

CORNING

Environmental
Technologies

How Regulations Drive Technology
Investment & Economic Development

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Key Messages

We have looked to the EPA to lead the way in clean-air regulation.

Industry has invested and created jobs in support of EPA initiatives.

We need the EPA to continue to be a global leader for clean air.

Corning Incorporated



Founded:
1851

Headquarters:
Corning, New York

Employees:
~29,000 worldwide

2011 Sales:
\$7.9 billion

2012 Fortune 500 Rank:
328

Our core strength: glass and ceramic understanding

 <p>Display Technology</p>	 <p>Telecom</p>	 <p>Environmental Technologies</p>	 <p>Life Sciences</p>	 <p>Specialty Materials</p>
<ul style="list-style-type: none">• LCD Glass Substrates• Glass Substrates for OLED & High-Performance LCD Platforms	<ul style="list-style-type: none">• Optical Fiber & Cable• Hardware & Equipment<ul style="list-style-type: none">– Fiber optic connectivity products	<ul style="list-style-type: none">• Emissions Control Products<ul style="list-style-type: none">– Light-duty gasoline vehicles– Light-duty and heavy-duty on-road diesel vehicles– Heavy-duty non-road diesel vehicles– Stationary	<ul style="list-style-type: none">• Cell Culture & Bioprocess• Assay & High-Throughput Screening• Genomics & Proteomics• General Laboratory Products	<ul style="list-style-type: none">• Corning® Gorilla® Glass• Display Optics & Components• Optical Materials• Optics• Aerospace & Defense• Ophthalmic

160-year history of breakthrough technologies

1879

Glass envelope for Thomas Edison's light bulb



1934

Dow Corning silicones

1952

Glass ceramics

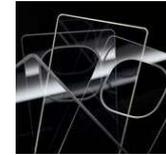
1970

First low-loss optical fiber



2007

Gorilla® Glass



Ultra-bendable optical fiber

1982

LCD glass

1947

Process for TV bulbs

1964

Fusion process



1972

Ceramic substrates for catalytic converters

1915

Pyrex® glass



The need for cleaner air

Los Angeles, California: 1970



1970

**U.S. Congress passes
Clean Air Act**



1971

Corning invents extrusion

1973

Corning invents cordierite;
Builds first U.S. factory

1974

First commercial shipment of
Corning substrates

1975

~ 3 million substrates on new
U.S. autos

Tangible benefits

Los Angeles, California: Today



Mobile emissions control products have prevented

4 billion tons of hydrocarbons

4 billion tons of nitrogen oxides

40 billion tons of carbon monoxide

from entering the air we breathe.

Awarded 2003 National Medal of Technology

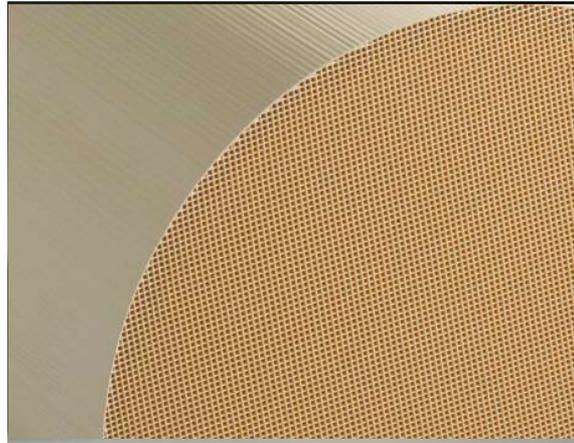
"For their pioneering work resulting in the design and manufacture of the cellular ceramic substrate for catalytic converters that enabled auto manufacturers to develop the first commercially mass-produced automotive catalytic converter."



