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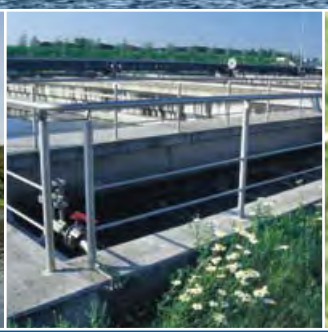
Profile of the German Water Sector

2011

Summary



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German Alliance of Water Management Associations (DBVW)
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Profile

The "Profile of the German Water Sector 2011" provides a comprehensive and up to date picture of water supply and wastewater disposal services in Germany. It is published by ATT, BDEW, DVGW, DBVW, DWA and VKU in consultation with the German Association of Cities (Deutscher Städtetag – DST) and the German Association of Towns and Municipalities (Deutscher Städte- und Gemeindebund – DStGB). The interested public, politicians and decision-makers are thereby provided with extensive and detailed information about the water sector's performance, the great variety of its tasks and the current challenges to be tackled. In conjunction with the 2005 and 2008 editions, the 2011 Profile demonstrates that the modernisation strategy equally pursued by the Federal Government and by the water sector itself is also taking effect in an increasingly difficult environment.

The Profile focuses on the documentation of the performance of the German water sector. The most important performance criteria are the safety, quality and sustainability of supply and disposal services, economic efficiency and customer satisfaction. It is essential to maintain the high levels of performance achieved to date and to improve them wherever possible and required.

"Learning from the best" – the utilities follow that principle by carrying out, inter alia, benchmarking projects. Comparison groups enable utilities to identify, become acquainted with and adopt successful methods and processes for their own purposes. The Associations recommend to their members to participate in these projects, and promote their implementation (Associations' Declarations 2003 and 2005). Concrete figures and practical examples show that the utilities and thus finally the customers benefit from this approach.

Benchmarking, the transparent documentation of performance through the water sector's Profile, and continuous development are the pillars of the sector's permanent improvement which it realizes on its own responsibility. This concept was acknowledged and supported by the German Federal Government in its 2006 report on the modernisation strategy for the German water sector.

The present results show that the utilities of the German water supply and wastewater disposal sector have reached a high level of performance in terms of efficiency, safety and quality of supply and disposal, customer service and sustainability on a European and international level. Moreover, as publishers of the 2011 Profile of the German Water Sector, the associations make an important contribution to the debate about the future framework of the water sector on a national and European level.

Core statements

1. Germany is a water-rich country. The long-term nationwide protection of all water bodies is a national duty to which the water supply and wastewater disposal utilities make a substantial contribution.

2. In Germany, water supply and wastewater disposal are core duties of public services in the general interest within the competence of municipalities or other public corporations. Their democratically legitimised bodies take the strategic decisions with regard to the forms of organisation, participations and cooperation.

3. Fees, quality, environmental requirements as well as water extraction and discharge rights are subject to strict control by public authorities; cost recovery of water services is a legal obligation.

4. The specific regional and local framework conditions determine the local conditions of supply and disposal. Water supply and wastewater disposal therefore need solutions adjusted to local conditions. In conjunction with differing legal provisions, this leads to different efforts for and costs of the services provided.

5. Germany has a varied supply and disposal structure comprising public and private sector companies.

6. Consumers in Germany are careful with drinking water. Since 1990, water consumption has decreased considerably and continues to decline. However, utilities must ensure the availability of adequate supply and disposal capacities to cover peak demand. Political demands for further reductions in water consumption are not reasonable.

7. Demographic and climate change together with continuously decreasing water consumption pose great challenges to the German water sector. Uniform solutions cannot be adopted due to the regional differences in impact.

8. Where micro pollutants are concerned, priority has to be given to avoidance at the immediate source (emission control). Where this is not feasible, account has to be taken of the “polluter-pays-principle”.

9. Performance characteristics of the German water sector are long-term safety of supply and disposal, high drinking water quality, high wastewater disposal standards, high customer satisfaction and sustainable utilisation of water resources while paying attention to economic efficiency (5-pillar benchmarking model).

