

FUTURE-PROOF PROCESS EQUIPMENT PLANNING & ERECTION

FOR THE CHEMICAL & PROCESS INDUSTRIES

WITH EXPERT STATEMENTS ON:

- Permit-ready process-engineering methods
- Flexibility vs. safety for high-automation levels
- Resource-efficiency 4.0 and front-end efficiency design
- Project management in an environment of rapid change



**THE FUTURE CALLS
EXPERTS NEEDED**



WHAT ARE YOUR AREAS OF RESPONSIBILITY?

As the BU Engineering, we generate integrated, customized, and forward-looking solutions ranging from planning, permitting, and reconfiguring existing process equipment, and erecting new plants. More than 140 experts are working hand-in-hand to this end across a range of trades.

WHAT ARE SOME OF THE CHALLENGES CONFRONTING YOUR CUSTOMERS?

In an effort to stand up to the ever-growing cost and competitive pressures, companies focus on their core competencies as a way to secure their future. Our customers are also struggling with the on-going deficit of trained workers and low staffing levels.

WHAT IMPACT DOES THIS HAVE ON CONTRACT AWARDS?

Many legacy installations are showing their age and need to be overhauled. But approvals for the required resources are increasingly getting pushed out, whereas commissioning dates are non-negotiable. This increases deadline pressure. Effective planning concepts are needed to facilitate flexible responses.

HOW DO YOU TACKLE THESE REQUIREMENTS?

We start by analyzing the customer with his complex requirements. We can only develop solutions to address equipment life-cycle issues that show promise if we understand our customers' needs.

“AN INVESTMENT INTO GOOD PLANNING AND LISTENING IS STILL THE KEY TO GETTING THE BEST RESULTS”

Dr. Mickael Planasch, Head of Business Unit – Engineering

This involves tapping into a broad range of expertise from the fields of process equipment planning, construction & operations, safety, environment, and IT security. Integrating these services reduces complexity for customers. Our capabilities are supported by the digitalization of our software tools.

WHAT ARE THE LATEST TRENDS YOU ARE CURRENTLY DEALING WITH?

