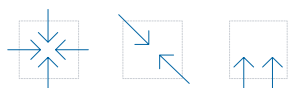


# Consultancy | Delivery | Results

Engineering the future today



7 In today's global process industries there is no room for outmoded practices or cherished traditions. Results count.



# ABB

Worldwide experience delivers world class performance In today's global process industries there is no room for outmoded practices or cherished traditions. Results count.

"We have found ABB Engineering Services to be a company offering very high quality services in a timely, cost effective and professional manner and we look forward to a long term relationship."

EHS manager, BP



→ **Companies in the process industries need to deliver results. The driving forces are customer satisfaction, profitability, performance, competitiveness and regulation. For many companies there is a fine line between success and failure. Staying on the right side of this line takes experience, knowledge and determination - and sometimes expert assistance.**

ABB Engineering Services understands these challenges. As part of the global ABB group we can draw on business and technical experience working with customers worldwide in the chemical, petrochemical, oil and gas, pharmaceutical, manufacturing and consumer sectors to meet your particular manufacturing or asset management challenges.

We are passionate about the service we provide and are totally committed to giving genuine value for money every step of the way.

#### **Unequalled knowledge and experience**

Whether we're delivering expert consultancy,

advice, project management, engineering design services, project services or ongoing operation and maintenance support, our innovative approach and familiarity with the best practice ensures a rapid and effective response. This allows us to add unique value to all stages of an assignment, particularly the early definition.

Whatever the challenge, the chances are we've come across it before - designing and installing new plant and achieving a world class standard quickly, squeezing the most from older established facilities without major new investment, or adapting to new market and regulatory conditions. The demands vary from industry to industry and from country to country. They have more in common than is often acknowledged.

ABB Engineering Services is focused on delivering results. Our strengths can be found in our people and their world-class experience, gained from providing the most appropriate solutions to world leading companies. These are supported by proven methodologies and the technology base of the ABB group.

Being at the heart of a global enterprise we understand the need for delivering business benefits - the outcomes we have committed to from the outset.

#### **Results driven**

We are a consultancy organisation with a delivery culture. Our job is not just to advise you but to ensure that this advice produces the required results.

We are practical people, experts with a background in our industries and real enthusiasm for what we do.

Finding solutions to all problems, large and small, demands team work. We work with you to make the best use of your expert knowledge, focusing on meeting the agreed goals and deliverables.

In the following pages you will find out more about what we do, how we do it, and above all, how our customers benefit.

**"ABB's methods of helping us to help ourselves have delivered not only excellent results but provided sustainability."**

Operations manager, Degussa

**"The success of this project was down to ABB's professional and responsive manner."**

Project manager, AstraZeneca



→ **We have something more to offer our customers. We bring together proven expertise in consultancy analysis, defining appropriate solutions and best practice implementation. This one-stop approach combines the best of both worlds: world-class business advice and full technical support.**

The culture throughout our organisation is to behave as part of your team and not as outsiders. This commitment builds up a considerable degree of understanding and confidence between you and our specialists.

We are flexible; no assignment is too large or too small. What matters is working with you as a key partner to achieve your business goals. What starts as a one-off priority task often turns into a long-term relationship.

#### **Customer satisfaction - our goal**

Nothing matters more to us than making sure that you are completely satisfied with the results we deliver and the way in which we do it.

Your goals are our goals too. We focus on delivering the deliverables, exceeding expectations and making sure that you have been provided with the service and support that you expect.

#### **Delivering results**

This results-driven culture, breadth of experience and confidence in our ability to do what we say is clearly demonstrated by our willingness to work in gainshare partnerships where appropriate.

ABB Engineering Services focuses world-class expertise when and where you need it. We meet your needs for:

- Automation upgrades
- Environmental consultancy
- Inspection
- Integrated engineering
- Integrity management
- Operations improvement
- Project services
- Safety
- Software
- Technical training
- Validation

Our assignments range from small, targeted priority tasks to providing a full range of project services for the execution of major installation or refurbishment programmes. Whatever their size our work is frequently business-critical. It can make the difference between success and failure, growth and stagnation, continuity and closure.

