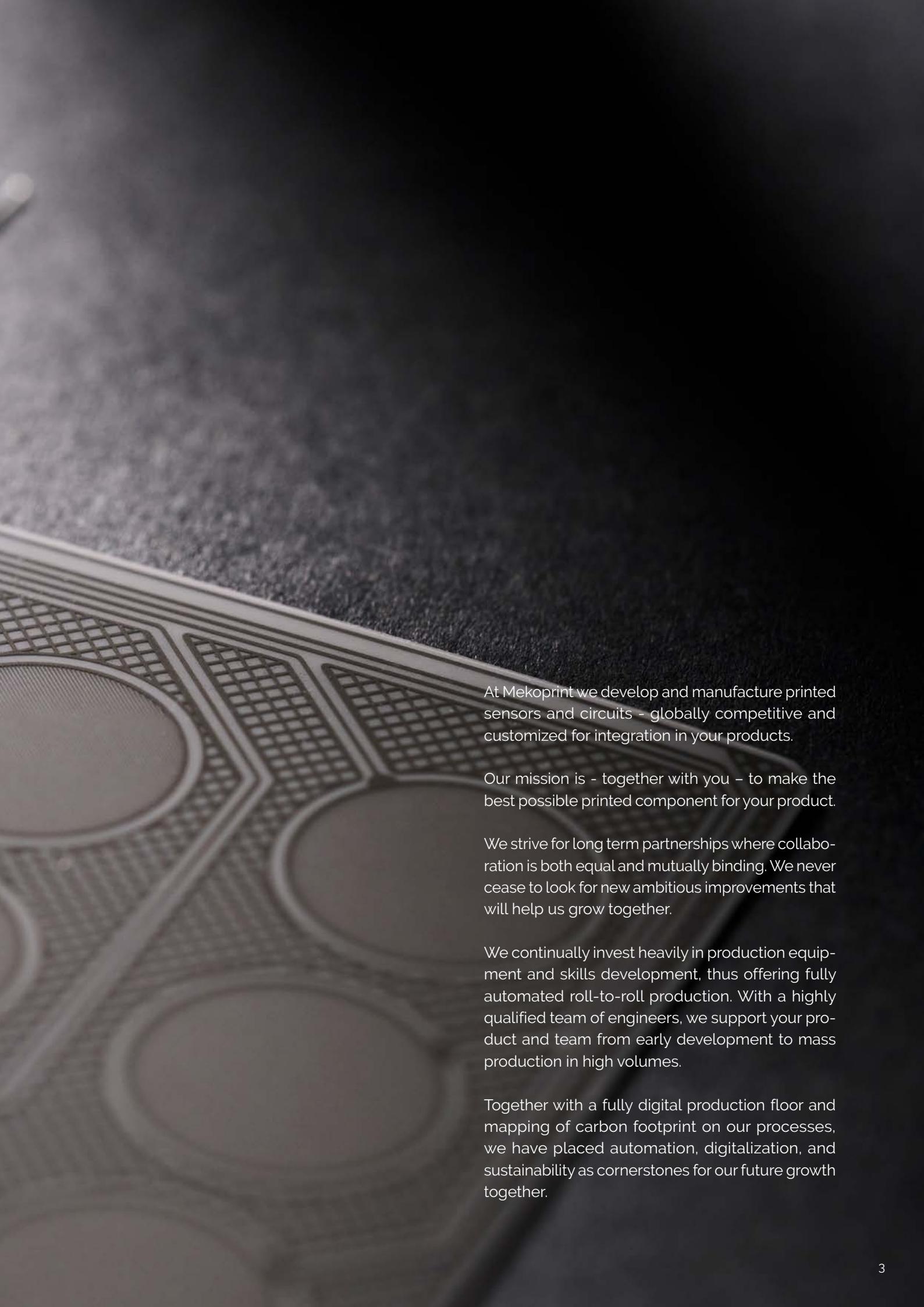


Engineering printed electronics

Customised engineering
from idea to full scale
production.

From idea
to full scale
production





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.

