

Delta Energy & Environment Ltd
Registered in Scotland: No SC259964
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Micro-CHP – Historic and Future Sales

A Delta Micro-CHP Service Webinar

01 Oct 2010

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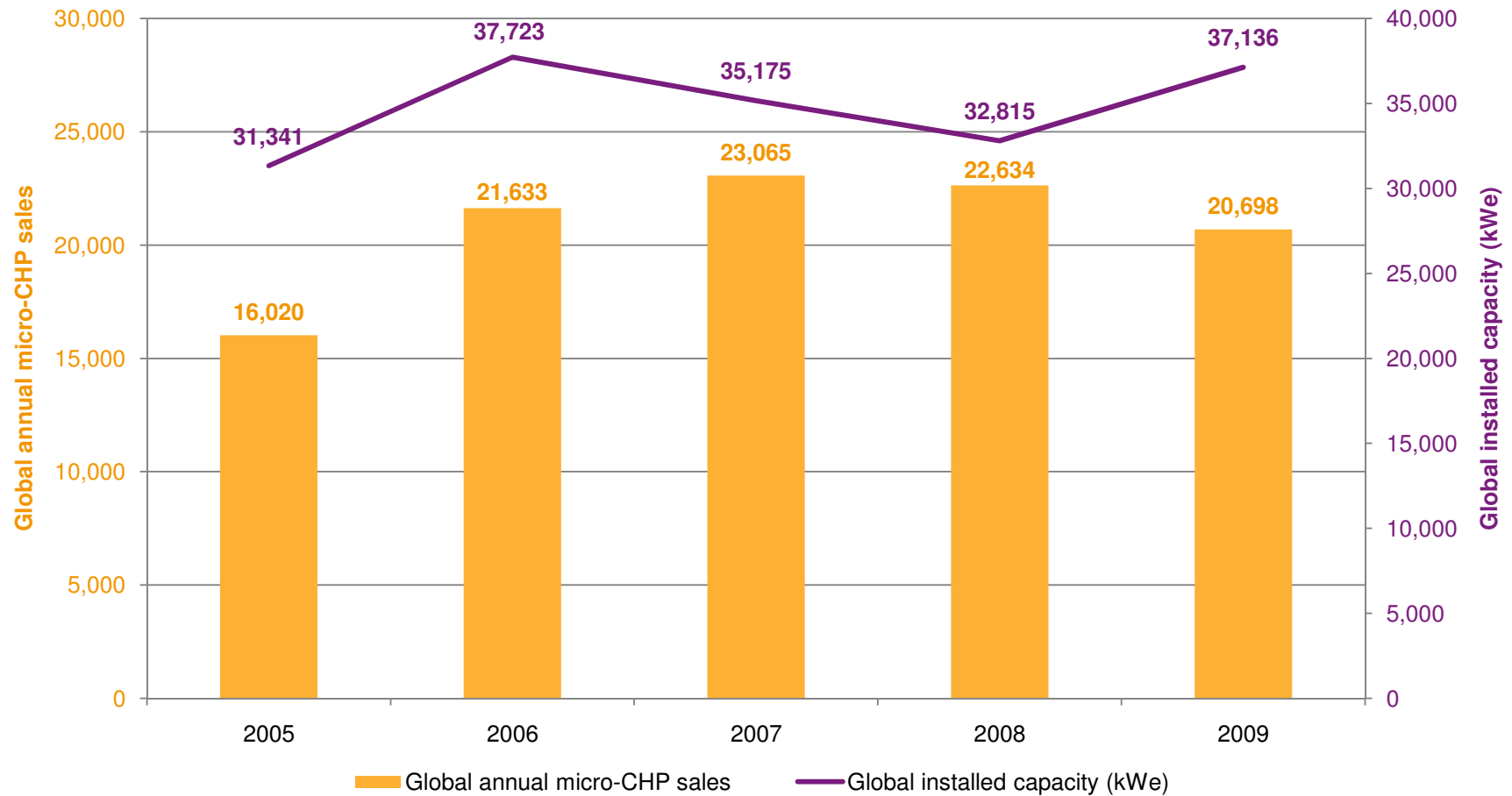


Research Objectives

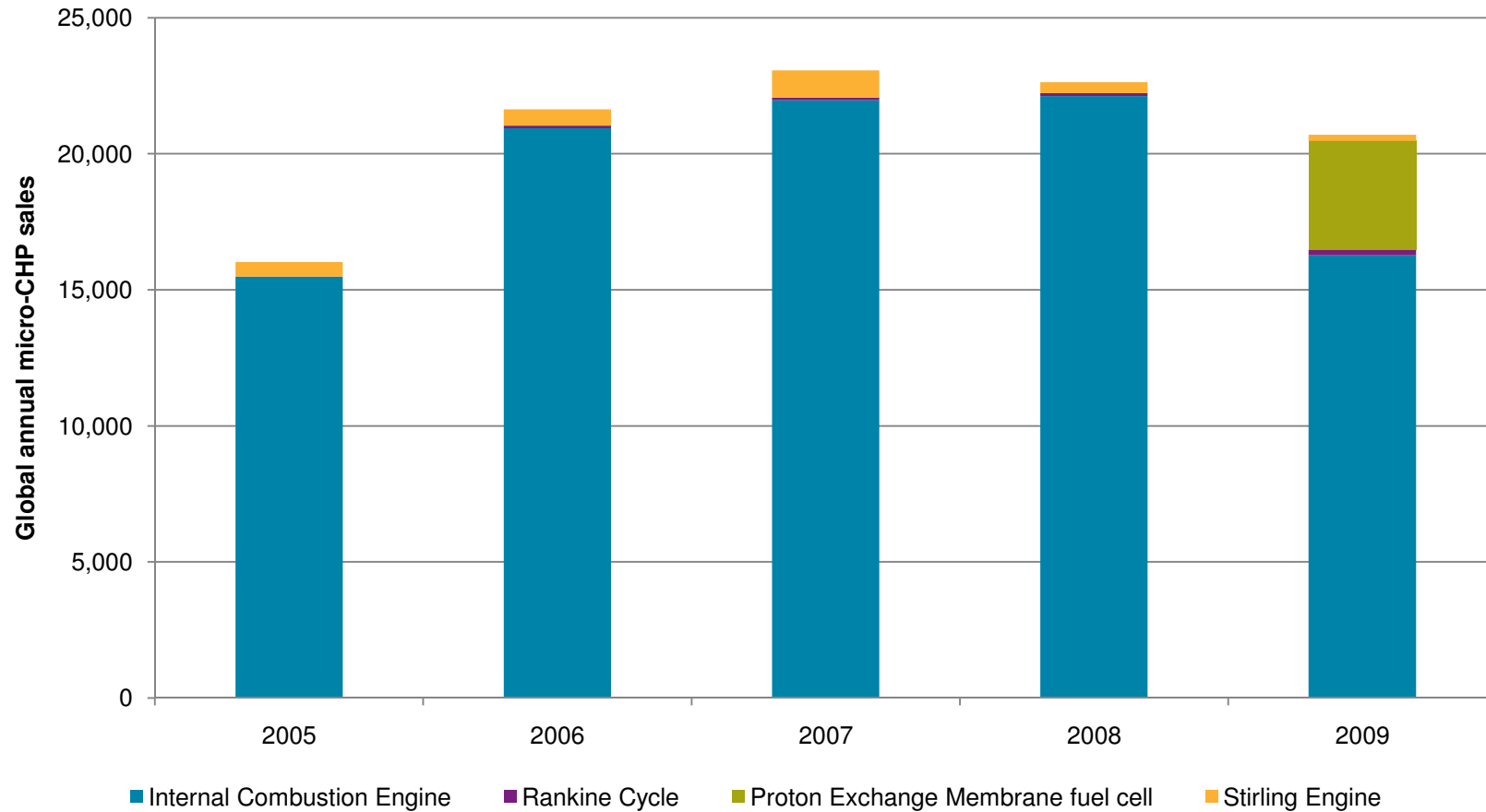
Gather data for historic micro-CHP commercial sales

