
    i.e. Medium Alumina Content (50% < < 60%)
  - HTA: "Haute Teneur en Alumine" i.e. High Alumina Content ( > 60%)

Once ground, the clinker can be used as hydraulic binder ("Calcium Aluminate Cement" or "CAC")



Mechanical Strength
Abrasion Resistance

Resistance
to Corrosion

CAC
Properties

Resistance
CAC
Properties

Resistance
Control

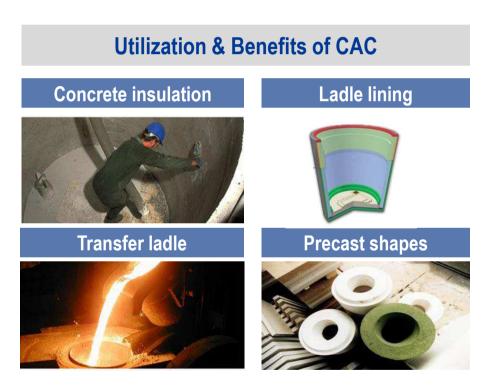
Resistance
to Heat

Non-efflorescence



## Overview of Kerneos refractory technologies applications

 Kerneos Refractory applications focuses on advanced CAC ingredients for products used in the insulation of furnaces and ladles (for instance in industries such as metal refining, cement and glass production, petrochemicals and incinerators)



## **Capabilities**

#### **Excellent resistance to:**

- Heat
- Mechanical wear
- Corrosion

#### **Shorter down time**

Generally lower labour costs than the classic bricks technique



# Overview of Kerneos construction technologies applications

■ Kerneos addresses the 4 main applications, with ~60% of sales generated by flooring

## **Applications Segmentation – Utilization & Benefits of CAC**

#### **Flooring** (~60% of sales1)



















#### Utilization

- Screeds
- Underlayment
- Overlayment

#### **Benefits**

- Self-leveling and fast-drying
- Wear-resistant
- Protec. vs. water-reemission.

#### Utilization

 Ceramic tile / natural stone / marble

Tiling

 $(\sim 10\%)$ 

- Adhesives
- Grouts

#### **Benefits**

- Fast drying
- Aesthetic
- Eco-friendly

#### Utilization

• Fast setting concrete and repair mortars

**Technical Mortars** 

 $(\sim 20\%)$ 

- Waterproofing
- Sealing

#### **Benefits**

- Fast drying
- Waterproofing

#### Utilization

- External thermal insulation composite systems
- Decorative renders, powder paints

#### **Benefits**

- Thermal insulation
- Waterproofing

Source: Kerneos. Kerneos: 2015 sales.





# **Contacts**

## **Imerys**

154 rue de l'Université 75007 PARIS + 33 (0) 1 49 55 63 00 www.imerys.com

## **Analysts / Investors**

Vincent Gouley + 33 (0) 1 49 55 64 69 vincent.gouley@imerys.com

