Case Study—Alföldvíz, Hungary

By András Kis and Maria Salvetti

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Key Characteristics of Aggregation Case Study

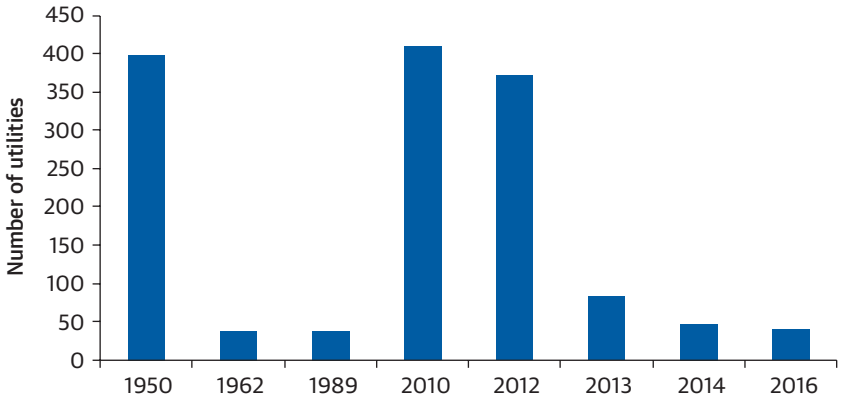
	ALFÖLDVÍZ, HUNGARY
Context	• High-income country • Aggregation covering urban and rural areas • High level of water supply and sanitation (WSS) performance
Purpose	Economic efficiency, performance, professionalization
Scope	WSS functions and services
Scale	• Administrative boundaries • Localities covered: 131 for water and 81 for wastewater • Population covered: 564,000 inhabitants for water and 399,000 for wastewater • Coverage: 100% for water; 71% for wastewater • Connections: 257,557 for water and 191,359 for wastewater • Network length: 4,580 km for water and 2,680 km for wastewater
Process	Top-down
Governance	• Delegated • Public company • Decision making: municipalities and the Hungarian state are the utility's shareholders • Asset transfer: assets remain the property of municipalities and are transferred to the operator for the duration of the delegation contract; municipalities receive rental fee in return for this transfer • Liability: liabilities and debts from previous operators are not taken over by aggregated utility • Staff transfer: all staff was transferred • Clear entry and exit rules
Outcome	Positive, with decreased water operating expenses but increased wastewater operating expenses (because of network expansion); slight improvement in performance
Findings	A merger project team has been created that is dedicated to expansion of the service area, ensuring relationships with future member municipalities; many municipalities insist on using their own water resources (which are costly) instead of using water from the integrated system; aggregation appears beneficial, especially for service quality and sustainability in small municipalities

In 2011, when the Hungarian parliament voted on the aggregation reform of WSS services , the Békés County Water Utilities Joint Stock Company (predecessor of Alföldvíz utility) expected the sector to undergo a major reorganization and anticipated that there was a risk of losing some service areas. The company decided to pursue enlarging the utility operating area to develop and benefit from potential economies of scale. As such, Békés became an early mover in seeking settlements to join its operating area. It developed a quick expansion strategy that was supported by a dedicated merger project team and was based on the signing of management contracts with municipalities where services were taken over. The Alföldvíz aggregation brought about a clear increase in economic efficiency but only a slight increase in performance.

