

# Phenol & Acetone

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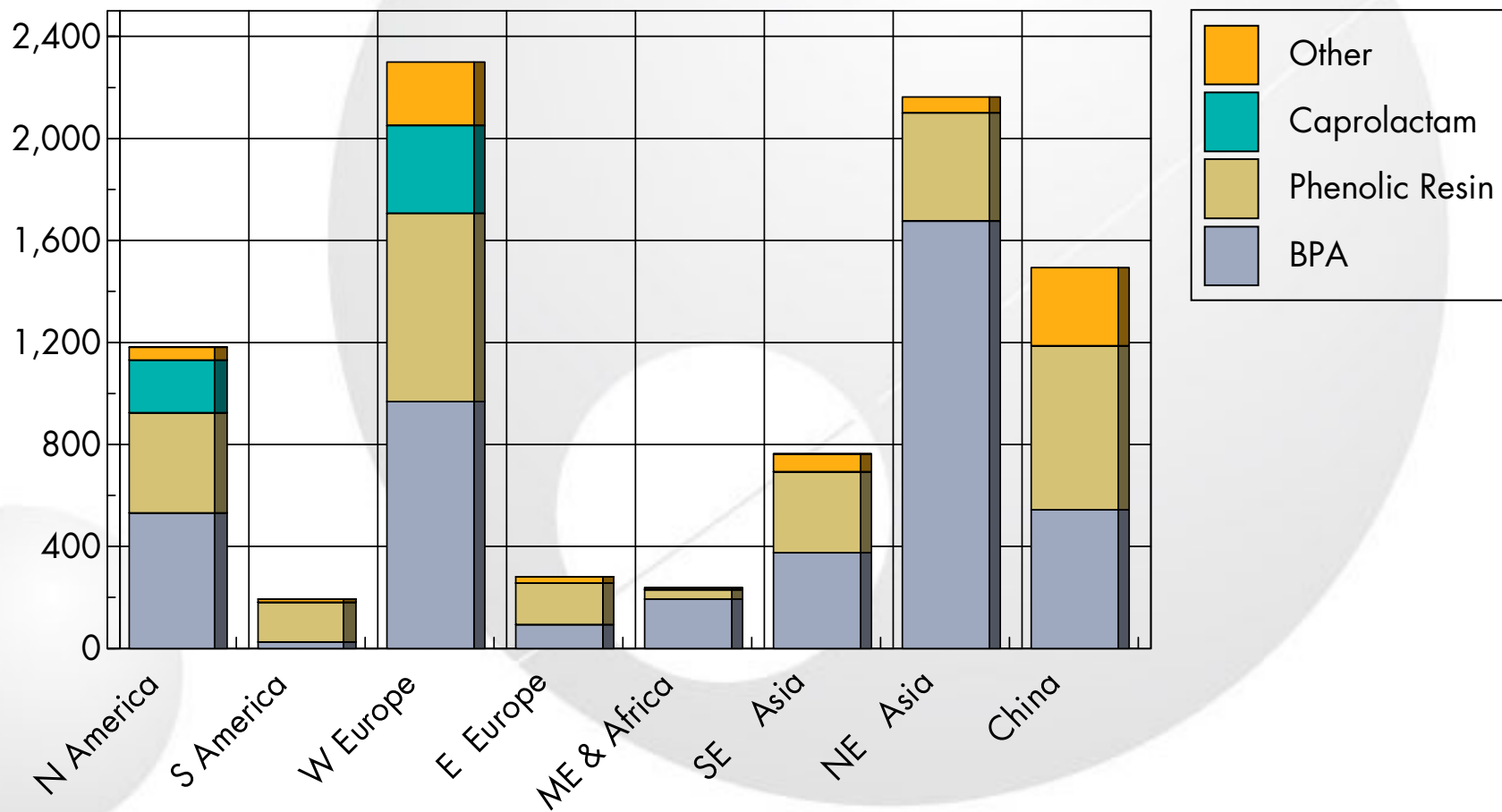
Chemicals Committee Meeting at APIC 2013