10. Long and frequent service interruptions in the water supply are unknown in Germany. This is attributable to the high technical standards and the very good condition of plants and networks as compared to other European countries. German water supply utilities have by far the lowest water losses. Usually wastewater treatment plants are well utilised and sufficient reserves are available.

11. The statutory requirements for drinking water quality are observed throughout the country. Drinking water of excellent quality is available to the population in sufficient quantities at all times.

12. In Germany, wastewater is treated almost nationwide with the highest EU purification standards in contrast to many other EU Member States.

13. Safety and quality of supply are of utmost importance to the customers. The vast majority of customers consider their water and wastewater bill as adequate.

14. With total investments of more than €110 billion since 1990, the German water sector is one of the biggest customers for private industry, with the activities involved in planning, construction and operation being outsourced to external contractors to a great extent.

15. Increases in the drinking water prices and wastewater charges have mostly remained below the inflation index for many years. Taking account of the respective water consumption and performance standards, customers in Germany pay less for their drinking water than customers in other comparable EU countries.

16. The German water sector undergoes a constant modernisation process. It is essential to maintain and refine the high standards and to ensure adequate pricing for customers.

17. Voluntary benchmarking is applied to a large extent throughout the country. As a result, utilities have improved their performance with respect to safety, quality, customer service, sustainability and economic efficiency.

Performance of the German Water Sector

Example:

Drinking water quality and wastewater disposal standards

The requirements of the German Drinking Water Ordinance are met in more than 99 % of the analyses carried out by health authorities and water suppliers. Furthermore, water suppliers carry out substantially more analyses than the minimum number required by law. The quality of drinking water is so good that the use of disinfectants in water treatment can even be foregone in many places without reducing the high hygienic drinking water standard in Germany.

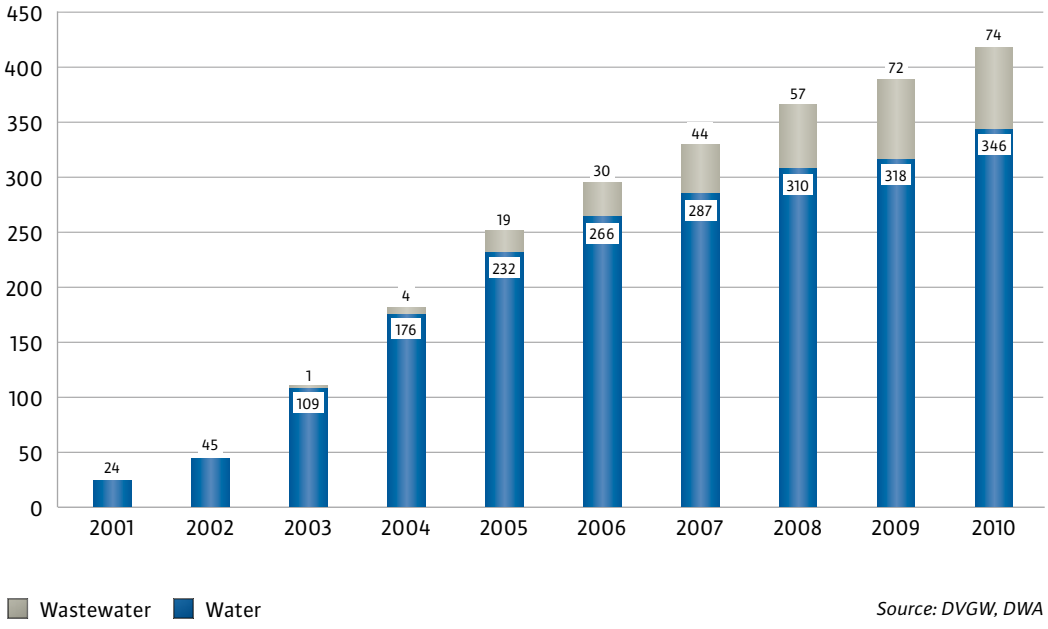
In Germany, 97 % of the wastewater volume is treated with the highest EU standard, i.e. biological treatment with nutrient elimination ("tertiary treatment"). In Germany, the 2009 DWA performance comparison of municipal sewage treatment plants determined for all plants an average degradation degree of 81 % for nitrogen and 91 % for phosphorus. Smaller sewage treatment plants which do not have to meet certain requirements in terms of nutrient elimination also show good degradation values.