From Fragmentation to Aggregation of Hungary's WSS Utilities

After World War II, during the Communist era, Hungary's water sector was highly fragmented. There were more than 400 water utilities, most of which were owned by local councils. The aim in the 1950s was to halt and reverse fragmentation by connecting the neighboring water utility systems in the country. A number of state-owned water utilities were then created, and small water utilities were merged. That process resulted in the integration of water services into 34 water utilities. Those companies were operating predominantly at the county level and in larger towns. After the 1989 change of regime, Act LXV of 1990 on Local Governments declared that local governments were responsible for providing water and sanitation services. Act XXXIII of 1991 stipulated that the assets of state-owned companies were to be transferred to local governments. The former companies that had been operating on a county level split into several smaller water utility companies, driven by the municipalities' desire to achieve independence in local service provision to match their obligations of supplying services. Some municipalities contracted with private operators through management contracts or concessions, but most settlements continued to be supplied by municipally owned water utility companies. In 1989, there were 38 water utilities, and by 2010 there were more than 400, predominantly owned by local governments. However, in 2012, the 33 largest companies were providing drinking water for 85 percent of the Hungarian population. Nevertheless, the large number of water utilities meant that there were huge differences in service levels, prices, cost recovery, and operating efficiency, as well as in sustainability. Recognizing that situation, the Hungarian parliament adopted Act CCIX of 2011 on Water Utility Services. That act reflected a new vision for the sector, including national regulation through a regulatory agency, uniform tariff-setting procedures, and achievement of major aggregation within the sector. As a result, a wave of aggregation swept the country, triggered by a regulatory requirement on the minimum size required to obtain an operating license. From January 1, 2017 onward, water utility companies have to serve at least 150,000 consumer equivalents (CE) to be allowed to operate. The number of utilities fell from more than 400 in 2010 to 41 by 2017 (figure 1).

FIGURE 1. Water Utilities in Hungary



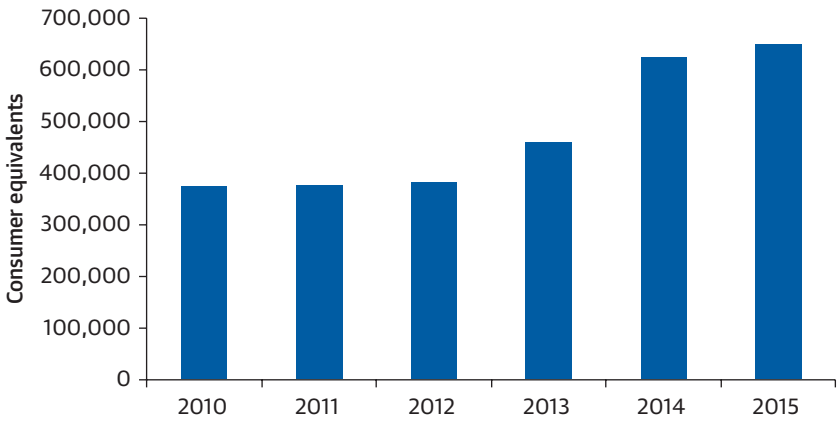
A Quick Expansion of the Operating Area Supported by a Dedicated Merger Project Team

The legal predecessor of Alföldvíz, Békés Megyei Vízmű és Kútkarbantartó Vállalat (Békés County Water Utility and Well Maintenance Company), was founded in 1954 and renamed Békés Megyei Víz- és Csatornamű Vállalat (Békés County Water and Sanitation Utility Company) in 1963. In the 1960s and 1970s, the company played a major role in constructing water and sanitation infrastructure in the southeastern region of Hungary. In the 1980s, the focus gradually shifted toward improving the quality of service provision. In the 1990s, disaggregation took place and the settlements located in the southern part of Békés county decided to leave Békés Megyei Víz- és Csatornamű Vállalat. In 2003, the company became a joint stock company and was renamed Békés Megyei Vízművek Részvénytársaság (Békés County Water Utilities Joint Stock Company); at that time, it served a reduced number of 53 settlements. In 2004, however, the southern settlements rejoined the company, increasing the number of served municipalities to 66. All 66 municipalities received drinking water services; 27 also were served by a sewer. At the end of 2011, Békés Megyei Vízművek served about 370,000 consumer equivalents, whereas the legal obligation set by the Water Utility Act was 150,000. Thus, from a compliance perspective, the company was not under any pressure to expand its operating area. However, the company management expected the sector to undergo a major reorganization, and it anticipated a potential risk of losing service areas to other operators. The company management decided that being a passive observer of the aggregation process might turn out to be much less advantageous than actively pursuing the enlargement of the service area. The management also concluded that it had an opportunity to develop and benefit from potential economies of scale. Therefore, Békés Megyei Vízművek became an early mover in seeking settlements to join.

