Business Plan 2018
Welcome to Aarhus Vand’s business plan 2018. The business plan describes in words and pictures the company’s exciting development and expectations for 2018.

We have established a sound and excellent base for the further development of Aarhus Vand. This is essential as the setting of the company is constantly changing.

Collaboration with our key stakeholders – the customers, owners and authorities – is rewarding. Together, we will strive to realise Aarhus Vand’s Strategy 2020 and continue to focus on growth, productivity and ingenuity in 2018 in our efforts to shape the future water company in Aarhus.

At Aarhus Vand, we put every effort into creating a productive and stimulating workplace. We adjust, reorganise, adapt and develop in all areas, and this is exciting and demanding at the same time.

New challenges and demands create new business areas, technological development and promote business activities such as the green growth plan, plans for the climate, and solutions for how to handle rainwater on citizens’ own property and, not least, export.

Aarhus Vand is well on the way:
The entire water cycle, a market-orientated product catalogue for customers, partnerships and collaboration agreements such as Shared and 9Vand – just to mention a few.

One-third of Denmark’s water industry is located in Business Region Aarhus, which is the domicile of several market leaders in water. Increasing global demand for water technology holds a vast potential for additional growth in Business Region Aarhus. However, more coordinated and strategic efforts are needed across the municipalities to ensure that the business potential is utilised optimally. Many locally orientated companies in Business Region Aarhus have the potential to become part of more globally orientated value chains and, if supported, this may affect both local and regional business development and growth positively.

As one of the largest water companies in Denmark, Aarhus Vand commits to supporting the water industry. We have extensive knowledge in the operation of various facilities, establishment of organisations, analysing, tendering, planning, project management, training and commissioning of facilities. By adopting a global perspective, we can contribute knowledge and support for Danish exports. At the same time, the industry and we can gain new knowledge to optimise and develop processes and procedures, thus improving the entire industry.

Aarhus Vand will become a more attractive place to work when company activities take on an international dimension. The water companies and the industry will gain new knowledge, with the potential for optimising and developing our processes and procedures, thus improving the individual companies. Aarhus Vand would therefore like to deliver and share the responsibility of increasing Danish exports in water applications.

Our business plan also describes Aarhus Vand’s mission, vision and objectives under the setting laid out for our activities by our owner and by Danish legislation. It also describes how we organise work and sets out our values and our strategy for the years ahead.

Last but not least, it considers the prerequisites to fulfilling our vision, such as a competent staff, excellent partnerships and sound finances.

The business plan builds on:
- The framework of Aarhus Vand
- Mission, vision and values
- Cooperation with Aarhus Municipality
- Business Strategy
- Social responsibility
- Strategic collaboration
- The digital strategy
- Value-based management
- The financial strategy
- Financial forecast

Enjoy your reading.

Best regards

Lars Schroeder
Director
Aarhus Vand is a Danish public limited company owned by Aarhus Municipality. The owner strategy for municipally-owned companies – including Aarhus Vand – makes up the overall framework for the realisation and implementation of the objectives of the individual company. It establishes directions for Aarhus Vand’s Board and Management, and it is the municipality’s way of expressing its attitudes and expectations of the company.

The purpose of Aarhus Vand is to supply and develop resource-effective services in the entire water cycle to create a climate-adapted, sound environment as well as growth and export, which will be of benefit to customers and stakeholders. The company’s activities comprise rainwater disposal (including climate adaptation projects), production and distribution of drinking water, transport and purification of wastewater, emptying of private holding tanks as well as safeguarding a balanced and healthy water cycle.

We recover, treat and distribute 15 million cubic meters of drinking water and purify more than 30 million cubic meters of wastewater every year at nine waterworks and four wastewater treatment plants. The company has a staff of 217 competent and dedicated employees.

Aarhus Vand’s revenue is based on user payments in the form of connection fees, fixed charges, road charges, variable water and sewage disposal charges and a charge for emptying private holding tanks. Under the Danish Consolidated Act on Water Supply and the Danish Act on Payment Rules regarding wastewater, the income must finance the company’s annual production and administration costs, financial expenses and investments.

The individual points of the agreement:

**Efficiency gains**
- Towards 2020, a minimum of DKK 1.3 billion must be gained.

**Future benchmarking**
- All-in financial benchmarking and development of the price cap regulation with demands for efficiency improvements in relation to operating costs as well and construction costs.

**Increased flexibility**
- 2-year price caps for everyone from 2017/18 and 4-year price caps from 2018/19 for the best
- A new correction of the cap
- Simplification of the annual control of the price cap
- Extraordinary efficiency gains may form part of the equity
- Abolition of the internal supervision.

**The authoritative role of municipalities**
- Unambiguous rules must ensure that the water companies become better at handling their tasks and that the municipalities become better at performing their role as authority.

**High demands on the environment, health and continuity of supply**
- New performance-based benchmarking will be introduced.

**Consumers’ complaints filing**
- A water complaints board will be established which will be handling disputes about the terms of supply.

Regulation of the water sector
The Supply Secretariat (Forsyningssekretariatet) is charged with regulating water companies’ finances according to a price cap based on the individual company’s historical prices, development in costs and demands for efficiency improvement. In 2015, the Danish Parliament agreed to change the regulations of the water sector, and the changes have subsequently been implemented.

The principles of this regulation are:
1. Increased efficiency in the water sector
2. Support and further development of high standards for the environment, services and continuity of supply
3. Less bureaucratic organising and inspection
The Supply Secretariat – its role and financing
- With the introduction of differentiated tariffs, the companies will pay according to size.

Consolidation
- The agreement contains a general description of the incentive to consolidate
- In case of mergers, it must still be possible to introduce differentiated tariffs even across municipal boarders.

Technology development:
- R&D must be promoted with the establishment of a good framework within the Danish water sector
- R&D is not part of the company’s main activities.