#### **From innovation to improvement**

We can help to design, develop and install new processes, improve existing ones and reduce or eliminate downtime. We support plant operation at every level; establish essential procedures, train employees, monitor standards and achieve regulatory approvals.

Our clear, understandable and well-proven methodologies help identify new and innovative ways of delivering improvement.

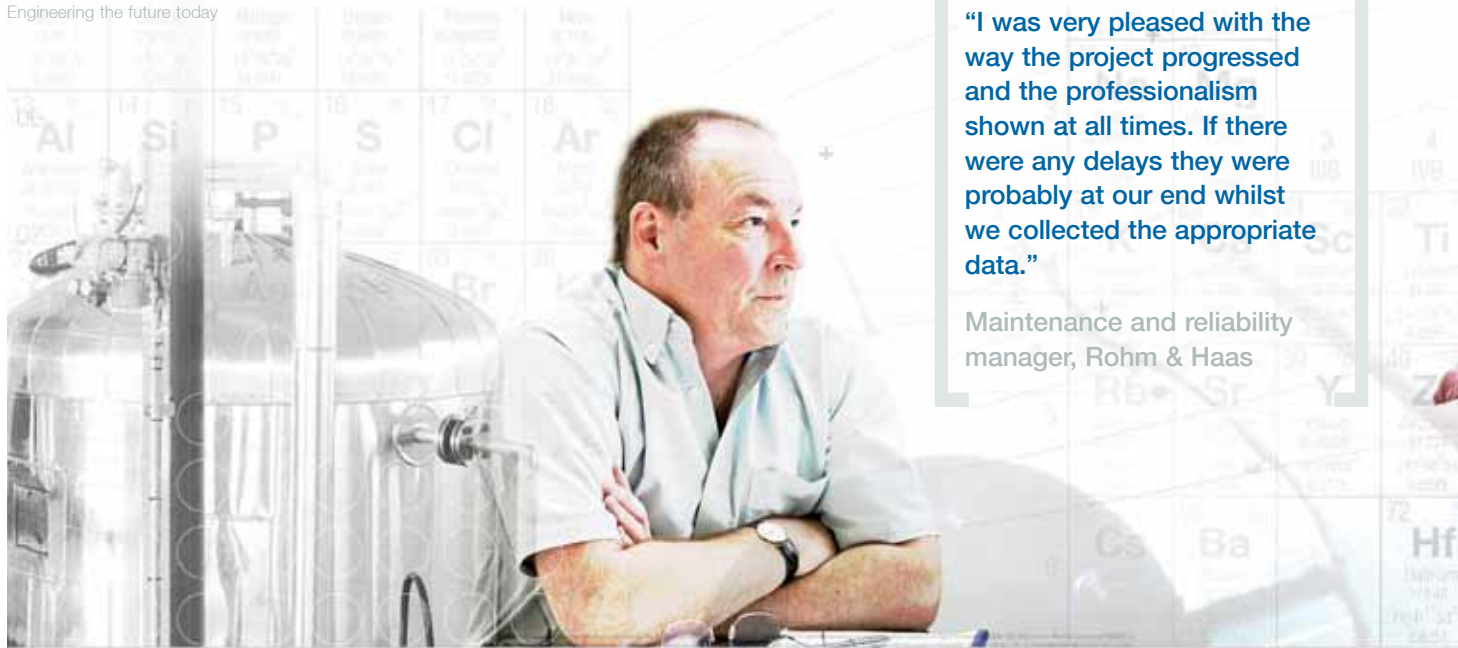






Working with customers: Total dedication  
to your needs What sets ABB Engineering  
Services apart from other technical  
consultancies?