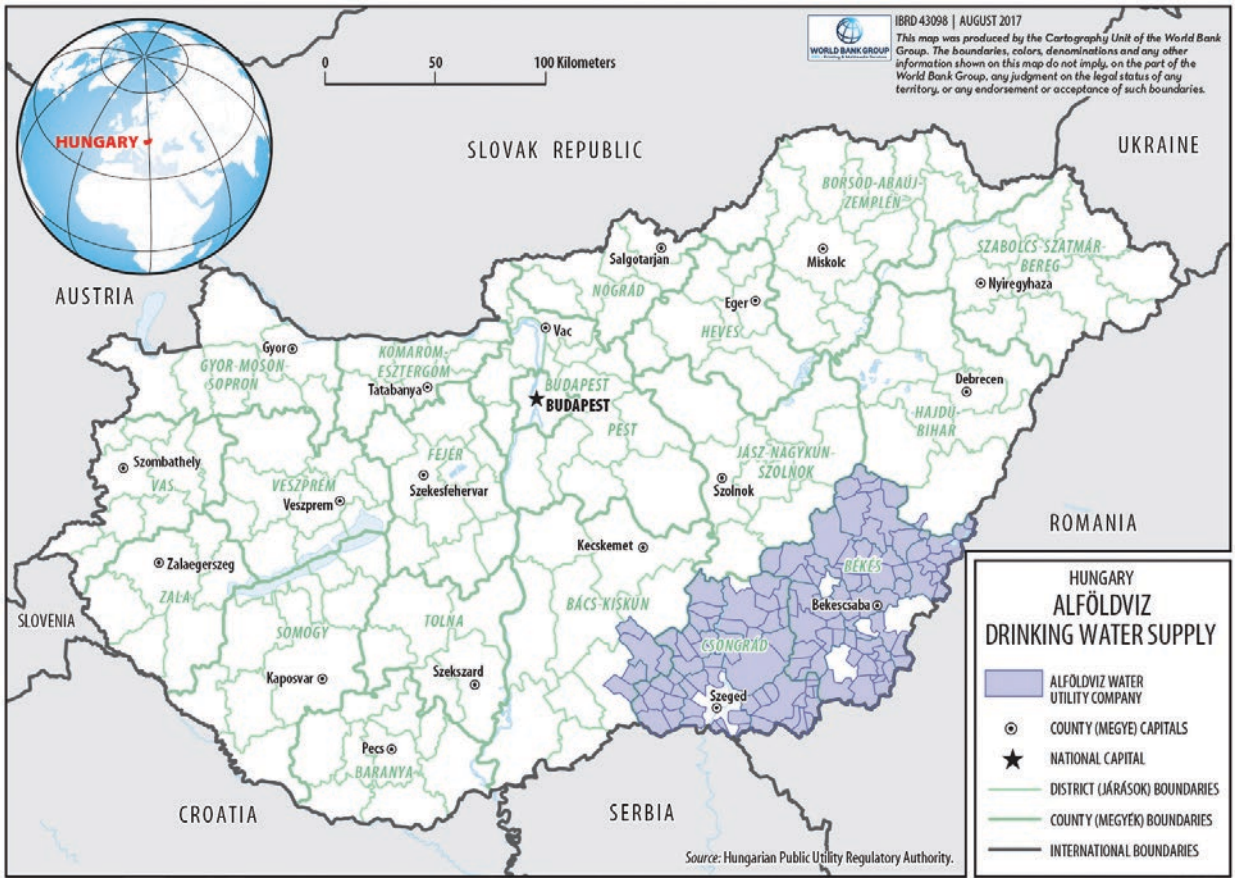
The aggregation process was already in full force when, as part of a corporate restructuring in 2013, the name Békés Megyei Víziközmű was changed to Alföldvíz (Great Plains Water). The new name refers to a larger geographical territory than Békés County, reflecting corresponding ambitions to become the service supplier of municipalities in other counties of the Alföld (Great Plains) as well. In three years, the company increased in size by about 70 percent, reaching a CE figure that is more than four times higher than the regulatory threshold of 150,000. (See figure 2.)