Easy access to printed electronic development

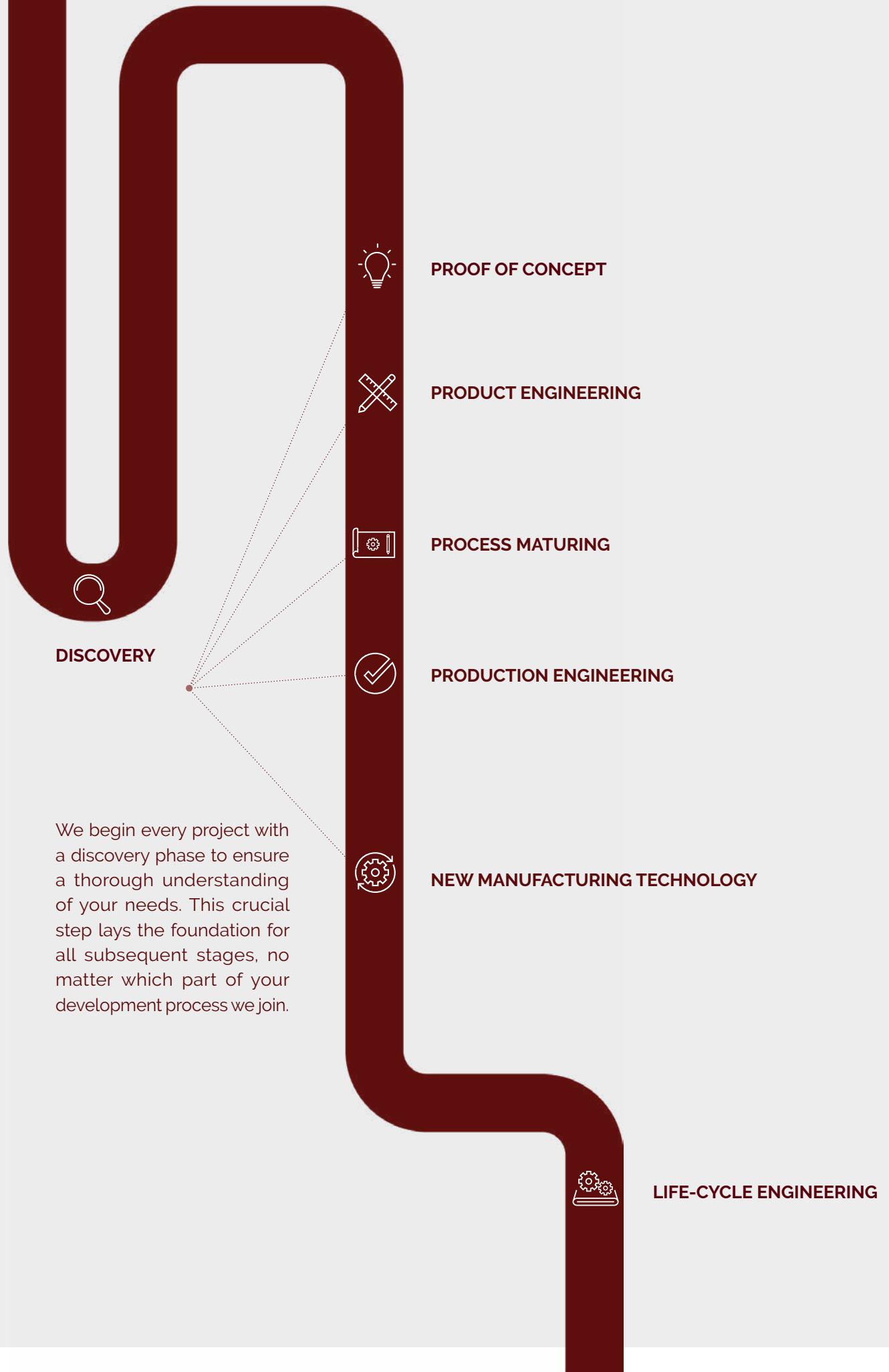
You choose the level of involvement. We can assist in every step of the way or you can draw on our engineering team and development services to the extent your project needs.

