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11th TECHNICAL SEMINAR

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TABLE TOP EXPO

November, 14-16, 2018
Monterrey - Mexico

The Road to Continuous Improvement

Ton Manders – Euro Chlor



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Content

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- **Introduction**
- **The Euro Chlor approach**
- **Some examples**

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Introduction

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**The road to Excellence is never ending.
Continuous improvement is a journey,
not a destination**

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Introduction

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- In fact the PDCA or Deming cycle



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The Euro Chlor approach

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***Euro Chlor:
Supporting a safe, sustainable & successful
chlor-alkali industry for Europe***

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The Euro Chlor approach

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- **Safe:** Zero incidents
- **Sustainable:** Environmental protection
Social added value
Economic viability
- **Successful:** When we achieve above mentioned goals

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The Euro Chlor approach

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HOW

- **Develop and share best practices**
 - Guidelines, Workshops, Conferences
- **Measure and publish results**
 - Sustainability review
- **Promote the benefits of chlorine, caustic and hydrogen to all stakeholders**
 - Chlorine & Caustic tree
 - [17 successes](#) etc.
- **Keep our industry competitive**
 - Help to shape energy policy that ensures sustainable, reliable and competitively priced electricity.

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Some examples

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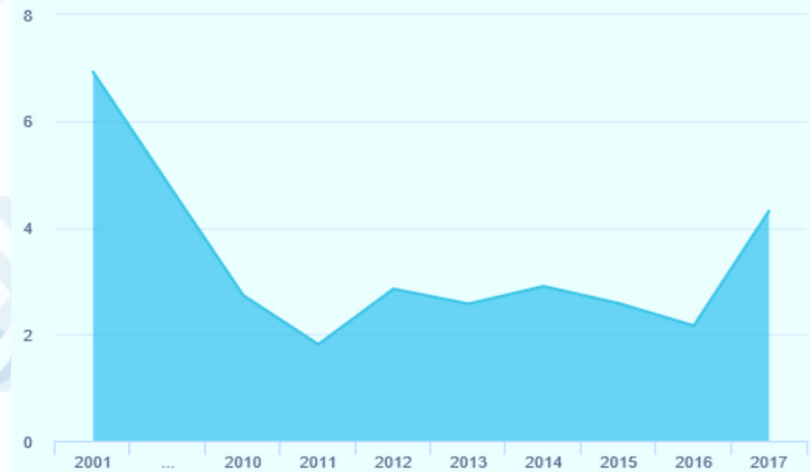
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SAFETY

- Collecting best practices and publish guidelines
- Measure performance
- Take action

PROCESS INCIDENTS AND LOSSES
(number per million tonnes chlorine produced)



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Some examples

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SAFETY

The actions

- *Create awareness*
- *Emphasize the importance of incident sharing*
- *Workshop incident sharing*
- *Approaching companies to share incidents*

	2011	2012	2013	2014	2015	2016	2017
Number of process incidents	17	27	24	25	27	18	40
Number of Incident reports	1	3	1	1	0	7	17

- *Analyze and take actions*
- *Improving documents*
- *Specific workshops (to be developed)*
- *Develop training tools (to be developed)*

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Some examples

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MERCURY

- Developed measurement techniques and protocols
- Start to measure and publish
- Set targets
- Collect best practices
- Develop guidelines
- Give workshops

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Some examples

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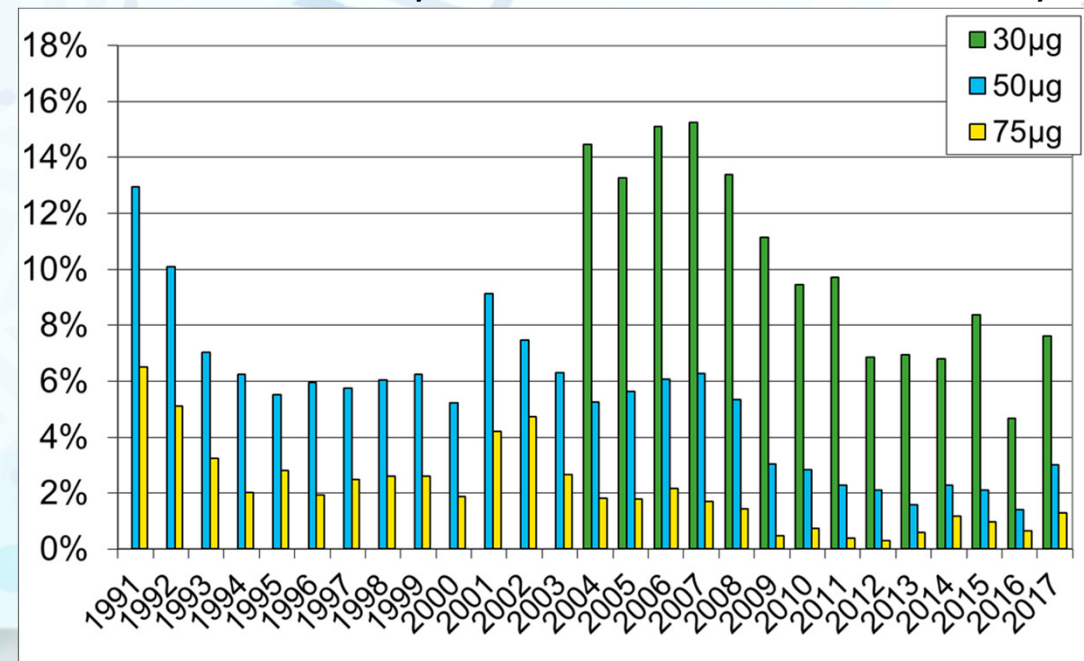
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MERCURY