Alföldvíz established a dedicated merger project team. The team, which was composed of staff from the human resources, finance, and customer service departments, developed a methodology to assess potential aggregating municipalities. The project team visited municipalities' water utility facilities and collected relevant data for decision making. Then, for each municipality, the team completed a check list and assigned the municipality a grade. The service area expanded mainly to the west; however, it never became fully

FIGURE 2. Population Served by Alföldvíz Utility



MAP 1. Alföldvíz Drinking Water Supply in January 2017



homogeneous because some territories in eastern areas are served by Gyulai Közüzemi Kft. and others in the west are served by Szegedi Vízmű. Alfoldviz had to amend its management information system and central databases to enable such a patchwork expansion, gradually adding more and more municipalities. Overall, between 2011 and 2015, the number of municipalities served by Alföldvíz nearly doubled, increasing from 66 to 131. (See map 1.)

Quick Expansion Based on Management and Operating Contracts with Municipalities

As a principle of expansion, Alföldvíz decided to aggregate by signing management and operating contracts with municipalities, rather than by merging with water utilities (which was considered too risky and could also entail substantial legal fees).

The operating contract between a municipality and Alföldvíz included a rental fee for the assets owned by the municipality and transferred to the utility. If the estimated future cash flow from water service within a given municipality was promising, a notable rental fee was offered. If the predicted financial situation was deemed to be dire, a symbolic rental fee of 1 HUF/m^3 (water and wastewater alike) was proposed.[1] Some municipalities promptly accepted the fee, but others tried to negotiate better conditions. Before 2012, many small municipalities received a relatively high rental fee from their own water utility company, significantly contributing to the municipal budget. At the same time, this additional revenue often came at the expense

of delayed asset maintenance and reconstruction. Because of Act CCIX on Water Utility Services and its legal requirements, those small municipalities had to aggregate with large utilities—which many mayors and municipal councils found difficult to accept. As a result, some small municipalities delayed the aggregation decision until the legal deadline was reached.

For Alföldvíz, it was evident from the beginning that providing service in certain small municipalities would be a loss-making activity. Hence, a lot of internal discussion took place about whether to sign an operating contract with those municipalities. Ultimately Alföldvíz decided to apply a "principle of solidarity" across the operating area, even if this meant an additional financial burden. A related argument was that if those small municipalities were left without a service provider, the regulator would assign an "operator of last resort," appointing a water utility to provide services in those locations. Finally, there was an expectation that sooner or later, cost-recovering tariffs could be introduced in each municipality. (This has not happened yet.)

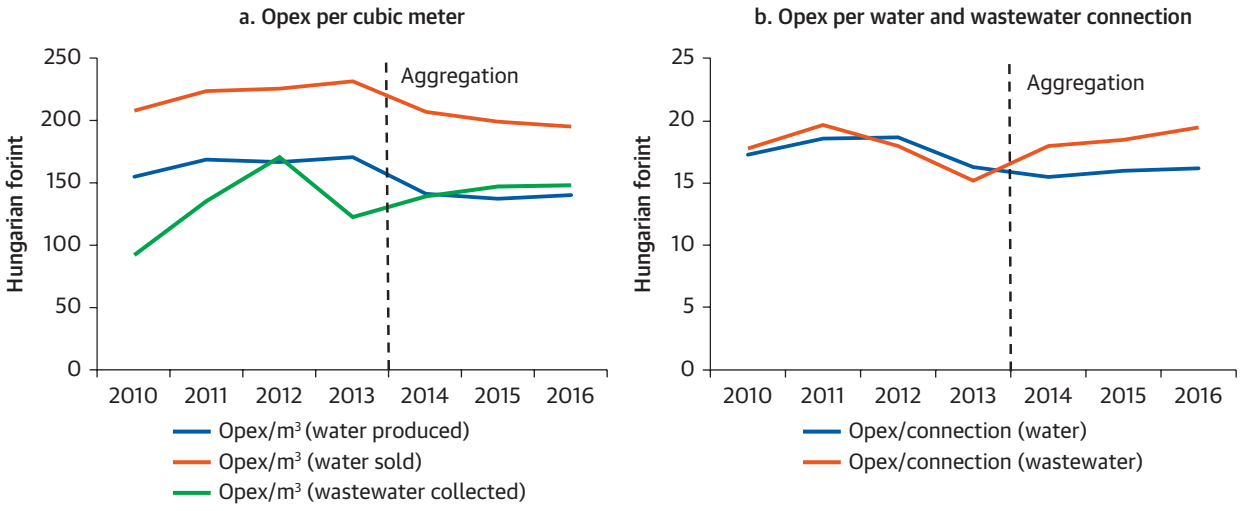
Contracting municipalities were given an opportunity to buy a certain amount of shares in Alföldvíz capital; doing so would allow them to take part in the General Assembly and vote. The Hungarian state holds 28.34 percent of the utility's capital.