Example:

Organisational safety for utilities

Apart from high-capacity facilities and qualified personnel, a well functioning organisation is a mainstay of safe operation of plants. Numerous management systems are used today to support the organisational processes within the utilities. The best known scheme is the certification according to the requirements of ISO 9001 and 14001. One management system adjusted to the specific needs of water supply and wastewater disposal is the Technical Safety Management (TSM) developed by DVGW and DWA for the operational practice.

Water supply and wastewater disposal utilities with TSM confirmation



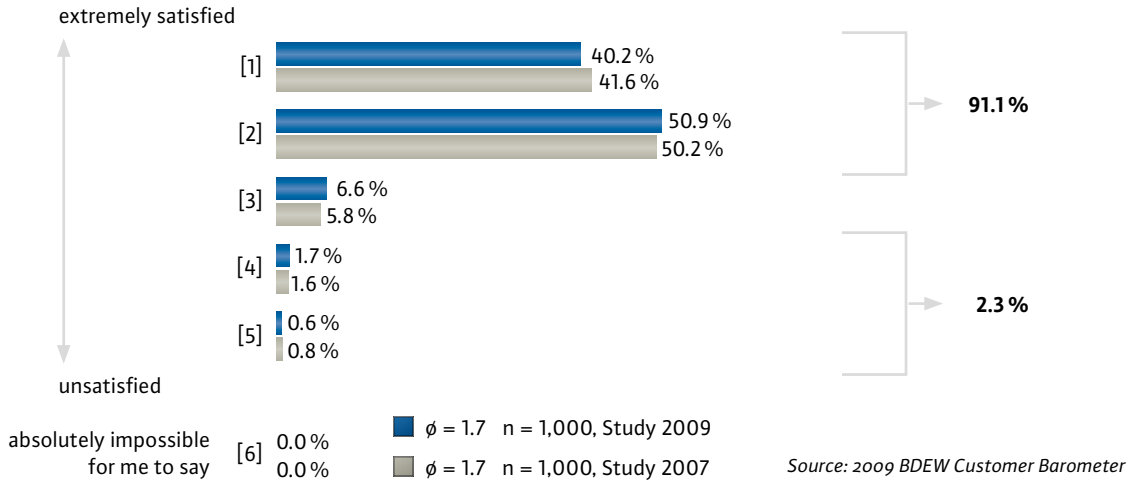
Source: DVGW, DWA

Example: Customer satisfaction

Customer satisfaction with the service provided by their water supplier is on a constantly high level of more than 80 %. Only 1.9 % of the customers interviewed are unsatisfied with the service provided (Source: 2009 BDEW Customer Barometer). Top marks are still given by customers to the reliability of water supply (grade 1.4), the diligence and reliability in changing or reading water meters (grade 1.6) and to the water quality (grade 1.7). More than 91 % of customers are extremely satisfied or satisfied with the water quality.

How satisfied are customers with water quality in general?

