



SOLVAY

asking more from chemistry®

LA QUALITÀ DELLA LOGISTICA ALIMENTARE: UNA SFIDA PER L'INDUSTRIA CHIMICA

SHIPPING, FORWARDING & LOGISTICS MEET INDUSTRY
2 FEBBRAIO 2017

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Abstract

- **Solvay worldwide presence:** *short Solvay description and main figures to introduce the company*
- **Sustainability is part of Solvay DNA:** *how sustainability is considered as a key factor for the future of the company and the health of our planet*
- **AGRO, FEED&FOOD shipping - a challenge for a chemical company:** *Solvay market presence in a glance with a focus on the challenges encountered by our group and on the benchmark realized with other food producers.*



SOLVAY

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MORE THAN 150 YEARS OF INNOVATION AND MANY TO COME



1863

Ernest Solvay invents the Solvay process for producing soda ash



1950

Solvay invents the plastic bottle



2016

Solar Impulse completes the tour around the world



1880

Solvay is the first industrial multinational operating simultaneously in the US and Europe



1990

Solvay invents precipitated silica for green tires



1878

Solvay innovates in social welfare (paid vacations, social security, 8-hour day)



1912

The first plant in Italy was settled in Rosignano



1911 & 1927

The congresses bring together the greatest physicists of their day



2011

Solvay acquires Rhodia



2015

2nd Chemistry for the Future Solvay Prize



Solvay acquires Cytec

WE ARE A WORLD LEADER IN THE CHEMICAL INDUSTRY



30,900
employees¹



53
countries¹



145
industrial sites¹



21
major
R&I centers¹



0.77
occupational accidents at
Group sites per million
hours worked²



€ 12.4
billion of
net sales¹



€ 2,336
million of
REBITDA¹

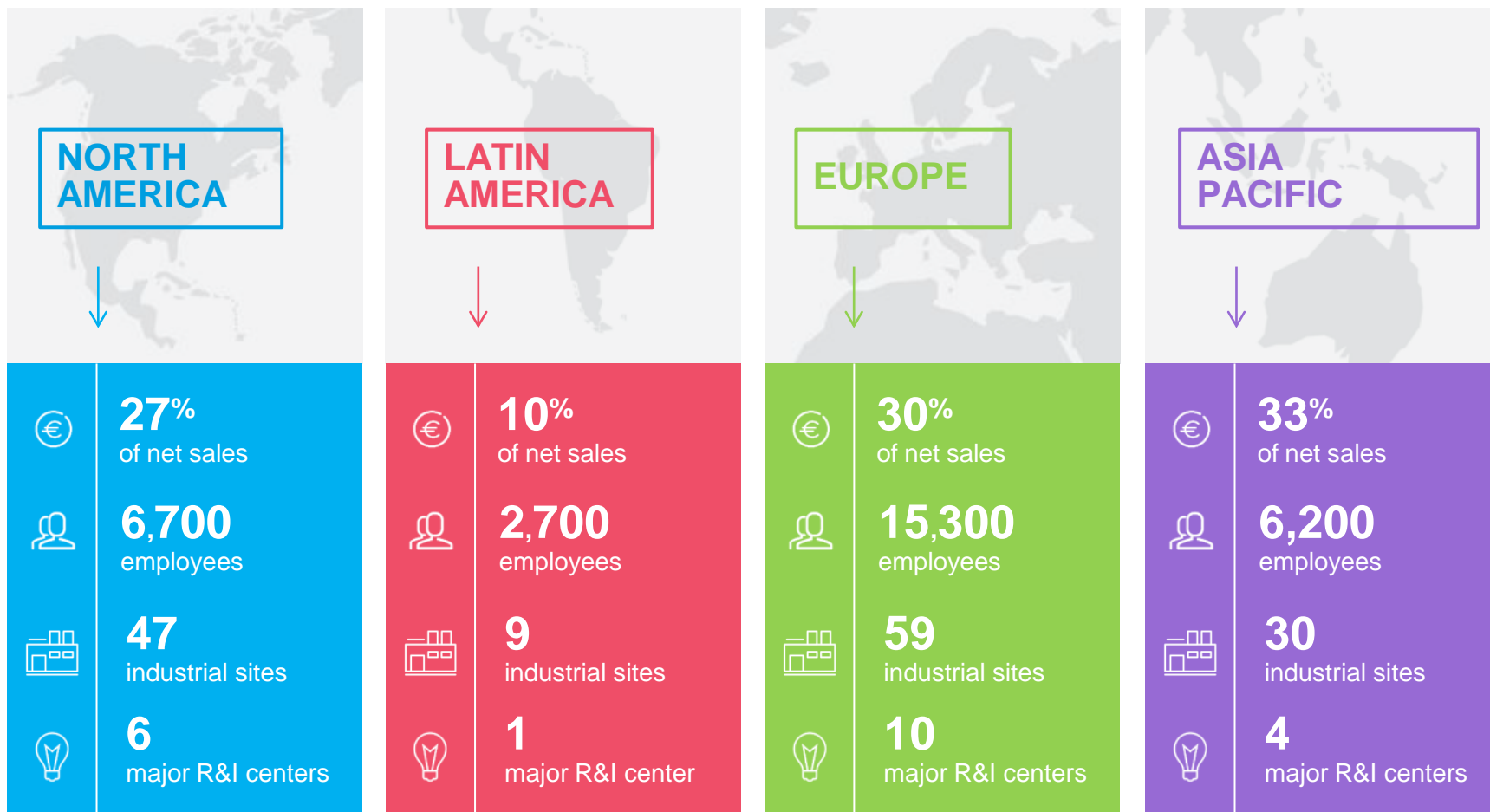


7.26 Kg
CO₂ eq. per €
REBITDA

1. Pro forma 2015,
unaudited, including
Cytac

2. MTAR: Medical
Treatment Accident
Rate (excluding Cytac)

A BALANCED PRESENCE IN ALL GROWTH REGIONS



Pro forma 2015, unaudited, including Cytec

SOLVAY IN ITALY, OUR SITES



SOLVAY IN ITALY, KEY NUMBERS