Alföldvíz hired the staff previously employed by water services it took over, but not all employees were given the same positions they had held previously. The company interviewed each employee and then placed that person in a position in line with the person's background and the company's needs. When necessary, employees were retrained or assigned mentors, or both. New staff members were trained on the use of the integrated information technology (IT) system. Lower salaries were gradually raised to close the gap with the usually higher Alföldvíz salaries. For all the employees of the old company who were hired by Alföldvíz, legal continuity was applied: their previous service time was registered, and they did not lose their seniority.

Increased Economic Efficiency and Slightly Improved Performance after Aggregation

Water service-related indicators clearly show improved economic efficiency after aggregation. Unit operating expenditures declined, whether compared to the number of water connections, the volume of produced and sold water, or the population served with water. (See figure 3)

FIGURE 3. Economic Efficiency of Alföldvíz Utility

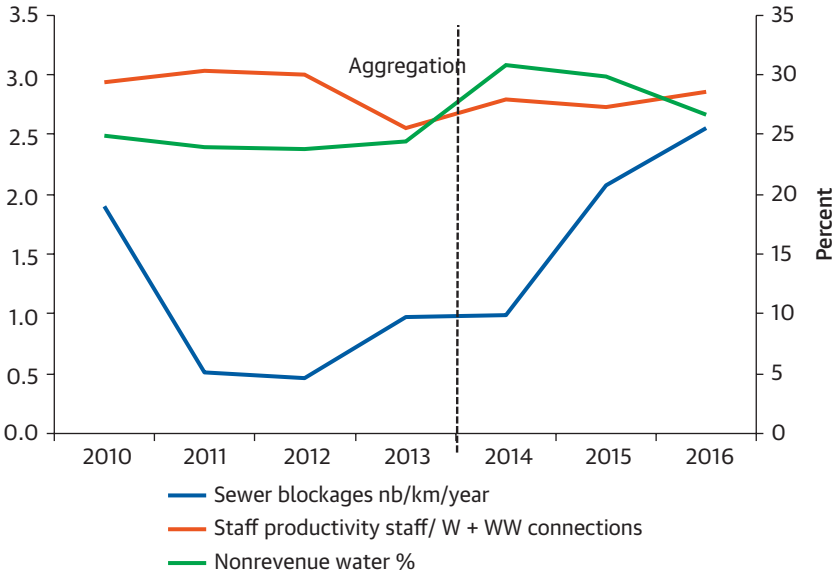


Note: Opex = operating expenses.

