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# Market Study Industrial Sewage Plants Germany

Plants – Structures – Technologies – Trends

**Extract**

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## Market Study Industrial Sewage Plants Germany

Germany is the largest European market for the industrial treatment of wastewater – there are almost 3,000 treatment plants in nearly 12,000 discharging companies within the manufacturing industry in Germany. In this country, more than 920 million cubic metres of industrial wastewater are treated annually before being discharged into the environment or the public sewerage. The pollution loads vary considerably – in contrast to municipal wastewater treatment. They reflect the German industrial structure, which is to some extent very heterogeneous.

Due to the established industrial structure, the construction of new treatment plants is limited. However, there will still be sustainable investments in the wastewater treatment within the industry in the coming five years – as a consequence of stricter legal requirements, like the EU Water Framework Directive, and the increasing cost pressure due to rising energy costs.

In the light of this development, ecoprolog and Fraunhofer UMSICHT analysed the German industrial sewage plants in detail. In doing so, we did not only use our own market knowledge. The study also includes findings of public consultations, of authorities, business associations and companies within the sector of water management.

Thus, we offer an up-to-date analysis of figures, facts, estimations and trends in the sector of operating companies within the industrial wastewater treatment in Germany, which is of interest for disposal companies, suppliers, operators, business associations, research institutes and consultants.

### The “Market Study Industrial Sewage Plants Germany” includes:

- A description of the extent, structure and branch mix in the sector of industrial wastewater treatment in Germany.
- A detailed analysis of all essential political, economic, managerial and technical trends in operating industrial sewage plants in Germany.
- An analysis of the particular allocation of treatment plants and their industrial structures on the level of the German federal states.
- A description of the almost 400 industrial sewage plants in Germany, mostly including essential technical data, like capacities, industry sector, treatment technology and contact addresses. These plants represent approximately 50 percent of the industrial wastewater treatment in Germany.

The study is available in English and German language starting from 1,800.- € plus VAT. Subscribers of ecoprolog's w&b Monitor will receive a discount starting from 600.- €. **Please find detailed price information at the end of this extract.**

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In every industry, there is a “loss” of water, which is needed for the products themselves or “consumed” in the course of the production process (for example, it evaporates). This loss, however, only varies slightly in the different industries. The largest loss occurs in the case of extracting fossil fuels.

