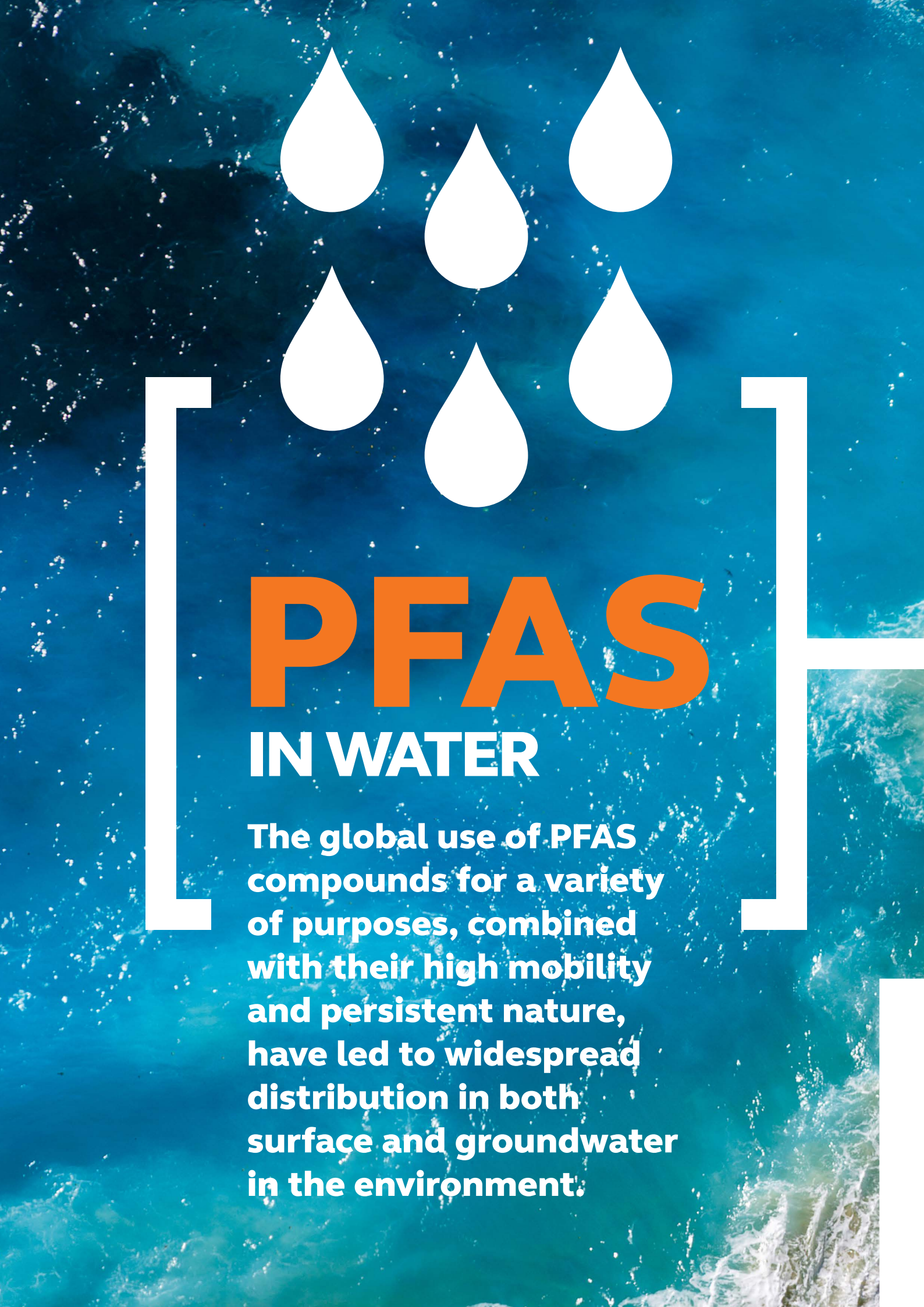

ARCADIS
Design & Consultancy
for natural and
built assets
WATER
ARCADIS PFAS SOLUTIONS



PFAS IN WATER

The global use of PFAS compounds for a variety of purposes, combined with their high mobility and persistent nature, have led to widespread distribution in both surface and groundwater in the environment.

PFAS impacts to surface and groundwater may occur as a result of the historic, and in some cases ongoing, use of PFAS-containing products, such as Aqueous Film Forming Foam (AFFF) used for both firefighting and fire training purposes. Sites where PFAS-containing AFFF was used or stored represent a high percentage of known PFAS-impacted sites.

Other potential sources of PFAS impact to surface and groundwater include leachate from landfills, water treatment plant wastes, runoff from urban catchments, and releases from industrial areas. Water is the key transport pathway for PFAS to migrate from source areas to areas where human health or ecological receptors may be impacted.

H2O

OUR SOLUTIONS

Arcadis has significant global experience in the treatment of PFAS contaminated surface and groundwater.

Our team of experts has designed and installed approximately 12 large-scale water treatment systems in both the U.S. and Germany using a variety of technologies.

Potential water treatment options that Arcadis can employ include:

SONOLYSIS™

Sonolysis™ is an innovative remediation technique for PFAS-impacted water or liquid waste, which Arcadis is currently developing with an international team of scientists. The process uses ultrasonic waves to break down PFAS compounds through the creation of microbubbles in a fluid. These microbubbles oscillate and collapse, releasing significant energy, which can then be used to destroy a wide range of PFAS compounds.

Arcadis is working to further develop and eventually bring this technology to market as a viable commercial remedial option for PFAS contamination in water.

OZOFRACTIONATION

Developed by Evocra in partnership with Arcadis, the process of ozofractionation can remove a large range of PFAS compounds from water and is effective in the presence of a variety of other contaminants. By exploiting the tendency of PFAS to partition to the gas-liquid interface, ozofractionation attracts PFAS compounds and concentrates them in a resultant foam. This foam is then separated from the treated water and subjected to secondary treatment to further concentrate the PFAS contaminants. The ozofractionation process can achieve greater than 99.9% removal of PFAS, significantly reducing the volume of contaminated water.

ADSORPTION

Adsorption techniques work by using an adsorptive media, such as granular activated carbon (GAC) or ion exchange resins (AX), to attract and capture PFAS compounds from water onto the surface of the adsorptive media. Adsorption technologies provide a relatively quick and cost-effective remedial option, representing a lower-risk treatment solution. However, a selection of the most appropriate sorbents require consideration of a wide range of site-specific factors. Wastes generated by the treatment process also may require separate management and remediation.

THE ARCADIS STORY

Arcadis has a long history of management and remediation of PFAS impacts, starting over 14 years ago with our first projects in Belgium, Germany and the UK. Arcadis now has more than 75 projects in our portfolio, representing over 300 individual sites in 12 countries. Our expert team consists of over 100 innovators, including chemists, toxicologists, hydrogeologists, geologists, risk assessors and remediation engineers.

Arcadis is the leading global Design & Consultancy firm for natural and built assets, tracing its roots back to the Association for Wasteland Redevelopment in the Netherlands in 1888. Applying our deep market sector insights and collective design, consultancy, engineering, project and management services, we work to deliver exceptional and sustainable outcomes.

With over 27,000 people in over 70 countries and a generated €3.3 billion in revenue, Arcadis' rich history lends the perfect foundation for the innovative solutions we have now become renowned for.

27,000

PEOPLE

WE WORK TO DELIVER EXCEPTIONAL & SUSTAINABLE OUTCOMES

70
COUNTRIES

€3.3
BILLION IN REVENUE

MINIMISE YOUR IMPACT TODAY

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