Indicators representing the economic efficiency of operation show improvement as a result of aggregation of common costs and total costs as well as the decrease of employees per connection. The Alföldvíz management identified several expenditure categories where economies of scale are present, such as acquiring the operating permit, back-office operations, customer service, IT, central procurement, bookkeeping, the finance department, and the legal department. The company has one accredited laboratory that can comfortably serve a larger and growing operating area. Specific tools and technologies are employed more efficiently than before, including equipment for network inspection, machinery for cleaning water storage tanks, and water meter calibration technology. Some of the operational teams of the company have not changed. Hence, the same number of workers serve an expanded service area. A uniform and high-level customer service function replaced previous customer service arrangements of varying quality in different settlements (for example, not all municipalities previously had a call center, online customer service, and a bank card-based payment system). All offices now use an electronic document management system, advanced IT solutions are applied, and all staff members are part of a corporate training program. In some of the service areas taken over, basic life and fire safety rules had not been implemented. In these locations, Alföldvíz took action to ensure that hazards were minimized. Moreover, appropriate asset inventory had been absent in many of the merging municipalities. Introducing the Alföldvíz asset inventory methodology is a big improvement, but it is also a tedious, time-consuming task that has yet not been completed for all municipalities. On the technical side, however, nonrevenue water increased from 25 percent to about 30 percent right after aggregation. That increase was because of the bad condition of the network transferred to the aggregated utility. (See figure 4.)

Wastewater-related indicators draw a somewhat more ambiguous picture because no clear trend emerges. Growing unit costs are related not only to the change in the characteristics of the service area but also to the upgrading of wastewater treatment. In 2013, 54 percent of the collected wastewater was treated with tertiary technology, but in 2014 that figure increased to 81 percent. In 2015, there were a lot more sewer blockages than there had been in the previous years. The increase in blockages reflects the poor condition of the sewer networks transferred to the aggregated utility. Overall, Alföldvíz's aggregation is considered a success because it lowered operating costs while providing improved service, especially in rural areas.

FIGURE 4. Efficiency of Alföldvíz Utility



Note: nb = number; W = water; WW = wastewater.

Aggregation Case Study at a Glance

Key Lessons Learned from the Aggregation Case Study

Lesson 1: Defining Principles but Allowing Flexibility in Implementation Ensures Local Ownership

National reforms are more likely to be successful when they follow the principle of subsidiarity and allow flexibility for local stakeholders to own the aggregation process and adapt it to their local context. In Hungary, the Water Utility Services act, passed in 2011, states that water licenses shall be issued to providers reaching a certain level of aggregation, expressed in consumer equivalent. But no administrative limits such as watershed or regional boundaries were set. The utility of Alföldvíz increased its operating area by 70 percent in three years, reaching a consumer-equivalent market four times higher than the regulatory threshold.

Lesson 2: Cherry-Picking Practices can Undermine the Outcome of an Aggregation Whose Purpose Involves Externalities Such as Cross-Subsidies or Capacity Transfers

In Hungary, when aggregation reform was passed in 2011, Alföldvíz decided to actively pursue enlarging its operating area, and it carefully selected the municipalities where it would take over service provision. The company established a dedicated merger project team, which developed a methodology to discriminate between potential merging municipalities. The team used a checklist to evaluate and assign a grade to each municipality. However, in addition to this selection process for aggregation, the company held discussions to determine whether it should sign an operating contract with small, unprofitable municipalities. Ultimately, Alföldvíz applied a principle of solidarity. In addition, Alföldvíz considered that if those small, unprofitable municipalities were left unsupplied, the regulator would assign a provider of last resort, appointing a water utility to provide services in those locations.

Lesson 3: Managing Staff Transfer is Key to Mitigating Transaction Costs

All employees from previous companies were transferred to Alföldvíz. The salary gap between transferred staff and other employees was gradually closed by raising lower salaries to the highest level of those for similar jobs.

Lesson 4: Establishing a System of Checks and Balances among Shareholders is Important

Alföldvíz was set up as a public company, signing management and operating contracts with municipalities when service provision was taken over. Those municipalities were given the opportunity to purchase a stake in Alföldvíz; doing so would allow them to take part in the General Assembly and vote. As a result, a new shareholder structure evolved, with 28.3 percent of the shares owned by the Hungarian state and from 0.002 percent to 32.9 percent owned by the individual municipalities in the operating area.

Note

1. HUF = Hungarian forint.

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