**“I was very pleased with the way the project progressed and the professionalism shown at all times. If there were any delays they were probably at our end whilst we collected the appropriate data.”**

Maintenance and reliability manager, Rohm & Haas

→ **Throughout the chemicals industry under-performance is the most serious threat to survival and growth. Add to this the challenge of strong regulation and increasing commercial and operating pressures on disciplines and this is an industry that needs all the support it can get.**

ABB Engineering Services understands the need for continuous improvement and innovation. Equally we recognise the factors that can impose severe restraints on the use of new technologies.

For us, the chemicals sector is not one industry but several. Each faces distinct, but often related, issues. We work with leading chemical, petrochemical, speciality and fine chemicals companies.

#### **Chemicals and petrochemicals**

In chemicals and petrochemicals the drive is on to reduce costs by cutting downtime, increasing operational reliability and efficiency while meeting an ever-growing array of legislative requirements.

Continuous improvements in manufacturing efficiencies are vital and we know how to support you at every stage with benchmarking studies, inspection support and maintenance improvement methods.

#### **Speciality and fine chemicals**

The priority in speciality and fine chemicals manufacture can be summarised in just one word - flexibility. In this batch production environment handling multiple products the abilities to introduce new products quickly and easily, and achieve efficient change overs are key.

#### **Relevant solutions from principle to practice**

ABB Engineering Services' delivers solutions at every level.

We supply a range of consultancy services in manufacturing, engineering, project implementation and management to customer companies across the world. We can support every facet of plant performance during its lifetime.

We can help you to deliver better manufacturing performance, more flexible operation, improved return on capital and more reliable plant and equipment.

Our understanding of global industry and regulatory matters, as well as international experience of safety and environmental requirements, means that we deliver solutions that are relevant, timely and highly cost effective. We can not only advise on meeting requirements, we can also act as an independent auditor, helping you to obtain the necessary standards.

#### **Achieving world class standards**

We can show you where your operations stand in relation to world class performance, benchmarking every step of your processes from supply chain and manufacturing through to safety, quality and environment.

Our tried and tested manufacturing improvement process delivers step change improvements to the performance of your plant, equipment and people. Whether continuous or batch processing, we can help you reduce downtime and improve productivity.

**“We have been very pleased by the study and the motivation / flexibility of ABB’s team.”**

Automation manager,  
Ciba Speciality Chemicals



## Chemicals: Satisfying the demands of a diverse and demanding industry

A strong regulatory environment combined with ever-growing commercial and operating pressures makes the chemicals industry one of the most challenging.



Plant Expansion  
Rhodia



RBI and Integrity support  
Hydropolymers



Environmental Consultancy  
Monckton



Asset Life Study  
Petroneas

**“During a recent period of high demand, the gross margin has been improved by more than US\$ 9 million over eighteen months operation. Savings on capital investment and associated depreciation exceeded US\$ 3 million.”**

Engineering manager, Victrex





## Oil and Gas: Producing results

ABB Engineering Services works with the major international oil and gas companies, providing leading edge technical solutions.



Integrity Studies  
BP



Environmental Consultancy  
Total



Shutdown Improvement  
Marathon Oil



Legislative Compliance  
Centrica

“The services of ABB Engineering Services in the year leading up to our refinery overhaul was a key ingredient in the success that followed. Such services employed within this period included Risk Based Inspection and also multi-functional design to significant capital projects.”

Project manager, Petroplus





**“ABB using its tools and skills has improved substantially our operational processes in this sector of our business.”**

Programme manager,  
ExxonMobil

→ **The knowledge and experience we have built up through working with world leaders in oil and gas enables us to ensure that we can deliver powerful solutions to your process.**

- LNG / LPG
- Offshore
- Oil & gas processing
- Refining
- Storage & distribution

Our consulting and support services deliver the results you need, helping to improve reliability, raise operational efficiency, guarantee legislative compliance, maintain integrity and ensure that you are getting the most from your capital investment.

#### **Cost saving, problem solving**

Whether you are planning new investments, upgrading or renewing existing plant or striving to get the most from existing equipment we have the knowledge and experience that can save you time, money and hassle.

