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Veolia at a glance

Resourcing the world

- Veolia Group aims to be the benchmark company for ecological transformation. The Group designs and provides game-changing solutions that are both useful and practical for **water, waste and energy management**.
- Through its three complementary business activities, Veolia helps **to develop access to resources, preserve available resources, and replenish them**.
- **Our mission is to resource the world.** The improvement of our environment footprint and that of our customers is central to our business and its economic model.



220,000+ employees worldwide
(after merger with Suez)

€36,7 billion (2021 revenue)

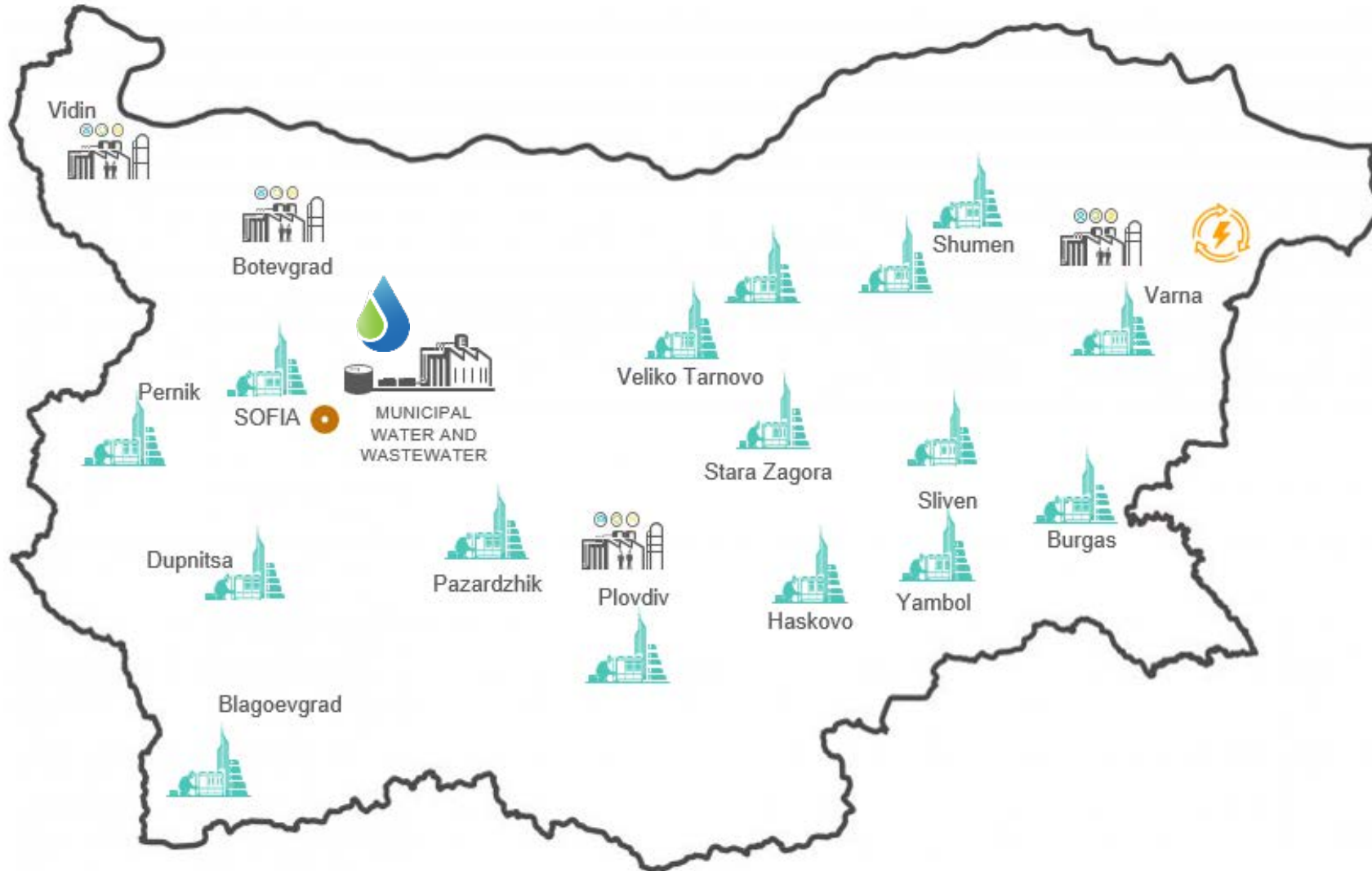
38,000+ employees across **14 countries** in Central & Eastern Europe

€6,260.3 (CEE revenue 2021)



Our presence in Bulgaria

3 companies for a national footprint



Industrial Utilities –
Water & Energy



Technical Services



Water and
Wastewater services



District heating
network - Varna



1200+ employees in
Veolia Bulgaria



Why Veolia Bulgaria decided to support the local start-up ecosystem

Reasons

- ✓ Substantial know-how and technical expertise;
- ✓ Sound experience through Veolia Innovation Accelerator, U-START and US accelerator programmes;
- ✓ Bulgarian start-up ecosystem is boosting through the establishment of few VC funds with EU and private money;
- ✓ The support of the start-up ecosystem is a Government priority supported through a few State organizations like Fund-of-funds and Sofia tech park;
- ✓ Existence of good quality incubation programmes in the country and innovative start-ups which could provide interesting solutions to Veolia;
- ✓ Opportunities for attracting different financial partners in the accelerator apart from Veolia.