Outlook for future sales

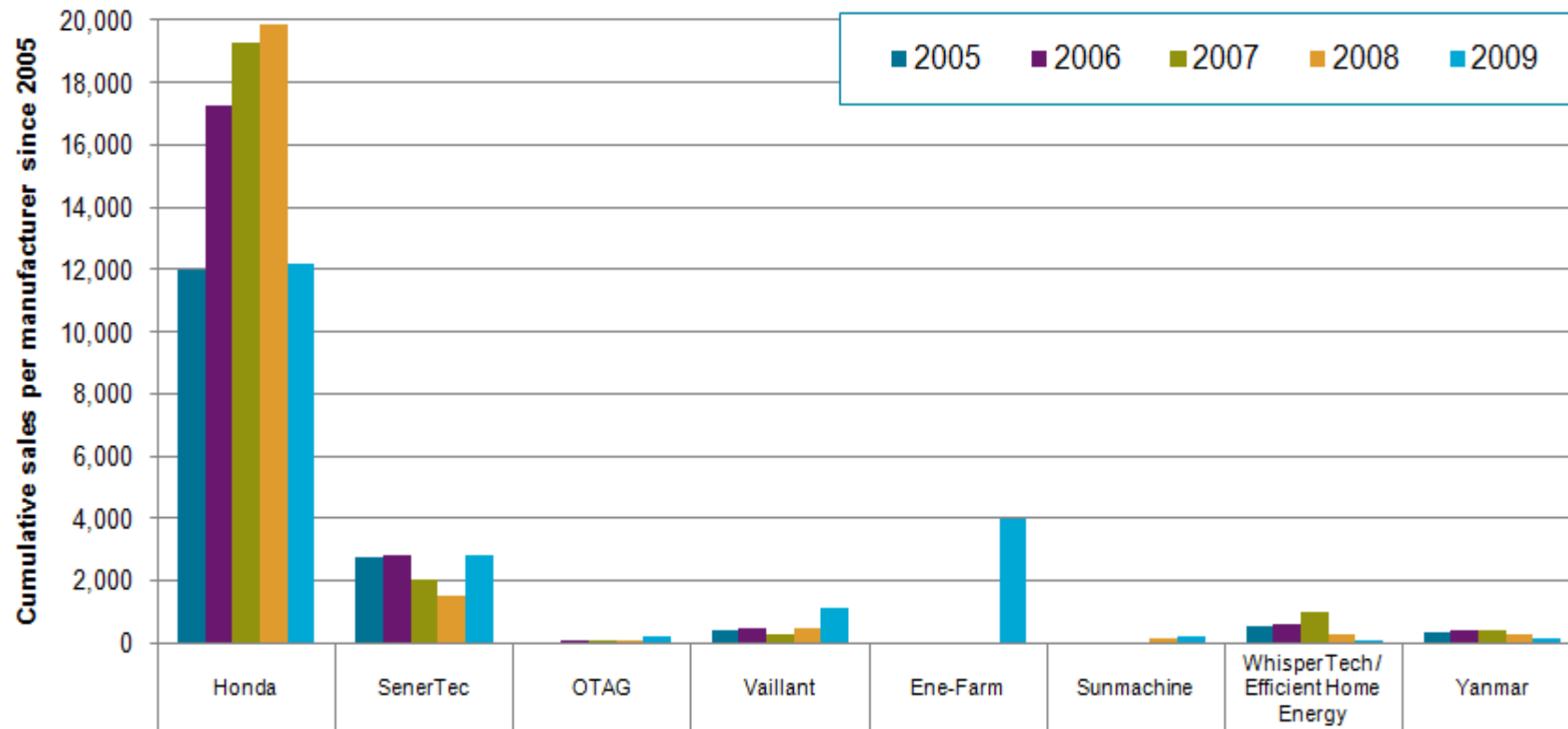
Historic Sales



Historic Sales By Technology



Historic Sales by Manufacturer



Gather data for historic micro-CHP commercial sales

Outlook for future sales

Markt expectation

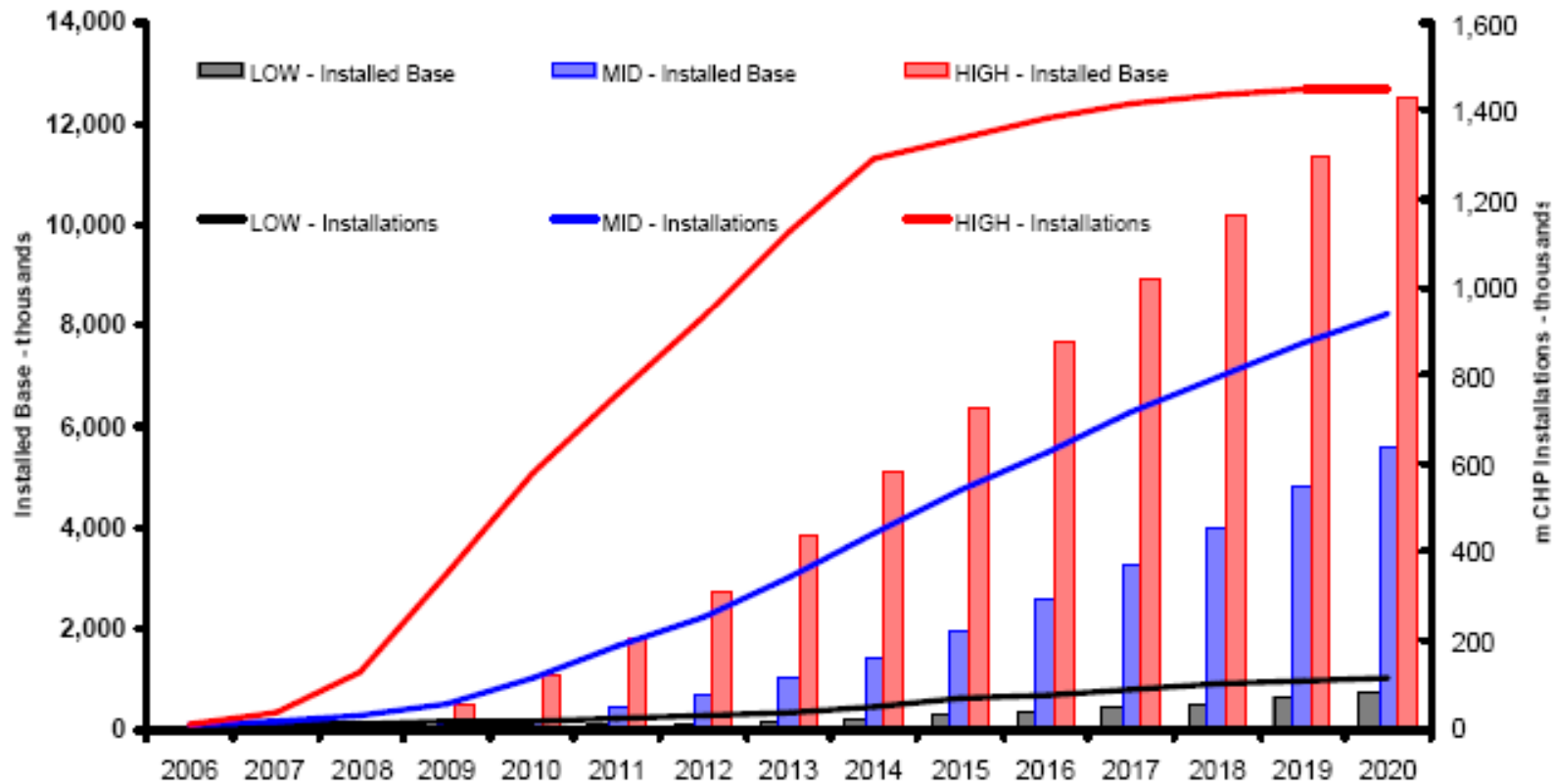


Markt expectation of micro- and mini-chp 2007 - 2020		
Year	Number a year	cumulated
2007	1.000	1.000
2008	5.000	6.000
2009	12.000	18.000
2010	20.000	38.000
2011	45.000	83.000
2012	75.000	158.000
2013	90.000	248.000
2014	110.000	358.000
2015	140.000	498.000
2016	170.000	668.000
2017	200.000	868.000
2018	230.000	1.098.000
2019	260.000	1.358.000
2020	300.000	1.658.000