Ronald Lewis, President George W. Bush, Dr. Irwin Lachman, and Dr. Rodney Bagley

How Corning makes cleaner air possible

Corning® Celcor® flow-through substrates for gasoline & diesel vehicles



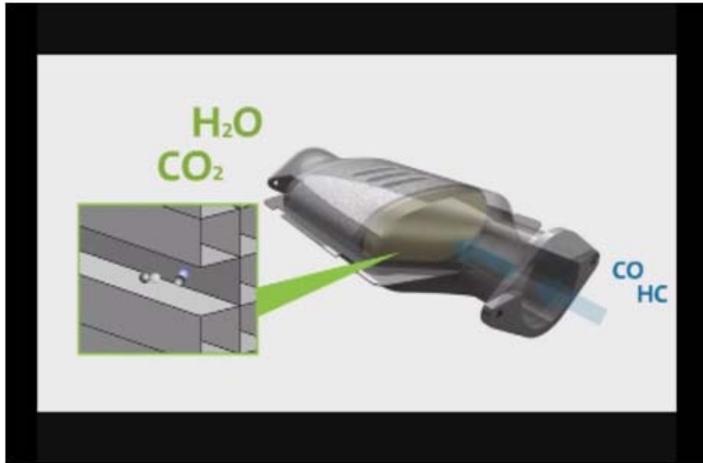
How Corning makes cleaner air possible

Corning® Celcor® flow-through substrates for gasoline & diesel vehicles

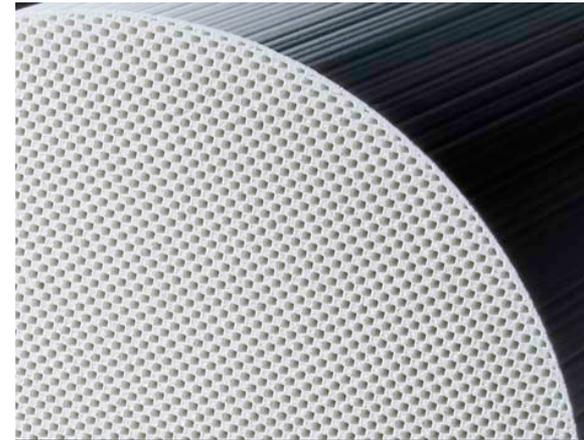


How Corning makes cleaner air possible

Corning® Celcor® flow-through substrates for gasoline & diesel vehicles

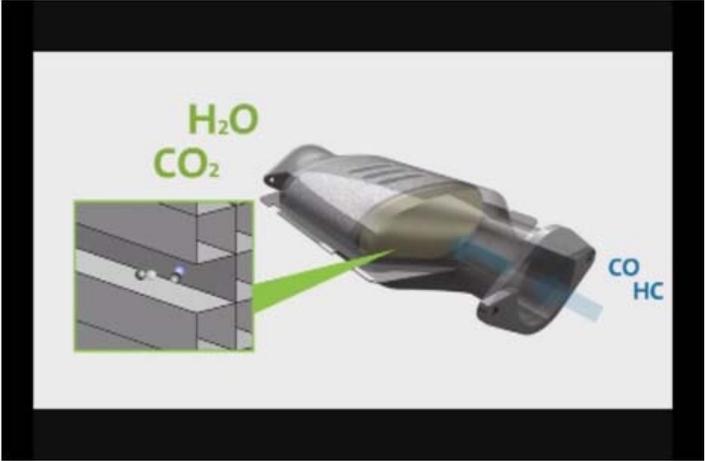