In 2016 the Government launched “Future utility supplies”, its strategy for the future utility sector. The strategy lays out the framework for the future regulation of the utility sectors on the basis of the five principles below:

**Principle 1:**
Tasks that are not natural monopolies per se must be subjected to competition as far as possible, and there must be Chinese walls between monopolies and areas subjected to competition – in an effort to create as much competition as possible, which will be of benefit to citizens and companies alike.

**Principle 2:**
Natural monopolies to be subjected to uniform, incentive-based financial regulation to create the best possible regulatory framework for more efficient utilities and low prices.

**Principle 3:**
Good corporate governance to encourage efficient and transparent management of the utilities.

**Principle 4:**
Robust regulation of the security of supply to ensure a high degree of continuity of supply, safeguard the environment and protect public health.

**Principle 5:**
Effective and transparent supervision based on the framework regulation to ensure development, effective administration and target-orientated analysis of the effects of the framework regulation.

The strategy contains a number of specific initiatives that will not only support the overall efficiency improvements of DKK 5.9 billion annually by 2025, but also maintain a high degree of continuity of supply. These initiatives represent an improvement of the framework conditions for Danish companies while ensuring low prices for the consumers.

*The artwork “Your Rainbow Panorama”, placed at the top of the Aros art museum, is created by Olafur Eliasson.*
Cooperation with Aarhus Municipality

Aarhus Municipality acts as owner, authority and contractual party in relation to Aarhus Vand. This involves a differentiated task management, including:

– As the owner: What it is Aarhus Municipality wants and expects from Aarhus Vand
– As authority: Aarhus municipality’s overseeing that Aarhus Vand observes the rules
– As a contractual party: Aarhus Municipality’s purchase of services from Aarhus Vand and collaboration on projects.

As the owner, Aarhus Municipality may have an interest in relation to Aarhus Vand’s strategy, results, risk, capital structure, corporate governance, corporate culture, remuneration of managers and social responsibility. The annual general meeting is one of the ways in which the municipality may exert its influence on the company.

New owner strategy
Aarhus Municipality formulated a new owner strategy for Aarhus Vand in 2017. It is an elaboration of the goals and objectives established when company was founded, an attempt to accommodate to a demand from Aarhus City Council in continuation of the municipality’s policy on active ownership of municipal companies. Aarhus Municipality’s overall objective for Aarhus Vand is to ensure the greatest possible long-term value creation and to ensure that the objectives are met in relation to operation/service, finances, security, environmental and social conditions. The purpose of the owner strategy is to contribute to:

– Ensuring consistency between Aarhus Municipality and Aarhus Vand’s policy, vision and plans
– Clarifying Aarhus Municipality’s goals for Aarhus Vand, including the company’s Board of Directors
– Ensuring the best possible effect of the resources used within Aarhus Vand’s business area and the greatest possible value creation in the company
– Regulating cooperation between Aarhus Municipality and Aarhus Vand within the framework of the rules in force at all times, always respecting the interests of any other owners.

"OUR RAINWATER LAKES MUST BE USED BOTH FOR CLIMATE ADAPTATION AND RECREATIONAL PURPOSES"
The owner strategy lays down what it is Aarhus Municipality expects Aarhus Vand to be working towards:

- Ensuring clean drinking water
- Ensuring stable supply and high customer satisfaction
- Contributing to a clean environment
- Contributing to the climate efforts and adaptation to climate change
- Assuming social responsibility through internships and employment on special conditions
- Supplying the citizens of Aarhus with water of high quality and being among the 30 least expensive municipalities in Denmark
- Ensuring that return on investments and capital structures satisfy the set goals.

Regarding financial responsibility, the owner strategy mentions, among other things, that:

- Aarhus Municipality expects Aarhus Vand to have a strong focus on financial responsibility, including that the company works towards future-proofing facilities and maintaining and developing its financial values.
- Aarhus Municipality expects Aarhus Vand to have a continued focus on development, efficiency and possible synergy effects advantageous to the consumers and the owners.
- Aarhus Municipality expects Aarhus Vand to organise its actions and arrangements in a way that will not cause an unnecessarily high risk for the owners.
- Aarhus Municipality expects Aarhus Vand to focus on eco-efficient investment and optimisation of its operation.
- Aarhus Municipality expects that the development in charges is reasonable, financially, to consumers, and that charges will be fixed at a level which ensures Aarhus Vand’s capital stock and its operation.

Annual wheel, 2018

**ANNUAL WHEEL FOR THE COLLABORATION WITH AARHUS MUNICIPALITY**

<table>
<thead>
<tr>
<th>MARCH</th>
<th>APRIL</th>
<th>MAY</th>
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<tbody>
<tr>
<td>Dialogue meeting with the Municipal Corporation</td>
<td>Dialogue meeting with the Mayor</td>
<td>Annual general meeting</td>
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<tr>
<td>Involved parties: Chairman of the Board, Director, Mayor, councillors and members of the Municipal Corporation</td>
<td>Involved parties: Chairman of the Board, Director, Mayor and City Manager</td>
<td>Involved parties: Chairman of the Board, Director, Mayor, Mayor’s Department and City Council</td>
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**ANNUAL WHEEL FOR THE BOARD OF DIRECTORS**

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<thead>
<tr>
<th>JAN</th>
<th>FEB</th>
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<th>DEC</th>
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<tr>
<td>New Year's reception</td>
<td>1st board meeting</td>
<td>2nd board meeting</td>
<td>Board of directors’ seminar</td>
<td>DANVA annual meeting</td>
<td>3rd board meeting</td>
<td>4th board meeting</td>
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<td>Financial statements 2017</td>
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<td>Budget for 2019 Business goals for 2019</td>
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</tbody>
</table>
The board

Flemming Besenbacher
Chairman of the board
Professor of nano-science and physics, Aarhus University

Johanne Sønderlund Birn
Business owner

Almaz Mengesha
Member of the Aarhus City Council for Liberal Alliance

Mads Thomsen
Employee representative, Aarhus Vand

Jens Horup Jensen
Consumer representative

Keld Hvalso
Deputy Chairman
Member of the Aarhus City Council for Enhedslisten

Ango Winther
Member of the Aarhus City Council for Socialdemokraterne

Hennrik Frier
Employee representative, Aarhus Vand

Bjørn Rohde
Employee representative, Aarhus Vand
Mission, vision and values

Mission
Our mission is to offer and develop resource-efficient services throughout the entire water cycle, creating a climate-adapted, sound environment, growth and export, all of which will be of benefit to customers and stakeholders.