In the oil and gas sector time really is money. Our role is to help you maximise return on investment through asset reliability assessment, risk-based inspection and maintenance, plant performance and asset integrity studies.

Let us support your drive to get the most from existing installations, initiate new ones and ensure that the highest safety, environmental and performance standards are both achieved and maintained.

#### **Return on investment**

As an industry that comes into the media and political spotlight it is critical that operations perform at maximum reliability with the highest possible operational efficiency. At the same time they must deliver optimum return on investment.

Our expertise can help minimise downtime, optimise plant efficiency, carry through hazard and risk assessment programmes - in short, advise, plan and implement programmes that contribute to greater efficiency, productivity and profit.

**“Working with ABB helped us to implement a rational methodology that enables us to maximise value from our turnarounds.”**

Project manager, Marathon Oil

→ **Pharmaceutical companies must be able to manage performance and compliance throughout the product lifecycle. The safety and quality of drug manufacture must be enhanced while increasing efficiency. They must also remain agile in the face of growing competition.**

The industry is under continuous pressure to invest in new technologies to achieve and demonstrate regulatory compliance and improve productivity. This is driven by increasing competition, an ever-changing regulatory environment and growing economic pressures from healthcare providers.

Science-based quality assurance, rooted in well understood and robust processes will help to improve manufacturing performance and ease the burden of compliance.

**Total support**

From discovery to dispensary ABB Engineering Services supports pharmaceutical companies right across the world. We help them obtain the full value of their investments - in product, processes and people. We deliver innovative risk-based solutions that reduce cycle time, minimise waste and guarantee results that are 'right first time'.

We have the skills and resources to see through every project to satisfactory implementation.

Our methodologies are proven in practice. They integrate engineering excellence with validation to deliver tangible business benefits. They cover every facet from investments in information technology, to the upgrading or installation of new equipment and processes through to the adoption of new manufacturing technologies.

Underpinning all this is a thorough knowledge of emerging regulations, an understanding of their impact on pharmaceutical companies and proven success in risk management as a route to better quality and productivity in the development and manufacture of drugs.

Our expertise will provide the solutions that enable you to achieve continuous improvement, competitive performance and demonstrate compliance with current and future regulatory requirements.

**"We were impressed with the breadth and depth of expertise offered by ABB, both in the technical areas and in project management."**

Project manager, AstraZeneca





## Pharmaceuticals: Managing performance

- managing compliance Developing new medicines and getting them to market quickly and safely is vital to the success of pharmaceutical companies.



An integrated approach to project management



Representing the client in an integrated team



Packaging equipment downtime reduction



Maintenance improvement

**“With ABB’s support we have reduced our engineering spares by 20% and ensured full traceability.”**

Engineering manager,  
UK Pharmaceutical company

**“ABB defined a practical validation strategy and a detailed implementation plan which paved the way for a very smooth implementation resulting in on-time delivery and reliable user-friendly systems.”**

Project manager, Pfizer





## Consumer industries: Fresh, innovative and creative

Responding to change is a constant demand in the consumer industries.

→ **To serve the consumer market manufacturers must be able to cater to ever-changing tastes and remain competitive in markets that demand strict adherence to hygiene and safety standards.**

ABB Engineering Services applies its industry-wide expertise and process know-how with a range of consulting and engineering services to help the food and drinks industry meet these challenges. We are committed to the critical role of helping our customers maintain their business performance and respond to changing market demands while at the same time driving forward cost reduction programmes.

Adaptability and rapid response to change must be set against the background of strong regulatory and safety requirements. By monitoring and anticipating such issues we can help you to prevent conditions arising that could weaken or undermine market confidence in your brands.

### Appropriate solutions

We deliver cost effective and speedy solutions to challenging situations such as over capacity, health and safety, manufacturing continuity, maintenance and downtime, environmental protection and future planning.

From process control to distribution, we offer advanced products, solutions and services to optimise all of your assets - whether people, raw material, process or infrastructure.