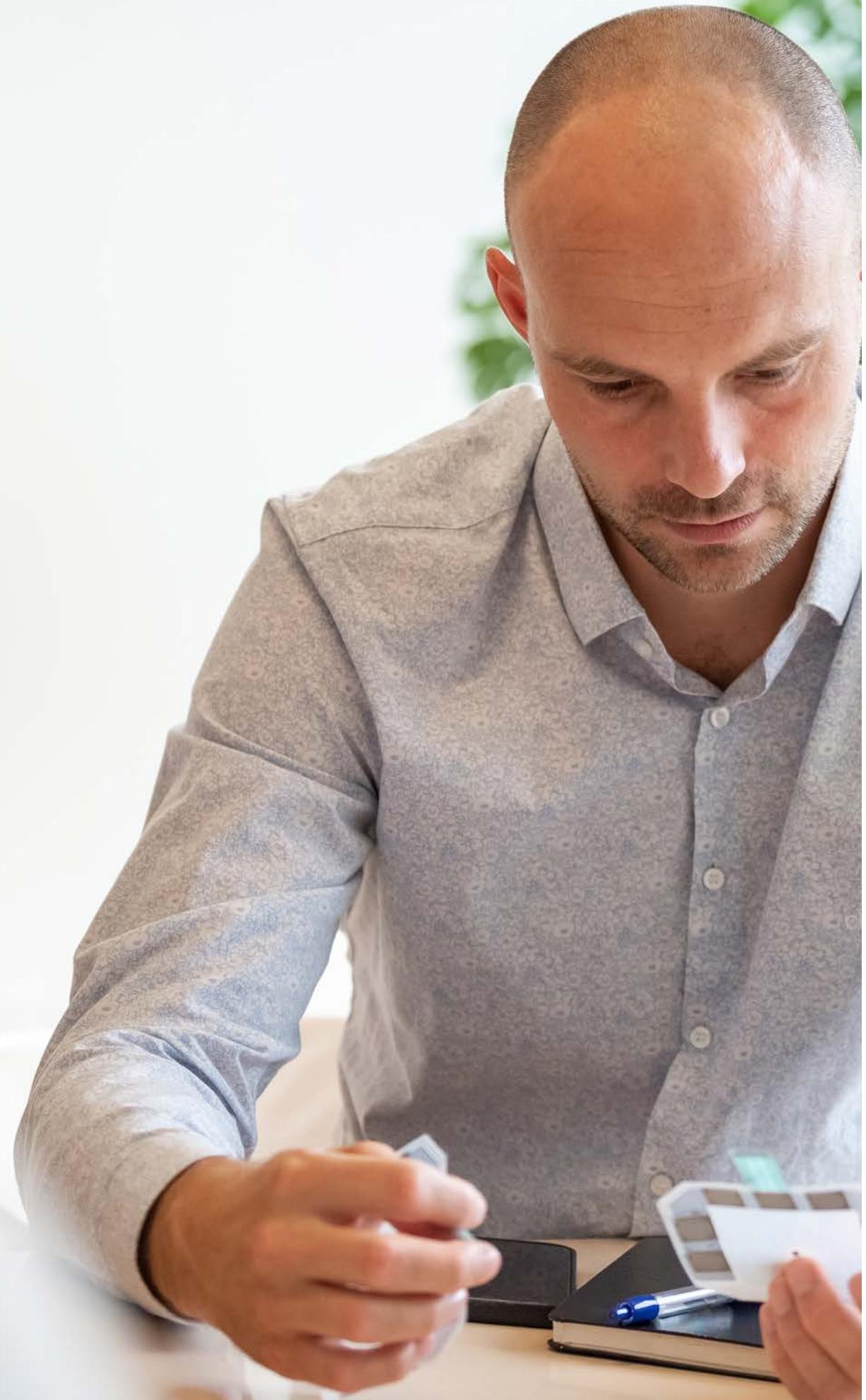
We will never work according to our own agenda but allow ourselves to challenge you on new and alternative solutions that contribute positively to your development, operation, and position in the market.

Our focal point is always functionality, complexity, cost optimization, quality requirements, and your subsequent manufacturing process.

You can consider our development team an extended part of your organization. The depth of our collaboration is defined by your requirements and scaled according to your needs.

Based on decades in the industry, our experience is that timely involvement of our engineering team increases the value of your product.





Discovery

We begin every development project with a discovery phase to ensure a strong starting point for our collaboration.

Sharing and exchanging knowledge in close and confidential cooperation sets the foundation for the project and our future partnership. At your request we will sign an NDA to have the best conditions and confidentiality to explore specifications and scope of the project.

At this stage you are probably seeking inspiration and gathering information supporting your future possibilities.

We will usually begin every new inquiry with an online meeting where you present your project, application context, scope, and expectations.

Roles involved

Typical
developer

Time frame
Project

Budget indication

Typical deliverables by Mekoprint

- Non-
functional
specifications
- Communi-
cation plan
- Project
management
- Timeline
- Project
plan



Proof of concept

If the solution requires either new materials or new untried functionality that are unknown for Mekoprint, we will explore and review various directions to verify and lift your project from idea to proof of concept.