Vision
Aarhus Vand wants to be Denmark’s leading water company.

Aarhus Vand will focus on developing a value-adding water company with characteristics such as: Environmentally sound, resource-efficient, energy-neutral, well-run, innovative and partnership-promoting.

Aarhus Vand has an excellent basis for creating overall solutions and committing to sustainability in relation to the entire water cycle. The water and wastewater sections each have their own strengths and potential and by coordinating them, we can achieve a unique position.

At the same time, excellent opportunities have been created to streamline operations by utilising synergies optimally in a wide range of areas.

Continued development of the production machinery combined with extensive participation in research projects and highly competent and well-educated employees will help ensure that our surroundings and we see Aarhus Vand as the leading water company in Denmark.

Two of the key conditions to the company’s success are that all employees at Aarhus Vand work individually and together to implement our goals and to keep our customers in focus in our daily work.

Values
At Aarhus Vand, we not only manage by goals but also by values. Our four basic values – ‘we’ feeling, responsibility, innovation and dialogue – are part of our DNA. The values are related to the following statements, which must guide how we fulfil these values:

"WE" FEELING
– We have each other’s best interests at heart
– We make room for diversity
– We are good colleagues and reinforce our sense of community
– We build the best workplace together

RESPONSIBILITY
– We keep our promises and stand by what we do
– We take responsibility for our surroundings
– We improve our competencies
– We show initiative

INNOVATION
– We make room for creativity
– We dare lead the way
– We realise ideas quickly
– We challenge the way things are done

DIALOGUE
– We are honest and show respect
– We are open and trustful
– We give and receive praise and complaints
– We share knowledge and experience

"WE HAVE THE CUSTOMER IN FOCUS"
Our business strategy – Strategy 2020 – focuses on the development of a value-adding water company which is characterised by being: Environmentally sound, resource-efficient, energy-neutral, well-run, innovative and partnership-promoting. The strategy is based on our vision to be Denmark’s leading water company and on our mission to offer and develop resource-efficient services in the entire water cycle, which create a climate-adjusted and healthy environment, as well as growth and export for the benefit of our customers and stakeholders. In addition to developing the company, our mission holds a desire to create value for the surrounding society and to support UN’s global goals for sustainable development.

The strategy has three focus areas: Growth, productivity and ingenuity. The focus areas identify the three most important overall areas in which the company must develop in the coming years and strengthen the focus of our strategy work towards 2020. This focus is an indication that we wish to create development for ourselves and that we wish to support growth, export, productivity and creativity in Denmark. Furthermore, our politicians require that we continue to improve and become more productive.

**Growth by means of a creative and exploratory approach**

The focus areas of growth, productivity and ingenuity interact and support each other. We want to produce more at fewer expenses by reducing our costs and resource consumption. At the same time, we want to create meaningful growth that outweighs the increased productivity. Ingenuity must underlie productivity and must point out, develop and accelerate new potential areas of growth.

We create growth by developing new business areas within our core areas of competence where there is no competition, and where similar solutions and products have not already been developed. We want to establish a link between the existing growth opportunities, fill a missing role and assume responsibility. Therefore, we want to create growth in areas where we see a need for development, but for which neither we nor others have found a solution. This is no easy task. It requires a creative and exploratory approach to development, and that is why our strategy of ingenuity works with developing managers’ and employees’ innovative competences.

**Strategy 2020** — our ‘strategy house’ represents a framework for the direction in which Aarhus Vand wants to be headed.
We will develop new areas and create growth in close cooperation with other water companies, water technology companies and research institutions. The development of Marselisborg ReWater is a good example of such cooperation. Here, the objective is to develop the world’s most resource-efficient wastewater treatment plant, which would not be possible with today’s solutions and ways of thinking. That is why we need a strong innovative force if this project is to succeed. The knowledge and technology development we create along the way must, at the same time, turn into a good business, creating new jobs and providing value to many people.

Business goals focus on development

For each of the focus areas of growth, productivity and ingenuity, we have attached a business goal which focuses on the development we want to succeed with. The business goals express our focused efforts for 2018 and reflect the strategy towards 2020. We want to create overall growth of DKK 120 million during the strategy period from 2010 to 2020. For 2018, the aim is to create growth worth of DKK 38 million. The main growth areas in 2018 are:

- Climate adaptation projects
- International projects
- Resource utilisation of waste water (energy and phosphorus).

When it comes to productivity, our business goal is an annual 2% productivity improvement towards 2020 on operations and capital investment. In 2018, productivity will mainly be driven by development in the IT area and by the introduction of digital production and workflows. In relation to operations, we will continue to focus on reducing our actual operating costs. In relation to capital investment, we will focus on achieving the planned 2% efficiency improvements on projects for the renewal of water and wastewater pipelines in cooperation with ‘Water Partner’. The following strategic projects support productivity during the period 2018-2020:

- Project portfolio and resource management in the entire Aarhus Vand
- Digitisation.

In relation to ingenuity, our ambition is to become a more resourceful organisation. In 2018, this development will be measured by means of our work climate measure-
ment, the business objective being an ingenuity score of 93 percent.

