The Road to Continuous Improvement

Ton Manders – Euro Chlor
Content

• Introduction
• The Euro Chlor approach
• Some examples
The road to Excellence is never ending. Continuous improvement is a journey, not a destination.
Introduction

- In fact the PDCA or Deming cycle
Euro Chlor: Supporting a safe, sustainable & successful chlor-alkali industry for Europe
The Euro Chlor approach

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

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.
Some examples

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

The actions

- Create awareness
- Emphasize the importance of incident sharing
  - Workshop incident sharing
  - Approaching companies to share incidents
- Analyze and take actions
  - Improving documents
  - Specific workshops (to be developed)
  - Develop training tools (to be developed)

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<td>2017</td>
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</table>
Some examples

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

• Results
  • Annual mean mercury levels in workers across industry
Some examples

**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.

**MERCURY**

All Europe emissions 1995 - 2017

g Hg per tonne of chlorine capacity
Some examples

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

- Results energy consumption

![Graph showing primary energy consumption](image-url)
Some examples

• Results energy consumption

![Graph showing primary energy consumption per plant]
Some examples

• Hydrogen utilization

Action required: Will be discussed with members in December meeting
Conclusion

The road continuous
More learnings and improvements are required and will follow
THANK YOU

Ton Manders – Euro Chlor
The 17 Successes family grows further in 2018

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.