→ Start of Mass production

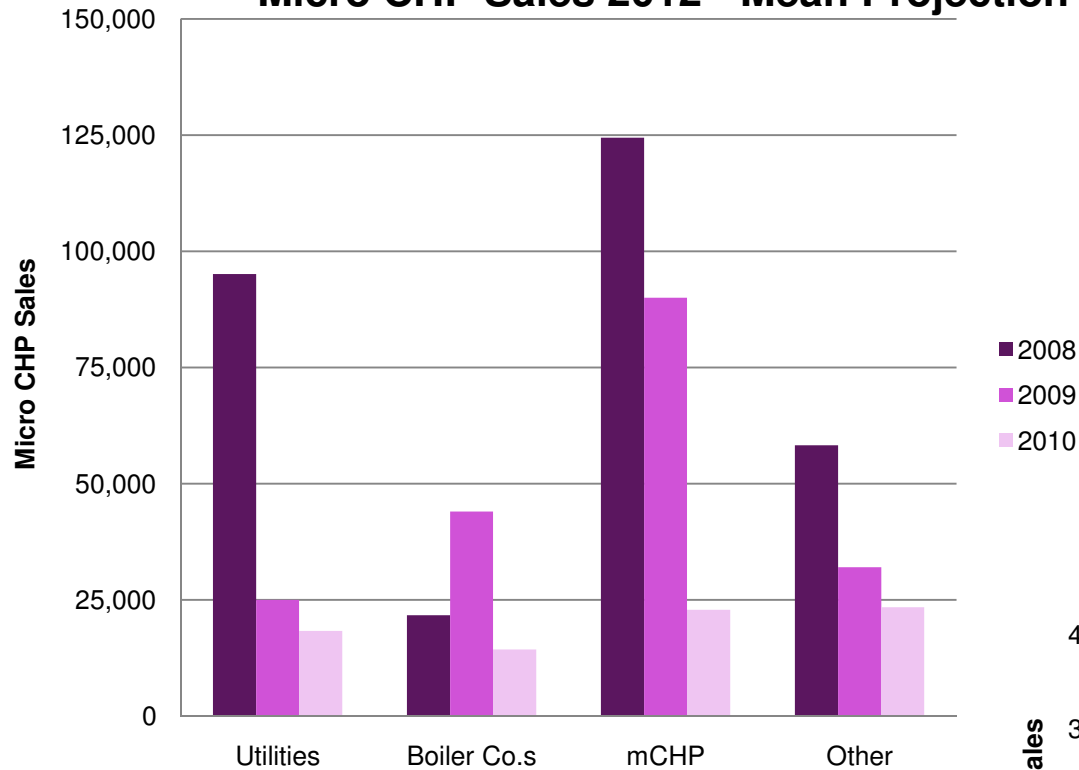
SBGI (UK) Forecast - 2006

Uptake of Domestic CHP

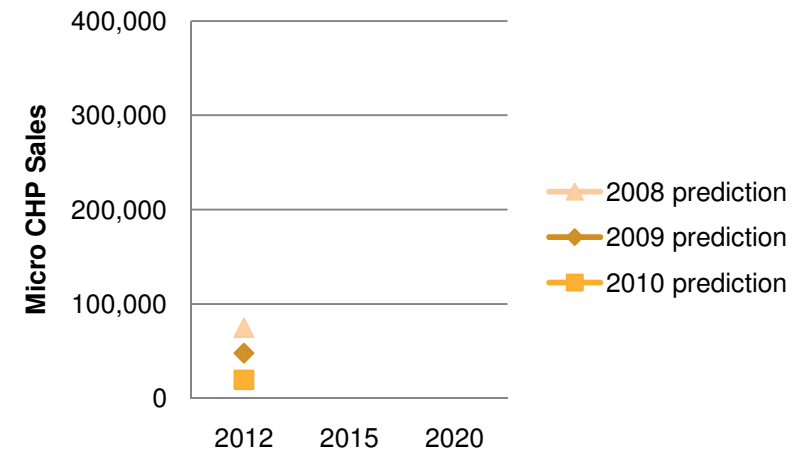


Delta 'Micro-CHP in Europe' Summit Predictions

Micro CHP Sales 2012 - Mean Projection

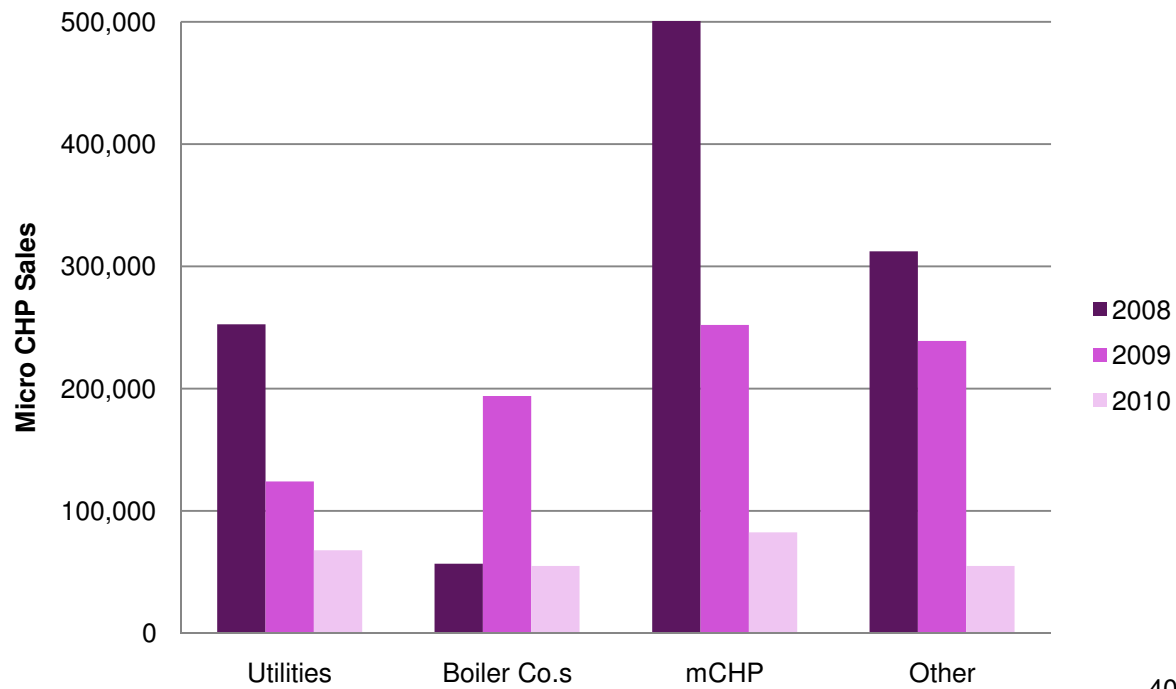


Average Micro CHP Sales

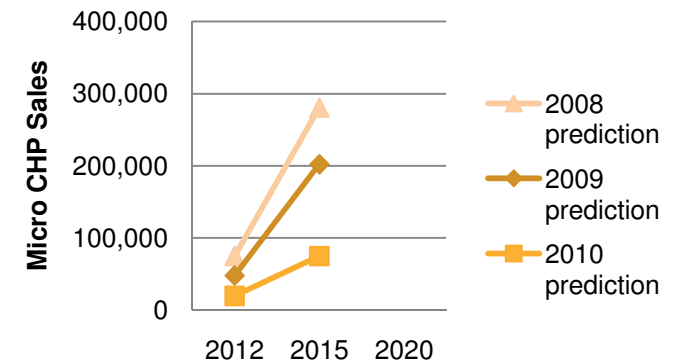


Delta 'Micro-CHP in Europe' Summit Predictions

Micro CHP Sales 2015 - Mean Projection

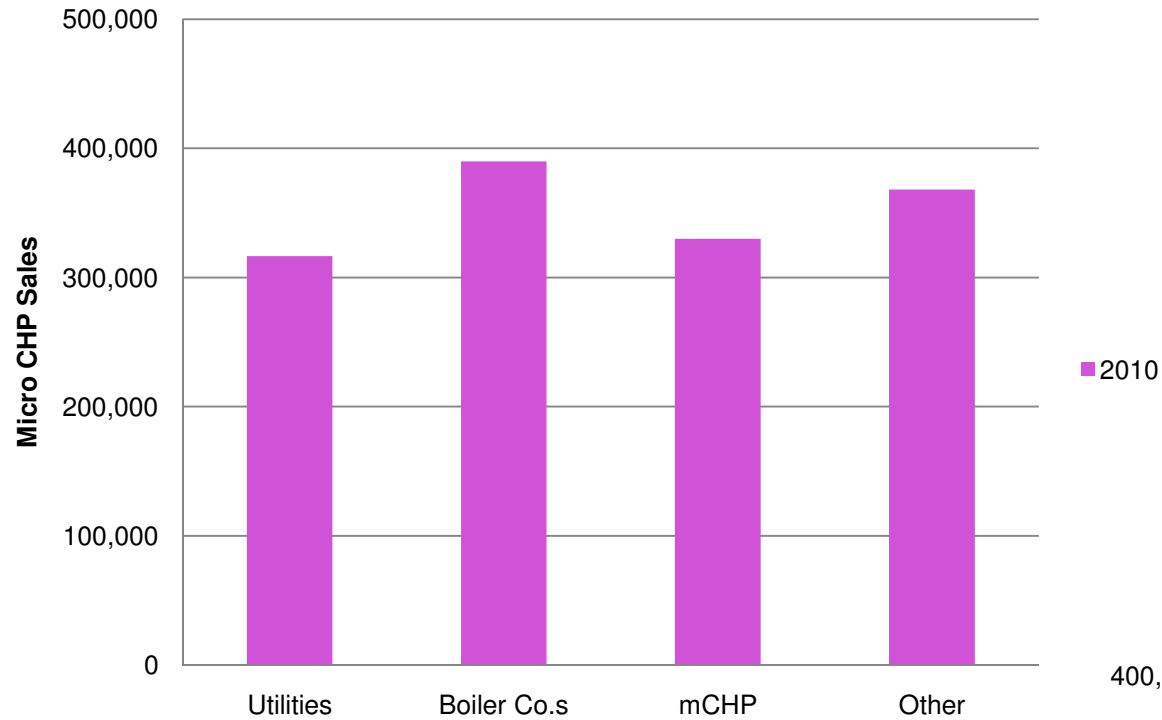