The main strategic projects for 2018 in relation to ingenuity are:

- Marselisborg ReWater
- Automation of the production of drinking water – including new waterworks in Beder
- Process management.

We have selected three cross-cutting priority areas, which will help to ensure progress in the three focus areas:

- New products and services
- Water knowledge
- R&D.

These three areas will help to support a cultural change that will increasingly turn Aarhus Vand into:

- A market-orientated company developing and offering new services
- A knowledge company developing and providing knowledge locally, nationally and globally
- A market leader, locally, nationally and globally – in the field of applied R&D.
UN’s 17 global goals for sustainable development, adopted in 2015, is the most ambitious plan for the future of the planet. To be successful, each and every one of us must contribute. At Aarhus Vand, we have worked systematically with sustainability for many years. We are a CSR certified company, which requires that we have full control of the entire palette of topics within social accountability: Consumer relations, the environment, the climate and working conditions, business ethics, human rights and our contribution to the development of local society. Furthermore, Aarhus Vand maintains a strategic focus on the environment and the climate, two areas in which we perform considerably better than prescribed by the law. Therefore, it is natural for us to integrate the global targets in our Strategy 2020 and in the projects where they are relevant.

Primarily goals:
- 6 (clean water and sanitation)
- 13 (climate action)
- 14 (life below water).
Our focus is on the local effort of providing our customers with sufficient, clean drinking water. To ensure this, we have for more than 10 years been working systematically with drinking water quality through the comprehensive management programme “Documented drinking water quality”, and we are certified as a food company in accordance with ISO 22000. Our aim is to ensure clean drinking water also for future generations. This is done through a comprehensive groundwater protection programme and a series of action plans that, among other things, forbid the use of pesticides in confined areas with groundwater interests.

In addition to this, we are working on minimising water loss in our pipeline network, and so far, we have reached a historical low of 5.5 per cent. Globally, we focus on transferring our knowledge in drinking water production to a number of countries, the United States, for instance, through the Water Technology Alliance and in Africa through 3Vand.

Another important area is our efforts in relation to adapting Aarhus to climate change in order to avoid flooding. This places heavy demands on our infrastructure and management of the water cycle. Together with the citizens of Aarhus, the municipality and a number of experts, we will continue the development of value-adding and effective climate solutions.

We are world leaders when it comes to utilising the resources in wastewater for green energy. Our goal is to produce energy and recycle purified water and nutrients from wastewater to an extent not seen elsewhere. We also have a goal of becoming completely energy-and CO₂-neutral in 2030, and we are well on the way. In 2018, the goal is to produce 55 per cent of the energy we use in the entire company. Our know-how in the field of energy optimisation and utilisation at our wastewater treatment plants has attracted attention worldwide. This has resulted in rapid growth, and in a number of countries, we support capacity building and export of Danish technology.

Our wastewater treatment is of great importance when it comes to safeguarding life below water. A clean Aarhus Bay, with the resulting biological and recreational values, depends on effective purification of very large volumes of wastewater, something, we have been quite successful at.

Furthermore, we assume additional responsibility by contributing to the recreational use of lakes, streams and the port area. We have particular focus on streamlining the efficiency of our operation of the wastewater treatment processes and future-proofing our facilities and purification capacity further.

Our knowledge about effective wastewater treatment is already in demand globally and will contribute to raising the knowledge of – and the level of – wastewater treatment in a number of countries. This will mean an improvement of life below water on a global scale.

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### CSR GOALS 2018

<table>
<thead>
<tr>
<th>Category</th>
<th>Goal No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clean drinking water:</strong></td>
<td>No. 6</td>
<td>Limit value exceeded. Cooking of the water recommended. Goal 2018: 0</td>
</tr>
<tr>
<td><strong>Climate adaptation:</strong></td>
<td>No. 13</td>
<td>Areas that change status from common sewer to separate system. Goal 2018: 75 hectares</td>
</tr>
<tr>
<td><strong>Climate control measures:</strong></td>
<td>No. 13</td>
<td>The energy produced at our wastewater treatment plants should cover 100% of the company's energy consumption for electricity and heat in 2030. Goal 2018: 55%</td>
</tr>
<tr>
<td><strong>Climate control measures:</strong></td>
<td>No. 13</td>
<td>The total energy consumption at our wastewater treatment plant Goal 2018: 23 GWh</td>
</tr>
<tr>
<td><strong>Resource utilisation:</strong></td>
<td>No. 13</td>
<td>Production of PhosphorCare Goal 2018: 250 tonnes</td>
</tr>
<tr>
<td><strong>Water environment:</strong></td>
<td>No. 14</td>
<td>Emission requirements for wastewater treatment plants that have an impact on the aquatic environment have been exceeded. Goal: 0</td>
</tr>
<tr>
<td><strong>Water environment:</strong></td>
<td>No. 14</td>
<td>Emission requirements for waterworks that have an impact on the aquatic environment have been exceeded. Goal: 0</td>
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</tbody>
</table>
Entering partnerships within water technology is part of Aarhus Vand’s DNA. We see ourselves as one of Denmark’s leading water companies in a number of areas, and we possess knowledge and competence that we would like to share with others. But we can also learn a great deal from others. This is why we collaborate closely with other Danish and foreign supply companies, municipalities, consultants, educational institutions, researchers, entrepreneurs and suppliers.

By working together with some of the best partners in the industry, we find new ideas, opportunities, and solutions to the challenges we face. Challenges such as limiting energy consumption in the production of drinking water and wastewater treatment, producing enough energy to get an energy neutral water cycle, reducing the emission of CO₂ from our activities, and using resources such as phosphorus in wastewater and developing solutions for climate change adaptations.

Through partnerships, we at Aarhus Vand stand every chance of succeeding with Strategy 2020. Part of our strategy is ongoing development of our competence and knowledge. Our ambition is to have the best specialised employees intend on finding optimal solutions. This is best done in interdisciplinary, instructive and innovative interaction with our partners and other stakeholders, for instance through formalised partnership agreements, knowledge networks and alliances.

