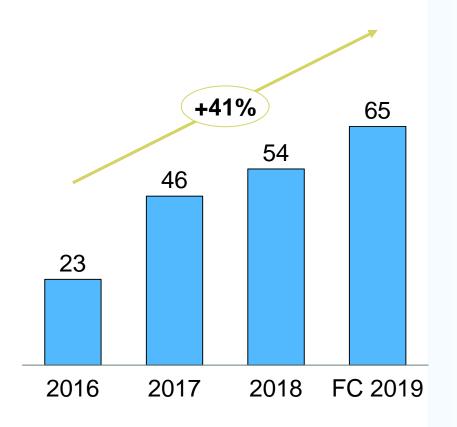


Tech-Day 2016: Delivering on our promises











GF Piping Systems

Key Market Trends

Megatrends benefiting our business



Water scarcity



Aging infrastructure



Urbanization



Aging Population



Climate Change



Water **Treatment**



Water return

Water intake

Waste Water Treatment

Utilities

Leak-free and safe delivery of water and gas outside buildings



Industry

Energy-efficient process water solutions for various industries



Building Technology

Hygienic water for private homes and commercial buildings



Our solutions support UN Sustainable Development Goals (SDG)















9 INDUSTRY, INNOVATION AND INFRASTRUCTURE









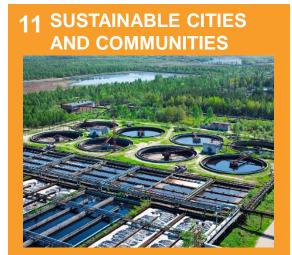


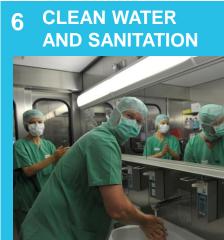


















The important trends affecting our customers needs



Digitalization / Industry 4.0



Environmental regulations



Skilled labor shortage



Peace of mind



Increased efficiency





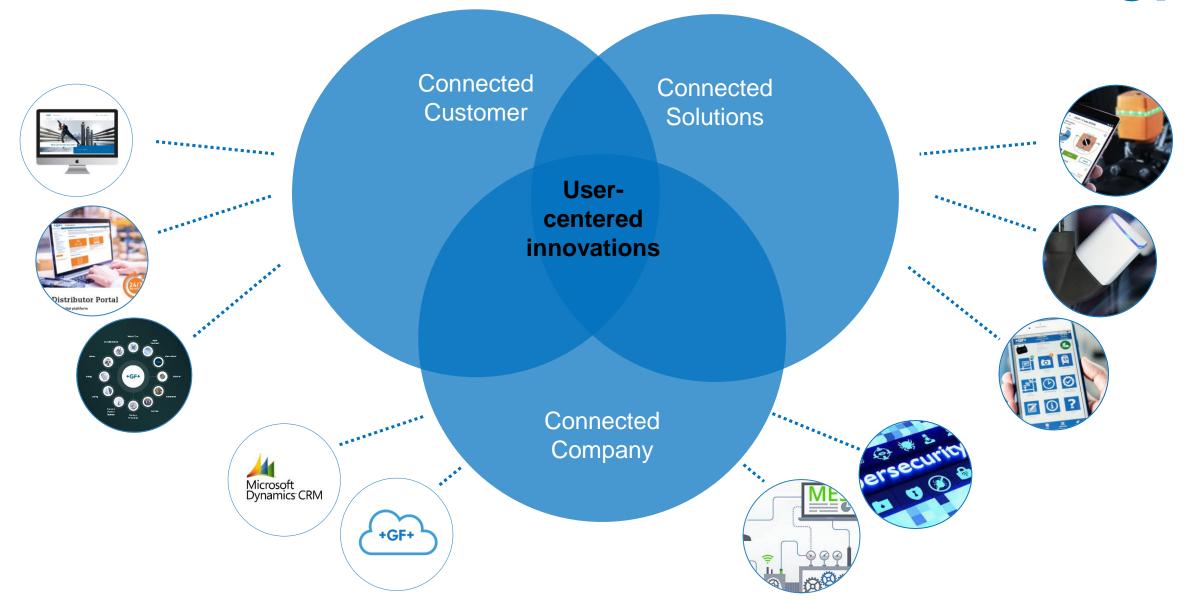
GF Piping Systems

How we are addressing these market trends



Digitalization plays a key role for innovation





Digital solutions as differentiators



Higher Value Solutions...

