

MoRe Research

A photograph of a dense forest with tall, thin trees and a fallen log in the foreground. The text "YOUR PARTNER EVERY STEP OF THE PROCESS" is overlaid on the right side of the image.

**YOUR PARTNER
EVERY STEP OF
THE PROCESS**

OPTIMISING YOUR PROCESS



EXPERIENCE AND EXPERTISE HAND IN HAND

Optimise your processes and products, and strengthen your company's position in the market using our applied research and development services. Our experts will help you from start to finish; from the raw materials to the end product.



We have been active in research, development and improving process efficiency for more than 100 years. Once part of the MoDo Group we are now an independent research and development company. Today we offer production-related services and modern process optimisation, which will increase the profitability of your pulp, paper or biorefinery operations.

We know that the best results are achieved by working closely with you, from project specification to implementation and follow-up. See us as your own development resource and contract us in complete confidence. As our customer, you always own the results and information produced and we sign non-

disclosure agreements for strategically sensitive projects. Project results and delivery times are our top priorities.

Focus areas are Hela vägen® (“All the way”), optimisation and problem solving for the whole process, Analytical Services, Biorefinery and Processakuten™ (“Process emergency”). We are organised in two departments – Process Technology and Analytical Techniques.

If you would like to know more about how we can optimise your process and products, contact us today.



**HELA VÄGEN® – WE PROVIDE SUPPORT
TO ALL MILL PROCESSES**

Our unique ‘Hela Vägen®’
approach brings together
our expertise, methods and



We use pilot machines in our laboratories to provide the most accurate tests and ensure that our customers receive the most cost-effective service and precise results.

tools to increase your profit
and improve the quality of
your end product.



Our concept, Hela vägen® of studying and optimising every stage of the production process, has been at the heart of MoRe Research's methodology for many years. Hela vägen® is a holistic, intellectual approach with an understanding of how all process steps affect each other and the end product. The methodology always keeps cost effectiveness and the quality of the end product in focus.

Hela vägen® brings together the expertise, methods, testing equipment and laboratory resources at MoRe Research and concentrates on an affordable, high-quality end product. This approach provides unique opportunities to implement rapid and

economical optimisation measures in the process. Whether an entire production line or just a single process step is studied, we have the knowledge and the understanding to manage the whole process.

We have a pilot plant and laboratory resources covering the whole process, from raw material to end product. In our pilot tests, mill oriented studies can be performed and mill trials designed in an economical and technically productive way. The pilot machines are of the same scale as each other, supporting the Hela vägen® approach without bottlenecks, and all resources are located at the same premises.

HELA VÄGEN®

With our unique tools, like the performance index and pulp suitability tests, as well as different analysis methods, pilots and our experience, quality and efficiency are optimised throughout the process. Parts of the process that have potential for improvement and the influence of different pulps on the end product, can be studied in a cost-effective way, from start to finish.



Using our pulp and paper pilot machines in parallel with the fibre line has proven to be a cost efficient way of locating weaknesses in quality and cost factors.

The cooking processes in pulp mills, as well as in biorefineries, can be simulated in our pilot digesters.



BIOREFINERY

In order to replace fossil materials as energy sources or as raw materials, biorefinery technologies are developing rapidly all over the world. MoRe Research is at the forefront of this development. A strong driving force to this are the determination to maximise the utilisation of wood raw material.

We have the competence and the special pilot testing equipment needed for successful developments in biorefinery technologies. Our set of digesters, ultra filtration and dissolving pilots, combined with our analysis methods, support our customers' biorefinery development. To us it is self-evident that the work we carry out to create value from the by-products of the pulp process must be done without disturbing normal production or impairing the end products.



ANALYTICAL SERVICES

Analyses are an important basis for critical decisions in production, marketing and research. Our analytical services are built on an advanced laboratory infrastructure, expertise in many areas, extensive experience and good process knowledge, which enable us to answer the customers' questions in the best possible way.

MoRe Research is a powerful resource for chemical, physical and graphical analysis. Customers make good use of our services and look to us for problem-solving techniques and suggestions.

Irrespectively if it is a question about routine analyses or special analyses we act as a central laboratory or as an integrated part of the customer's own resources. We invite customers who are planning to outsource parts of their analysis activities to contact us to see how MoRe Research can be a part of their solution.



By combining different analytical techniques and the knowledge of our experienced staff, problems, e.g. with specks or spots can be solved in a quick and efficient way.



Supported by the concept Processakuten™ (Process emergency), EUROMORE solves process problems by combining process competence with analytical and pilot machine resources.

PROCESSAKUTEN™

Processakuten™ (Process emergency) is a new tool available to solve the mill's urgent process problems. With short notice, a hands-on team is ready to solve the problems by combining process data analysis, information from the mill's own staff, special analyses and studies in laboratory or pilot scale.

SUPPORT FOR THE WHOLE PROCESS

The Process Technology department has extensive experience in working closely with mills. Our unique fibre line evaluation method is quick and cost-effective for optimising, developing and troubleshooting different process stages. We offer support for all parts of the mill, from raw wood and wood handling to the end product.