Corning® DuraTrap® particulate filters for diesel vehicles

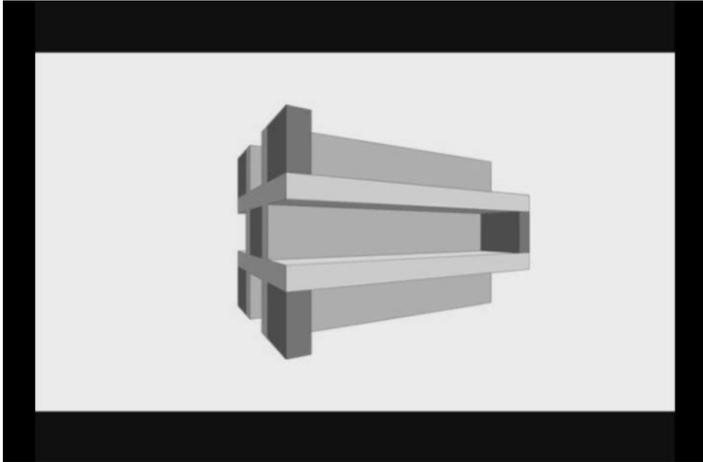


How Corning makes cleaner air possible

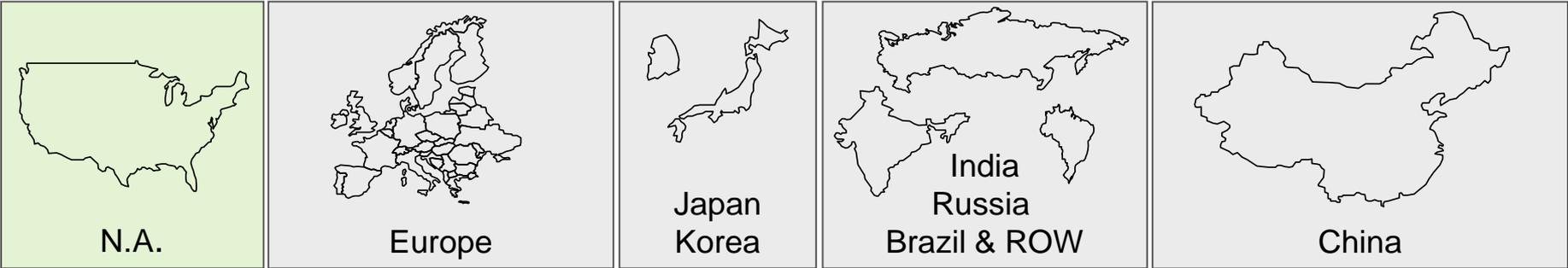
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Corning® DuraTrap® particulate filters for diesel vehicles



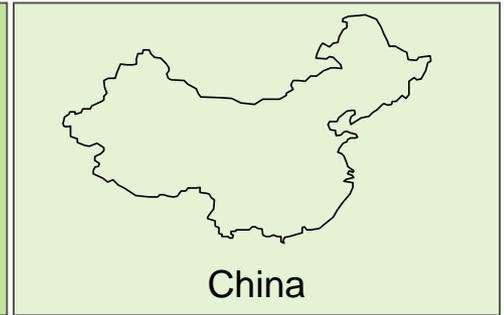
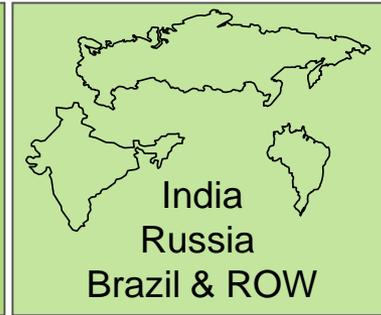
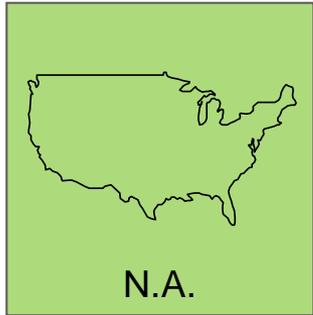
U.S. initiative becomes worldwide phenomenon



1975



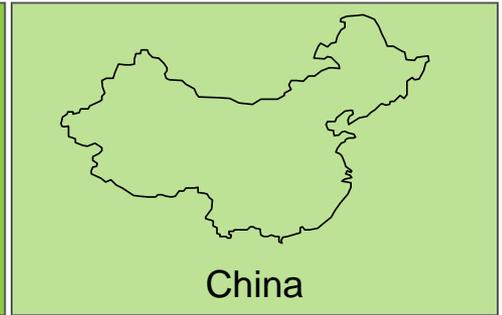
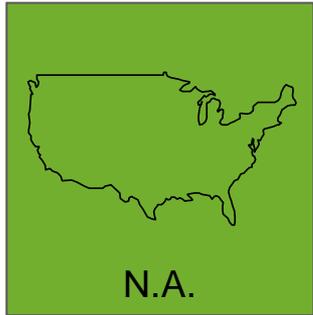
Tightening regulations bring opportunity