- Results

- Annual mean mercury levels in workers across industry



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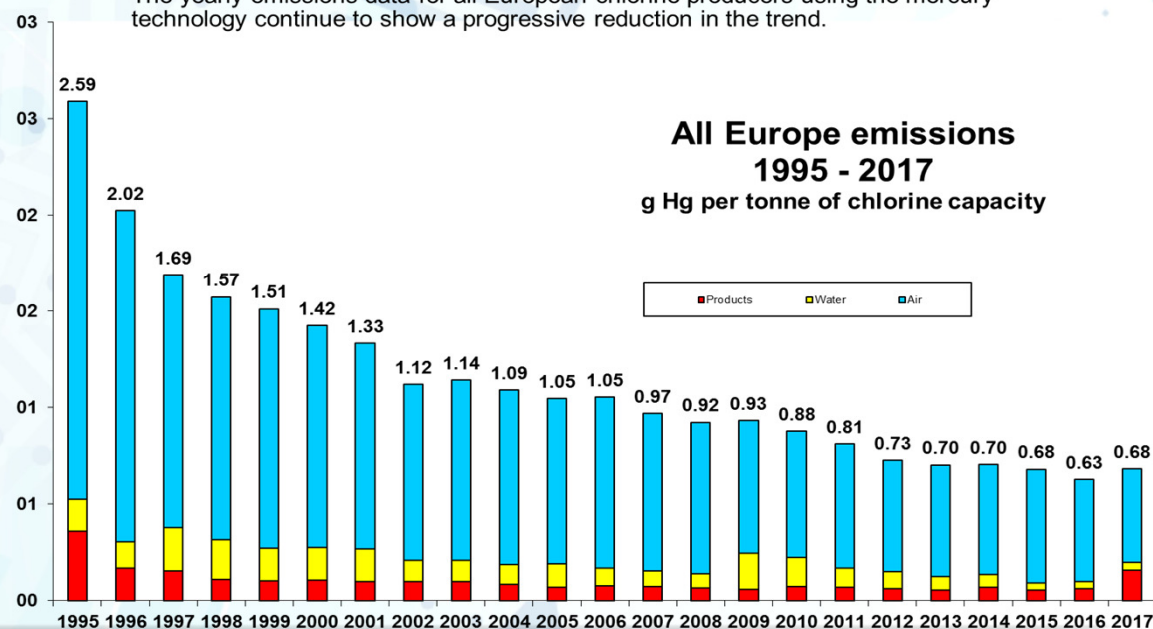
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MERCURY

• Results

Trend of the mercury emissions

The yearly emissions data for all European chlorine producers using the mercury technology continue to show a progressive reduction in the trend.



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ENERGY

- **Measure and publish energy usage and hydrogen utilization**
- **Set targets**
- **Give feedback to companies on their individual result**
- **Take actions when required**