When proving the concept, we will conduct the required number of early tests and feasibility studies

of material composition, designs, cost-drivers, etc. to provide you with well-founded recommendations for product design and choice of materials.

It is typically an iterative process going through one or several loops of test - review - repeat to reach a new well-defined level of knowhow.

Roles involved

Handle
specialist

Time frame

Min. 4 w

Budget indication

Typical
Subject

Typical deliverables by Mekoprint

- Input for design, material, cost
- Statement of work
- Feasibility study, *Design, material, cost*
- Validation, *Design, material, cost*
- Environment, *Design, material, cost*
- Change, *Design, material, cost*
- Testing, *Design, material, cost*



Product engineering

If your project is based on well-defined functionality, materials that are already known in Mekoprint production, and there are no unknown factors regarding the overall design we will begin to engineer the product.

When engineering the product, your drawings and specifications will undergo evaluation and refinements with recommendations for design for manufacturing, quality level, and test specifications.

Various sheet-based or roll-to-roll-based prototypes may be produced and evaluated, depending on the complexity of the design and your requirements.

The stage will be concluded with an agreed product design developed with future full-scale production in mind.

Roles involved

Developer
assistant

Time frame

Min. 4 weeks

Budget indication

Typically

Typical deliverables by Mekoprint

- Input for design, materials, and processes
- Artwork for approval
 - Circuit layout and graphics*
- CAD files
 - Circuit layout and graphics*
- BOM list
 - Specification*
- Test plan
 - Specification*

Proces maturing

If your project involves adaption of current manufacturing technology, new materials, or new functionality, we will test and mature the roll-to-roll production processes before series production.

When maturing the processes, we will conduct the required number of feasibility studies of material behaviour through all processes: printing, converting, and test, to find the most optimum production processes and methods.

If we cannot find a match with current manufacturing technologies, we will activate the phase 'New manufacturing technology' for further research of opportunities.

Roles involved

Developer

Time frame

Min. 4 weeks

Budget indication

Typically

Subject to

Typical deliverables by Mekoprint

- Statement
- Feasibility
- Product
- ...



Production engineering

When engineering for production, we will prepare everything for full scale manufacturing, including production drawings, tooling, test programming, unique process description, etc.

Your delivery and quality specifications are implemented and agreed upon. We work out the optimal supply chain and logistics setup according to your production requirements. Documentation related to process, material, and quality are processed.

In short, in the production engineering phase, we align all the elements, prepare for series production, and release to full-scale production after approved 0-series.