Average Micro CHP Sales

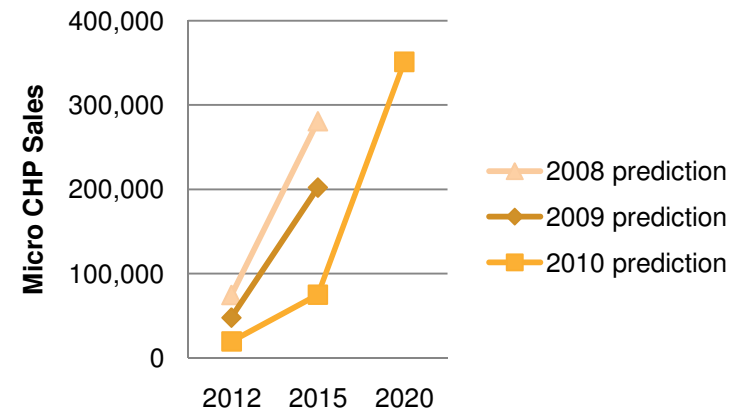


Delta 'Micro-CHP in Europe' Summit Predictions

Micro CHP Sales 2020 - Mean Projection

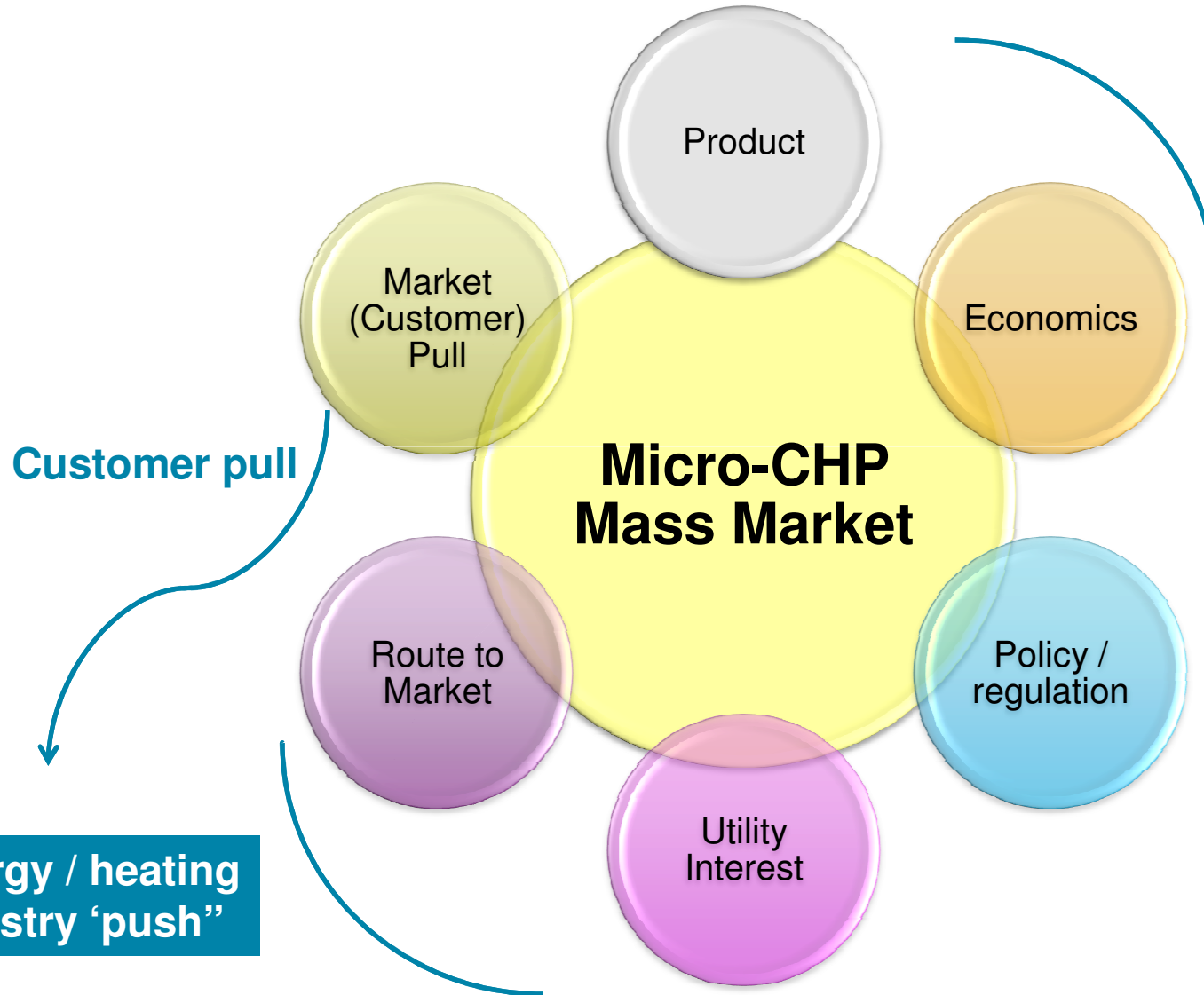


Average Micro CHP Sales



Looking Forward – Delta Scenarios

**Product
performance
Product cost**



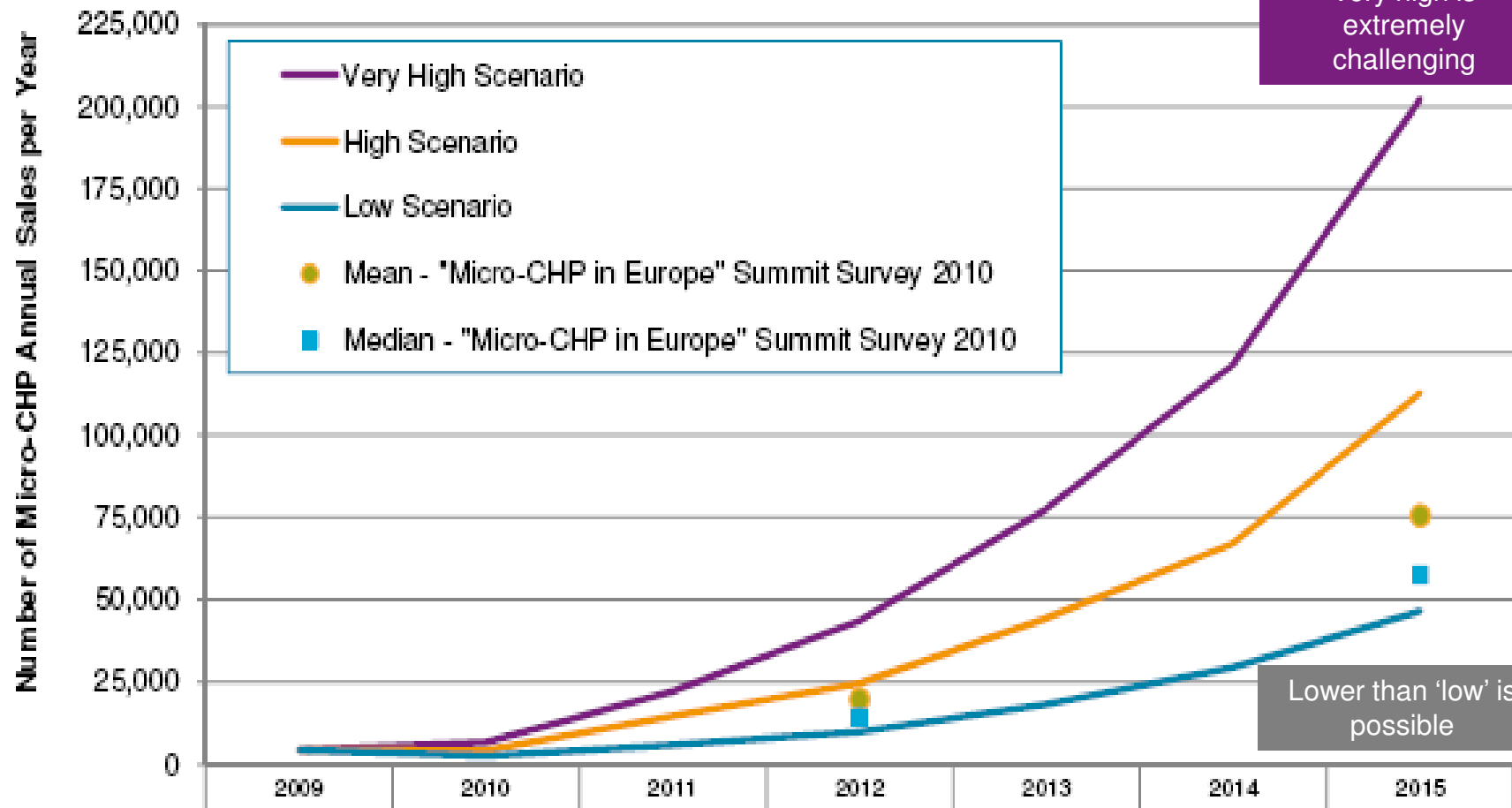
**Energy / heating
industry 'push'**

**Government
support /
incentives**

Delta Scenarios

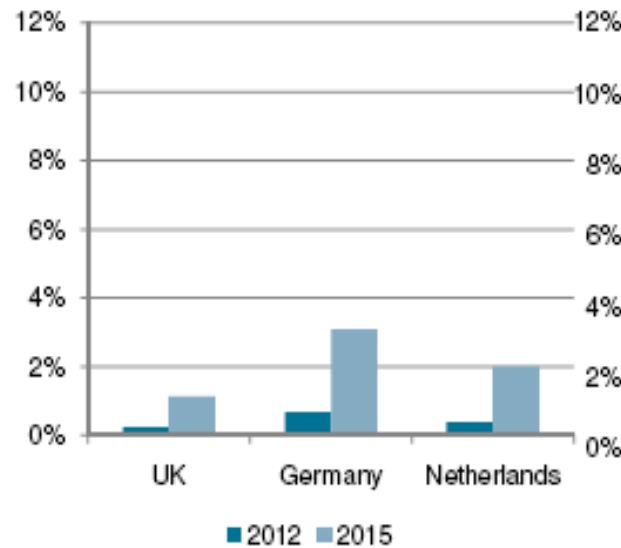
	Low	High	Very high
Product	A few product problems Expensive	Largely good performance Initially expensive	Successful products, quick path to volume / cost reduction
Government	Few incentives	Incentives in key markets	M-CHP seen as key low carbon heat technology
Energy & heating industry	Limited 'push'	<i>Some</i> strong utility engagement, strong boiler co. engagement	Excellent boiler co. & utility engagement
Customer	Largely unaware / uninterested	Growing awareness, interest	Strong customer pull

