

The business case for lead-free paint



Dr Julian Hunter
Senior Manager, Product Stewardship and Regulatory Affairs , AkzoNobel
Lead Paint Alliance, ICCM4, 29th September 2015

AkzoNobel* in a slide

€14.3

billion in revenue

47,200

employees

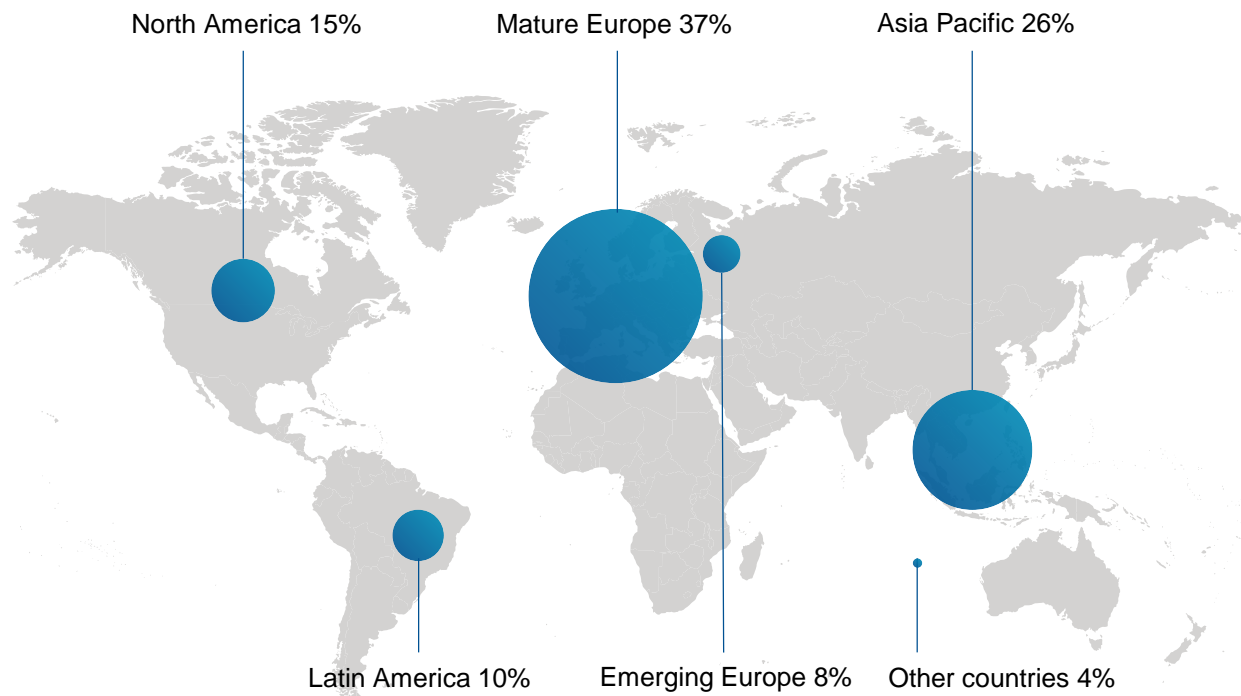
200+

production sites

80+

countries

Key regions by revenue



Revenue by end-user segment

Buildings and Infrastructure	42%
Transportation	16%
Consumer Goods	17%
Industrial	25%

Revenue by Business Area

Decorative Paints	27%
Performance Coatings	39%
Specialty Chemicals	34%

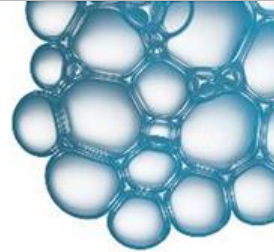
Paints and coatings

Leading global paints and coatings company – operating in all decorative and industrial paint markets

Consistently ranked as one of the leaders in the area of sustainability

In 2011 we became the first global paint company to completely phase-out the use of lead compounds from all of our products throughout the world

Signed up as Partner to the Lead Paint Alliance in July 2015.