 **2.021** employees



 **1,350m€** in 2016



 **9** sites



1st foreigner Group in Italy



 **1st** company to have registered 70 patents in Europe from Italy



2nd chemical Group after Eni

WE INNOVATE FOR MORE SUSTAINABLE CHEMISTRY

RESPONSIBILITY

Life Cycle Analysis methodology to assess projects

- All R&I projects are systematically assessed
- Develop eco-designed products for sustainable solutions
- Conceive and implement eco-efficient processes

OPEN INNOVATION

At the heart of global innovation systems to access external knowledge

- Collaborating with academia worldwide
- Investing in venturing funds and start-ups
- Partnering with the industry (customers, research consortia)
- EC's Environmental Funding program LIFE+ supports several Solvay projects

EXCELLENCE

Market proximity and long-term growth perspectives

- 85% of the Group's R&I investments are directly managed by the GBUs
- Corporate R&I leads Solvay into new growth territories, incubates emerging competencies and enhances innovation excellence


Innovation
in figures


2,350
R&I staff


264
patent applications


€ 360 M/Y
efforts in R&I


€ 80 M
invested in funds
and start-ups

Pro forma 2015,
unaudited,
including Cytec

OUR SPECIALTY POLYMERS ON BOARD

KetaSpire® PEEK
PrimoSpire® SPR
Light weight / metal
replacement

Solstick
Energy capture

Halar® ECTFE
Energy capture

Fomblin® PFPE
Lubrication

Amodel® PPA
LEDs

Solef® PVDF
Energy storage

Torlon® AI
Structure

Ixef® PARA
Radel® PPSU

Light weight / metal
replacement

TegraCore™ PPSU
Insulation

OUR FIVE SUSTAINABLE COMMITMENTS BY 2025



SOLVAY

Contribute to *Society*



SOCIETAL ACTIONS

x2

employees involved in societal actions

Innovate *Sustainable solutions*



SUSTAINABLE PORTFOLIO MANAGEMENT

50%

share of sustainable solutions in the Group portfolio

Act *Responsibly*



SAFETY

- 50%

of occupational accidents

80%

employee engagement index



CO₂ INTENSITY



ENGAGEMENT INDEX

-40%

of carbon intensity

2014 reference year

AGRO, FOOD&FEED GRADE SHIPPING

A GREAT CHALLENGE FOR THE CHEMICAL INDUSTRY

but

WHAT ABOUT THE OTHERS?