**"I was really impressed with the way everybody worked together as one team. We can be justifiably proud of this project and what it will deliver for the site."**

Technical manager, Diageo

**"ABB's ability to provide technically skilful, flexible resources to respond quickly and effectively to our situation has been of great benefit to us and the basis of an excellent relationship."**

Project and utilities manager, Thwaites Brewery







→ **The pressures and priorities facing manufacturing industries differ greatly across the globe. In fast growing economies, the race is on to achieve world-class standards quickly. In the more mature economies the priority is to find ways of making better use of existing assets without necessarily embarking on major new investment programmes.**

ABB Engineering Services works with organisations at every stage of development and creates solutions that meet their precise requirements.

#### **Capital investment**

In new growth economies we can help plan new investments and upgrades. This means everything from creating the business case and identifying risks to developing project execution strategies and the detailed engineering plans. We apply our global expertise to help avoid costly mistakes and delays

and to deliver a first rate plant, in service, quickly and safely with minimum disruption. We add value to every stage of an assignment from the strategic level through to the tactical.

#### **Sweating the assets, reducing risk**

Where the challenge is to remain competitive in the face of lower cost based competition we know how to get the most out of existing assets.

This might take the form of benchmarking a process plant to see where the money goes and how much under-performance is costing you. Or it could be through a direct focus on maintenance and downtime, taking a risk-based approach to regular maintenance.

We assess the potential future life of an entire plant or individual items of equipment, identifying the critical elements and producing strong business and technical propositions for necessary changes.

Whatever the solution, it will be relevant to your situation - practical and cost effective.

#### **World standards**

We are deeply involved in the regulatory environment, working with the regulatory bodies as well as manufacturing companies. Understanding the global regulatory environment can help you meet international standards in the most economic way and apply principles which set the standard for world-class performance.

**Manufacturing: The ability to respond to every situation** Manufacturing industry across the world is having to contend with a wide variety of challenges.

**"The partnership with ABB has delivered measurable business improvement including a 10% increase in yield."**

Plant manager, Corus





→ We can advise, support and enhance every stage of your business-critical operations. On these pages we present a summary of the services we provide.

The headings provide a guide to where our expertise and experience lie. We will be happy to provide further information and we have a range of publications which go into greater depth.

#### Automation upgrades

- Analytical systems
- Hot cut-over automation projects

#### Environmental consultancy

- EHS critical projects
- Energy
- Land management
- IPPC management
- IPPC permitting

#### Inspection

- Pressure systems
- Support structures

#### Integrated engineering

- On-site project teams
- Multi-function technical support

#### Integrity management

- Asset health check
- Asset life studies
- Risk-based inspection

#### Operations improvement

- Business project implementation
- Maintenance
- Manufacturing
- Reliability improvement

#### Project services

- Construction & demolition management
- Front end studies
- Hazard studies
- Multi-function design
- Process engineering
- Project control
- Project management and consultancy

#### Safety

- Alarm management
- ATEX compliance
- Fire & explosion assessments
- Human factors
- IEC 61508 / 61511 compliance
- Management systems
- Pressure relief
- Risk assessments

#### Software

- Integrity management
- Process engineering
- Safety system management

#### Technical training

- Competency development
- In-house programmes
- Open courses

#### Validation

- Business systems
- Control systems
- Equipment & facilities
- IT infrastructure
- Laboratory systems
- Spreadsheets



Chemicals  
Oil and Gas  
Pharmaceuticals  
Consumer industries  
Manufacturing

**Proven expertise across the whole asset lifecycle** A complete service to support and improve your business performance - from investment to results.



**ABB Engineering Services**

Daresbury Park Business Centre  
Daresbury  
Warrington  
Cheshire WA4 4BT  
United Kingdom  
Tel: +44 (0)1925 741111  
Fax: +44 (0)1925 741212  
E-mail: [contact@gb.abb.com](mailto:contact@gb.abb.com)

[www.abb.com/service](http://www.abb.com/service)

