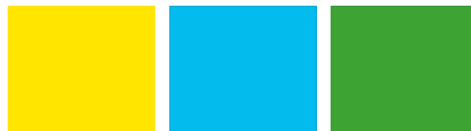




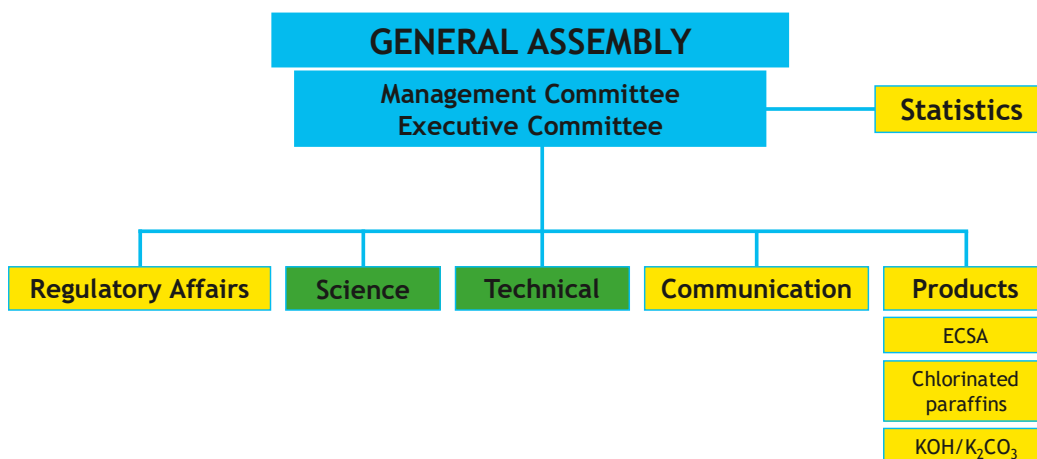
# Technical Activities in Euro Chlor

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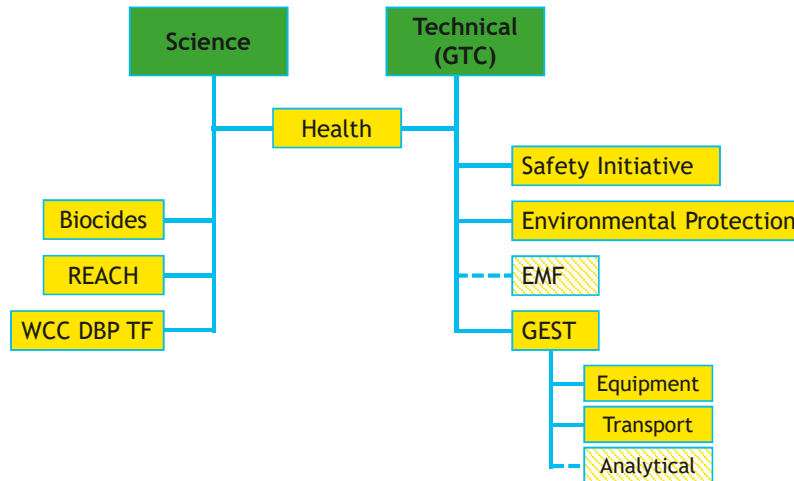
May 17, 2017



## The Euro Chlor Structure



## Committees and workgroups



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## GTC main activities

- **Improving the HSE performance** and long term sustainability of the European Chlorine Industry **by sharing** and formalising via written guidelines, their experiences and best practices
- **Sustaining the good HSE reputation** of the association and its members through the publication and periodic update of technical publications
- **Proactively supporting the advocacy** and communication work by supplying sound HSE data, information and statistics of the European Chlorine Industry
- **Maintaining and reinforcing a strong network** between the European chlorine producers, packagers, customers and technology suppliers and also other associations (Chlorine Institute, WCC ..)
- Taking care of the **technology conference** and the annual collection and discussion of the **sustainability KPI's**

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## What did we achieve in the last 3 years

- **Safety Initiative**
  - **Sustainability surveys**
  - **Mercury topics**
- } See later today; separate presentations
- Review and evaluation of the (3) suppliers for mercury stabilization
  - Organized 2 Mercury workshops to help our members with best practices for demolishing a mercury plant
  - Monitoring the HSE performance of the mercury plants in Europe and (partly) world wide (number of plants and emissions)

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## What did we achieve in the last 3 years

- **Follow-up BREF/BAT**
- Closure of mercury plants
  - Updating our documents on demolishing, people safety, mercury workshops etc.
  - Chlorate; no BAT AEL in BREF for chlorate but a measuring obligation, follow up required, see presentation on Thursday

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## What did we achieve in the last 3 years

### New documents

- **GEST 12/406** Best Practices in the Production and Handling of Caustic Soda/Potash
- **HEALTH 10** Electromagnetic Fields in Chlorine Electrolysis Units; What an occupational physician should know
- **GEST 94/211** Code of practice for sampling of liquid chlorine
- **GEST 12/408** Liquid chlorine level measurement & detection devices
- **GEST 73/25** Transport of Dry Chlorine by Pipeline

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## What did we achieve in the last 3 years

### Updated documents

- **HEALTH 2** Code of Practice - Control of Worker Exposure to Mercury in the Chlor-Alkali Industry
- **GEST 93/179** Emergency Intervention in Case of Chlorine Leaks
- **ENVI PROT 3** Guideline for Decommissioning of Mercury Chlor-Alkali Plants
- **GEST 94/213** Guidelines for the Selection and Use of Fixed Chlorine Detection Systems in Production Units
- **GEST 87/130** Possible Hazards for Chlorine Plants and their Proposed Mitigations

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## Activities for the (near) future

- **Although mercury technology will cease by the end of 2017; mercury will remain on the radar**
  - Demolition in a safe way
  - Mercury stabilization
  - Mercury issues in converted plants
- **Topics such as**
  - Increasing process safety
  - Energy saving
  - Hydrogen in chlorine from electrolyser up to Cl<sub>2</sub> liquefaction

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## Activities for the (near) future

- **Updating of documents**
  - Basic idea is once every 5 years
  - Reality is:

Work Group	Total	Initiation	< 5 y	5-10 years	10-15 years	> 15 years
GEST	44	5	17	12	10	0
Equipment	24	0	6	5	8	5
Env. Prot	11	0	6	3	1	1
Analytical	9	0	3	5	1	0
Health	9	2	3	2	2	0
<b>Total</b>	<b>97</b>	<b>7</b>	<b>35</b>	<b>27</b>	<b>22</b>	<b>4</b>

- **Plan to be back on track by the end of 2018**

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## Priorities 2017

- **HG Site Renovation**
  - Compliance
  - Safety
  - Environment protection
- **Sustainability**
  - Safety
- **Energy**
  - reliability
  - costs

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# Thank you very much

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