Data as percent

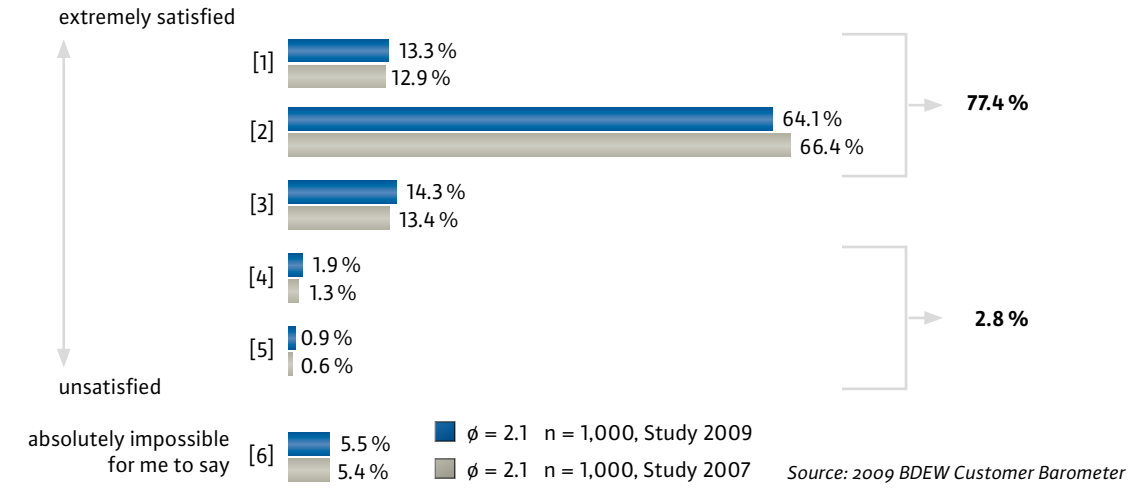


Source: 2009 BDEW Customer Barometer

The overall satisfaction of customers with wastewater disposal remains high. More than 77 % are extremely satisfied or satisfied. 74 % of the customers having been in touch with their wastewater disposal utility are extremely satisfied or satisfied with the contact quality. These figures are at the same level as in 2007. The contribution of wastewater disposal to environmental protection is still considered to be very important or important by 96 % of the customers interviewed.

Overall satisfaction of customers with the services of their wastewater disposal utility

Data as percent



Source: 2009 BDEW Customer Barometer

Example:

Sustainable use of water resources

The Federal Republic of Germany is a water-rich country. Its total annually renewed water resources amount to 188 billion m³. Only 17 % of these resources are actually utilised by different users. Public water supply uses approximately 2.7 % of the available resources. The average per-capita consumption in Germany has decreased by 17 % since 1990 and currently amounts to 122 litres per capita and day.

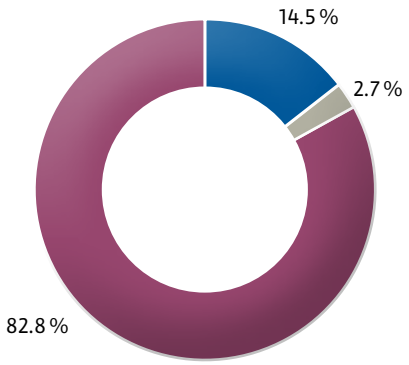
Example:

Development of water fees and wastewater charges

Every citizen pays 23 Cent per day on a national average (i.e. €84 p. a.) for drinking water (figures for 2008, BDEW) and 32 Cent per day (corresponding to €115.62 p. a.; status: 2009) for wastewater disposal. In theory, a four-person household covering the minimum recommended beverage demand just with drinking water would pay about €3.50 p. a.

Water utilisation in Germany in 2007

Total available water resources:
188 billion cubic metres



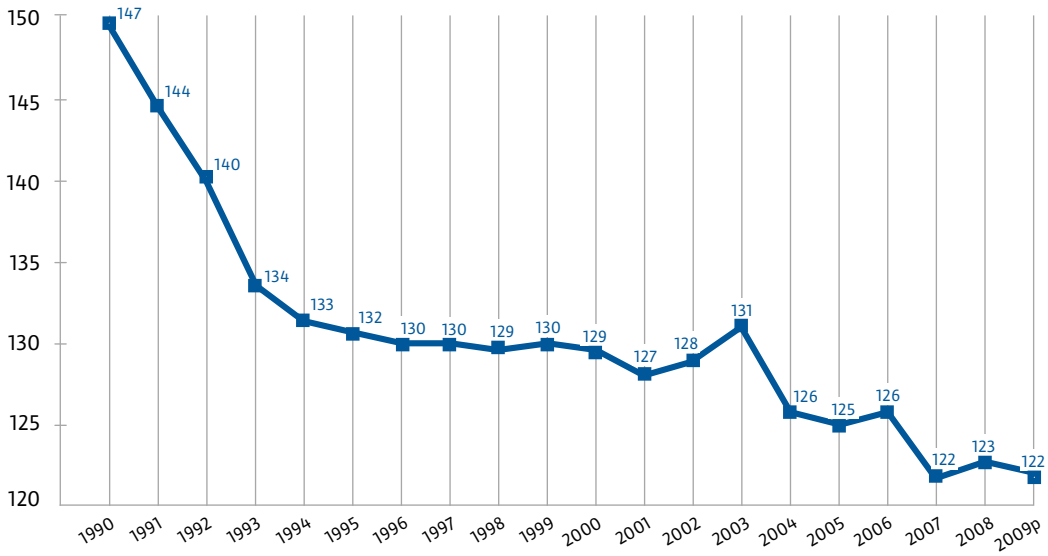
Total water consumption 17.2 % (32.3 billion m³)