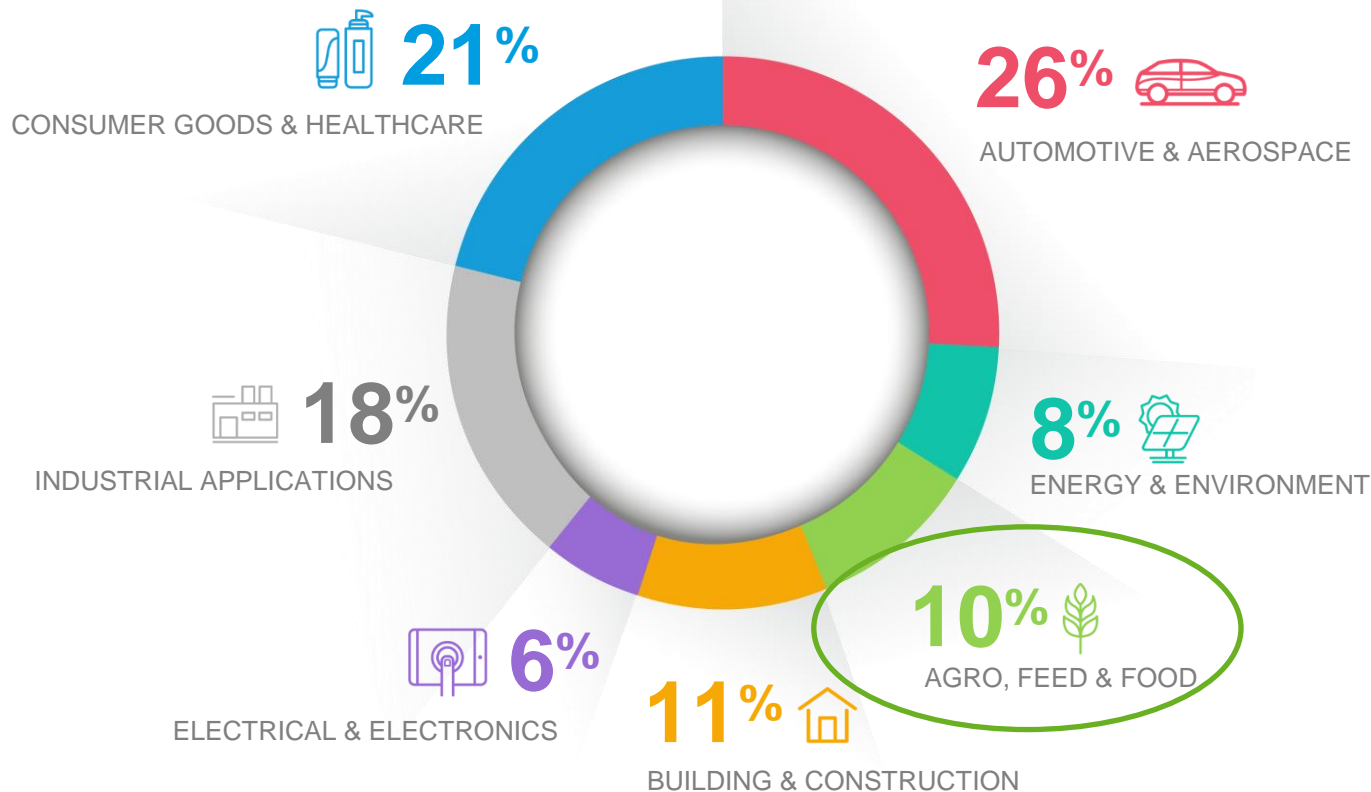


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WE ADAPT OUR PRODUCT OFFERING TO DEMANDING MARKETS



Distribution of net sales

Pro forma 2015, unaudited, including Cytec

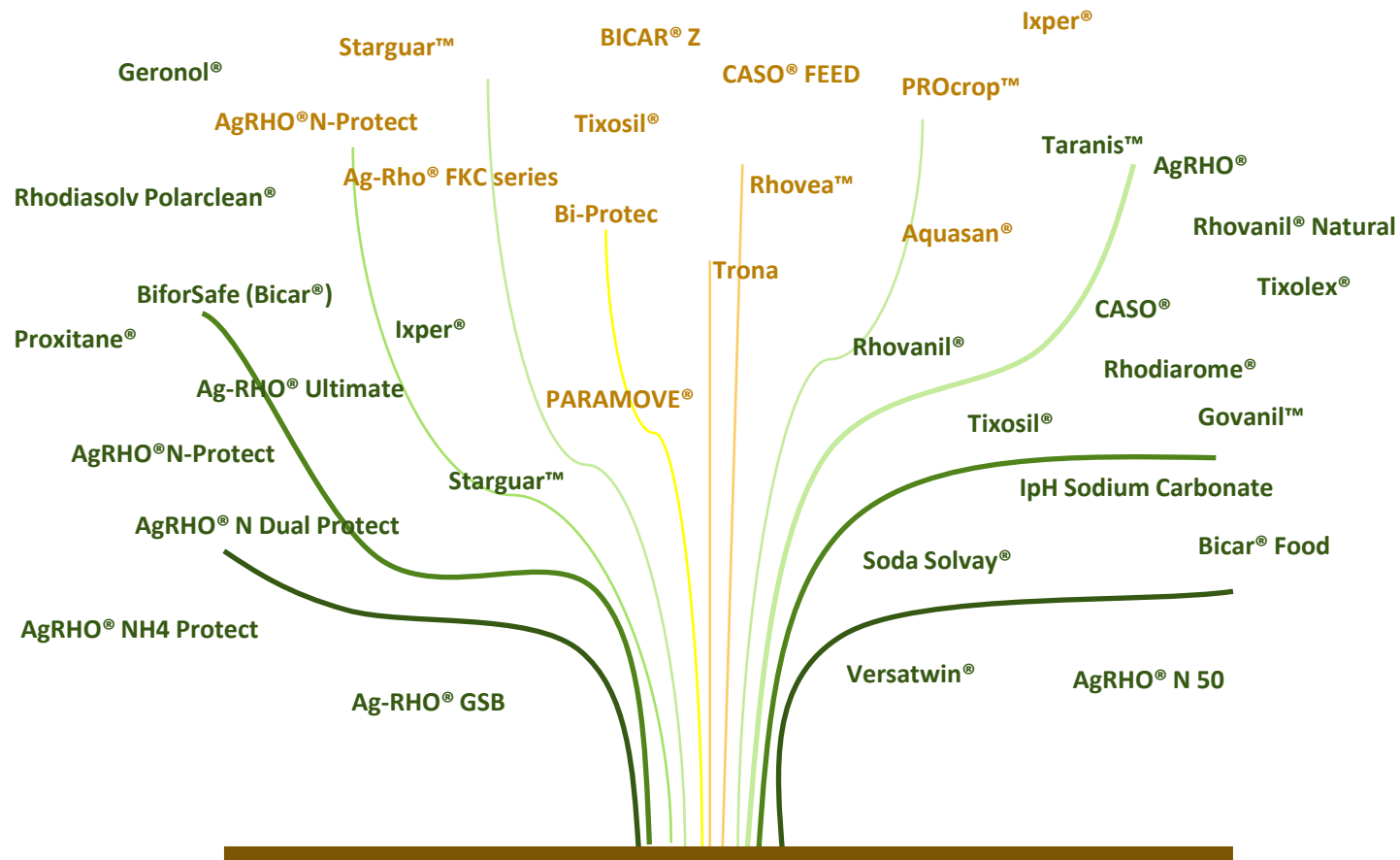
AGRO, FEED & FOOD,

The changing of our world population affects the entire food chain and, as populations age in developed markets, consumers have become more concerned with eating healthier.

To respond to this, with continued focus on health and freshness with an ever-increasing need for convenience, we offer a portfolio of technology based on functional ingredients & actives delivering unique safe and innovative solutions for our customers all across the value chain.



AGRO, FEED & FOOD, OUR PRODUCTS



FOOD GRADE SHIPPING (BENCHMARK)

Solvay Consulted

- Sea lines
- Freight forwarders companies
- Food producer specialists

Results

- No standards exist for Food grade

There is no common language between the companies; the shipper must be very clear about his expectations.

- Shortage of Food Grade Containers

It is very difficult to have Food Grade equipment

- The Sea Lines refused to sign our FG specifications

How can we be sure that they respect our needs?

- Containers quality responsibility

If the containers is refused as non compliant with our specifications, nobody want to be responsible for that and to pay the associated costs

FOOD & FEED GRADE SHIPPING (RECOMMENDATIONS)

Improving the relationship with the Containers Terminal

- Contact terminals to know their roles and constraints
- Prepare clearer and simple specification to let all parties understand them in the same way, without interpretation.
- Rethink the ports of origin, on the terminal abilities

Forecasts and bookings

- Anticipate bookings
- Improve forecasts accuracy

AND YOU?!?

www.solvay.com



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