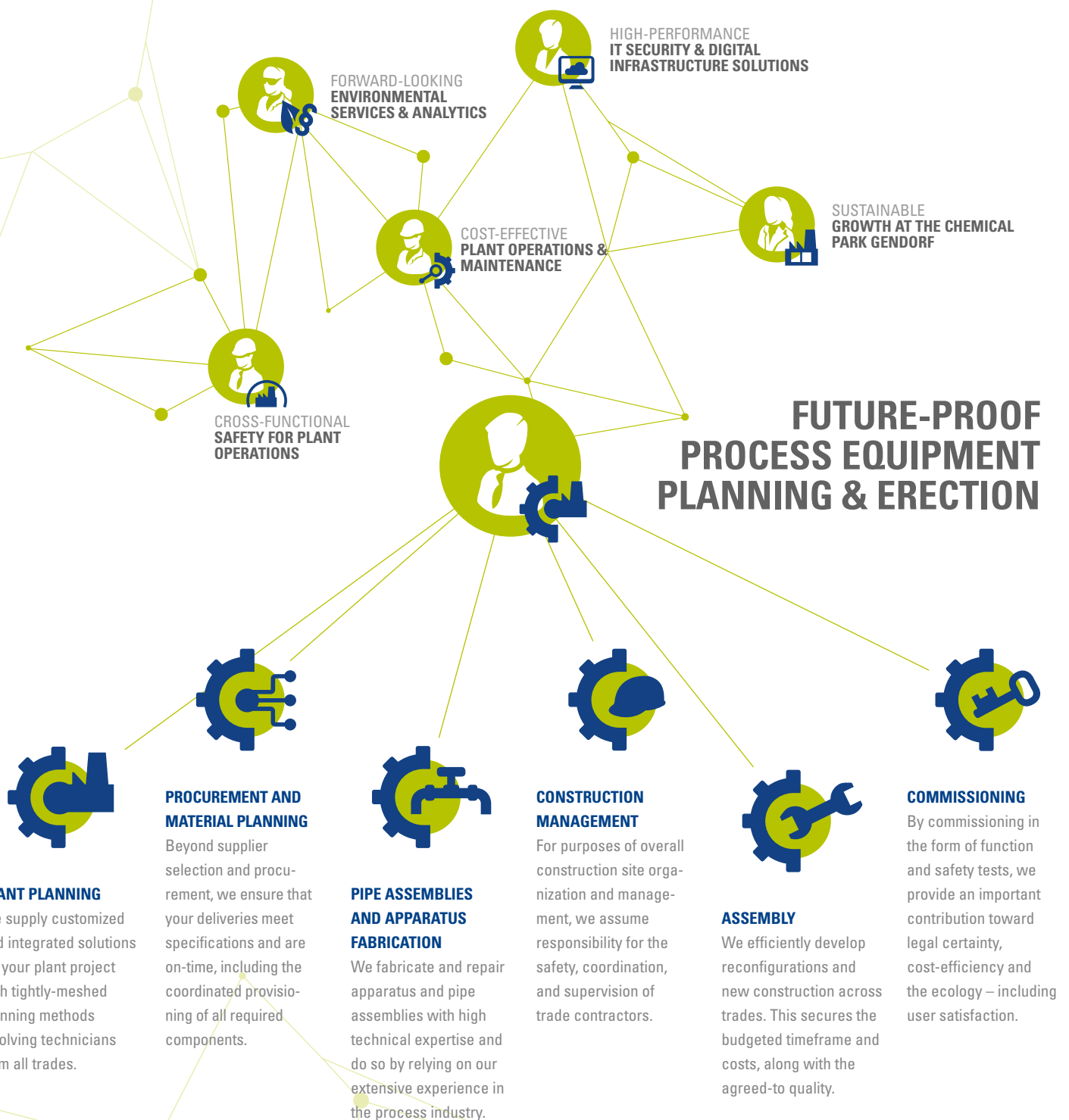
Future-proof process equipment planning and erection must address issues such as process efficiencies and modular installations. We see related challenges in legacy installations, among other things. How can we extract data from these plants and leverage the existing data pool to generate greater efficiencies for the entire plant lifecycle – this thought is ever-present on our minds.

WHAT SETS INFRASERV GENDORF APART?

Our specialists from six areas of expertise always give us the ability to keep our eye on the big picture, and also on future developments. It also allows us to service the entire lifecycle of our customers from a single source. At InfraServ this means that planning blends into service and efficient operations, while always keeping in mind the final outcome: the best results for our customers.

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INTEGRATED SOLUTIONS FOR THE CHEMICAL & PROCESS INDUSTRY



SUDDENLY CHEMICAL COMPANY

PERMIT-READY PROCESS ENGINEERING METHODS

WHAT DO YOU MEAN BY PERMIT-READY METHODS?

Process engineering methods can change for reconfiguration or new construction projects, for instance based on new technological developments, new raw materials, or statutory mandates. The new processes must continue to meet all regulatory framework conditions, small and mid-sized businesses in particular frequently do not have the capacity or the know-how to meet these challenges on all fronts.

WHAT DOES THIS MEAN SPECIFICALLY?

A technological change or exceeding volume thresholds for certain input substances can have the effect that a company that had previously been assigned to the electrical industry is suddenly subject to regulations for the chemical industry.

WHAT ROLE DOES THIS PLAY FOR PROCESS DEVELOPMENT?

Process developments need to be transitioned into installations and production as quickly as possible without losing sight of regulations. Previously chosen development paths may turn out to be dead ends if the implementation results in excessively high permitting barriers.

WHAT IS YOUR APPROACH IN THIS CASE?

Experts with permitting and compliance backgrounds already accompany the process-engineering development work during the early phases of a planning project. As a result, every planning step is thoroughly checked for its impact on future permitting processes and its conformity with applicable compliance guidelines.