Taipei, 10 May 2013

(Joyce) Chen Xiaoju

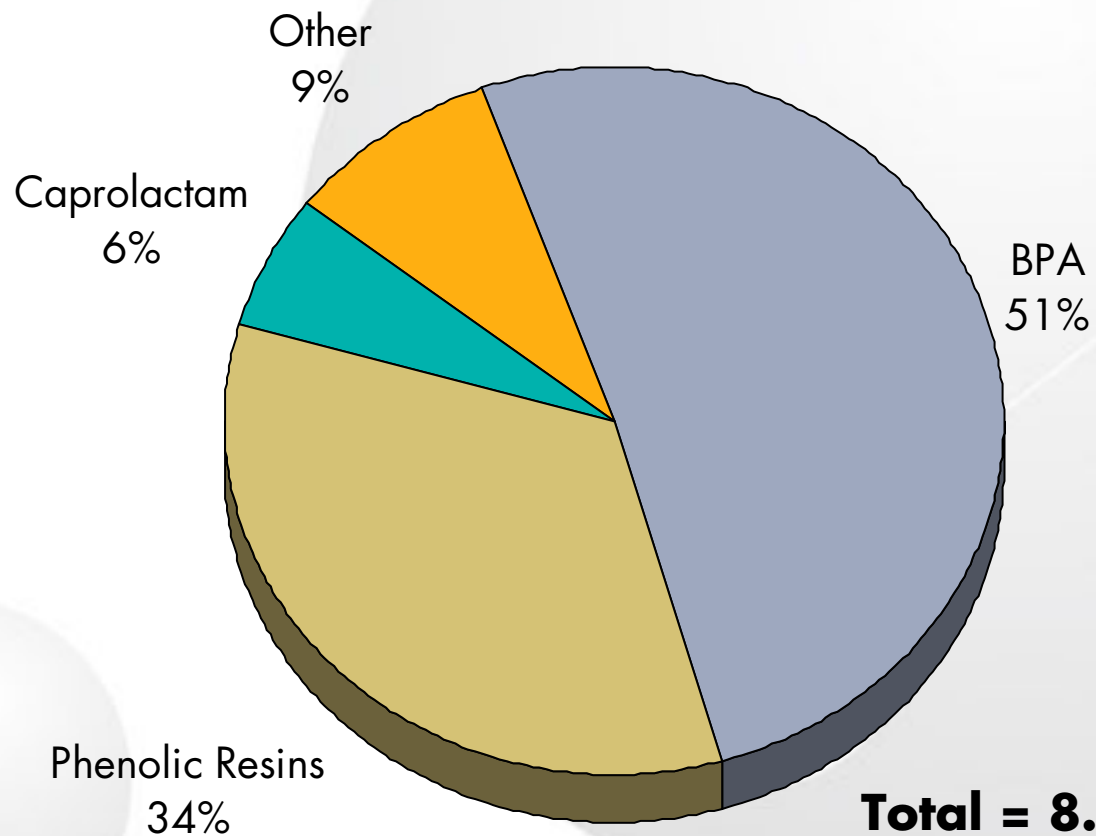
# APIC 2013 PHENOL CONSUMPTION 2012

1,000 Metric Tons



Source: Tecnon OrbiChem

# APIC 2013 PHENOL CONSUMPTION 2012

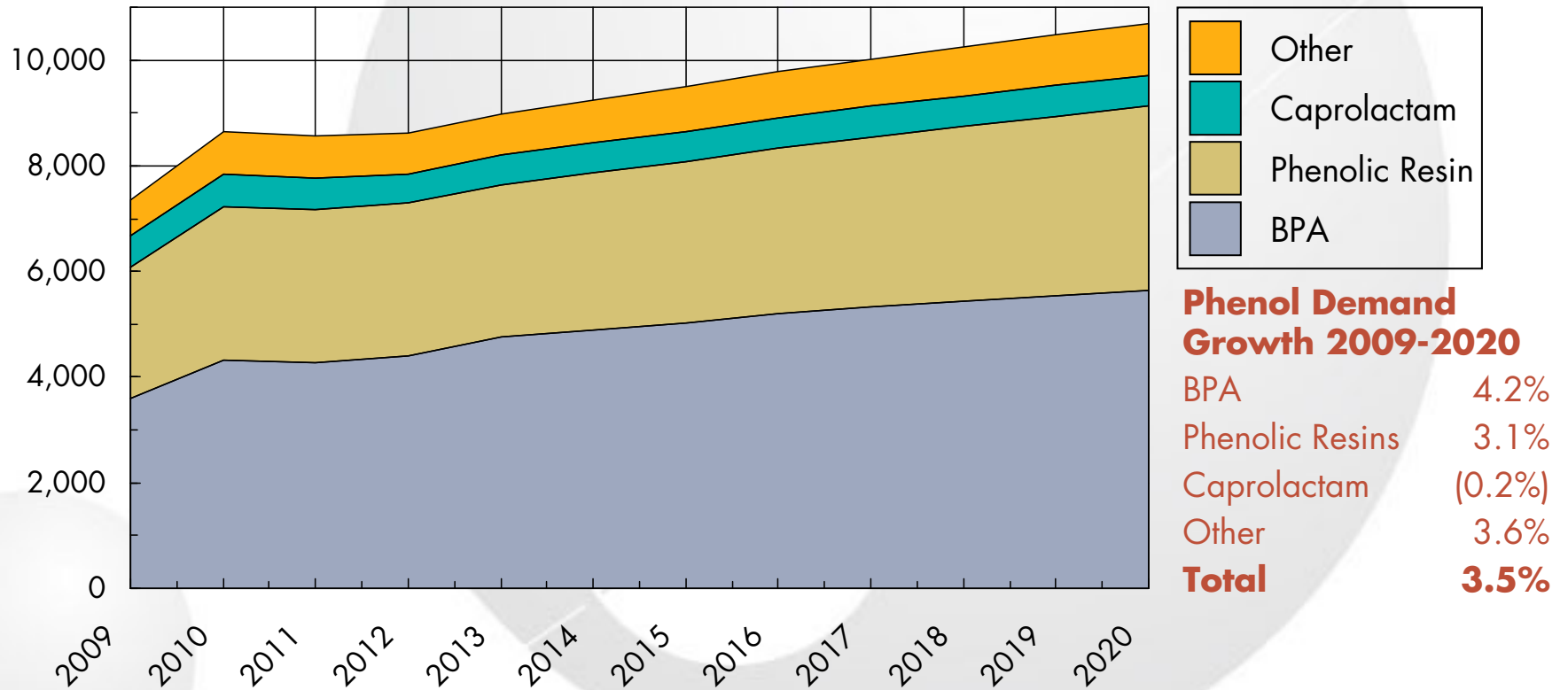


**Total = 8.6 Million Metric Tons**

Source: Tecnon OrbiChem

# APIC 2013 PHENOL CONSUMPTION

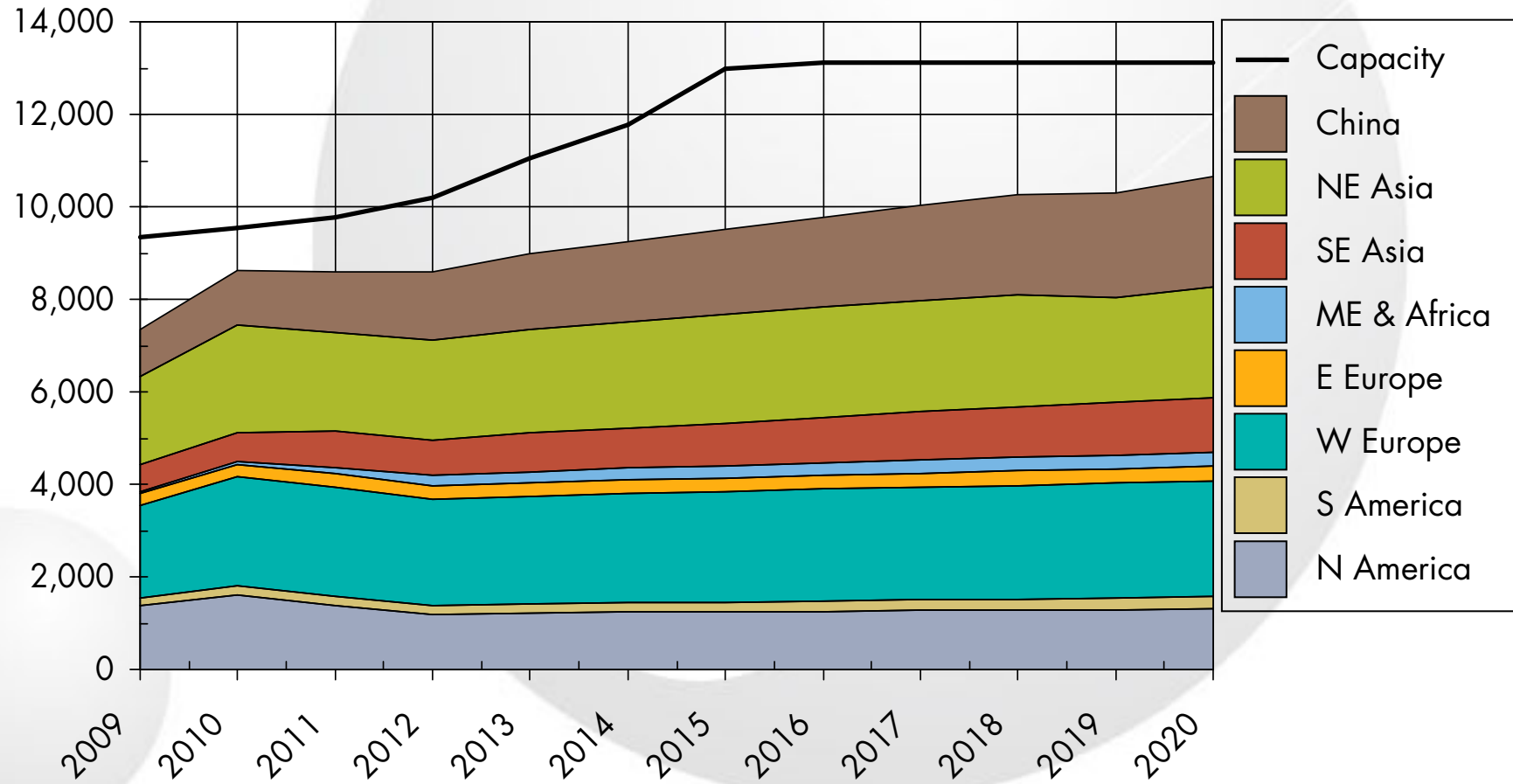
1,000 Metric Tons



Source: Tecnon OrbiChem