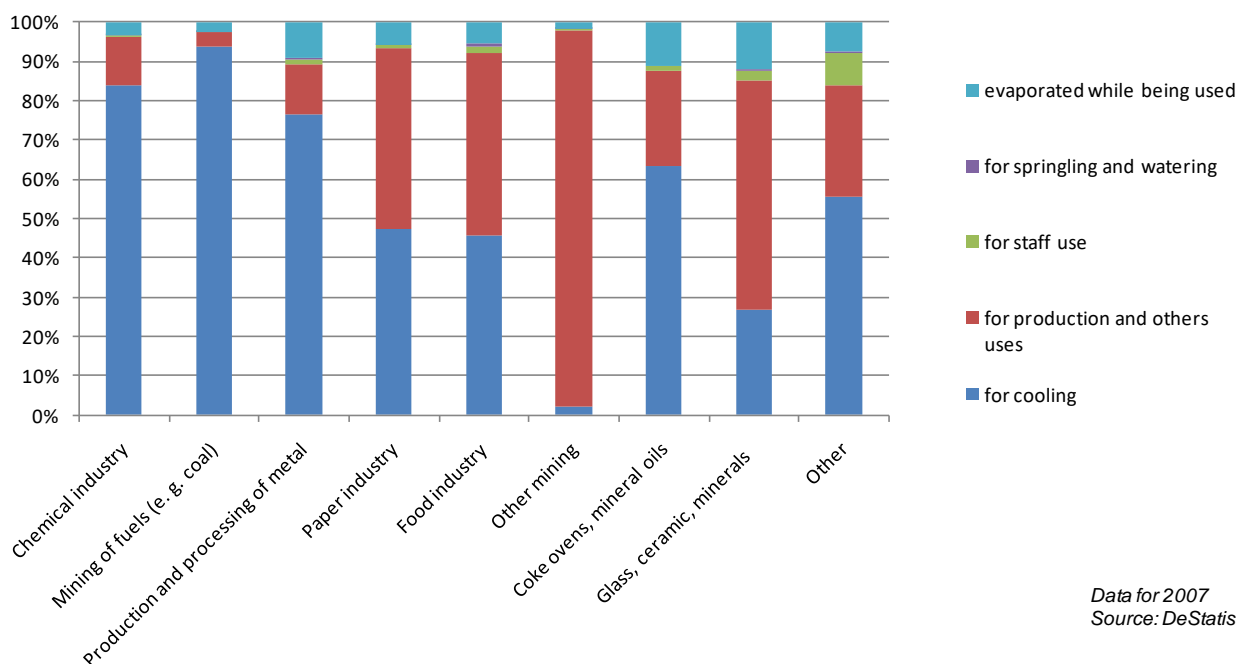
### 4.3 Types of use of water

The main part of the water is used for cooling, also in the industry and the commercial sector. This is particularly true for cooling energy generation plants, of which many can also be found in the commercial sector.

Only about 17 per cent – almost 1.5 billion cubic metres – of the water are used for production specific purposes. The amount of unused water, which is discharged, is almost as large.

These shares, however, vary in the particular sectors – in some cases, considerably. Especially companies within the coal mining sector and the chemical industry use the cooling water to a large extent. In contrast, paper conversion or food industry companies rather use the water for the production itself. This is why in these cases the water is also more polluted – unlike in the case of cooling the water.

**Figure 5: Total use of water by industries**



The other mining sectors also use the water for production purposes especially. The vast majority of the water is only used once, which is also due to the cooling.

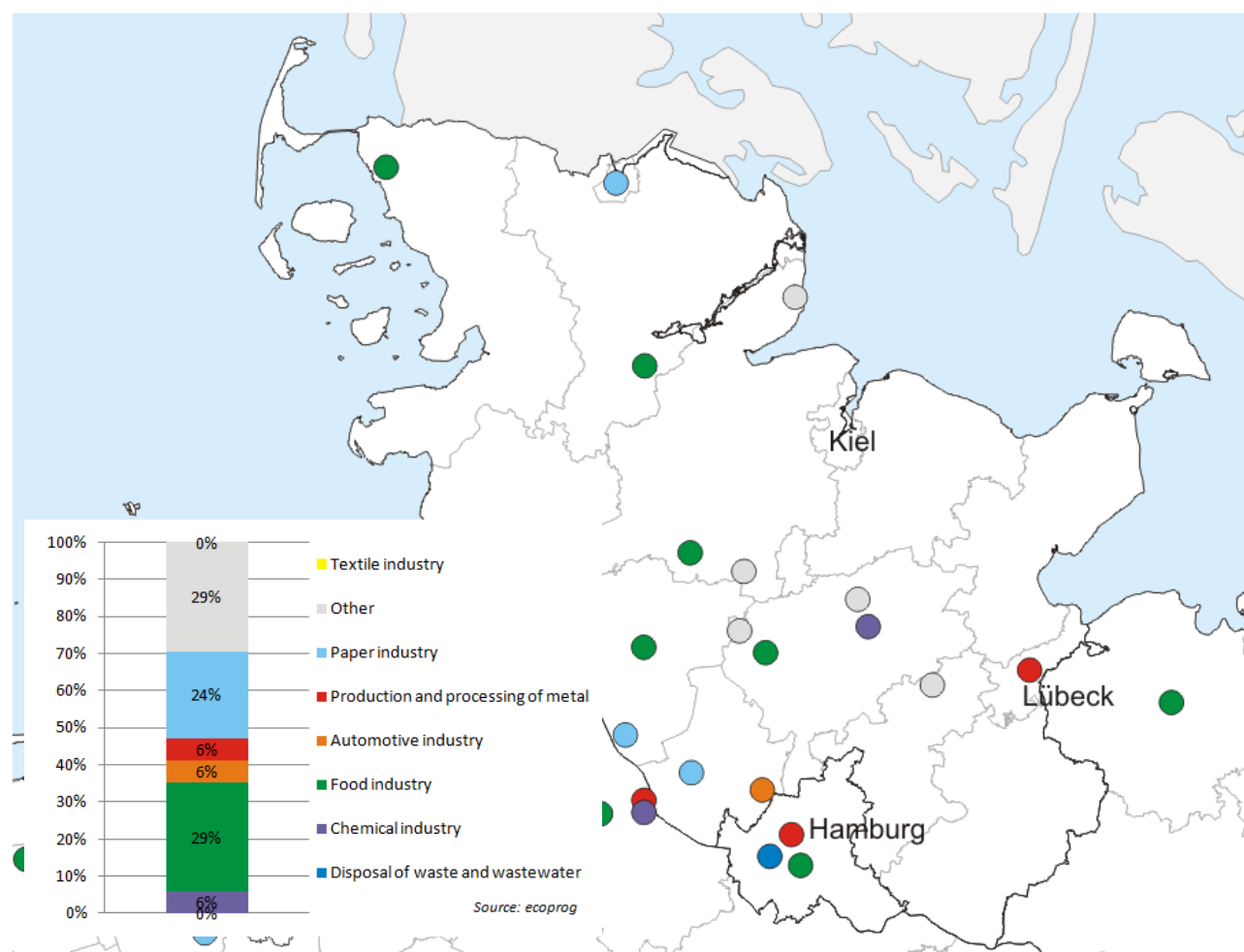
The share of re-used water is the highest where the water is extensively used for production purposes. Within the paper industry, for example, almost 50 per cent of the used fresh water is used two or several times, in the case of processing glass and ceramics, the share is 40 per cent. In the chemical industry, by contrast, only 23 per cent

