

mekoprint

Engineering

PRINTED ELECTRONICS

from idea to full scale production

From idea to full scale production

4

At Mekoprint we develop and manufacture printed sensors and circuits - globally competitive and customized for integration in your products.

Our mission is - together with you – to make the best possible printed component for your product.

We strive for long term partnerships where collaboration is both equal and mutually binding. We never cease to look for new ambitious improvements that will help us grow together.

We continually invest heavily in production equipment and skills development, thus offering fully automated roll-to-roll production. With a highly qualified team of engineers, we support your product and team from early development to mass production in high volumes.

Together with a fully digital production floor and mapping of carbon footprint on our processes, we have placed automation, digitalization, and sustainability as cornerstones for our future growth together.

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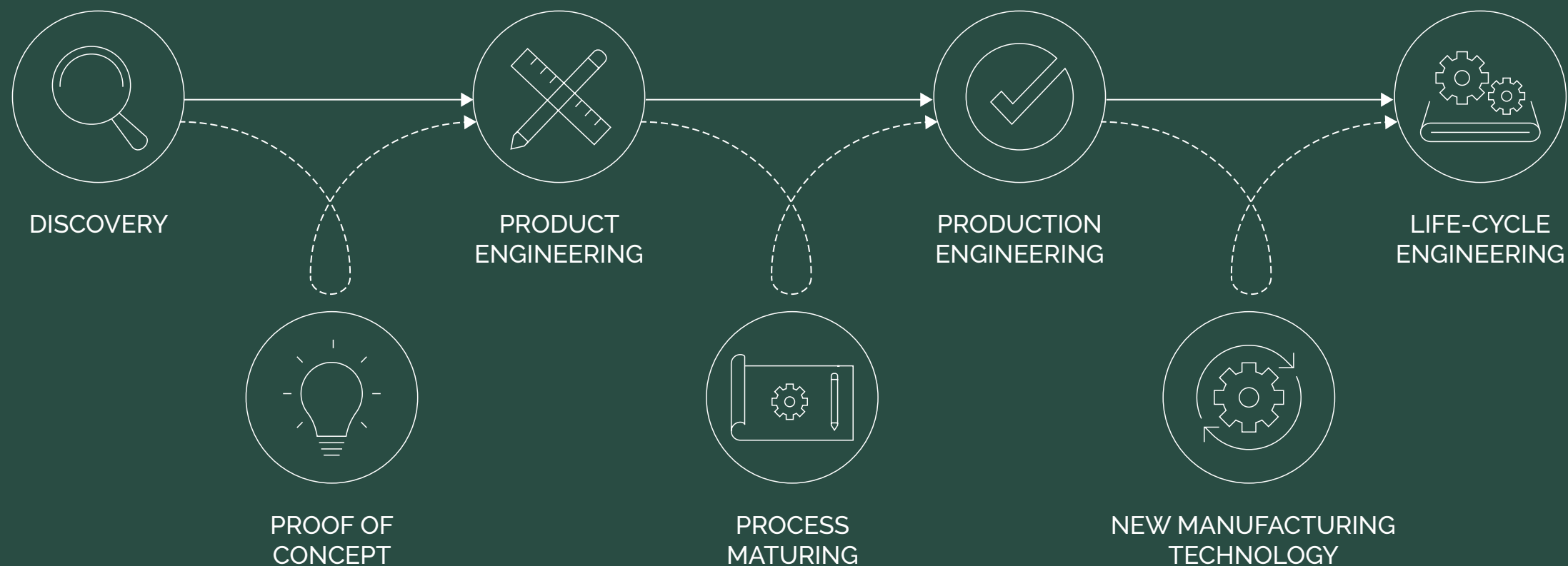
Easy access to printed electronic development

You choose the level of involvement. We can assist in every step of the way, or you can draw on our engineering team and development services to the extent your project needs.