2010



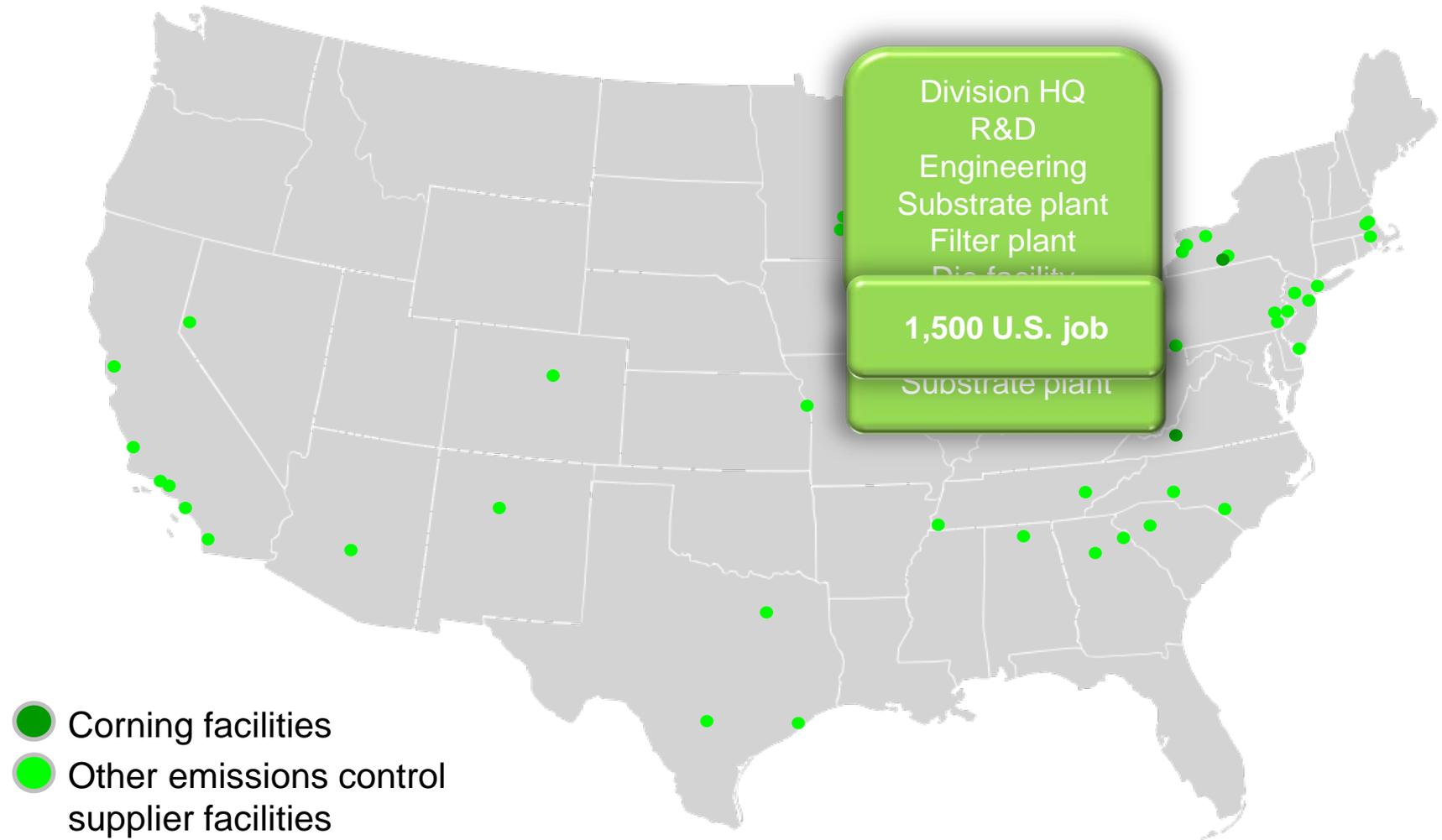
Another wave approaching



2017

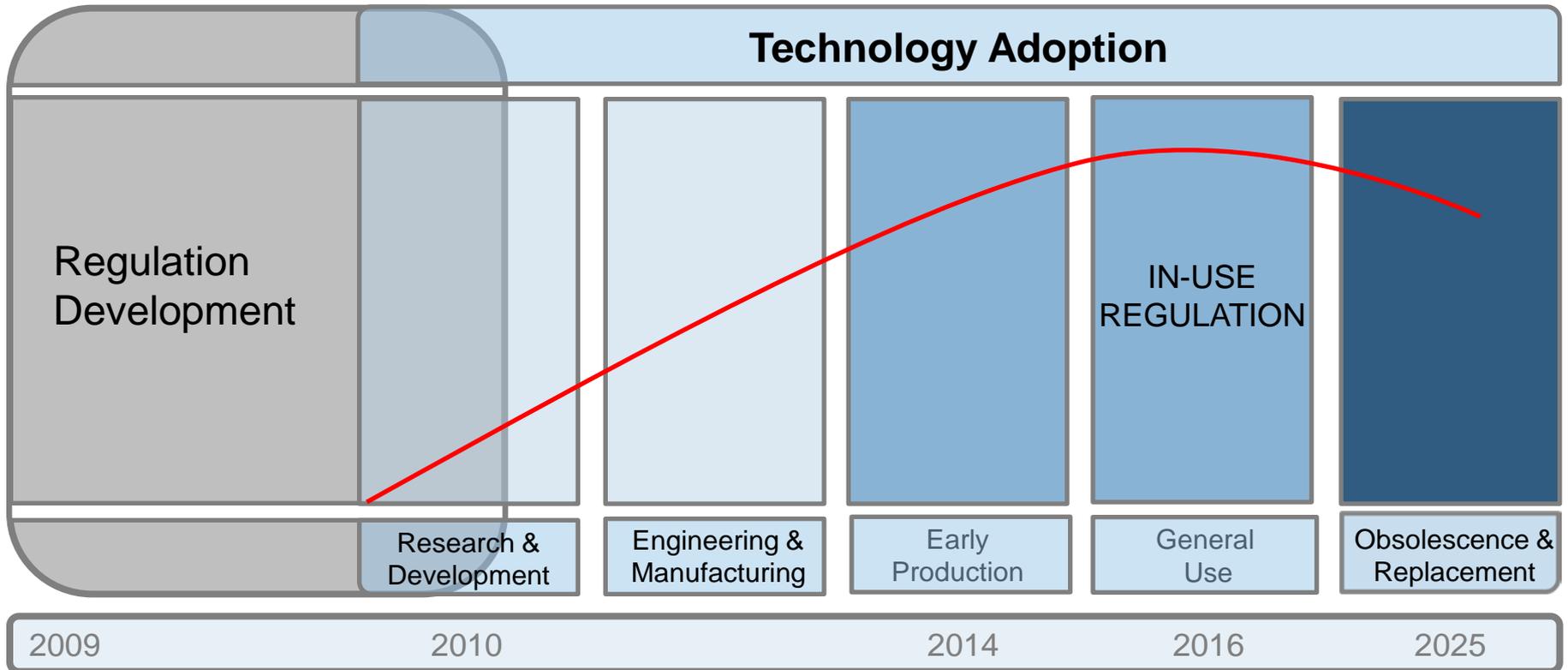


Impact: High-value manufacturing & technology jobs

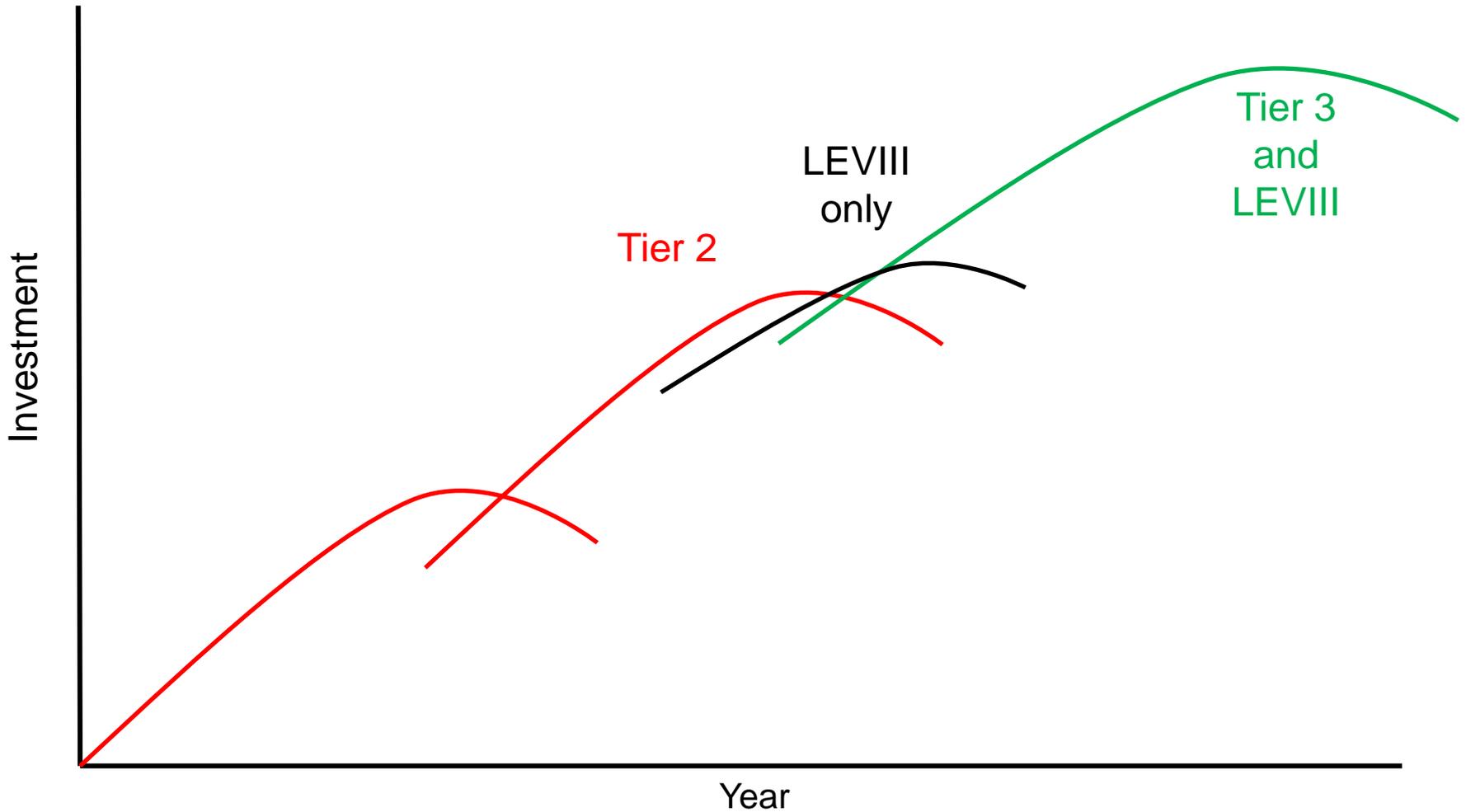


Source: MECA membership

Investment cycle: Vision to regulatory implementation