Digital complements



High value core offering



Services



... addressing our clients most pressing needs

Environmental regulations / Peace of mind

Hycleen AS



Skilled labor shortage

ProSite



Increased efficiency

Track & Trace



Digitalization / Industry 4.0

Process Automation





GF Piping Systems

Hycleen Automation Systems

Hycleen Automation System: A Step Change in Water Hygiene



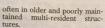
Legionella outbreaks on the rise

TOP STORIES

- Disease bacteria has increased 249% in 11 years
- One in 10 people who catch it will die, feds say

During an 11-year run, the bacteria that causes Legionnaires' across the country and put nearin the Bronx, and the recent reveral investigators have found.

As alarming as those findings crobes. seem, public health investiga-Control and Prevention addithat cause Legionnaires' dis- thwarting future outbreaks. ease, dies of the disease, which is a form of pneumonia.



The new federal data arrives on the heels of last summer's disease increased 249 percent outbreak that killed 13 people ly half the people who contract- elations that cooling systems in ed it in intensive care units, fed-several Long Island school districts were colonized by the mi-

State health officials earlier tors at the Centers for Disease this month mandated routine testing of air conditioning and tionally found that at least 1 in water systems at schools, hospievery 10 infected with Legionel- tals, dialysis centers and other la pneumophila, the bacteria sensitive sites in hopes of

Dr. Pascal Imperato, founding dean of the School of Public Investigators also found that Health at SUNY Downstate cant swath of the population of the country blacks were more likely to be in- Medical Center in Brooklyn, has been exposed, but most are fected than whites, a disparity said while the new CDC data probably unaware of it. attributed to housing differenc- are eve-opening, they're consiswith blacks living more tent with decades of statistics.



A large cluster of Legionella pneumophila bacteria

"We have known for quite some time that about 20 percent of the general population will have antibodies to this organism," said Imperato, who was not connected with the CDC research. He called the bacteria "ubiquitous."

Imperato, a former New York City health commissioner and longtime Manhasset resident, said the presence of antibodies in the blood suggests a signifi-

those with impaired immunity are more likely than the young and robust to become infected. He said the bacteria thrive in air conditioning systems and cooling towers.

Cooling towers are the evap-orative condensers or fluid coolers that are part of a recirculated water system.

"Even though these structures may be cleaned very well, the organism can reappear very soon afterward. And it's not a period of year or two, it can be a matter of months," Imperato said. Legionella bacteria also have an affinity for hot tubs, hot water tanks and decorative foun-

Dr. Gayle Langley, of the CDC, headed investigators who found that not only has incidence risen, the bacteria are more prevalent in some parts

New York, the researchers Legionella bacteria can cause infection nationwide. The 249 infection when inhaled on drop- percent jump in disease preva-

2011 and 2013, half the people included as part of the research required admission to hospital intensive care units. All told, there were 1,426 cases from Jan. 1, 2011, to Dec. 31, 2013.

Langley and colleagues exam ined 10 so-called catchment sites, to garner a representative sampling of the United States.

New York State health officials estimate the bacteria infect 200 to 800 people a year.

Mary Ellen Laurain, spokeswoman for the Nassau County Department of Health, said there was an average of 37 cases for each of the three years from 2012 to 2014. Drilling deeper, the county has had 47 cases through Sept. 30, the last month for complete reports. For the same period last year - Jan. 1 through Sept. 30 - there were

The Suffolk County Departfound, has the highest rates of ment of Health did not respond to Newsday's request for statis-

Stricter drinking water regulations



#DrinkingWaterEU

Water management programs are now an industry standard for large **buildings in the United States**

CDC has a free toolkit with practical guidance on how to tailor a water management program for your building and needs.



U.S. Department of **Health and Human Services** Centers for Disease Control and Prevention



- Simple system set up
- Simple to install and commission
- Simple to operate
- Prevention of biofilm formation and Legionella infestation
- Energy consumption savings





Hycleen Automation System taps into attractive markets





Hospitals & Nursing

More than 100'000 hospitals and nursing homes globally¹

+5% p.a



Global health care spending increases from 7tn USD in 2015 to 10tn USD in 20222



Hotels

~200'000 large scale hotels offering 17.5 m² guest rooms around the globe³

+11% p.a



Global hotel investment increased from 30bn USD in 2011 to 67bn USD in 2019⁴



Marine

386 ocean cruise ships on sea⁵, ~200 superyachts sold in 2018⁶

+5% p.a



68bn USD investment in 114 ocean cruise ships until 2023⁵

Showcase GF Piping Systems





Jens Frisenborg
Head of Business Unit Industry & Utility



Daniel FriedrichHead of BU Building Technologies, Germany



Sandra Schiller
Head of Global Product Management, Industry



Intelligent solutions for the safe supply and the automation of drinking water installations



Innovations enabling the monitoring, control and maintenance of valves in industrial systems

