

AUSTRIA Best practice example

THE GRADUAL REDUCTION OF SURFACE WATER POLLUTION

Overview

In the late 1960s, the service gap between sewerage (39% of the population) and waste water treatment (3% of the population) was rather large. As a result, the in-stream conditions of Austria's rivers were worrying. Market-loans for infrastructure available at that time had a payback-period of only 10 years with moderately high interest rates, leading to a very high yearly payback. On the other hand, investment into infrastructure systems had a much longer service period. Therefore, the Water Management Fund, a financial facility funded through general taxpayer money, was channelled to support the built-up of primary infrastructure in the field of sewerage and waste water treatment.

The Austrian population was convinced that investing as well as the running of the created infrastructure was needed. Hence, they were willing to carry the financial burden knowing that the quality of the surface water and the situation in the rivers would improve.

After a substantial revision of the Austrian Water Act in 1990 which foresaw the removal of nutrients from waste water, especially rural municipalities and the outskirts of larger municipalities were in need of primary investment. Consequently, the means of the Water Management Fund were mainly oriented towards the requirements of sewerage and waste water treatment in the rural regions of Austria.

The availability of financial means and the willingness of the Austrians to compromise enabled Austria to considerably narrow by the year 1993 the service gap between sewerage (71% of the population) and waste water treatment (68% of the population). By 2001 the connection rate to sewerage systems (collecting systems and treatment plants) was further increased to 86% of the population. Moreover, as water treatment plants are mostly activated sludge plants, the final disposal of sludges became a dominating issue. So far, application on farm land strongly declined and the final deposition in landfills will, in the long run, only be possible for ashes that have been enamelled before.

Important preconditions

- The success of the reduction of surface water pollution and the consequent improvement of in-stream conditions in Austrian rivers was largely based on the existence of a sound regulatory and financial framework with two main institutions:
 - The Austrian Water Act is a regulatory approach in permitting water uses. The ever increasing discharge of untreated sewage and industrial waste water led to an amendment of the Water Act in the 1950s regarding more

stringent approaches in the field of water pollution control which has yet been intensified in later amendments.

- The Water Management Fund exists since 1948. It is a revolving fund based on tax revenues. It supports the erection of primary infrastructure, in the past via loans with low interest rates for long lending periods. In the late 1960s and 1970s its financing focus shifted from water supply to sewerage and waste water treatment.
- The awareness of the Austrian population about environmental problems and their preparedness to contribute to a long-term solution was crucial for the success of the project.

Financial costs

The accumulated investment into sewerage and waste water treatment for urban waste water in the period 1968-2002 amounted to approximately € 27 billion¹ whereby the substantially larger share went into sewerage. This sums up to an average investment cost per person of € 5.500. It is further estimated that the running and maintaining of sewerage and related waste water treatment is, in the long run, in need of approximately 1.5% of the Austrian GDP. The added cost for nutrient removal by treatment is relatively low based on the total cost for sewerage and waste water treatment. As far as investment into industrial protection measures including changes in the industrial production process are concerned, these amounted to approximately € 3.1 billion.

Main benefits

- Increased sewerage system
- Amplified waste water treatment
- Compliance with EU waste water legislation
- Significantly improved surface water quality
- Significantly improved river quality

¹ Values corrected for inflation, cost basis 2002.