Water accelerator
We have a desire to create a national cooperation on water technology in recognition of the real problems and needs of the market. And we see a great need to accelerate this cooperation in the Danish water sector so as to create additional partnerships for Aarhus Vand and ensure cross-pollination of existing partnerships. It is about creating a close connection between what already works well today in existing professional competencies, companies and partnerships.

A number of water-related companies may achieve an increase in growth and productivity through strong cooperation. Together with the other partners in 3Vand (Hofor, Biofos, Vandcenter Syd), Aarhus Vand has laid the foundations of a water accelerator, regionally and nationally, that is going to be further developed, take form and increase value creation in 2018.

Vandpartner
In 2016, we established a public-private water partnership together with Samn Forstyrning (the former Odder Spildevand) and Favrskov Forsyning for the period 2016 – 2021 on the renewal of water lines and...
purification plants in Odder, Favrskov and Aarhus Municipality. The main partners are the firms of consultants Envidan and Niras and contractors Arkil, Aarsleff and Vam. In addition to this, Norva24, NCC, Sulzer, LE34 and FKSSlamson also take part. The partnership, Vandpartner, includes scheduling, digging up, lining, TV inspection, pump stations and measuring.

Our experience with partnering over the past 15 years has shown us that we benefit greatly from this type of cooperation. It has meant an increase in efficiency and a decrease in costs. The essential point of the partnership agreement with Favrskov Forsyning and Samn Forsyning is that it must help improve the quality of our work and enable us to create innovative measures and optimise the work processes to the benefit of all parties involved: our customers, the three supply companies and the external companies.

**Shared**

Shared is a service company that provides administrative services to the four utilities of Favrskov, Morso, Syddjurs Wastewater Treatment Plant and Aarhus Vand.

The purpose of Shared is to economise and streamline in order to create added value for the parties. By pooling resources in a shared service company, we can afford to have highly specialised staff with the right experience, which gives us a better hand when we offer our goods and services. And together we can achieve a greater volume and reap the ensuing benefits and savings.

The collaboration should also include other administrative services such as shared IT and wage administration. One of the goals is also to expand the circle of owners.

**3Vand**

3Vand is a network-based, strategic cooperation between Hofor, Biofos, Vandcenter Syd and Aarhus Vand. We share a number of interests and want to take the lead in the industry, set a political agenda and support the export of Danish water technology and Danish solutions.

At 3Vand we are focusing on R&D, and we cooperate on political topics such as groundwater protection. We share a number of challenges, and, together, we can develop the right solutions and attempt to influence Government’s decision-making through lobbying. When the three largest municipalities and the three largest water companies in Denmark agree, it will not go unnoticed by politicians or authorities.

**WTA**

3Vand’s ambition is strong international efforts to stimulate growth and export in
the water sector. For instance, through the Water Technology Alliance (WTA), the purpose of which is to support the Danish water industry in their efforts to embark on the American market as well as to make the Danish water model more known.

So far, WTA has been established in Chicago (WTA Chicago) and San Francisco (WTA California). In Chicago, the alliance consists of 3Vand, the Danish Trade Council and the companies Danfoss, DHI, AVK, Landia and Linak & Nissen Energi Teknik. WTA Chicago has an employee posted in Chicago, who is to act as a bridgehead for Danish export companies in relation to opportunities and specific tasks in the field of energy optimisation and energy production in the wastewater sector.

Aarhus Vand also has a cooperation agreement with the Chicago-based wastewater company Metropolitan Water Reclamation District of Greater Chicago. The cooperation agreement is about our mutual obligation to exchange employees and knowledge in specific areas.

Aarhus Vand, The Danish Trade Council and 12 other Danish companies have established WTA California to promote Danish export within the drinking water and wastewater sectors. WTA California must therefore increase the knowledge and use of Danish water technology solutions that contribute positively to solving California’s critical water shortage as well and achieve the goals for the reduction of greenhouse gases.

Aarhus Vand is the coordinator of the Alliance. With the support of the Danish Industry Foundation and assistance of the Consulate General in Chicago, we have posted an employee in San Francisco, who is to create close cooperation between Danish and American utilities, public authorities and educational and research institutions in the field of water. The Alliance consists of the Export Council, 3Vand as well as the companies Kamstrup, Applied Biomimetic, Danfoss, Grundfos, Rambøll, Smith Innovation, Skytem, DHI, Leif Koch, AVK, IGIS and LiqTech.

**PhosphorCare**

The goal of the government’s resource strategy, ‘Denmark free of waste’, is that 80% of all the phosphorus from our sewage sludge must be recycled in 2018. It is an ambitious but important goal since phosphorous is a scarce resource, and prices are soaring. Phosphorous forms part of our cells and bones, and without it, plants would not be able to grow.

In a partnership with Herning Vand, Grundfos, Norconsult and Knowledge Centre for Agriculture and the Danish Pig Research Centre (SEGES), we have managed to turn the phosphorus in wastewater into a fertiliser rather than a waste product. In the partnership, we have developed a concept that has been implemented at Åby Wastewater Treatment Plant, where we, as one of the first places in the world, extract the phosphorus in wastewater and resell it as a fertiliser of high quality under the name ‘PhosphorCare’. Herning Vand has also built a wastewater treatment plant, and Aarhus Vand is going to open a plant by Marselisborg Wastewater Treatment Plant in 2018, which will be Scandinavia’s largest plant, with an expected production of phosphorus fertilisers of up to 800 kg per day.

The concept has attracted great interest, not only in Denmark but also from abroad. In Denmark, there is a potential of constructing 20-30 phosphorus plants, and the export potential is estimated to be DKK 1.6 billion over a 10-year period. New EU legislation on recycled phosphorus products are on the way in 2018 and will increase the possibility of extending the concept further.