### 1.1 Schleswig-Holstein

Inhabitants	2,832,950	Whereof treated	17,057 (< 1%)
Number of treatment plants	117	Direct discharge	3,929,965 (96%)
Discharge total (m m <sup>3</sup> )	4,091,394	Indirect discharge	161,429 (4%)

Schleswig-Holstein is one of the most rural federal states. The industrial structure also reflects this fact. About 230 companies of the manufacturing sector (with a total of around 1,200 companies) work in the food and feeding stuff industry. Together with mechanical engineering – about 150 companies work in this sector –, these sectors generate almost 40 per cent of the turnover of the manufacturing industry.

Figure 42: Known treatment plants in Schleswig-Holstein by industries

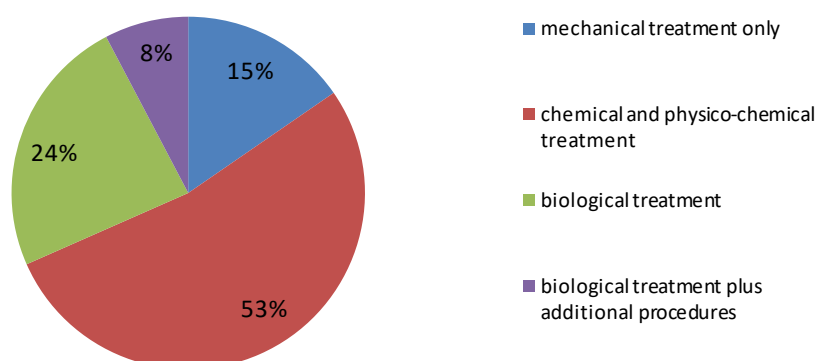


The amount of discharges in Schleswig-Holstein is, with more than four trillion cubic metres, larger than average. This sum, however, also includes the energy industry, of which the two nuclear power plants Brokdorf and Brunsbüttel preponderate in the relatively small federal state. In

Schleswig-Holstein, more than 99 per cent of the industrially used wastewater is used for cooling purposes.

The Federal Statistical Office identifies a total of 117 companies within the manufacturing sector as dischargers with larger treatment plants. On the federal level, Schleswig-Holstein only collects information on the dischargers – their number amounts to about 250. There is no information on the wastewater treatment plants in the industry.

**Figure 10: Type of wastewater treatment in Schleswig-Holstein**



Source: DeStatis

The vast majority (about 90 per cent) of the wastewater, which is treated in industrial sewage plants, falls upon the chemical industry and the production of paper and cardboard.

#### Known companies with wastewater treatment plants

##### **Aukrug**

*Fachklinik Aukrug*  
Mr. Pomplun  
24613 Aukrug  
Tel. 0 48 73 90 97 0  
Fax 048 73 9097 990  
info@fachklinik-aukrug.de.  
www.fachklinik-aukrug.de

Sector: other  
Type of discharge: direct  
Treatment: activation; drying beds

##### *VION Frankfurt GmbH*

Mr. Peter Overmann  
Tegelbarg 19-21  
24576 Bad Bramstedt  
Tel. 04192 503 0  
Fax 04192 89 46 0  
info@nfz.de  
www.nfz.de

Sector: food and feeding stuff industry  
Type of discharge: indirect

##### **Bad Bramstedt**

##### **Bad Oldesloe**

*Heinrich Sengelmann Krankenhaus*



Mr. Martens  
 Kayhuder Str. 65  
 23863 Bad Oldesloe  
 Tel. 0 45 35 505 0  
 Fax 045 35 505 354  
 hsk@alsterdorf.de  
 www.heinrich-sengelmann-krankenhaus.de