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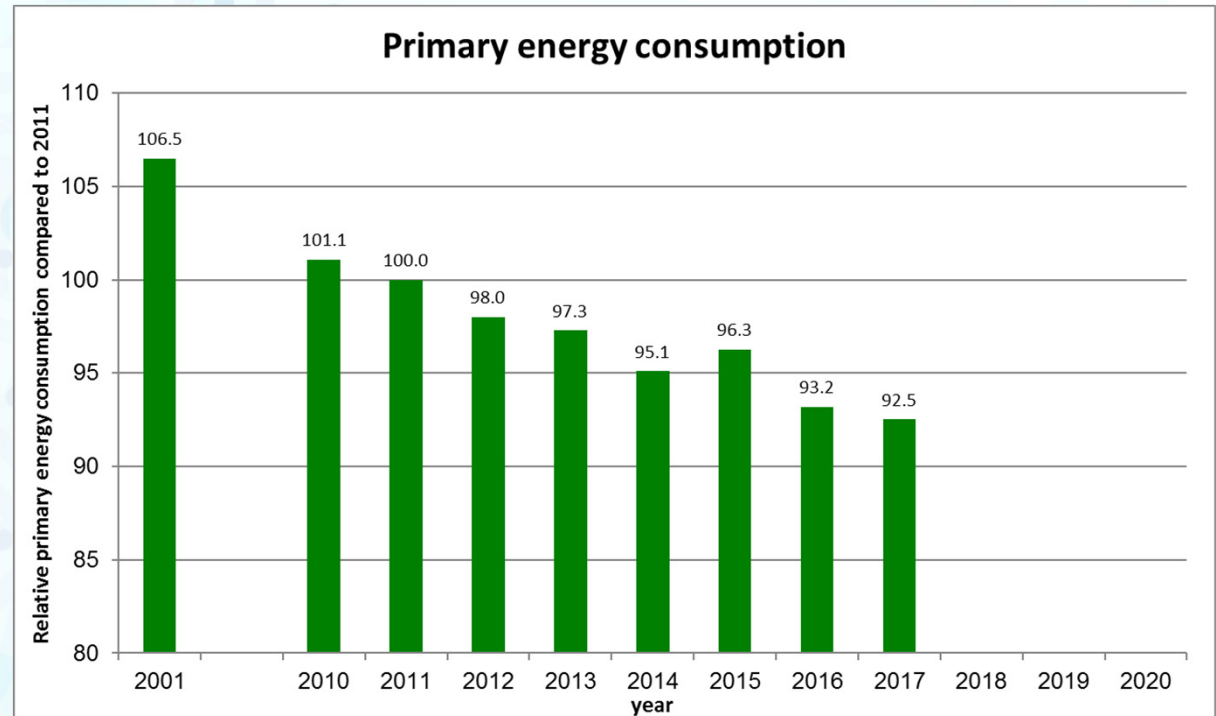
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ENERGY

- Results energy consumption



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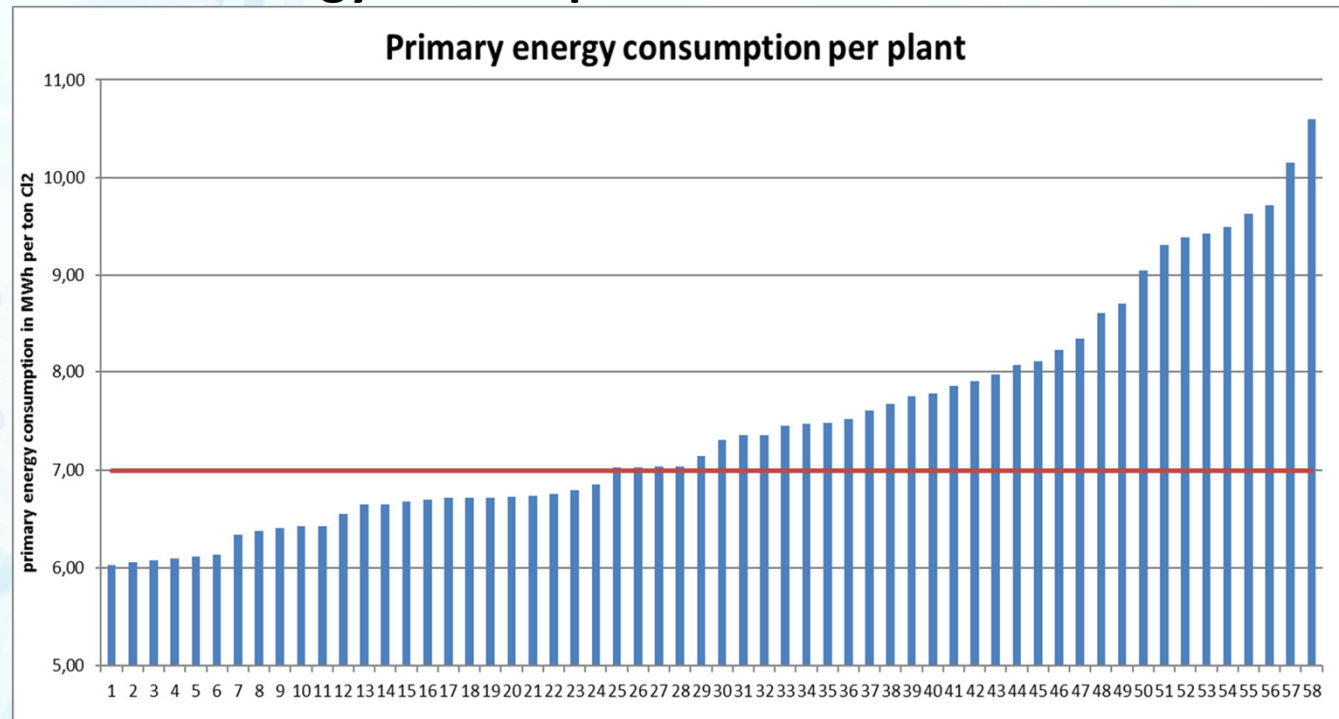
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ENERGY