The partnership has entered a contract with French Suez, one of the world’s largest water companies, for assistance in building a phosphorus plant based on the technology developed in the partnership. And Aarhus Vand has entered an agreement about an innovation partnership, where the concept may be further developed together with Suez Water S.A. and the Danish company Stjernholm A/S. Suez is now offering this concept on the global market and expects to build at least 2-3 plants each year in the future.
The world’s most resource-efficient wastewater treatment plant

A new wastewater treatment plant by Marselisborg in southern Aarhus is set to be an international lighthouse for resource utilisation of wastewater. A strong focus on innovation will ensure that not only known technology, but also the technology of the future, is brought into play.

The plant, which will be ready in 2026, will be called Marselisborg Resource Facility and will also be marketed as Marselisborg ReWater. The ambition is that – in addition to meeting the current and future demands for wastewater treatment – the plant will be the world’s most resource-efficient wastewater treatment plant.

The name signals that besides purifying wastewater and ensuring a good water environment in Aarhus Bay, the plant is going to produce energy and recycle purified water and nutrients from wastewater to an extent not seen elsewhere in the world.

The purpose of utilising the resources in the wastewater is to reduce the costs of treating wastewater by including the resources in the circular economies through the sale of energy, fertilisers and purified wastewater. Furthermore, the aim is to reduce CO₂ emissions and save on scarce resources such as phosphorus. It must support Aarhus Municipality’s climate strategy and Aarhus Vand’s ambition to be energy-and CO₂-neutral by 2030 at the latest.

15 innovation challenges to be addressed
The goal for the plant is ambitious, and in order to succeed, we need new solutions and new ways of thinking. That is why we must focus on innovation. The first step was a kick-off event in the spring of 2017 to attract the cream of Danish companies, manufacturers, suppliers, research institutions and entrepreneurs interested in contributing to the innovation of the plant through partnerships. The next step consisted of 50 “speed dates” with potential partners to find out if there was a perfect match for future cooperation.

The speed dates were based on 15 innovation challenges representing the challenges that we must overcome to develop a state-of-the-art plant for 2026 and beyond. Based on the speed dates, we designed a number of sub-projects that we will seek funding for together with the partners. This work will continue in 2018. One of the sub-projects – “Mars on the Moon” – is about developing a modular system focussing on the structure that connects the individual modules. The purpose is to build a plant so flexible that it can be expanded and changed in proportion to a growing population and the development of new technologies. Another project entitled “Automation and improved working environment” is about how we use robots to create an even better working environment and completely avoids employees getting into direct contact with the wastewater, for instance. The project “Resources in the wastewater – now and in the future” uncovers which resources can be found in the wastewater – besides the ones already being utilised today. It will be a great help in determining which processes the plant will have to accommodate. Alginate is an example of a future resource in wastewater which can be used to create artificial skin, among other things.

Knowledge as cool business
In addition to the sub-projects, we will be working on an EIA study together with Aarhus Municipality in 2018 to clarify the environmental impact of placing the facility at Østhavnen near the existing plant at Marselisborg. We appointed a building owner consultant in 2017, who will help us establish two consortia in 2018, which will focus on “resources and processes” and “architecture and buildings” respectively with a view to development, specification and supply. Last but not least, we will be working with new business models in 2018 that will help turn the knowledge we acquire along the way into a good business, creating new jobs and value to many people.
"TRUELSBJERGVAERKET IN AARHUS IS TOMORROW’S WATERWORKS"
We are undergoing a digital transformation

The world around us is constantly changing, and our digital strategy, which is an integral part of Strategy 2020, supports a digital transformation of the company.

As a company, we are more and more often met with a demand for increased efficiency, and our customers and the surrounding community commit themselves more and more to new technologies and go digital. New business models emerge, fundamentally challenging the current models, and digital product innovation takes place with unprecedented ease and speed. The organisation as we know it today is disappearing, as companies are forced to adapt to the digital world – and their employees, to new working methods.

Therefore, in order to achieve our long-term goals, digitisation is a critical and essential transformation which creates the foundation for Aarhus Vand maintaining a relevant and competitive position in the market. With our digital strategy, it is our ambition that Aarhus Vand should become a digital role model and trendsetter for the water industry – nationally and internationally.

Digitally first
The digital transformation is a journey we embarked on some time ago, and since then we have developed many ground-breaking digital solutions. But now is the time for high-priority strategic efforts in digitisation, involving increased, controlled coordination, prioritisation, knowledge-sharing, competency development, standardisation and speed.

Digitisation requires that we take on new behaviour, that we think and act digitally. A new mindset of “digitally first” is to become part of our DNA, a central point in our business strategy, Strategy 2020. It is therefore essential that the transformation should be created, owned, implemented – and felt – by everyone at Aarhus Vand. Digitisation will make Aarhus Vand an even more exciting and challenging place to work, a place that will continue to attract new and competent colleagues.

Digitisation in support of Strategy 2020
Digitisation is a fundamental prerequisite for ensuring that we can meet our strategic goals and ambition:

- We accelerate and sharpen our transformation from administration to customer-based business and, in doing so, ensure Aarhus Vand’s future livelihood
- We increase productivity, create value and promote ingenuity
- We create even better frameworks and conditions for employees and contribute to improving job satisfaction and motivation
- We can quickly and effectively respond to and adapt to future changes in the water sector.

Our digitisation strategy is an integral part of Strategy 2020. It defines which strategic areas Aarhus Vand must develop, support and strengthen through digitisation:

- **Organisation:** That we have the right organisation and governance to ensure coordination, focus and utilisation of synergies across Aarhus Vand.
- **IT and systems:** That we provide an overview and a high degree of standardisation of our system landscape; that we establish a mobile and digital platform available to everyone.
- **Data as raw material:** That we display and activate our data to optimise and create solutions, services, and business processes through data-driven information and support in decision-making.
- **Optimisation of the business:** That digitisation supports improved productivity and less waste, thus leading to a high degree of job satisfaction. We create the framework for better cooperation and knowledge-sharing.
- **Customers:** That we offer new digital services targeted specifically toward customers’ present and future needs through new insights.