# APIC 2013 PHENOL CONSUMPTION

1,000 Metric Tons



Source: Tecnon OrbiChem

## APIC 2013

# PHENOL ASSUMPTIONS

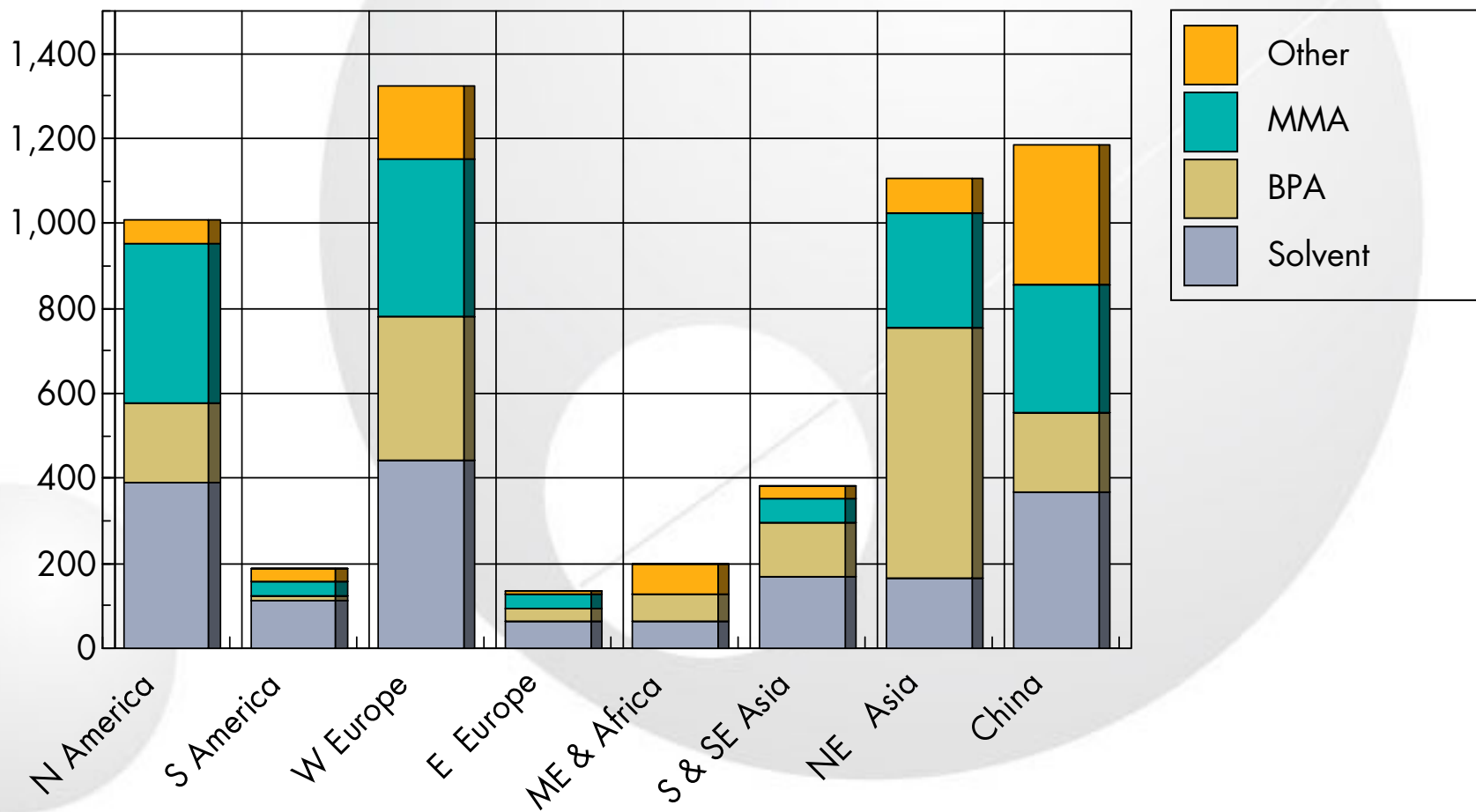
- In the forecasts shown here there have been no plant closures included, even though the gap between supply and demand widens significantly from 2014
- However, there is a need for plant closures when the new capacities start to come on stream in China after 2014
- It is possible that at least one plant may have to close in the USA, as much of its previous export market will have become self-sufficient
- Europe will have a surplus post 2015 for a short time, as exports to China cease, but domestic growth should preclude any closure
- It will also be necessary for some of the older and smaller plants in Asia to be shut down from 2014 onwards, especially as they will become uncompetitive