WHAT DOES THIS MEAN FOR CUSTOMERS?

During subsequent planning phases, they are protected against surprises when specific permit documents need to be prepared. But most importantly, we supply smart strategies that achieve rapid startups in response to high time-to-market requirements without compromising legal certainty.



“IMPLEMENTING HIGH TIME-TO-MARKET REQUIREMENTS WITH SMART PERMITTING STRATEGIES IS A CENTRAL ELEMENT OF OUR APPROACH”

Birgit Seeliger, Fire Protection Planning Specialist

READY TO TACKLE THE FUTURE WITH RESOURCE EFFICIENCY 4.0

TRENDY PUNCHLINE OR GENUINE VALUE-ADDED – WHAT DO THESE EXPRESSIONS ACTUALLY MEAN?

Given increasing cost and competitive pressures as a background, process equipment operators are finding targeted measures for efficiency improvements unavoidable. But the path to better profitability and technical efficiency invariably calls for intelligent data concepts that bring together the know-how from the entire lifecycle of an installation – at all levels. This is what we mean by resource efficiency 4.0: a concept that supports operating mode analyses and automated optimization, while at the same time also supplying the required projections for maintenance in order to prevent unplanned downtime.

THAT SOUNDS PRETTY COMPLEX TO START.

That is exactly what it ultimately cannot be and is also what “front-end efficiency” means in this case. The objective is to keep the data pool to the essential minimum, based on which key efficiency criteria and compliance criteria – e.g. ISO-50001 – can be identified, planned, and optimized from the get-go.

DOES THIS HAVE AN EFFECT ON PLAN- NING AND PROJECT PROCESSES?

Project methods and tools of course need to keep pace with such requirements. The ability for agile project management then increasingly becomes a crucial factor for the planning and erection process, including – and in particular – given increasing dynamics and rapidly changing framework conditions as a background. But



“THE PATH TO BETTER PROFITABILITY AND
TECHNICAL EFFICIENCY INVARIABLY CALLS FOR
INTELLIGENT DATA CONCEPTS”

Stefan Authier, Head of Business Development

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flexible and configurable interfaces for planning tools and the corresponding IT infrastructure are also key success factors.

DOES THIS ONLY WORK FOR NEW INSTALLATIONS, OR CAN OLDER INSTALLATIONS ALSO BE OPTIMIZED?

There is no clear-cut answer here – this truly requires a case-by-case assessment: what measures can make financial sense, and where are new concepts more likely to

gain traction. But even legacy assets can be a good foundation for securing the future, for instance by fully digitalizing available installation data with laser scanners and intelligently reading-in paper-based documentation. Such a measure becomes an ideal platform for carrying a subsequent upgrade or modernization project through all phases and creates an outstanding basis for data analysis for optimized operations.

FLEXIBILITY VS. SAFETY: HIGH AUTOMATION LEVELS AND CHALLENGES FOR THE FUTURE

„PLANT SAFETY IS SYNONYMOUS WITH A SECURE FUTURE FOR OPERATORS AND THEIR INVESTMENTS“

Otto Wimmer, Head of Process Automation



IN YOUR OPINION, HOW CRITICAL ARE “INTELLIGENT INSTALLATIONS OF THE FUTURE” IN TERMS OF SAFETY ASPECTS?

Intelligent at the same time means also being flexible and adaptable. There will be ever more options for networking plants in their operating modes but also in the logistics chain with a wide range of external data. As a rule, this means that the competing forces of safety and flexibility need to be kept in balance and developed further.

WHAT IS AN EXAMPLE FOR THIS?

Anyone who wants to be frontrunner in terms of resource efficiency needs to take a chance on high levels of automation and broad-based data links to external influence parameters. This entails risks. Also: the closer one gets to the energetic and operational optimum, the smaller the margins for error become. This is precisely the point of conflict. Plant safety is synonymous with a secure future for both customers and also their investors.