- Non-public water supply and wastewater disposal 27.2 billion m³
- Public water supply 5.1 billion m³
- Unused 155.7 billion m³

Source: German Federal Statistical Office, Fachserie 19, Reihe 2.1 (published in 09/2009); German Federal Institute of Hydrology

Development of the per-capita water consumption

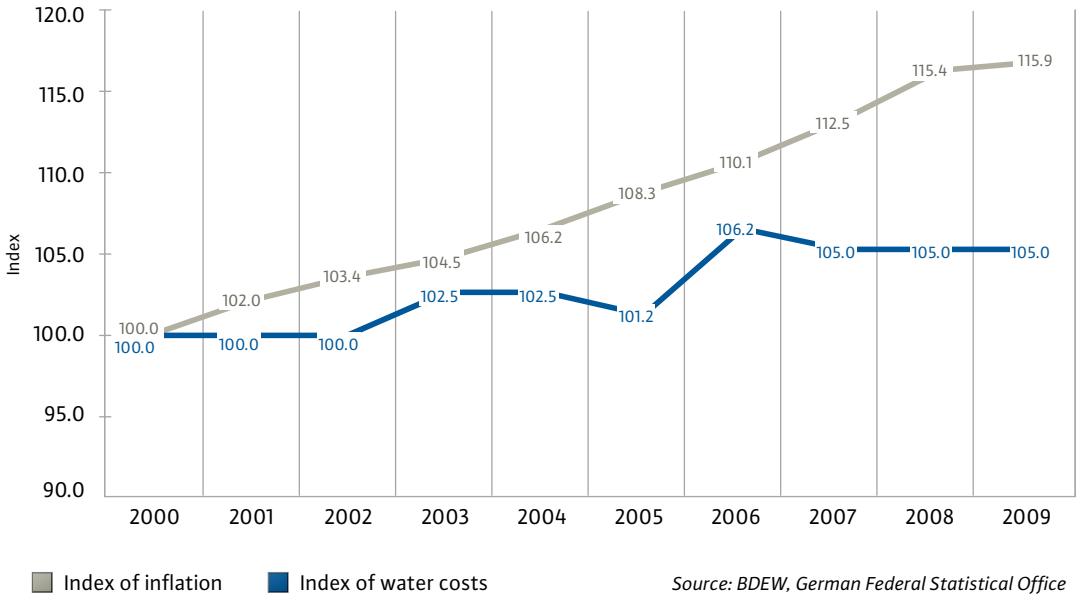
Data as litres per capita and day, Germany



Source: BDEW Water Statistics, related to households and small trades p = provisional