- Results energy consumption



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Some examples

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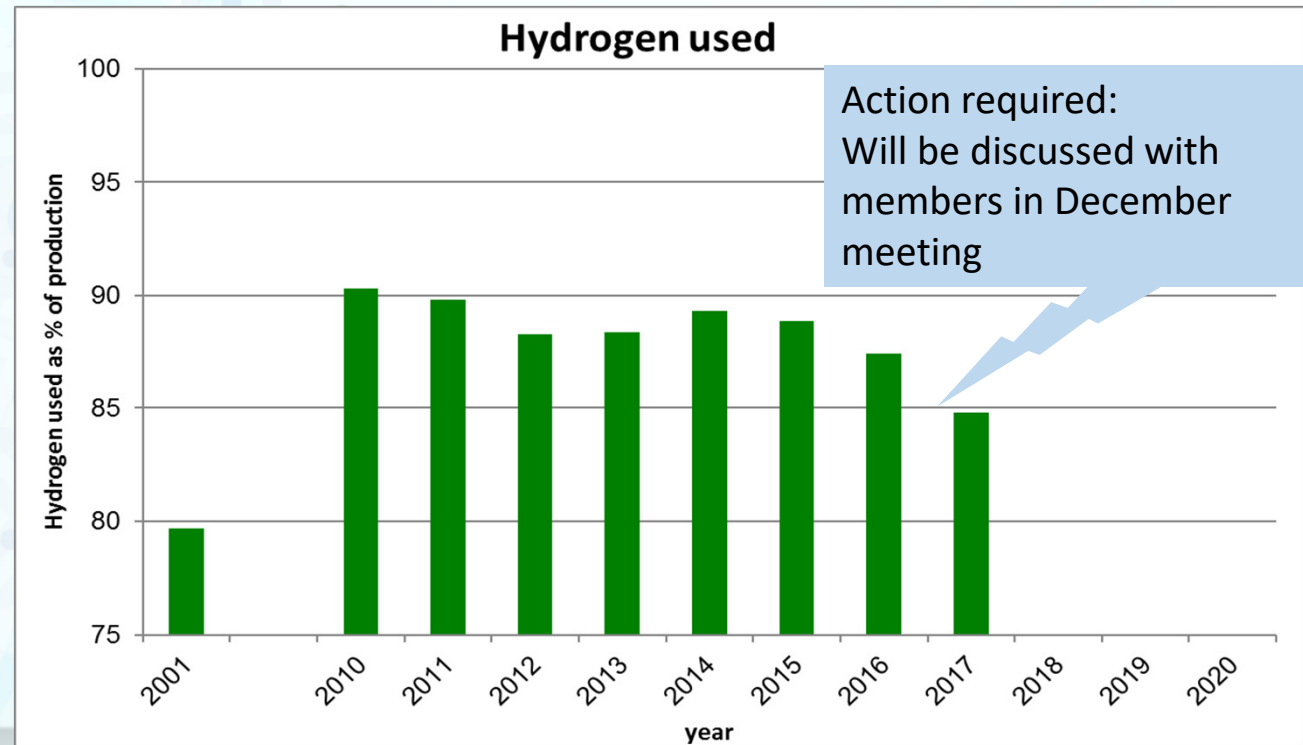
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ENERGY

- Hydrogen utilization



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Conclusion


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**The road continuous
More learnings and improvements are
required and will follow**

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THANK YOU

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The 17 Successes family grows further in 2018

www.17successes.com

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Annick is a dentist who really appreciates the combination of science and creativity that her job provides.



Student Pelle is helping to build the future out of versatile PVC materials and polyurethane insulating materials.



Erwin is a mechanic who fixes cars that even James Bond would be proud to drive.



Last, but not least is Tuan, an Information and Communication Technology (ICT) professional.



Successes

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