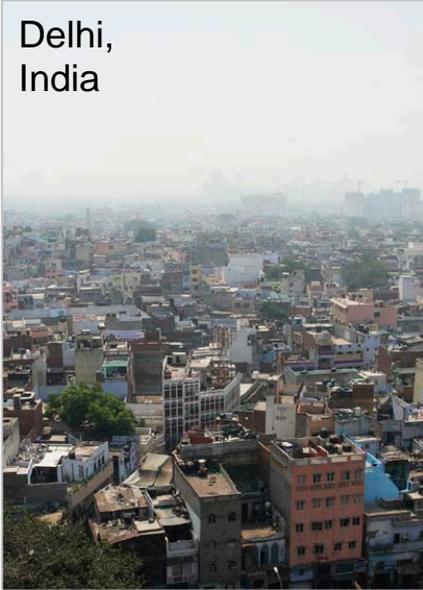


Regulations push societal benefits to higher plateaus



Air quality around the world is still an issue

Delhi,
India



Jakarta,
Indonesia



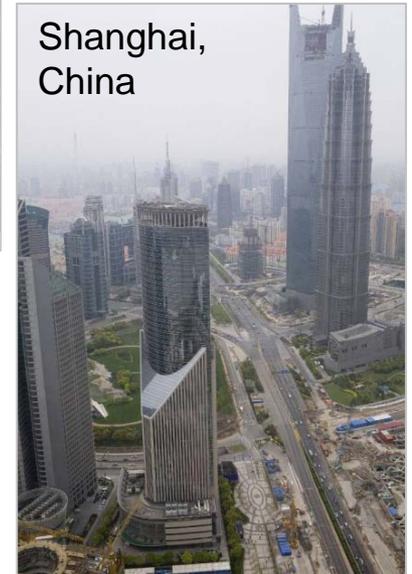
Santiago,
Chile



Cairo, Egypt



Shanghai,
China



EPA leadership can continue to guide global progress

- First-class research in technology and regulatory impact
- First-class regulatory innovation
- Courageous implementation has successfully challenged industry to the betterment of everyone



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