Through active participation in digital ecosystems across activities, we will develop our digital competence and create new digital solutions to the industry.

In each area, we will set some long-term, strategic goals for how they can be promoted and supported by means of digitisation. Specific project activities will be prioritised based on how they contribute to improving productivity, creating new business areas and growth, and on their ability to be a driver of digital innovation.
Our complex and changing environment makes it increasingly difficult to manage and run the company exclusively on the basis of fixed guidelines and procedures. This is why we have supplemented our management system with a set of strong core values and why we work with value-based management.

Our core values consist of the values we-feeling, responsibility, innovation and dialogue. Our core values are part of our DNA, a standpoint which ensures a coherent whole and direction in the daily work and which helps us to make the right and necessary decisions. The common basic values help to build a strong corporate culture and a dynamic organisation: It is a good starting point for leadership and collaboration in a workday full of change and with an ever-growing demand for increased productivity.

We free up resources when it is values rather than rules that guide us in our work. Therefore, we have a strong focus on self-management, which gives the individual employee greater flexibility and freedom to decide for themselves.

Value-based leadership is about taking responsibility
Since we defined our core values, we have continuously been developing a value-based style of management which aims to achieve greater efficiency as well as a higher degree of employee satisfaction. Value-based management is not about whether or not we should have goals. To
us, value-based management is about how we take responsibility in order to achieve our goals and how we turn management into a common task. It is a question of good leadership and not least about leading and being led. With value-based management, employees assume a high degree of autonomy, which will enable them to act appropriately in unforeseen or critical situations. They can improvise and act in the best possible way thanks to the core values, which enable them to decide what to do without having to seek advice or permission from management. We make room for employees’ creativity and competences to unfold, which, in turn, increases their sense of responsibility and their potential for further development. And it gives us a flexible organisation – an organisation in motion and geared towards absorbing changes and adapting to customer demands.

**HR strategy**

Our new HR policy will be implemented in 2018. The objective of the policy is to ensure a well-functioning workplace and to provide the framework for continued development, so that Aarhus Vand will continue to be an attractive and dynamic workplace that attracts and maintains skilled staff in a healthy working environment. The strategy focuses on the following key areas:

**An attractive workplace.** This will be one of our most important competition parameters. As a leading water company and a good place to work, we must use our brand to actively attract the right competences. We will invest in employees’ working lives through targeted competency development so that we can meet future needs.

**“Well on the way”**. New members of staff will meet with the Director for an informal talk about our corporate culture and will be assigned a mentor who plans the introduction to Aarhus Vand together with the immediate manager. Within the first 6 months of employment, everyone will be called in for a “well-on-the-way interview” to ensure that we keep improving the way we welcome our new colleagues.

**Structured competency development.** The leaders are equipped to take charge of competency development of our employees. Employee competency development must be seen as a process rather than stand-alone courses so as to ensure consistency between the competency enhancement and the strategy, and must be translated into real competences. We are developing “Aarhus Vand Academy”, providing wide and varied training opportunities for all employees.

**Recruitment with care.** One of the biggest factors of differentiation in tomorrow’s water industry will be the ability to attract the right people. We want to create the right balance between professionalism and personality based on a holistic approach. We look not only at professional competence. We also consider whether a candidate has a personality that fits well into an organisation with value-based management.
Aarhus Vand is one overall public limited company with a simple, logical organisation divided into three departments.

**PLAN AND PROJECT**
Is responsible for planning tasks, implementing construction works, pipe registration and GIS systems as well as for coordinating development activities. A very large part of the tasks is handled through projects with internal and external partners. A significant share of the department’s construction projects is completed in collaboration with external advisors and contractors.

**PRODUCTION**
Delivers drinking water, purifies wastewater and utilises resources such as energy and phosphorus from wastewater to the benefit of the citizens and the environment in Aarhus. The department ensures high quality, efficiency and continuity of supply through operation, service and development activities.

**BUSINESS SUPPORT**
Consists of HR, Customer Service, Development and Finance, which together and separately support the business, both in relation to the customers we have internally at Aarhus Vand and to our customers in and outside Aarhus Municipality.

**AARHUS VAND TA**
In 2017, Aarhus Vand has established a subsidiary company for the purpose of managing the accounts of activities falling outside the company’s core areas. The company is called ‘Aarhus Vand TA’, where ‘TA’ is an abbreviation of the Danish expression ‘Tilknyttet Aktivitet’ (‘associated activity’). Associated activities are those activities that do not fall directly within the scope of our main activities, which include the provision of drinking water, wastewater treatment and adaptation to climate change. Aarhus Vand TA mainly includes our growth activities such as our international activities in the United States and in Zambia.

Revenue from the associated activities cannot exceed DKK 2 million within the framework of Aarhus Vand; however, we expect revenues significantly above this limit. That is why we are obliged by law to set up a special company to handle the activities which exceed the DKK 2 million limit.

CFO of Aarhus Vand, Mads Bayer, is the director of Aarhus Vand TA, and managing director of Aarhus Vand, Lars Schröder, and department managers of Aarhus Vand Claus Homann and Claus Møller Pedersen make up the Board of Directors. Aarhus Vand constitutes the parent company, which owns the new company 100%, and the board of Aarhus Vand constitutes the general assembly.

With the regulation of the Danish Water Sector Act, Aarhus Vand may need another company structure in order to carry out the activities necessary to achieve our strategic goals.