Roles involved

Developer
lead, and
engineer

Time frame

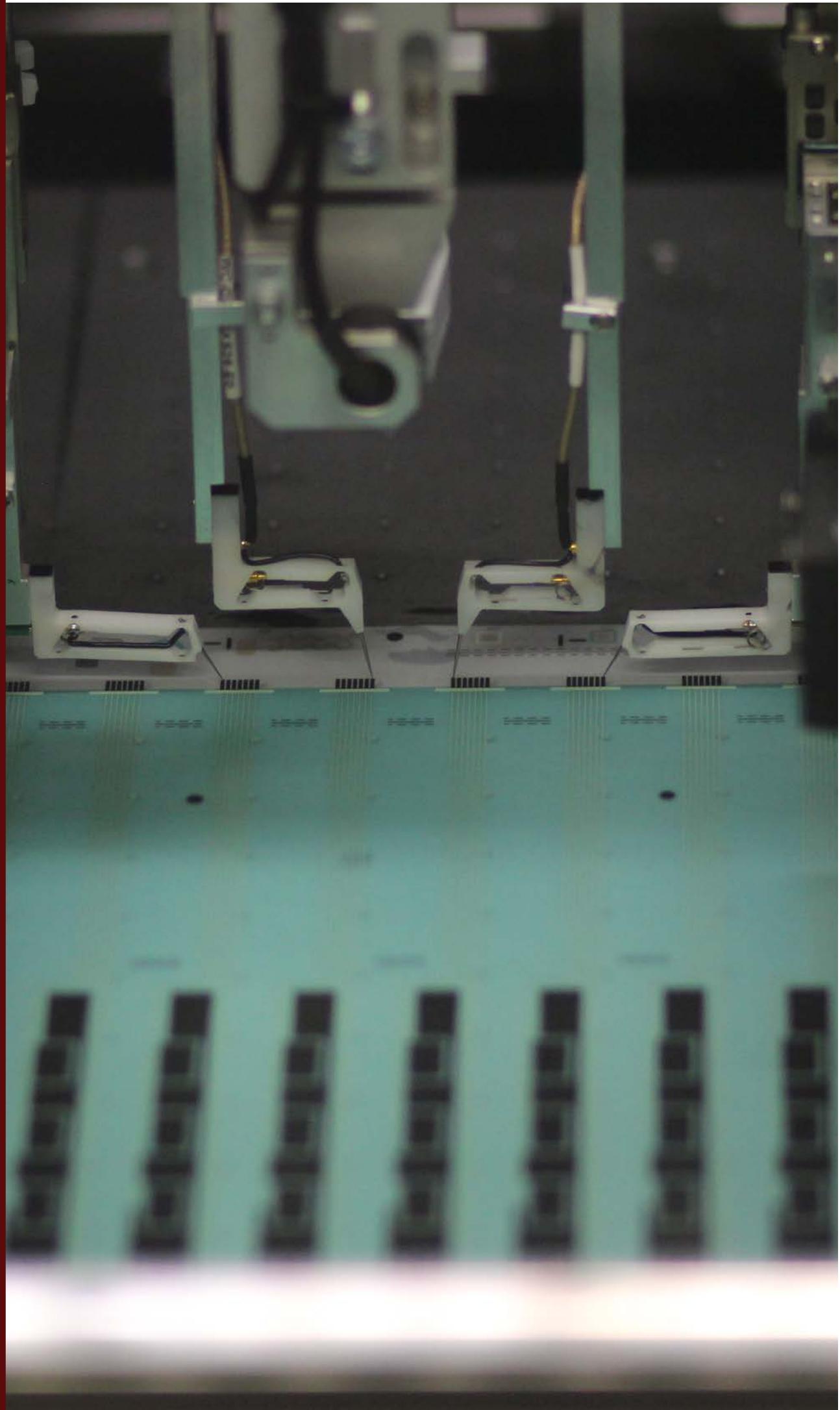
Min. 6 weeks

Budget indication

Typically

Typical deliverables by Mekoprint

- Review and signoff on quality
- Production drawings for series
- Tooling drawings for series
- Tooling approval
- Tool expected delivery
- Series production approval
- Preparation for series
- Preparation for series



New manufacturing technologies

If the current production setup at Mekoprint does not match the product or business case, we will explore possible investments in new technology together.

Historically, we have expanded our business together with our customers, by pursuing investments in new manufacturing technologies supporting the needs and business potential of our customers.

We will assist in seeking information, research opportunities, make assessments, calculate investment proposals, and plan for implementation in our production.