Source: Tecnon OrbiChem

# APIC 2013

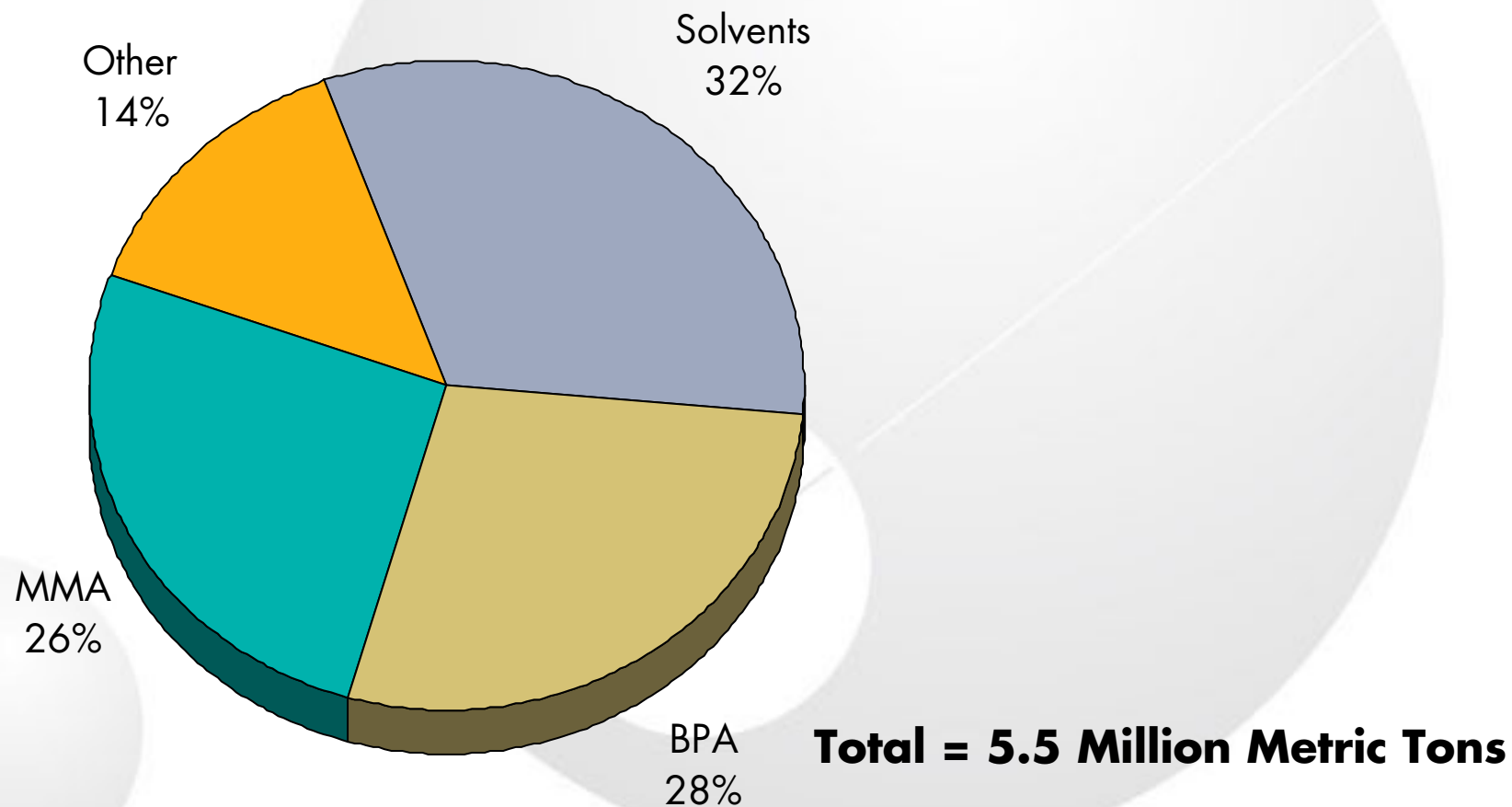
## ACETONE CONSUMPTION 2012

1,000 Metric Tons



Source: Tecnon OrbiChem

# APIC 2013 ACETONE CONSUMPTION 2012

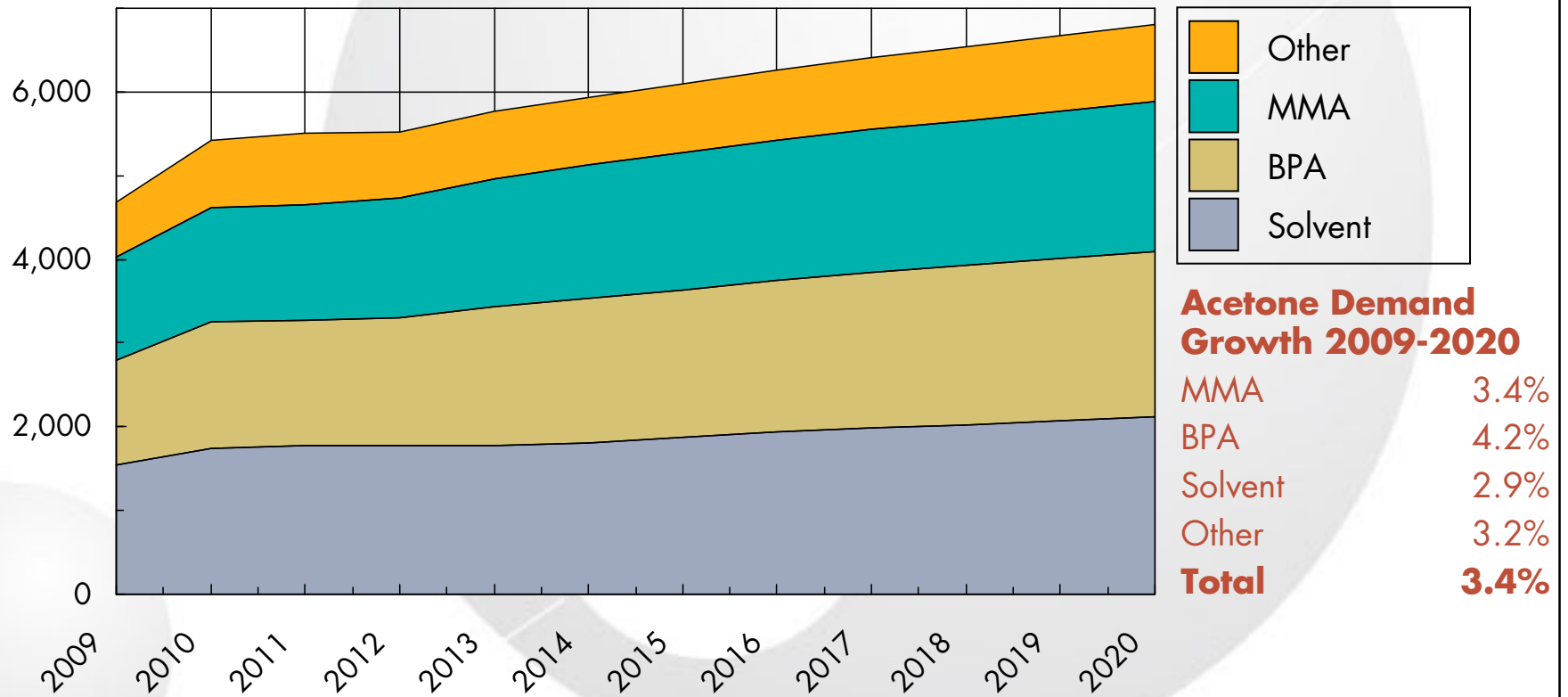


Source: Tecnon OrbiChem



# APIC 2013 ACETONE CONSUMPTION

1,000 Metric Tons



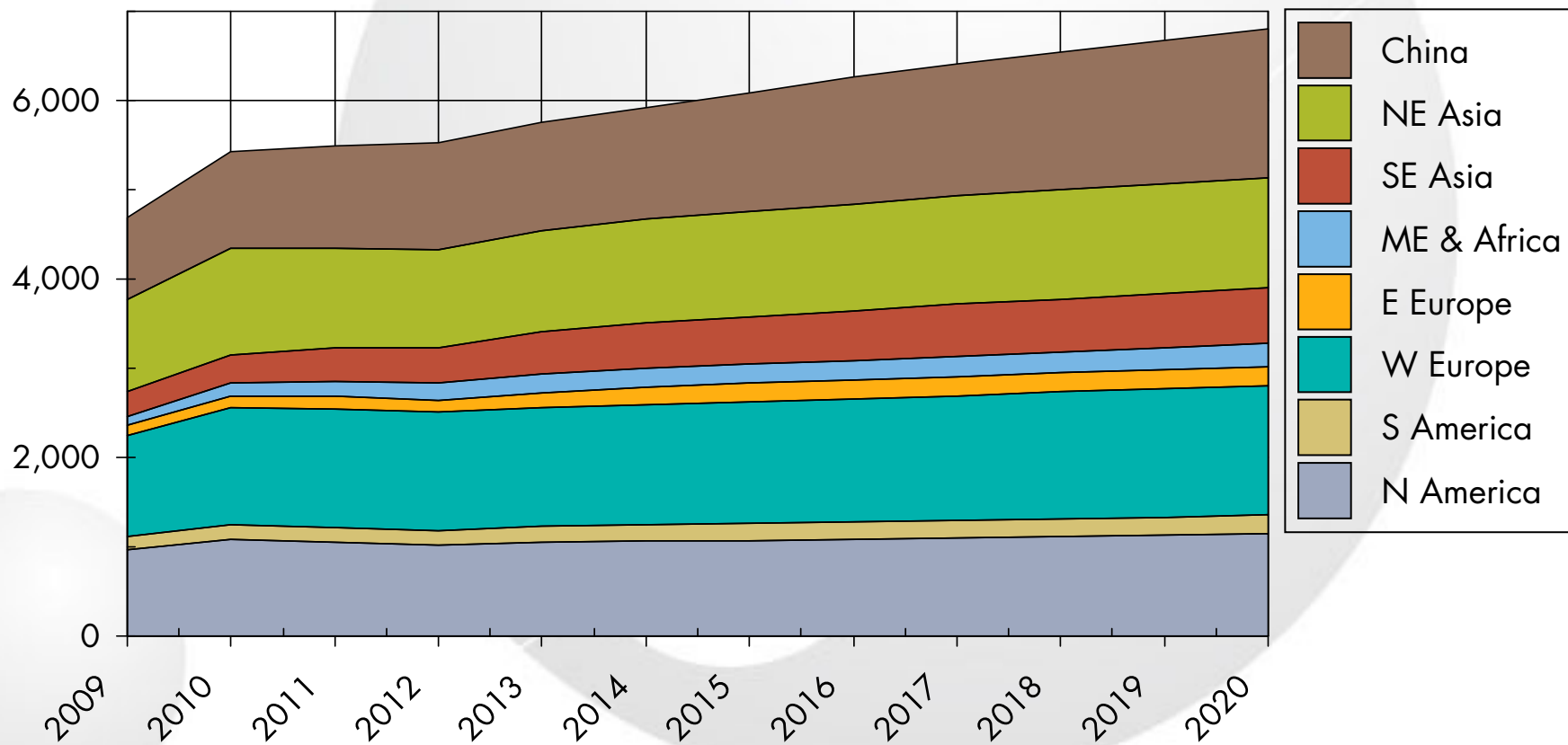
**Acetone Demand Growth 2009-2020**

MMA	3.4%
BPA	4.2%
Solvent	2.9%
Other	3.2%