Delta European Micro-CHP Forecast

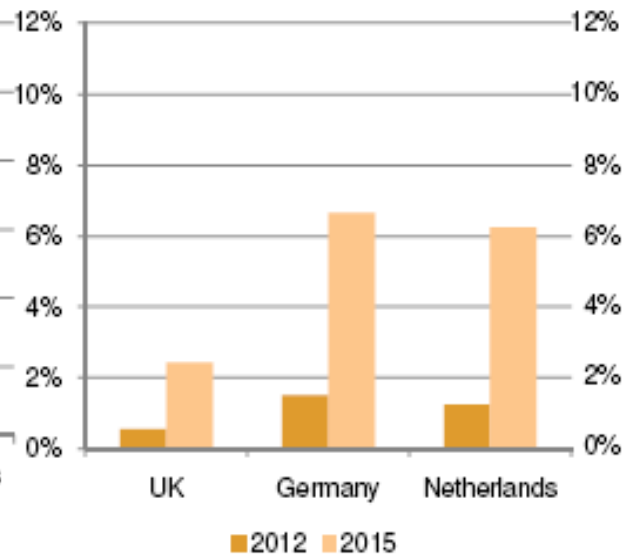


Forecasts Related to National Boiler Markets

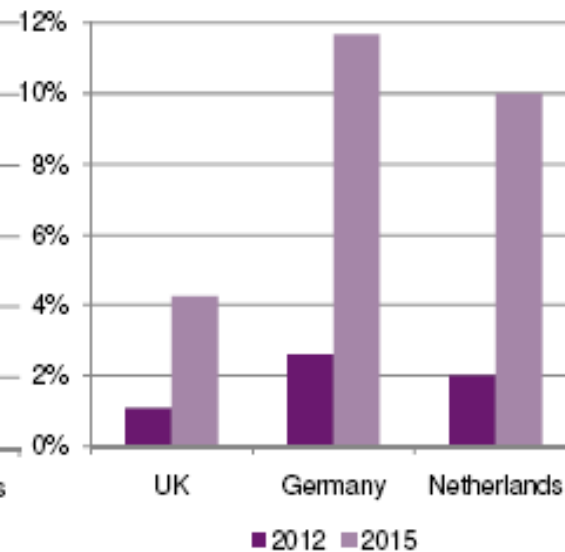
Low Scenario



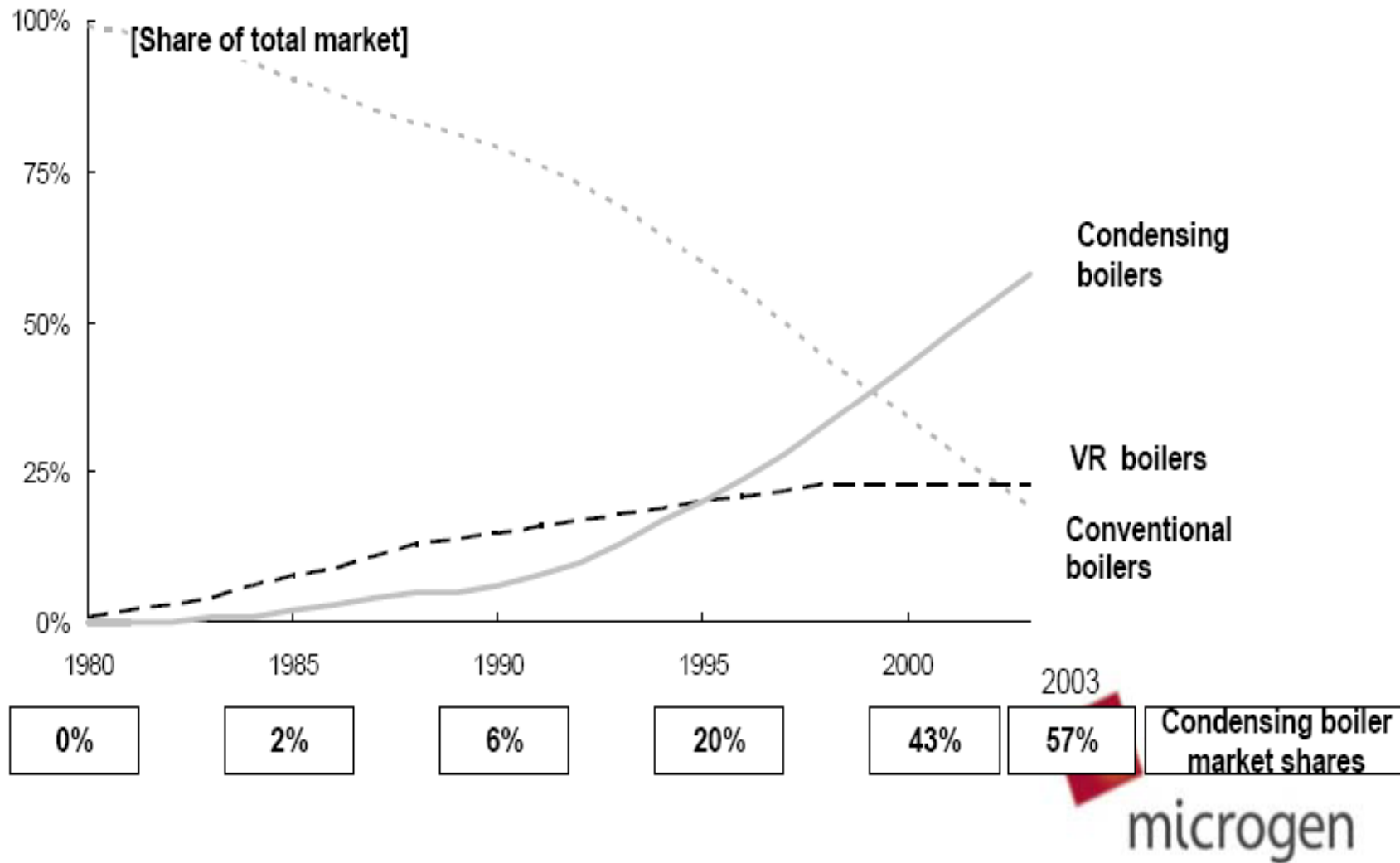
High Scenario



Very High Scenario

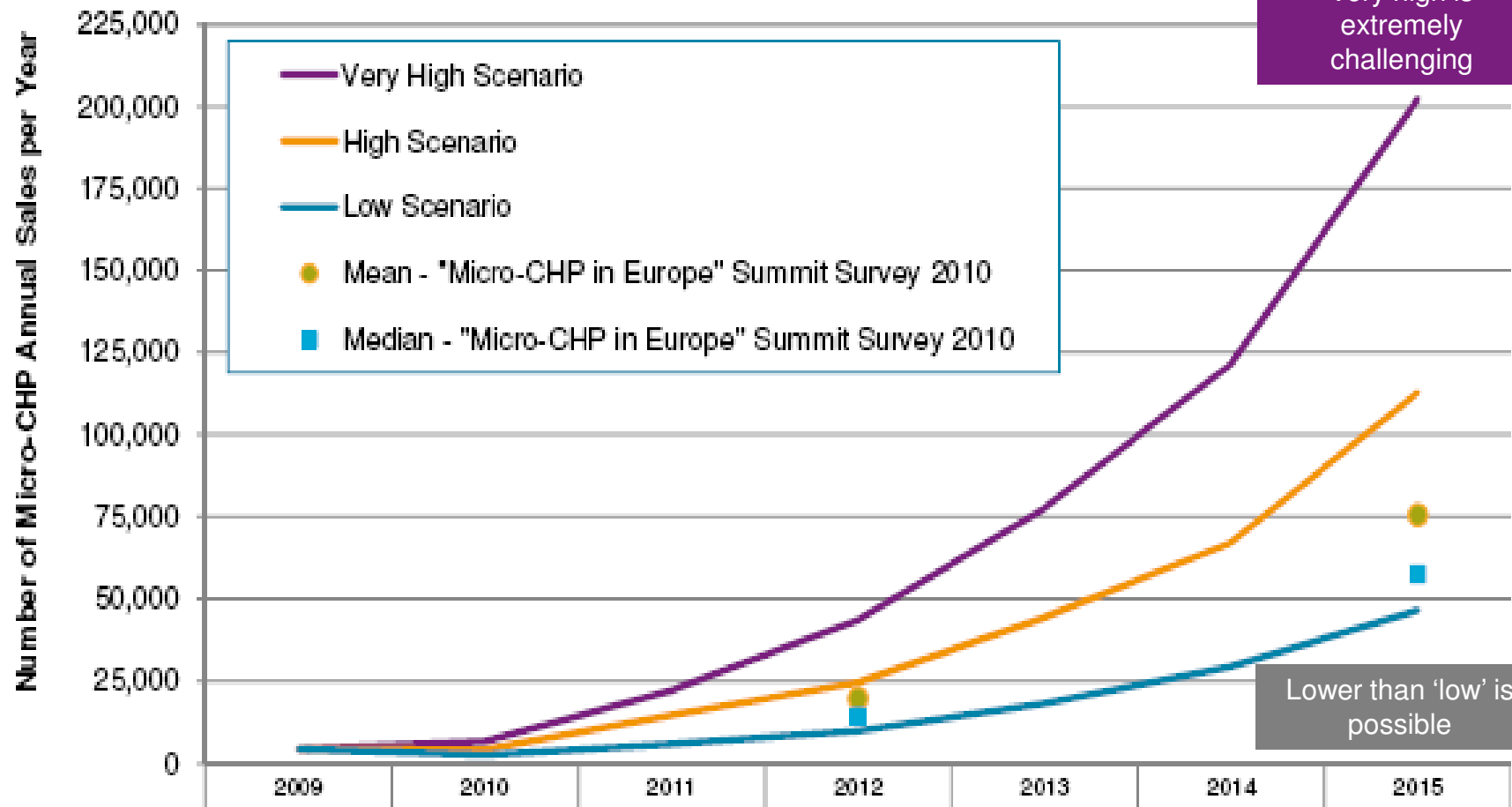


Condensing Boiler Market Growth in NL



