**Estonia**

Federation of Estonian Chemical Industries / Eesti Keemiatoostuse Liit

<table>
<thead>
<tr>
<th>Number of companies</th>
<th>Turnover</th>
<th>National contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>€600 million</td>
<td>Hallar Meybaum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Executive Director</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:info@keemia.ee">info@keemia.ee</a></td>
</tr>
</tbody>
</table>

**Direct employees**

2,536

**CHEMICAL INDUSTRY SNAPSHOT**

The Estonian chemical industry is a small but export-oriented, well established and specialised sub-sector of Estonian industry. Overall industrial activities account for 20% of Estonian GDP. That share is higher than the European average, but at the same time well in line with the EU’s 20/20/20 strategy, which in addition to well-known energy, resource and climate goals, sets a target for raising industry’s contribution to EU GDP from 15.2% to 20% by 2020. In 2015, Estonian gross domestic product (GDP) was €20.48 billion in current prices.
The processing industry accounts for 74% of the whole industry sector. Chemicals and chemistry products account for 5.7% of the processing industry, contributing about 0.9% to GDP.

It must be noted that the Estonian Statistics Office considers the production of shale oil under the “fuel oils production” sector, so the shale oil contribution to GDP is viewed separately from chemicals. However, all shale oil producing companies in Estonia need to comply with the EU chemicals regulatory framework and are, therefore, members of the Federation of Estonian Chemical Industries (FECI).

The chemical industry has a high growth potential and is one of the most competitive industry sectors in Estonia. Traditionally, the export share of Estonian chemical companies’ sales has been high, accounting for 66.9% in 2016. Based on turnover, the productivity and output rate per worker are among the highest compared to other industry sectors.

**SITUATIONAL ANALYSIS OF THE CHEMICAL INDUSTRY**

The Estonian chemical industry is characterised by strong territorial concentration, as more than half of the chemical industry is located in one county: East-Viru. This results from tradition and development possibilities of that region.

Two important chemical sub-sectors are characteristically specific to the Estonian chemical industry: oil shale chemistry and the producing of rare earth metals and their oxides. Industrial production of Estonian shale oil was started in 1924. Producing oil from oil shale is a long-term tradition in Estonia, but a unique process in Europe. It
makes a remarkable contribution to the economy of the country.

The Estonian economy is characterised by a large share of small businesses, but the vast majority of sales are generated by the minority of big companies. This pattern is reflected by the chemical industry as well.

According to the Estonian Statistics Office, the total number of businesses in 2016 in Estonia was approximately 73,000. Among those, there were 97 companies in the chemical industry, only two of which had more than 250 employees. The number of employees in chemical industries was 2,536, accounting for 3.4% of the number of people employed in the processing industry. At the same time, sales account for 5.0%. The overall turnover of the chemical industry in 2016 was €600 million.

Again, it must be mentioned that the profile of FECI members is somewhat different than the national chemical industry defined by the statistics office. To that end, FECI has 55 member companies that employ approximately twice as many workers as the national chemical industry.

Export success comes mostly from East-Viru county, where the main export articles are shale oil and – phenols, benzoic acid, sodium benzoate, and plasticizers, rare earth metals and their oxides; production of urea fertilizers has ceased.

Producers of construction chemicals, namely sealants and construction adhesives, play a big role in chemical product exports. Export volumes of applied chemistry are more modest, but Estonia has a long experience in producing cosmetics and applied chemistry such as home care products.
The Estonian chemical industry co-operates closely with research institutions, as the main universities in Estonia engaged in offering chemical and engineering education have appointed representative facilities that are direct members of the association (FECI).

**HOW ARE WE DOING?**

**Strengths**

- Success in niche markets
- Unique experience and knowledge as the only European manufacturer of rare earth metals and their oxides
- Leading producer of polyurethane foams globally
Unique natural resource in the form of oil shale and concentrated, unmatched know-how in shale oil production - in addition to serving as an excellent export article, this industry branch significantly contributes to keeping Estonia’s place as one of the few energy independent countries in the EU and to enhancing R&D by creating needs and appliances

Opportunity-offering location: port connections to Europe; borderline of Europe and wide Russian market

Good quality-cost relationship of the workforce

Weaknesses

- High average age of chemical industry workforce and chemistry researchers in Estonian universities, making it necessary to find younger employees and scientists to allow for sustainability
- High and increasing energy prices; no incentives for energy-intensive industries
- Complex and burdensome EU legislation and a tendency to supplement EU legislation with national fees in the environmental taxation sector are placing additional financial burdens on the Estonian chemical industry
- High portion of indirect taxes and tendency to make unexpected changes in the tax system creates uncertainties and discourages long-term investments
- Lack and/or fragmented structure of support to SMEs to ensure that the growing regulatory burden does not hurt their competitiveness and that access to competence in R&D - intensive industry branches is available for SMEs
- Estonian model of creating added value places a relatively large burden on the environment in terms of CO2 efficiency and material productivity

OUR CONTRIBUTION TO A COMPETITIVE EUROPE

For the first time, Estonia is developing a specific industrial policy. The government has recognized the importance and potential of the industry sector and as the first action point developing industry’s Green Paper in cooperation with all relevant stakeholders including FEIC.

Present and Future Prospects

Due to the depth of scientific research on oil shale and resources of good quality oil shale, this branch of industry should be the key sector for the development of the Estonian economy. In order to cope with increasingly stringent local and European Union environmental regulations and to ensure a competitive chemical industry for Estonia, a supportive economic environment is needed. This is especially important in the situation of unpredictable factitious oil market resulting in unnaturally low oil prices.

Additionally, there is a need for the preservation and development of the scientific potential of chemistry; preparing and educating needed chemists and specialists on chemical safety; and development activities of the chemical industry through new technologies and processes. These measures would ensure the preservation of production and export capability of chemicals and chemical products, and would improve the employment situation. It is necessary to acknowledge the key role of the chemical industry as a developer and enabler of “traditional” and “new, potentially bio-based, economy” in Estonian society. It is impossible to develop the economy and a whole society without knowledge of chemistry and the chemical industry.

In Estonia the smart specialisation strategy is compiled by the Ministry of Education and Research as well as the
Ministry of Economic Affairs and Communications. The aim of the strategy is to support contributions to growth in the research-intensity of the Estonian economy, enhancing collaboration between R&D institutions and companies. Furthermore, the support will help to raise the capabilities of R&D institutions to carry out applied research needed for business in smart specialisation growth areas.

The funding supports companies in commissioning necessary applied research or product development projects from universities or research institutions. FECI played an important role in getting the chemical industry recognised as an area with high growth potential. Three areas of growth were selected as a result of the Development Fund’s analysis:

- Information and communications technology (ICT) horizontally via other sectors
- Health technologies and services
- Enhancement of resources

The sub-sectors under the last growth area include: entrepreneurs active in the areas of materials science or industry, endeavor to identify innovative construction options or seek opportunities for the more effective utilisation of oil shale in the chemical industry.

Landscape of the European Chemical Industry Website:
http://www.chemlandscape.cefic.org/country/estonia/