TARGETED START-UPS

THE SUPPORT OFFERED

The Accelerator choice

- ✓ The Acceleration programme supports start-ups providing solutions in the utility sector, especially water. In addition, other lines into which Veolia operates – energy and waste could be added.
- ✓ The support will be in the form of mentorship and “on the spot” product/solution validation of start-ups which we envisage with a growth potential;
- ✓ The existence of the big operating companies in Bulgaria (Sofiyska voda and Veolia energy Varna) and also numerous other entities around the globe will give to these start ups perfect “living lab” environment where particular challenges could be addressed and respective solutions to be tested;
- ✓ Sofiyska voda met most of the VC funds operating in Bulgaria, looking for implementing partner. Partnership agreement with Innovation Starter Accelerator was signed at the end of 2020.

INNOVATION STARTER ACCELERATOR



At a glance

- ✓ Innovation Starter Accelerator is a financing acceleration program, with a mandate to provide access to equity and quasi-equity financing to Bulgarian start-up companies with entirely private capital. The accelerator is powered by the team of the first Bulgarian innovation agency – Innovation Starter, which owns the projects Innovation Explorer Forum and Innovation Academy as well as the support of corporate partners.
- ✓ The focus is on key high-priority sectors in the local economy with potential for disruptive and scalable innovation – including healthcare, education, care for the elderly, transport and logistics, frontier digitalization, FMCG, circle economy – and to support their transformation through professional innovation management in high-potential start-up businesses.
- ✓ The end goal is growing these businesses to scale and establishing vertical or horizontal integration with well-established international companies and innovation leaders – in Bulgaria and internationally.
- ✓ www.accelerator.bg

SMART CITIES: WARMER, DIGITAL, CLEANER



POWERED BY:



FIRST JOINT INVESTMENT CALL



Start-up companies in the field of smart cities, digitalization, clean water, district heating can apply for cohort 2021 of the Innovation Starter Acceleration program until the end of February 2021

- ✓ Sofia Water Company, part of Veolia, signed a 5-year memorandum of cooperation with the Innovation Starter Agency in 2020. The company became one of the six long-term partners of the accelerator program until the end of the investment period of the fund manager in 2025.
- ✓ The accelerator is mandated to fund the ideas of entrepreneurs at the earliest pre-seed stage, “validation of MVP ideas (minimum viable product)” who will apply for the third season of innovation acceleration that begins on March 8, 2021.
- ✓ 5 companies were approved for participation at the level of idea or prototype, to which employees of Sofia Water Company, part of Veolia and Innovation Starter Accelerator will provide financial support, acceleration, mentoring and most importantly - validation in a real corporate environment of innovations.

THE WINNER START-UPS



Софийска вода



част от  VEOLIA



INNOVAONE WATER QUALITY

Overview

This team of **high school students** come from Harmanli and participate together with their teacher. Emanuil Manolov teaches English language and Entrepreneurship at "Neofit Rilski" High School in Harmanli. He is founder of the @innovaone: innovations and entrepreneurship club and together with Hristo Hubenov they are the founders of the limited liability company InnovaOne.

The students in the team are:

1. Hristo Hubenov, 12th grade, "Neofit Rilski" High School, Harmanli. He has been accepted to the American University in Bulgaria with full scholarship.
2. Jano Mihailov, 11th grade, "Neofit Rilski" High School, Harmanli.
3. Darko Tachev, 16 years old, 9th grade. "High School of Natural Sciences and Mathematics" Haskovo.

Their idea is for water quality control through sensor technology available to every citizen as well as predictive analyses of potential disruptions.

They also won **several prestigious start-up competitions** after that.

Benefits for SV

The collaboration is still ongoing. A sensor for turbidity measurement was installed at the entrance of DWTP Pancharevo. Predictive analysis is to be conducted.

- ✓ Publicity benefits
- ✓ No real technological benefits yet.



SATGEO

NONREVENUE WATER

Overview

SatGeo is a start-up led by Biliiana Nikolova, an expert with experience in developing technological solutions in the water sector.