**SHARED**
Together, Aarhus Vand, Syddjurs Spildevand, Favrskov Forsyning and Morsø Forsyning have established a service company, Shared. The purpose of Shared is to economise and streamline in order to create added value for the owners. Based on joint purchasing, the company will handle a number of tasks and services that will benefit the customers of each utility.
A mixer from biotank at Egå Renseanlæg helps to ensure better waste water treatment.

<table>
<thead>
<tr>
<th>Aarhus Vand’s employees in numbers</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>209</td>
<td>217</td>
</tr>
<tr>
<td>Converted into full-time employees</td>
<td>202</td>
<td>207</td>
</tr>
<tr>
<td>Percentage distribution, women</td>
<td>29%</td>
<td>33%</td>
</tr>
<tr>
<td>Percentage distribution, men</td>
<td>71%</td>
<td>67%</td>
</tr>
<tr>
<td>Number of civil servants</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Average age, all employees</td>
<td>48.4</td>
<td>47.7</td>
</tr>
<tr>
<td>Staff turnover</td>
<td>9.3%</td>
<td>9.8%</td>
</tr>
</tbody>
</table>
Sharpening the focus on financing

Increased focus on the financing of our activities in the coming years means greater consistency between investment, charges and the financial framework.

We are experiencing a large influx of new customers in line with the many newly-built houses in Aarhus Municipality. This calls for expansion of our assets, for instance our wastewater treatment plants and waterworks, and renovation of our existing assets. The next few years, we are going to focus on the construction of a new waterworks in Beder, ongoing renewal of our water and wastewater pipelines, adaptation to climate change as well as preparations for a new wastewater treatment plant – Marselisborg Rewater.

The great demand for investment exerts increased pressure on our liquidity, especially in the context of the increased requirements for continuous improvement of the efficiency of our operating expenses and fixed assets we are met with from political side. In addition to this, we are under pressure financially from a governmental requirement of imposing a ceiling on our revenue. We pay much attention to observing the requirements we are met with, the requirements of the municipal wastewater plan, for instance. In light of these requirements, we have designed a financial strategy to ensure the necessary financial scope for the coming years.

Dialogue on the financial framework

As part of the strategy, we want to engage in a dialogue with the financial authority in the Supply Secretariat and the Danish Energy Agency to ensure that the financial regulation takes account of the development in municipalities of growth and municipalities in need of fundamental structural changes. As part of the strategy we will systematically apply business cases and asset management to make sure that the projects we embark on are the ones that will give us value for money.

We will work systematically towards realising new areas of revenue which may help improve our financial situation. This will require an extension of the very rigid framework for new income areas – and call for a constructive dialogue.

Finally, we will carry out a study to find out what is the best financial solution in relation to our many substantial, long-term investments, and we will need even tighter control of the company’s cash flow.
For 2018, the financial framework, as announced by the Supply Secretariat, is on a par with the 2017 level. But we expect the financial framework will be put under pressure in the coming years, with the introduction of additional requirements for efficiency improvements in the water sector. In addition to stricter requirements for the efficiency of operating costs, efficiency requirements have been introduced for capital investments and financial items. Especially the demand for more efficient capital investments and financial items represents a challenge for Aarhus Vand. We have a significant activity level, not least due to a considerable increase in the population in the municipality and stricter demands for environmental and climate improvements.

In relation to the operating costs, Strategy 2020 has a goal of enhancing the effectiveness of our operating costs by 20 per cent towards 2020. We expect to be able to achieve this goal and meet the authority's demands for efficiency improvements. One of the means to keep the costs related to operations and plants down is to introduce asset management to help us prioritise fixed service goals, risk tolerances and economic life.

The figure below shows the expected budget for the operation and cash flow for 2018. The difference between the two budgets is that the operating budget includes depreciation on the fixed assets we have today, whereas the cash flow budget includes budgeted capital expenditures for 2018, as well as repayments.
Investments and tariffs

Investments for 2018
The budgeted investments for 2018 make up DKK 431.4 million. There is still significant activity in investments in property development and ongoing renovation of our water and wastewater pipes. In water, the planning of a new waterworks in Beder is well on the way. In the area of wastewater, there is a special focus on the realisation of the investments planned in the Wastewater Treatment Plan, including studies on the establishment of a new Marselisborg Wastewater Treatment Plant – Marselisborg ReWater – as well as continued focus on climate change adaptation in exposed areas.

Tariffs for 2018
The budget for 2018 forms the basis of the water and wastewater tariffs for 2018. In total, our prices fall by 0.26 DKK/m³. Annually, this is equivalent to DKK 25.00 for the average Danish family. The tariffs are within the financial framework announced by the Supply Secretariat. The figure below compares the variable water price for 2018 with that of previous years and the estimates for the coming years.

WHERE DOES THE MONEY COME FROM?

76%

11%

13%

WHAT IS THE MONEY SPENT ON?

64%

34%

2%
THE VARIABLE WATER PRICE

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production of water</td>
<td>10.71</td>
<td>8.90</td>
<td>8.47</td>
<td>8.34</td>
</tr>
<tr>
<td>Wastewater treatment</td>
<td>27.87</td>
<td>21.98</td>
<td>22.89</td>
<td>22.69</td>
</tr>
<tr>
<td>Government water tax</td>
<td>6.53</td>
<td>6.25</td>
<td>6.25</td>
<td>6.37</td>
</tr>
<tr>
<td>VAT</td>
<td>10.53</td>
<td>9.28</td>
<td>9.40</td>
<td>9.35</td>
</tr>
<tr>
<td>Total water price per m³ incl. VAT</td>
<td>52.64</td>
<td>46.41</td>
<td>47.01</td>
<td>46.75</td>
</tr>
</tbody>
</table>

ELEMENTS IN THE VARIABLE WATER PRICE 2018

- Production of water (18%)
- Wastewater treatment (48%)
- Government water tax (14%)
- VAT (20%)

VARIABLE PRICE PER CUBIC METER INCL. VAT AND DUTIES

- Achieved
- Estimated