



STORK

A Fluor Company

IMPROVING ASSET PERFORMANCE

CLIENT VALUE DRIVEN

Stork, a Fluor company, is a value-driven provider of fully integrated operations, maintenance, modifications and asset integrity solutions.

With a total headcount globally of 18,000 employees in over 100 countries, we serve more than 4,000 clients across 6 continents.

By setting new standards of excellence in various sectors, we aim to be the industry reference. Every day, everywhere.



READY FOR INDUSTRY 4.0

The ongoing convergence in information technology with operational technology is opening up massive opportunities at rapidly diminishing costs. And Stork is ready to help clients capitalize on these opportunities.

For example, **Predictive Maintenance** is a powerful tool to help better understand what maintenance is needed and when (or even no maintenance at all!). In a recent case, Stork applied data analytics to historical data from both sensors and maintenance logbooks related to a specific furnace. This analysis greatly enhanced the understanding of furnace fouling, allowing us to eliminate three cleaning activities per year and instead focus on the real areas of concern. Apart from **reducing annual maintenance costs** with several million dollars, it also reduced the furnace downtime by two days per year, delivering **enhanced production revenues**.

Stork is able to advise clients on which sensors to apply why and where, how to connect them, how to analyze the signals and draw the right conclusions, to keep assets running optimally. We can also leverage the digital technologies we have developed or 3rd party technologies to optimize the performance of the assets.

Technologies such as big data, analytics, robotics and the industrial Internet-of-Things are being deployed within Stork to enhance the quality, effectiveness and cost-efficiency of our client-based solutions.

Stork's solution centers and services centers at client sites are all digitally connected to optimally share knowledge with one another with a focus on continuously improving client's asset performance.





INTEGRATED SOLUTIONS

The client's asset lies at the heart of everything we do. Supported by our core values, Stork's services and solutions strengthen the competitive position of our clients. Safely, efficiently and sustainably.

Stork keeps assets running at peak performance by supporting all phases of the asset life cycle:

- **Engineering & Construction** of small cap or brownfield projects.
- **Operations & Maintenance.**
- **Turnarounds**, outages, shutdowns, modifications and other project work with a fixed start- and end-date.
- **Relocation & decommissioning** at the end of the asset life cycle.

Next to engineering & construction of the physical asset, we can also make sure that the new asset is totally ready for start-up. **New Asset Readiness** encompasses the whole organization, systems, procedures, spare parts and everything else to make clients' facility operationally ready.

We clearly distinguish ourselves with our **Asset Performance Improvement** solutions for existing assets. Backed by our premium portfolio of professional solutions and proven best practices in asset integrity, we continuously strive to improve asset performance, for example by applying advanced data analytics to enable predictive maintenance. Thereby helping clients to maximize the value of their assets.

With our **Asset Management** solution we ensure the plant operates consistently, safely and complies to ISO 55000. We manage all resources, equipment, materials and tools related to each phase of the asset life cycle. This allows our clients to focus on their core business.

These solutions are covered by Stork's unrivalled breadth and depth of capabilities related to:

- **Equipment** – rotating or static - and range from in-shop fabrication of specialty pumps and deaerators, to onsite equipment repair.
- **Mechanical & Piping** – ranging from in-shop spool manufacturing - steel or plastic - to onsite welding, heat treatment, bolting & torqueing and the like.
- **Electrical & Instrumentation** – varying from in-shop manufacturing to onsite cable pulling, calibration and automation
- **Scaffolding, Insulation & Painting** – also called Fabric Maintenance - starting with safe access and the right surface preparation to the application of coating, passive fire protection, insulation and cladding...
- **Inspection**, of any of the above – ranging from periodic NDT to continuous corrosion & condition monitoring.

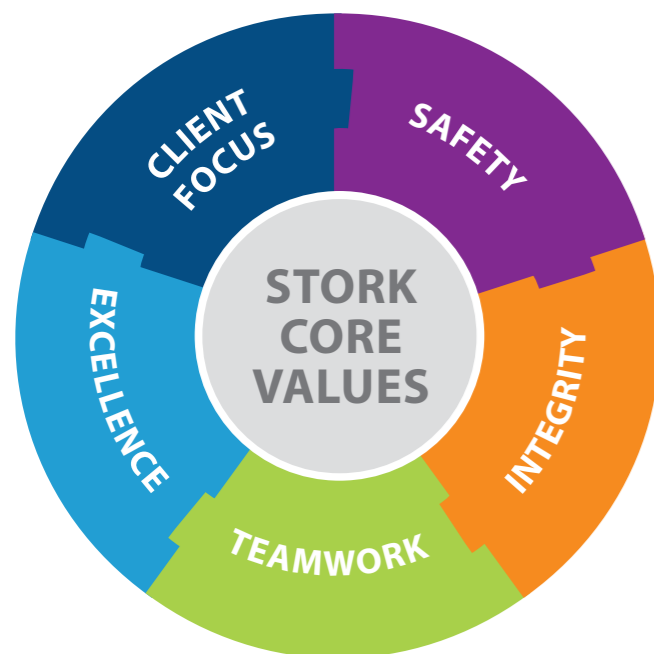
We deliver tangible benefits for all our clients:

- Improving safety
- Increasing efficiency
- Extending asset life time
- Reducing asset life cycle costs
- Minimizing downtime
- Reducing emissions
- Increasing Return on Investment





WHAT WE STAND FOR



HIGHEST QUALITY OF SERVICE

We are committed to keeping our clients' assets running safely, efficiently and at peak performance. We deliver to the highest standards. Safety is a core value and we strive for excellence in everything we do. We lead by example, aiming to be the industry reference. Every day. Everywhere.

