

# Market Scenario Planning: HDPE Regulation Development 2023



Market Scenario Planning: HDPE Regulation Development – 2023 is one in a series of new reports published as part of NexantECA's Markets & Profitability program.

Published: March 2023

## **Report Abstract:**

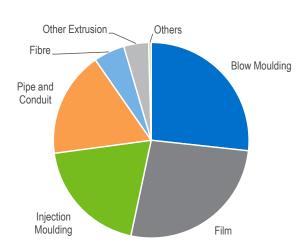
The introduction of policy targeting plastic has been due to the increased public concern for plastic waste entering natural ecosystems. There are several forms of legislation that are seen to have the most have impact on polymer markets including plastic waste taxies, plastic levies, extended producer responsibility mechanisms and plastic content targets.

On the demand side, plastic consumption into single use plastics and other applications with significant legislative pressure is expected to fall. This is likely to be seen more in regions that are leading legislation development such as the EU, Australia, Japan and South Korea.



Legislation is also expected to positively impact the growth of recycled polymers, green polymers including bioplastic chemistries (e.g. PLA) as well as green alternatives of existing polymers (e.g. green polyethylene). However, their adoption is limited by technoeconomic factors such as performance, cost competitiveness and carbon intensity which will limit their penetration into virgin polymer markets.





This report provides an overview of the current and future legislative picture for HDPE markets before outlining existing green polymer investment to understand the current situation. In order to appreciate the barriers to adoption, an analysis of the cost competitiveness, carbon intensity and potential pricing mechanisms for alternative HDPE production routes is completed. This all feeds into the three market scenarios for HDPE market development out to 2050.

### The report addresses:

- What pieces of plastic waste legislation have been and are likely to be adopted by each country worldwide?
- What is the competitiveness and carbon intensity for alternative routes to production of HDPE?
- What are the potential mechanisms for pricing of green HDPE products?
- What is the market outlook for virgin HDPE, green HDPE and recycled HDPE products based on three scenarios of industry implementation?

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For related analysis, please refer to:

Market Analytics: Polyolefins Market Analytics: Vinyls

NexantECA defines the three market scenarios as:

- Base: NexantECA's expectation for development of the market given current knowledge of policy, technical and market drivers.
- Aggressive Adoption: NexantECA assumes that there is higher ambition than current assessments to achieve plastic waste goals among the political and industrial community.
- Business As Usual: NexantECA assumes that there is lower ambition than current assessments to achieve plastic waste goals among the political and industrial community.

This analysis will identify the key policy, technology and market drivers shaping these scenarios.

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  - Downloadable data in Excel from the Online Database
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