HOW DO YOU PROPOSE TO TACKLE THIS CONFLICT?

This can only be successfully accomplished over the long-term with the opportunities provided by digitalization and by continuing to explore what is currently labeled as “functional safety management”.

WHAT DOES “FUNCTIONAL SAFETY MANAGEMENT” MEAN TO YOU?

Functional safety management generally describes how operations managers ensure that safety objectives are achieved with process control technology. This includes processes, accountabilities and documentation for the entire lifecycle – from risk analysis through decommissioning.

WHAT DO YOU THEN MEAN BY CONTINUING TO EXPLORE FUNCTIONAL SAFETY MANAGEMENT?

With respect to leading-edge data analyses, we will see tight meshing of new software systems with the process equipment level, as well as data streams that cut across many system boundaries. IT security and functional safety will need to be forged into an end-to-end concept.

PROACTIVE PROJECT MANAGEMENT

FOR CUSTOMERS IN AN ENVIRONMENT OF RAPID CHANGE

HOW HAVE REQUIREMENTS CHANGED?

At almost all levels in the planning and erection process, our employees have to deal with a steadily growing range of topics. Technical know-how alone is now no longer even close to being sufficient. The ability to confidently handle IT infrastructure, management skills, and taking the regulatory environment into account all play a role for job functions. The digital planning environment supports new forms of collaboration with the data environment of customers. Two-way access, cloud solutions for planning platforms – all these need to be structured individually for each project. Apparatus engineering knowledge by itself is no longer good enough. In addition, closely-meshed links with the customer's plant operations will need to be established in the future.

An even greater focus will be placed on having a handle on optimized operations already during the planning phase.

WHAT DOES THIS MEAN FOR THE COLLABORATION?

The standards for subject-matter expertise are growing due to the growing number of solutions to problems and monitoring tasks, along with contract scope. Solution to problems cannot be standardized, the causes can be varied. The ability for considered and self-directed actions are becoming essential.

AND WHAT ABOUT THE CUSTOMER'S SIDE?

Our customers are expected to confront these increasingly complex plant planning and erection contexts with an ever-dwindling staff. We see the ability to actively



„WE SEE THE ABILITY TO ACTIVELY CONFRONT CHANGE AS KEY QUALIFICATION FOR THE FUTURE“

Dr. Stefanie Simson, Projektleiterin Verfahrenstechnik

address, and to bundle, this complexity on the project-implementation side as a key qualification for the future.

HOW DO YOU MAKE THIS PROACTIVE PROJECT MANAGEMENT HAPPEN?

Project managers need to focus on the essentials and to actively manage projects. The organizational structure supports this with highly-differentiated tools and processes and keeps developing both.

Understanding and reducing complexity for customers cannot be treated as an afterthought but needs to be confronted with a clear view of what lies ahead.

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THE FUTURE CALLS EXPERTS NEEDED



WHO WE ARE

As specialists for integrated solutions surrounding plant lifecycle and as the operator of the Chemical Park Gendorf, InfraServ Gendorf is among the most experienced expert enterprises in the chemical and process industry. More than 1,100 employees and specialists from six areas of expertise work here across the trades on technologies and solutions for today's and tomorrow's customer challenges.

WHAT DRIVES US

The people at InfraServ Gendorf are driven by a common bond that is deeply embedded in our DNA: the best result for our customers. We achieve this by allowing room for the professional passions of our employees, by fostering their special expertise while at the same time networking with other disciplines on a routine basis. This ultimately results in integrated solutions that stand up to the test of time because they keep the big picture in mind.

WHAT WE BELIEVE IN

We know that we have a special responsibility as a company in the chemical industry – both for our own business and employees, but also for our neighbors and the environment and the region we live in. We confront this responsibility on a daily basis with exceptional personal dedication – not only because it is ingrained in our own belief system, but also as an expression of our commitment to corporate social responsibility (CSR).

KONTAKT

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