Source: ECN, EnergieNed, Roland Berger analysis

Voting Time!



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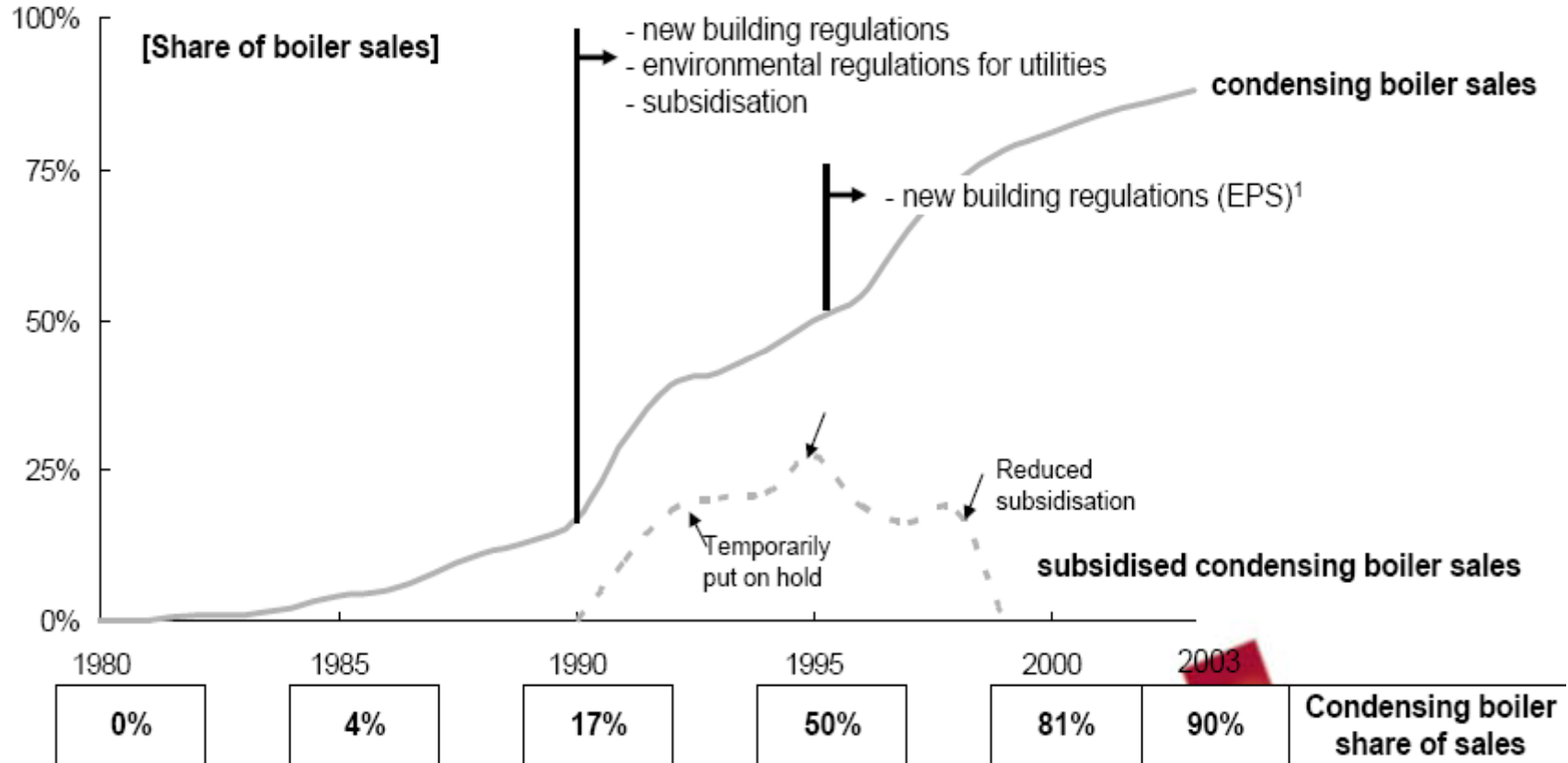
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Drivers of Dutch Condensing Boiler Growth

Condensing boiler uptake in the Netherlands



¹ Energie prestatie standaard
Source: ECN, EnergieNed, Roland Berger analysis