<b>Total</b>	<b>3.4%</b>

Source: Tecnon OrbiChem

# APIC 2013 ACETONE CONSUMPTION

1,000 Metric Tons



Source: Tecnon OrbiChem

## APIC 2013

# ACETONE ASSUMPTIONS

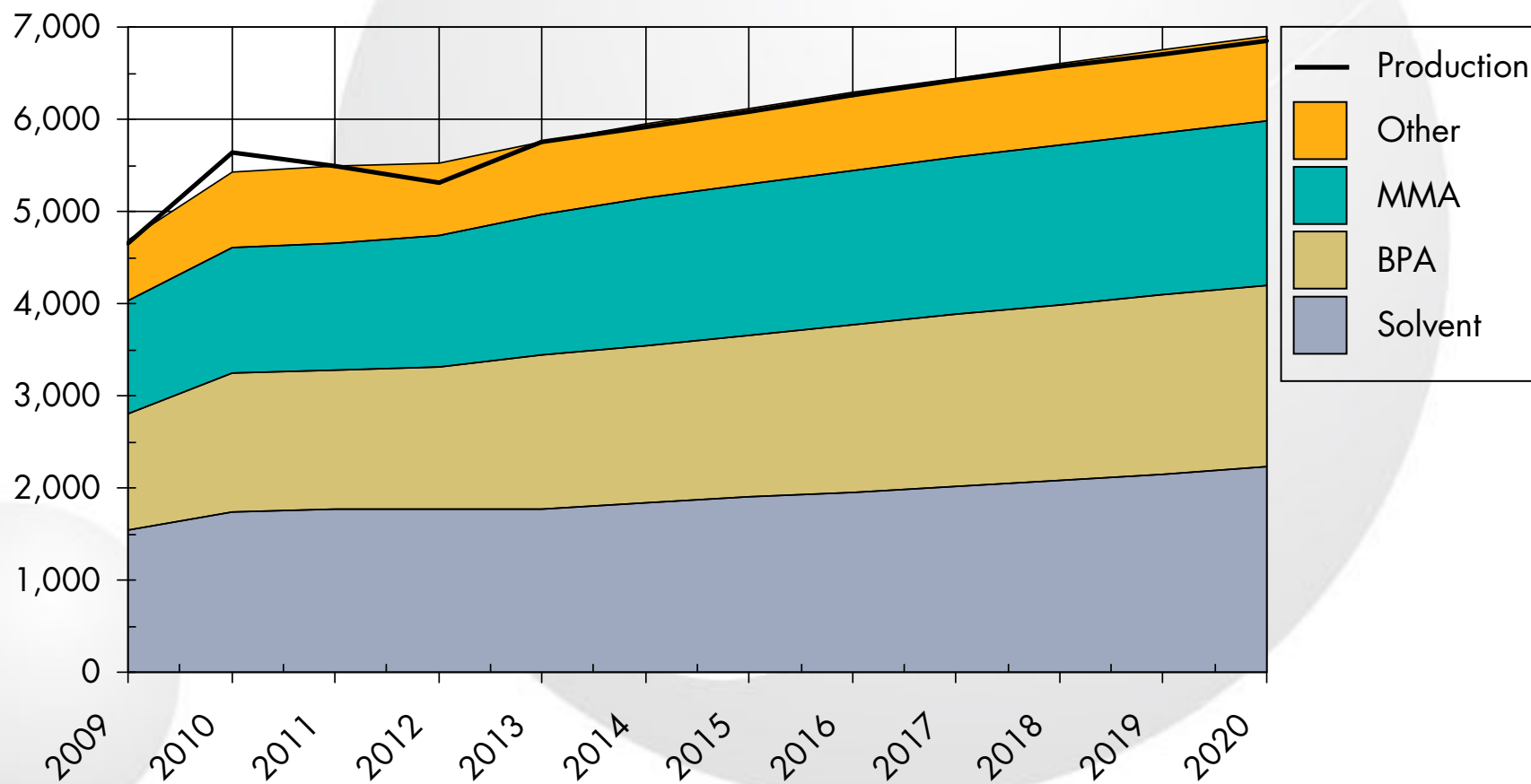
- The phenol derivatives growth rates post 2012 are made using established economic forecasts. Once done, the forward forecasts are adjusted so that the production equals the demand