Roles involved

Developer
lead, architect
engineer

Time frame

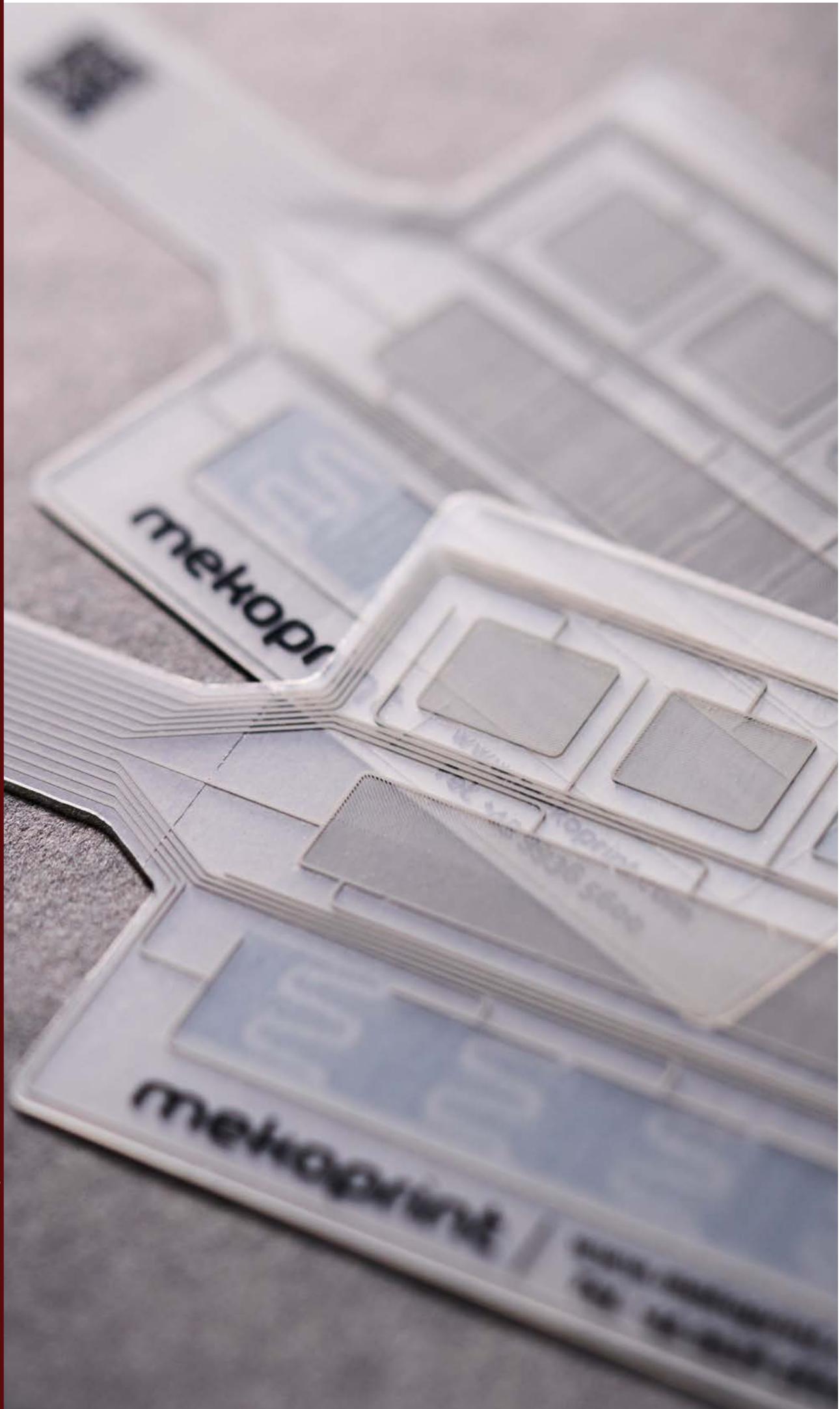
Depends on

Budget indication

Subject to

Typical deliverables by Mekoprint

- Assessment of current situation or risk analysis
- Statement of needs
- Activities for decision making



Life cycle engineering

Life-cycle engineering covers a long list of services designed to ensure the continuous success of your product throughout its lifetime.

Unforeseen situations may occur, materials may reach end-of-life, new compliance requirements may be enforced, or you may have a changed commercial strategy. Just to name a few.

With our life-cycle engineering services, we will match your changed requirements, whether it concerns conditions related to product, manufacturing, or market.

Roles involved

Develop
lead, as
engineer

Time frame

Depend

Typical budget idea

Subject

Typical deliverables by Mekoprint

- Evaluat
- Repla
- Tool
- Co
- D
- T



CASESTORY

Wearable sensors for Abena

The partnership between Abena and Mekoprint was founded on the need for a co-developer to ensure design for manufacturing in high-volume production.

Abena, a Danish leader in premium incontinence solutions, developed the world's first intelligent incontinence product, the Abena Nova, featuring a disposable sensor printed on non-woven material.



CASESTORY

Wearable electrodes for Firstkind

The British company Firstkind has developed a wearable medical device that accelerates wound healing, reduces post-operative oedema, prevents blood clots, and speeds up muscle recovery.

Their search for a partner with expertise in printing electrodes for medical devices at high volumes led to a collaboration with Mekoprint.

Our engineers will support you from pre-project to series production

Our team of engineers, and coordinators specialises in printed electronic solutions. We aim to complement your product development with specialist knowledge and lean processes, working together to create the best solution for your product.

When you place a project in our hands, expect a smooth journey from inquiry to series production. With a structured development process and a fully digital production floor, we ensure transparent and efficient communication throughout. We value open and honest dialogue, keeping you informed and confident every step of the way.

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

Please consider our development team as an extended part of your organization.



Involving Mekoprint early in your project can save time and streamline your printed electronics development. You'll benefit from a smooth development process and a realistic, production-ready solution.

Pushing for progress Leading new ways™