Lead-free pigments

Readily available for use in all paints and coatings :

Lead-free pigment toolbox is significant:

- *Organic*: Includes azos, polycyclic (eg. DPP), metal complexes, dye based
- *Inorganic*: Includes metal oxides hydroxides, sulfonides and sulfoselenides, metal salts (eg. Bismuth vanadate), silicates etc

Key technical issues include : colour, opacity, dispersability, gloss retention, durability, solvent resistance, heat resistance.

These pigments can be used alone, as hybrids or in formulated mixtures with other pigments to obtain the desired coating product characteristics and performance at an acceptable cost.

Worldwide availability.



Lead-free pigments

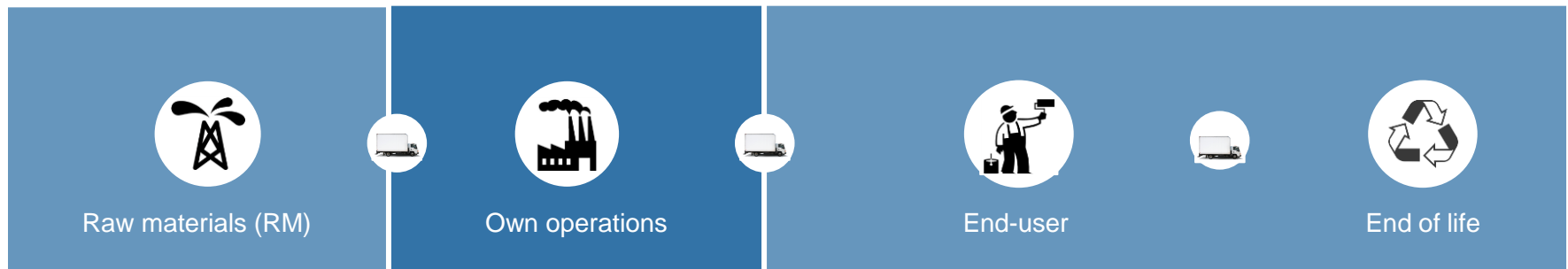
Different formulation solutions are often required for different product types, depending on the end-use involved.

When moving to products free of lead compounds AkzoNobel experienced no resistance from customers.

No loss of business reported.



Lead compounds add cost and risk at every stage of the coating **product life cycle** :



Lead containing : Special handling measures and Personal Protection Equipment (PPE) with high protection factor, blood monitoring of workers, toxic waste disposal, decontamination / disposal of coated assets at end of coating life.

Lead-free : Standard PPE, disposal and recycling

AkzoNobel and Lead compounds in paint

Given pigments and driers that do not contain lead are now widely available, there is no need or justification to intentionally add lead compounds to any paint.

AkzoNobel is honored to be a partner in the Lead Paint Alliance (LPA) fully supports the objectives of the UNEP/WHO Lead in Paint (LPA) to alliance promote a phase-out of the manufacture and sale of paints that have had lead compounds added to them.

In particular the key action area to :

Encourage industry activities to voluntarily stop the manufacture and sale of lead paint, focusing on residential and decorative paints containing lead additives in countries where legal limits are not currently in place.

AkzoNobel and Lead compounds in paint

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Lead-free business = sustainable business



AkzoNobel and Lead compounds in paint

AkzoNobel is honoured to be a member of the Lead Paint Alliance.

We will:

- Share experiences of conversion of paint products from lead to lead-free versions, their proven track record and acceptance in the marketplace.
- Provide technical advice and expertise on decorative/residential paints and performance coatings (eg. paints for buildings, bridges, shops, vehicles).
- Contribute to discussions on the regulation of lead compounds in paint.
- Promote the work of the Lead Paint Alliance in the countries in which we operate and in our industry through our internal and external communication networks.



Thank-you

AkzoNobel