Sector: other  
 Type of discharge: direct  
 Treatment: Activation; unheated digester,  
 agricultural use, nitrification, denitrification,  
 chemical phosphorus elimination, sand filters

### Damp

*Ostseebad Damp GmbH & Co. KG*  
 Mr. Jürgensen  
 24349 Damp  
 Tel. 0 4352 80 10 00  
 Fax 04352 8089 21  
 ostseebad@damp.de  
 www.damp-urlaub.de

Sector: other  
 Type of discharge: direct  
 Treatment: activation; centrifuge, nitrification

### Flensburg

*Mitsubishi Paper HiTec Flensburg GmbH*  
 Mr. Dr. Storck  
 Husumer Str. 12  
 24941 Flensburg  
 Tel. 04 61 86 95 0  
 Fax 04 61 86 95 5 00  
 info.mpf@mitsubishi-paper.com  
 www.mitsubishi-paper.com

Sector: paper industry  
 Type of discharge: direct/indirect  
 Size (m<sup>3</sup>): 10  
 Polluting load: dir.: resin, starch; indir.:  
 organic and anorganic pigments, bonds  
 Treatment: mechanical/physical;  
 chemical/physicochemical; biological  
 treatment

### Glückstadt

*Steinbeis Papier Glückstadt GmbH & Co. KG*  
 Mr. Nahrath  
 Stadtstrasse 2-14  
 25348 Glückstadt  
 Tel. 04124 911 446  
 Fax 04124 911 508  
 info@stp.de  
 www.stp.de

Sector: paper industry  
 Type of discharge: direct

*Steinbeis Papier Glückstadt GmbH & Co. KG*  
 Mr. Narath  
 25343 Glückstadt  
 Tel. 0 41 24 9 11 446  
 Fax 041 24 9 11 2 10  
 info@stp.de  
 www.stp.de

Sector: paper industry

### Hohenwestedt

*Nordmilch eG*  
 Mr. Schrader, technical operations manager  
 Itzehoer Straße 54  
 24594 Hohenwestedt  
 Tel. 04871 28 161  
 Fax 04871 28 251  
 info@nordmilch.de  
 www.nordmilch.de

Sector: food and feeding stuff industry  
 Type of discharge: direct

### Itzehoe

*Breitenburger Milchzentrale eG*  
 Mr. Janß

## Register of plants

Aalen	34	Böhlen	123
Abenberg	44	Bomlitz	86
Albbruck	34	Borstel	86
Alfeld	44	Brake	86
Altenberge	100	Bramsche	87
Altenkirchen	100	Bremen	68
Altentreptow	81	Brilon	101
Andechs	44	Buchloe	45
Andernach	114	Burghausen	46
Annweiler	114	Burgkirchen	46
Arneburg	129	Celle	87
Arnsberg	100	Coesfeld	101
Augsburg	44	Cottbus	63
Aukrug	134	Crailsheim	35
Aurich	85	Dahlenburg	88
Bad Bramstedt	134	Damp	134
Bad Driburg	100	Dargun	81
Bad Dürkheim	114	Darmstadt	74
Bad Hönningen	114	Dessau	129
Bad Lauterberg	85	Diemelstadt	74
Bad Oldesloe	134	Diepholz	88
Bad Staffelstein	45	Dillenburg	74
Bad Wimpfen	34	Dillingen	119
Badbergen	85	Dingden	102
Baienfurt	34	Dingolfing	46
Baiersbronn	34	Dormagen	102
Bamberg	45	Dörpen	88
Baunatal	74	Duisburg	102
Beesten	85	Düren	103
Belm	85	Düsseldorf	103
Berg	45	Ehingen	46
Bergkamen	100	Eichendorf	46
Bernburg	123	Eilenburg	123
Besigheim	35	Eisenhüttenstadt	63
Biberach a. d. Riß	35	Eislingen	35
Bielefeld	101	Elsdorf	103
Bienenbüttel	86	Elsteraue OT Alttröglitz	123
Biessenhofen	45	Elsterberg	124
Bitterfeld	129	Eltmann	47
Blankenstein	140	Emlichheim	88
Böblingen	35	Emmelsbüll	134
Bocholt	101	Emmerich	103
Bochum	101	Emmerthal	89

## Price and product information

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Additionally, you can order a printed copy of the study: 150.- €\*

\* plus 19% VAT for customers within Germany and EU customers without a VAT ID.