Development of per-capita expenditure on drinking water compared to inflation

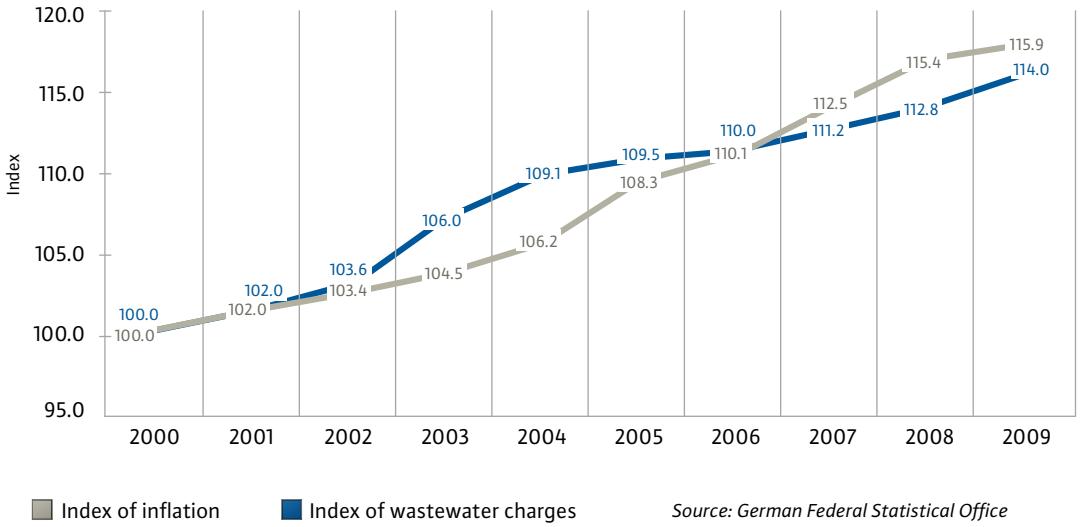
per capita/year, 2000 to 2009



Source: BDEW, German Federal Statistical Office

Wastewater charges from 2000 to 2009 and inflation

Index (year 2000 = 100)



Source: German Federal Statistical Office

Between 2000 and 2009, drinking water fees rose by 5 % and wastewater charges by 14 %. Thus, they are both below the inflation rate development. In Germany, the general price increase amounted to 15.9 % during the same period. If only the overhead expenses, which increased by 7 % between 2005 and 2009, are taken into consideration, it becomes apparent that water supply (5.2 % increase) and wastewater disposal (4.1 % increase) do not belong to the cost drivers of overhead expenses.

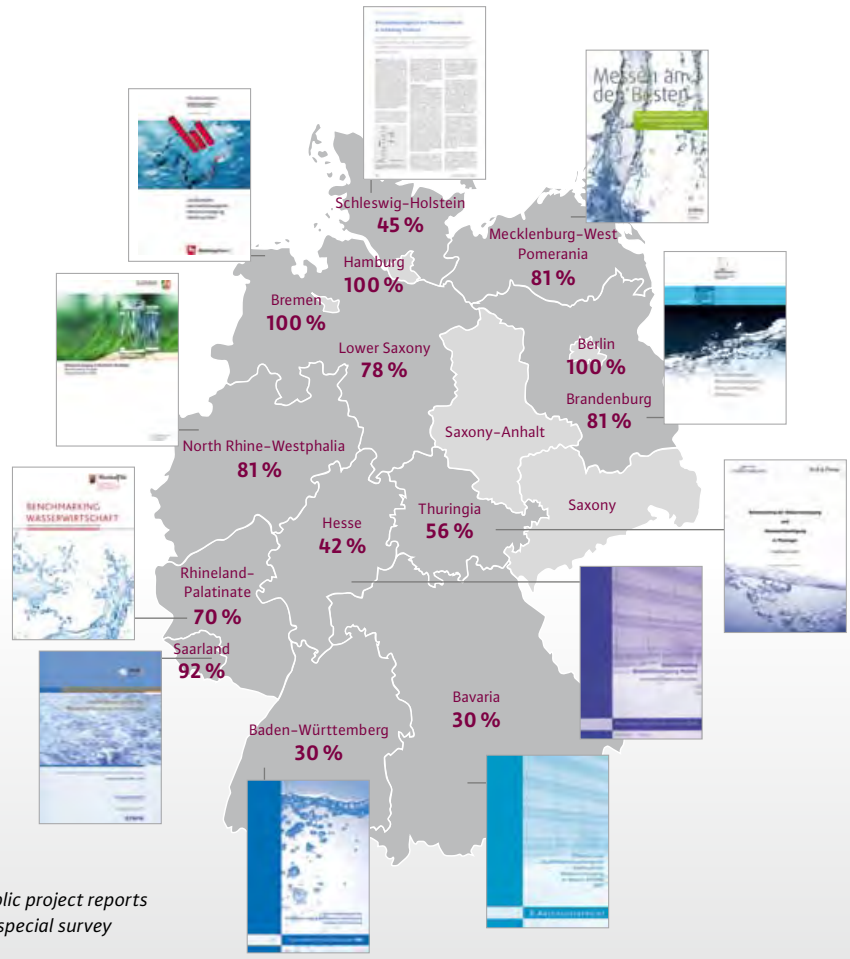
Benchmarking: Innovating by learning from the best

The 2011 Profile and the large number of benchmarking projects outlined therein show both decision-makers and the general public the sector's performance in terms of customer service, safety of supply, economic efficiency, quality and sustainability.