Our values are:

Safety

We hold sacred the current and future well-being of people – colleagues, clients and communities in which we work and live.

Integrity

We live by the highest ethical standards. Our actions are consistent with our values and principles.

Teamwork

As one Stork, we treat all people with dignity, respect each other's perspective and share knowledge and resources to achieve excellence, deliver value and grow individually and collectively.

Excellence

We strive to deliver quality fit-for-purpose solutions at unmatched value.

Client focus

We place our client at the center of what we do. We are flexible, cost efficient, pro-active and provide smart solutions for now and the future. We continually challenge ourselves and improve our service delivery.



ALWAYS INNOVATING



INNOVATION @ STORK

Stork is continuously challenging itself to come up with innovative solutions to improve asset performance, minimize costs, reduce risk and enhance safety.

This could be:

- finding novel coating solutions such as nano-paints, electricity generating paints, foils, one-coat systems
- trying out new inspection techniques, to spot corrosion under insulation, corrosion under supports
- testing out new sensors to detect vibration, acceleration, moisture
- reviewing new digital connection methods like LiFi, LoRa, NFC
- assessing new physical connection methods such as specialty welding, swaging, magnets
- developing new heat treatment equipment
- investigating new repair solutions
- exploring new spare part manufacturing techniques like scan-reengineer-fabricate, 3D printing of parts & molds
- investing in manufacturing of specialty equipment, think of specialty burners, deaerators, waste incinerators, gears
- developing innovative internal cleaning techniques: online desanding, emulsifying, dewaxing
- appraising new surface preparation techniques in the area of ice blasting, sponge blasting, induction stripping
- co-developing new access techniques like composite scaffolding, robots, drones
- checking out new wearable solutions: exo-skeletons, head-mounted communication gear, stress sensors
- gauging the application of new visualization techniques (Virtual Reality, Augmented Reality, Mixed Reality)
- creating & maintaining digital plants

and many more areas.

Help customers move from planned to preventive to predictive and ultimately prescriptive maintenance!

While we welcome all innovations, Stork's innovation strategy is especially focused on data & robotics. These two areas are most promising to enhance our overall effectiveness and efficiency and thereby the value we can deliver to clients.

- Effectiveness: being able to assess the asset health thanks to big data analytics applied to data collected from sensors and other sources (e.g. maintenance logs), allows us pinpoint required maintenance activities (predictive maintenance). This avoids us doing unnecessary maintenance, as well as being confronted with unexpected shutdowns.
- Efficiency: having the latest data available via tablets and other wearables in the field, avoids us working with outdated / missing information and allows us to report real-time progress. Similarly robotic solutions (incl. drones) can greatly enhance execution speed, especially for work that needs to be done at heights and in confined spaces.

No matter where the innovation comes from, at Stork we pride ourselves for finding the best solution to the client challenge. We assume that there is always a better way and are actively looking to find and apply them. We look forward to solving your challenges as well!

Leverage Stork's Knowledge OnLine system to transfer innovations from one corner of the Stork world to another!

Apply robotics to efficiently and safely capture data and execute other scopes in often hard-to-reach places!

SAFETY IS A CORE VALUE



Safety is not a priority at Stork, it's our first core value. Whatever priorities we have each day, taking care of each other's safety, health and protecting the environment is central to how we do things.

HSE: AN EVER EVOLVING JOURNEY

At Stork we've been working on HSE since we started our business, over 150 years ago. Our safety value hasn't changed throughout that time. Our goals are simple: no harm to people, property or the environment.

HSE is part of our DNA here. We work safe or we don't work. Ten years ago, REACH was born with the aim of 'improving HSEQ Together'. There have been a number of evolutions along the way and, of course, there have been significant changes within our global business. Today, Stork employ 18,000 people worldwide and we are now proud to be part of the Fluor family.

REACH: AN INDUSTRY REFERENCE

REACH has built solid HSE foundations for Stork; an industry reference 10 years in the making. However, to remain an industry reference you cannot stand still and foundations are made to be built upon. We believe now is the right time to make the next evolutionary step in our HSE journey:

- To build on the successes we have achieved
- To (re)emphasise our intended HSE behaviour
- To re-state our clear ambitions for HSE at Stork

- To take a step further in engaging everyone – employees, stakeholders, clients, communities.

We are calling this evolution: **Safer Together**

SAFER TOGETHER: IT'S WHO WE ARE AT STORK

Safer Together is more than a brand or a programme - it's our identity. It's who we are at Stork. Employee-owned and leadership-enabled; Safer Together is how we think, communicate and act at Stork. Through open channels of communication, trust and respect, our exemplary HSE culture and attitude is demonstrated by:

- *Looking out for ourselves and each other*
- *Speaking up and listening to others*
- *Identifying hazards and taking action*
- *Always following our Life-Saving Rules*
- *Never cutting corners with HSE*
- *Recognising our achievements and successes*

Everyone connected with Stork is part of one global family - employees, stakeholders, clients and communities. We believe that safety is a team effort and that by working together as a team, we are Safer Together.



We care · We support · We protect



"The advantage of using Stork was the effectiveness of their work, the speed with which the work was done and the professionalism in managing the risks involved. The desired result was really achieved."

Alfonso Núñez
Director of preparation and implementation,
Ecopetrol S.A., Colombia

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