With her team of specialists, experts in the field of satellite image processing and engineers who detect accidents, they are developing an innovative technology for detecting leaks on water supply network. **Hidden leaks detection technology** is based on the processing and analysis of **satellite images** from several satellites.

The model aims to reduce non-revenue water losses for water companies, as well as to help solve problems of conservation and protection of water resources in Bulgaria and worldwide.

Benefits for SV

The collaboration is still ongoing.

Sofiyska voda AD has signed a contract for using SatGeo services. We expect them to scale up and perform faster and with larger scope service.

Our benefits include:

- ✓ Water losses have decreased under 40% for 2021;
- ✓ Several large leaks were discovered and repaired.

<https://satgeo.tech/>



Roadmap to net zero emissions in Bulgaria:

Boosting circular economy initiatives in the areas of water management and energy efficiency.

POWERED BY:

Софийска вода



sluim on VEOLIA



Startup Starter

SECOND JOINT INVESTMENT CALL



Roadmap to net zero emissions in Bulgaria: Boosting Circular economy initiatives in the areas of water management and energy efficiency cohort 2022

- ✓ 5 startup companies participated in Cohort 2022.
- ✓ The two winners will receive a share investment of 25,000 euros and the opportunity to test their proposed technology at Sofiyska voda AD.
- ✓ The other three companies are invited to the new edition of "Climate Accelerator". It will provide 8 prizes of 5,000 euros in grant funding, as well as three prizes of 20,000 euros in grant funding for slightly more advanced teams.





Софийска вода



част от  VEOLIA



THE WINNER START-UPS

DECARBONIZER NONREVENUE WATER

Overview

Two engineers from Varna Mihail Simov and Kalin Nikolov, have focused their efforts on **reducing harmful emissions** from internal combustion engines.

They are developing their project with the help of the Technical University - Varna. The project is called "Decarbonizer" - a system for producing gas - oxyhydrogen, which is installed to the internal combustion engine. In sync with the operation of the engine, the decarbonizer produces the required amount of gas, which, fed through the intake system, participates in combustion. As an additional source of energy, hydroxygen leads to a much more complete combustion of the fuel mixture and thus **reduces harmful emissions from the engine and its fuel consumption**.

The first prototype of the project has already been installed on a bus in the municipality of Dalgopol, which in recent years has won several awards for innovative policies. Measurements made before and after the installation of Decarbonizer showed up to 20% reduction in harmful gases, as in smaller vehicles the percentage reaches 30.

It can be applied on **cars, buses, trucks and even ships**.

Benefits for SV

Our benefits will include:

- ✓ Could be applied on Sofiyska voda AD fleet and reduce fuel consumption and emissions.;
- ✓ Fits Veolia Energy targets.



ENTRANCE EXPERT CLIENT RELATIONS

Overview

"Entrance Expert" combines the experience of its creator Martin Dimov, who is an IT specialist specializing in cybersecurity and at the same time - a house manager in a metropolitan building.

He has developed a **platform that digitizes the payment and reporting process in residential buildings.**

The platform also provides an opportunity for **communication and cooperation** on important topics with neighbors.

Martin Dimov creates the platform to facilitate, improve and **automate the process of maintaining condominiums** from the point of view of the house manager, cashier and all neighbors living in one entrance or building.

Benefits for SV

Our benefits will include:

- ✓ Improved client relations and communication;
- ✓ Improved meter reading.
- ✓ <https://vhod.expert>





The EU Framework Programme
for Research and Innovation

HORIZON 2020



*Excellent Science
Competitive Industries
Better Society*

AQUA3S

HORIZON 2020

Overview

Project name: Enhancing Standardisation strategies to integrate innovative technologies for Safety and Security in existing water networks - Aqua3s

Coordinating organization – Center for Research and Technology, Greece

23 participants from 11 countries – Bulgaria, United Kingdom, Ireland, Spain, Greece, Italy, Germany, France, Belgium, Cyprus, Czech Republic
Partners from business, academia, NGOs and governmental bodies

Budget – 5 997 068 EUR, of which 90 125 EUR is allocated to SV

Duration – 01.09.2019 – 31.12.2022

Aqua3S integrates a series of state-of-the-art technological achievements from multidisciplinary fields, namely of the era of sensors technology, IoT, semantic reasoning, high-level analytics, decision support systems, crisis management and situational awareness focusing on water sector.