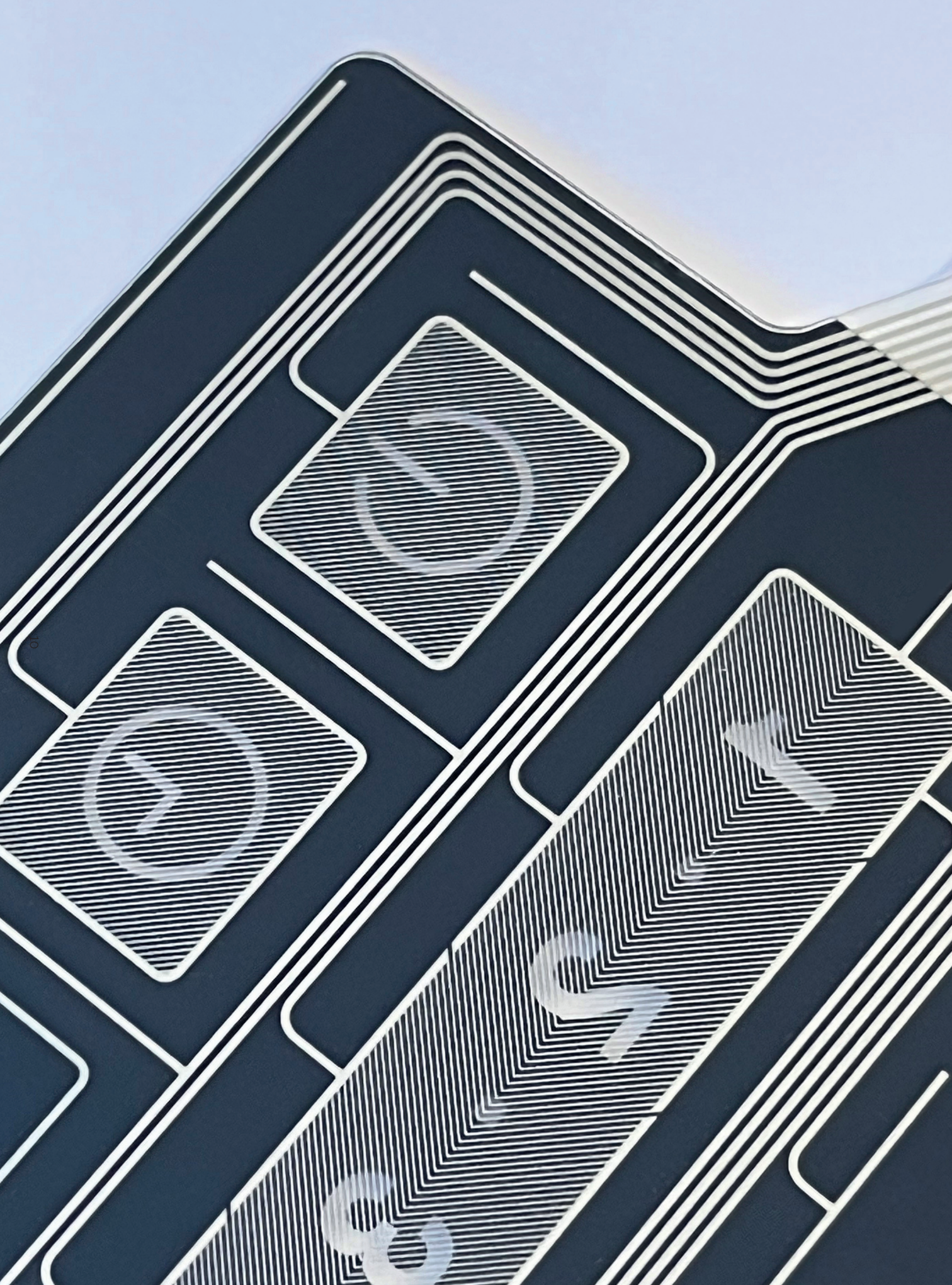
Our focal point is always functionality, cost efficiency, quality requirements, and design for manufacturing.

In short, we have what it takes to develop - together with you - the best printed electronic component for your next product.