- This means that the acetone production is dependent on the production of phenol and thus this availability restricts the forward demand for the acetone derivatives, except for BPA, which is linked to that made for phenol
- The following chart has been done with the expected forecast demand growth rate of 3.25% for solvents, which is not exceptionally high
- The consumption approached fairly close to the production in 2010-2012, after prices rose
- If the expected solvent growth rate is included, then the consumption will remain close to the availability from 2014 onwards, assuming no further new phenol capacity comes on stream after 2017

Source: Tecnon OrbiChem

# APIC 2013

## ACETONE CONSUMPTION v PRODUCTION

1,000 Metric Tons



Source: Tecnon OrbiChem

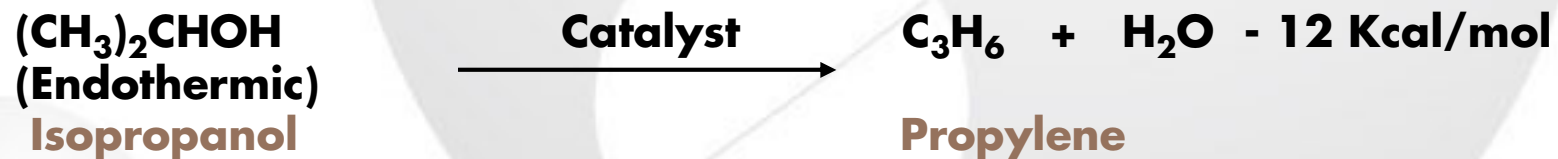
# APIC 2013

## ACETONE RECOVERY SYSTEM

### Hydrogenation



### Dehydrogenation





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