Many different pilot machines, such as ultra filtration, reactors and digesters, supported by an advanced Analytical Techniques department, are used to support our customers' development and optimising projects.



PROCESS TECHNOLOGY





ANALYTICAL TECHNIQUES

SOLID EXPERTISE AND AN ARRAY OF ANALYTICAL RESOURCES

Our well-equipped laboratory conducts both standard and advanced chemical, physical and graphical analyses. The different types of analyses are related to product and process development, acute process problems, environmental and quality issues, and general support for end users.

We have extensive experience conducting troubleshooting studies. This work often combines several analysis techniques to quickly and effectively solve problems. Customers also benefit from our advanced analysis equipment, extensive experience, broad knowledge of analysis and vast network of laboratory contacts.





A STRATEGICALLY IMPORTANT RESOURCE

The biorefinery, Domsjö Fabriker, has been a key customer for MoRe Research for many years and utilises a range of different services. “We are not a traditional pulp and paper company, but a biorefinery, and for us it would be impossible to find the competence and the resources we need elsewhere in Sweden,” says Lars Ahlenius, Technical Director at Domsjö Fabriker.

In ten years Domsjö Fabriker has developed from being a traditional pulp manufacturer to an advanced biorefinery. Their main products are special cellulose, lignosulphonate and ethanol. The unique process offers technical opportunities to produce an increasing number of additional products like carbonic acid, energy, biogas etc.

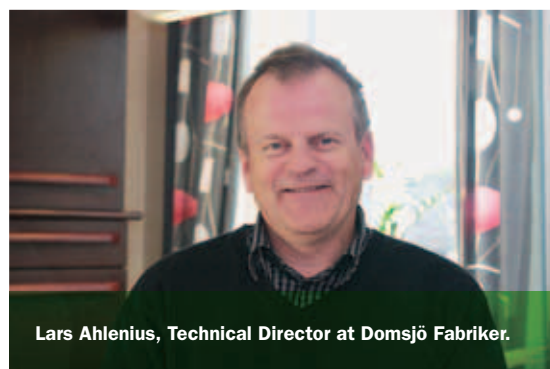
“We buy a range of different services from MoRe”, Lars Ahlenius explains. “They have all the laboratory and pilot equipment needed, as well as the competence we are looking for. They supply us with advanced environmental, process and product analyses, as well as assisting us with problem solving and development projects.”

“A great advantage with MoRe is that their staff is used to working in a mill environment, which means that we speak the same language”, Lars Ahlenius continues. “They can easily connect their laboratory results with our full-scale process and can then see the total picture. For example, we have the possibility to make ‘basket cooking’ of wood chips in our digesters. After the cooking process, MoRe takes the cooked but unbleached cellulose, bleaches it, treats it and analyses it further. The results obtained in this way are consequently directly applicable to our process.”

Domsjö Fabriker has taken a new step and outsourced its routine analyses to MoRe. A year ago, two laboratory workers retired and they had the choice to hire new ones or to find another solution. The company decided to outsource their routine analyses to MoRe and it has worked very well. This is already used in other industry sectors but in this industry this is totally new.

“MoRe has successfully changed from a centralised R&D laboratory for the MoDo Group to an independent company. I have noticed that they are more flexible now and that their staff is more customer oriented. They are very well aware of the fact that they depend on satisfied customers and are acting accordingly.”

“My impression is that MoRe is very strict when it comes to handling customer specific information. They do it very professionally, which gives me the assurance that any results obtained for my company are not shared with anyone else,” Ahlenius concludes.



Lars Ahlenius, Technical Director at Domsjö Fabriker.

A background image of laboratory glassware, including a large Erlenmeyer flask with a dark liquid, a graduated cylinder with a green liquid, and several beakers with blue and white liquids. The text is overlaid on a semi-transparent green band.

CONFIDENTIALITY POLICY

When you work with us, you can be assured of the confidentiality of your work. Our customer relations are based on the utmost confidence and ethical behaviour in the treatment of your information. Our policy is that, as our customer, you always own the results and information produced. We sign non-disclosure agreements for sensitive projects.

DELIVERY POLICY

Delivery times and project dead-lines are highly prioritised. For chemical and physical analyses, normal delivery times are within 15 business days from the date the samples arrive at the laboratory. For projects within 'Hela Vägen®', delivery times are decided together with the customer. For priority tests - such as complaints or mill problems - delivery times are much shorter and are determined in consultation with the customer.

NEUTRALITY POLICY

MoRe Research is an independent and objective research facility. This is a cornerstone of the company and makes active participation in such cases as complaints, guarantee follow-ups and delivery evaluations possible.

MoRe Research



PLAKAT. PRINTING. ÅRENS. 2009.

MoRe Research Örnsköldsvik AB
Box 70, SE-891 22 Örnsköldsvik
Visitors: Hörneborgsvägen 12

Tel: +46 (0)660 751 00
Fax: +46 (0)660 759 81
www.more.se

OPTIMISING YOUR PROCESS