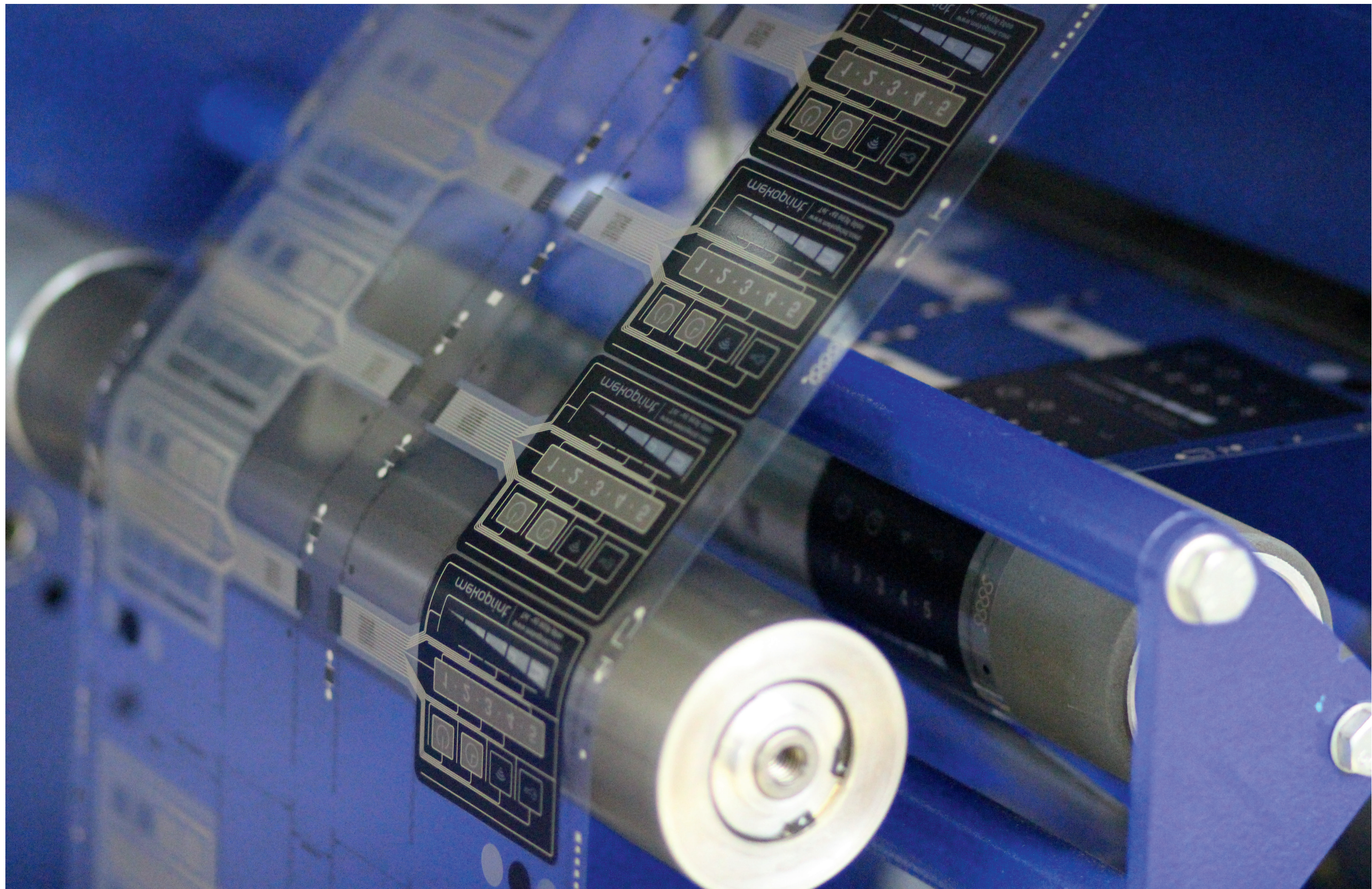
Engineering printed electronics



Consider our development team as an extended part of your organization. The depth of our collaboration is defined and scaled according to your requirements.