There are numerous benchmarking projects carried out within the German Laender and nation-wide. Process benchmarking projects are carried out today for all important technical and operational water supply and wastewater disposal processes. The Profile provides numerous examples of how the utilities successfully optimised concrete processes through benchmarking and made them more efficient.

The following maps provide an overview of the share of drinking water and wastewater disposal quantities delivered by water supply and wastewater disposal utilities participating in benchmarking projects.

Distribution of Laender-wide water supply benchmarking projects



Source: Public project reports and BDEW special survey

with Land-wide project

without Land-wide project

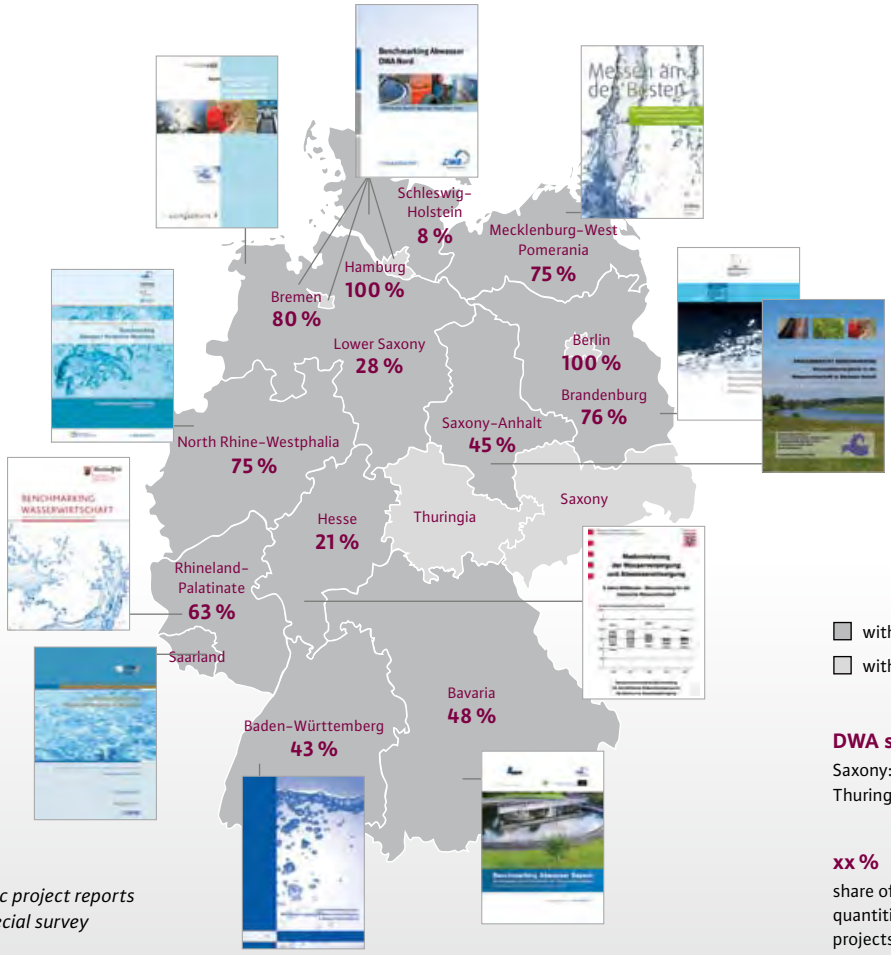
BDEW special survey
Saxony-Anhalt: 63 %
Saxony: 77 %

xx %
share of drinking water quantities covered by benchmarking projects.

The benchmarking methods are continuously refined by research institutes in cooperation with practitioners from the water sector. An example of this refinement is the development of detailed performance indicators for the processes of water abstraction, processing and distribution.

The publishing Associations have launched numerous local and national initiatives to emphasise the great variety of services provided by the sector: Local consumer dialogue (VKU), customer information (BDEW), procedures for structural comparability of supply utilities (DVGW), core indicators and information about the application of benchmarking results (DWA), aids to interpretation of indicators (DBVW) and integration of comparable benchmarking schemes for reservoir management (ATT).

Distribution of Laender-wide wastewater disposal benchmarking projects



Source: Public project reports and DWA special survey

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