Benefits for SV

SV has achieved more complex and affordable monitoring of specific areas (surface water sources) for abnormal events. Information processed and transmitted via the aqua3S platform could be used for decision making, effective process management of emergency situations and continual improvement:

- ✓ Refractive index sensor
- ✓ LG Sonic Buoy in Iskar Dam)

<https://www.youtube.com/watch?v=Y-ekHRbSPE8>
<https://aqua3s.eu/>



DIGITAL WATER CITY HORIZON 2020

Overview

Project name: Leading urban water management to its digital future

Coordinating organization – Kompetenzzentrum Wasser Berlin GmbH (KW B)

24 participants from 10 countries – Germany, Denmark, France, Israel, Bulgaria, Italy, Belgium, Spain, Norway, Netherlands
Partners from business, academia, NGOs and governmental bodies

Budget – 4 997 162 EUR, of which 127 147 EUR is allocated to Sofiyska voda AD

Duration – 01.06.2019 – 30.11.2022

The project's main goal is to boost the integrated management of water systems in five major European urban areas, Berlin, Milan, Copenhagen, Paris and Sofia, by leveraging the potential of data and smart digital technologies. DWC will create linkages between the digital and the physical worlds by developing and demonstrating 18 advanced digital solutions to address current and future water-related challenges; namely the protection of human health, the increase of performance and return on investment of water infrastructures and the involvement of citizens in urban water management.

Benefits for SV

In Sofia, the challenge is to increase sewer maintenance efficiency in order to reduce blockages and flooded properties. Therefore, the objectives for Sofia are to optimize future investment through better data availability on combined sewer overflows, as well as to reduce operational costs for sewer cleaning and inspections.

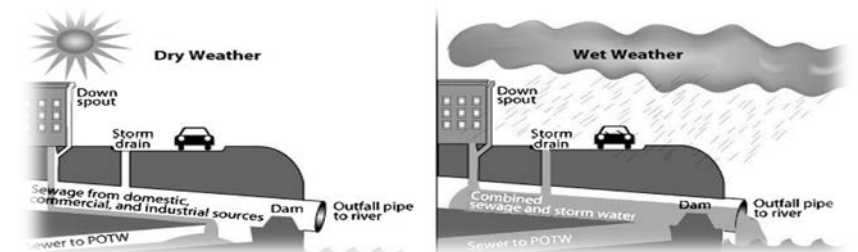
SV will employ the following digital solutions within the project:

- ✓ Low-cost temperature sensors for real-time combined sewer overflow and flood monitoring
- ✓ Smart sewer cleaning system with HD camera and wireless communication

<https://www.youtube.com/watch?v=Hj9c68md-Ew>

<https://www.youtube.com/watch?v=NtMRI-CqxIo>

<https://www.digital-water.city/>





OTHER COLLABORATIONS

CLEAN & CIRCLE

Science and Education for Smart Growth

Overview

Project name: Clean technologies for sustainable environment – waters, waste, energy for circular economy

Coordinating organization – Sofia University "St. Kliment Ohridski"

Partners from business, academia, NGOs and governmental bodies
SV is associated partner.

Budget – 11 833 963 EUR

Duration – 30.03.2018 – 30.11.2023

The innovation activity based on excellence in research and technology is an important priority. Real-time control of processes is planned through automated chemical, physical, technological, microbiological, and molecular methods. Sensors and biosensors will be developed to control and manage water treatment processes.

The project includes an investment part to build and equip the Centre of Competence.

Benefits for SV

SV will provide opportunity for testing different technologies developed throughout the duration of the project. So far SV has tested the green roof technology at the WWTP Kubratovo. The scientific experiment analyzes the extent to which, by landscaping the roof with specially selected vegetation, the amount and rate of runoff may be required and appropriate to reduce the load on the sewer system.

<https://www.youtube.com/watch?v=fR5REXECov8>

<https://www.clean-circle.eu/en/>



SENSATO

Biodiversity and bees

Overview

Bee Smart ₹ is a fully integrated beehive monitoring system that supports the daily work of beekeepers.

This sensor station for remote monitoring allows obtaining critical data for a bee colony without physical inspection.

Bee Smart ₹ reduces physical inspections of hives, helps to plan actions more efficiently and increase production through timely care and unprecedented information about the processes in the colony during the various stages of development.



Benefits for SV

SV will contribute to the sustainable development goals, as well as show public image of company, who cares for the environment.

<https://pollenity.com/>



GRIDMETRICS

Energy efficiency & optimization

Overview

GridMetrics is optimizing industrial processes through Digital Twins and Machine Learning models.

Sofiyska voda uses their solution in optimizing the working schedule of its potable water pumping stations.



Benefits for SV

- ✓ SV will reduce its consumption of electricity for potable water pumping stations
- ✓ The pumps working schedule will be optimized following the lowest electricity prices on Bulgarian energy exchange

<https://gridmetrics.co/>



IN CONCLUSION



OUR AMBITION FOR DEVELOPMENT THROUGH INNOVATION



CLIENTS



EMPLOYEES



PLANET



SOCIETY



SHAREHOLDERS

How to support green start-ups in the water service sector for delivery of innovations?

- ✓ Test technology before investing in it;
- ✓ Exchange experience among partners;
- ✓ Always keep an eye on future possibilities for innovation.