Our goal is to make
the best possible
printed component
for your product.
We measure
our success
in your success.



Trusted partnerships

We believe in highly integrated long-term partnerships. We are curious and ambitious on your needs and challenge ourselves to explore opportunities to engineer the best possible solutions for your business.



"Mekoprint has been a true partner for ABENA throughout the 4-year development project as an integrated part of the team with proactive advice and design input which will ensure our commercial success."

*Mr. Arne Terp-Nielsen, Managing Director
ABENA Produktion*

World's first digital disposable incontinence solution using wearable sensor technology

The Danish company ABENA is one of the leading manufacturers of premium quality solutions for incontinence. They have been manufacturing incontinence products and diapers since the 1970s.

The solution ABENA Nova is the world's first intelligent incontinence solution produced for everyday use. A disposable product with built-in sensor and a small discrete clip attached. The sensor registers when the product is wet and a notification is sent to the caregivers' smartphones or tablets.

Together with Silicon Valley based MediSens Wireless, ABENA created the world's first digital incontinence product using wearable technology. ABENA developed the incontinence product and MediSens Wireless the IT cloud solution.

Mekoprint was chosen to develop and produce the printed stretchable sensor linking the two solutions together.

The printed sensor is made of an ultra-thin, stretchable non-woven material which is much thinner than paper.

"A substantial number of development hours were required to ensure the correct run through the production without the material creasing, breaking, or stretching - and to ensure the print of electrically conductive ink without the material shrinking when the ink set," says Tobias Holmgaard Stær, Head of Printed Electronics at Mekoprint.

Luckily, we thrive on challenges at Mekoprint, and found an optimum solution for printing electronics on ultra-thin stretchable foils - a solution that is both cost-efficient and scalable for high-volume production.

"Our partnership has been characterised by major investment from all parties which has given us a very trust-based and open partnership in which we have overcome the challenges we faced together and celebrated our successes together," says Anders Kold, CEO at Mekoprint.





"We greatly appreciate the holistic collaboration, which in many ways represents the partnership we seek with all our customers - a collaboration where we lift each other to a higher level."

*Anders Menholt, Key Account Manager
Mekoprint*

Capacitive touch sensor with fine line silver traces for improved robustness

One of our long-term customers – a global leader within major appliances – approached us with an interest in optimizing one of their products. They needed an improved robustness of the capacitive touch sensor used in one of their control panels. We investigated and implemented a technology change.

The task for Mekoprint was to qualify roll-to-roll fine line printing of conductive silver traces down to 50 µm, contribute to re-design and lifetime qualification of the capacitive touch sensors, and subsequently to deliver the technology in series production.

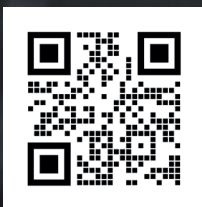
In the production of the ultra-thin fine line traces, the human eye falls short. Hence, investments were made in:

- State-of-the-art automated optical inspection systems implemented in several key processes throughout production.
- Roll-to-roll flying probe electrical test technology making it possible to test the functionality of all sensors before shipment.

"We greatly appreciate the holistic collaboration, which in many ways represents the partnership we seek with all our customers - a collaboration where we lift each other to a higher level." says Anders Menholt, Key Account Manager at Mekoprint.

"We have developed in the same direction within quality and delivery. We have proven the ability to create products in joint development and introduce new technologies together. And we have implemented process improvements in a dynamic high-volume production."

This project improved the solution for our customer. But the learning and investments made will benefit all other customers – with production, test and vision systems supporting low ppm-levels.



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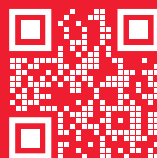
Our engineers support you all the way from pre-project to series production

We will never work according to our own agenda but allow ourselves to challenge you on new and alternative solutions that contribute positively to your development, operation, and position in the market.

You can consider our development team an extended part of your organization.

Notable benefit when creating together:

- Easy access to specialized hands and minds
- Time saved on development
- Progress in project
- Improved solutions



Get in touch with our
printed electronics expert

