



**ST Engineering**

**Manufacturing  
Competence  
Center**

**FACTORY OF  
THE FUTURE**

**WINNER  
OF THE AWARD**

2015-2018-2021-2024

**EUROPEAN**   
**MANUFACTURING  
COMPETENCE CENTER**

***Certified Excellence –  
Quality at Our Core***

Leading  
position in  
European  
manufacturing

Commitment  
to quality as  
our highest  
priority

High-reliability  
assembly for  
critical  
components

High complexity,  
high mix,  
low to medium  
volume

Focus on  
innovative &  
sustainable  
manufacturing

Four-time  
'Factory of  
the Future'  
winner

# YOUR TRUSTED EUROPEAN PARTNER FOR HIGH-RELIABILITY ELECTRONICS MANUFACTURING

At the heart of Europe, our Manufacturing Competence Center in Erpe-Mere, Belgium, embodies **the best of European manufacturing excellence**.

Recognized four times as **'Factory of the Future'**, we combine over five decades of expertise with continuous innovation to deliver high-reliability Electronic Manufacturing Services (EMS).

Our solutions meet the most demanding standards, ensuring precision, quality, and performance for industries where reliability is non-negotiable.

As part of the ST Engineering Group – a global defense and engineering leader, we merge **European expertise** with global scale, stability, and world-class support. This powerful synergy allows us to deliver consistent, reliable, and flexible solutions, tailored to your project's unique requirements – regardless of size or complexity.

***Our commitment to quality is our highest priority.***

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**M**anufacturing  
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**C**enter

 **esa**  
PROJECT CERTIFIED

## OUR EXPERTISE

MCC excels in **full-turnkey electronics manufacturing** delivering **high reliability solutions** for industries where precision, technical complexity, and performance are non-negotiable.

In low-to-medium volume production, our distinguishing strength lies in a single, unwavering principle: **absolute commitment to quality**.



## OUR CORE COMPETENCIES

### End-to-End Turnkey Assembly

From **PCBA** manufacturing and device assembly to **full system integration** – including advanced mechatronics and final packaging – we manage your entire production process.

Our expertise ensures seamless execution, whether you require standard assembly or complex, high-reliability systems.

### Advanced Testing & Debugging

We go beyond basic testing. Our engineers develop **customized test procedures** – from simple go/no-go checks to intricate, iterative test flows – tailored to your product's unique requirements. Our capabilities include:

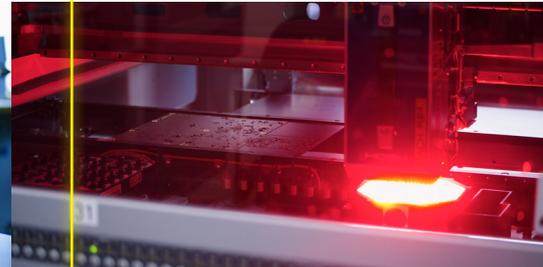
- Functional and environmental testing
- Iterative debugging and specialized test setups
- Comprehensive test documentation

### Engineering & Design for Manufacturability (DFM)

With over 50 years of experience, our DFM support helps you design products that are **robust, manufacturable** and **cost-efficient**. We assist you in:

- Identifying hidden risks and manufacturability challenges
- Selecting optimal components and processes (soldering, gluing, bonding)
- Validating the need for special treatments

Our proactive approach ensures your design is optimized for reliability and production efficiency from the start.



## Repair & Modification Services

When issues arise, our skilled technicians perform **high-precision repairs and modifications** using advanced tools such as:

- | X-ray inspection
- | Dedicated rework equipment
- | Certified staff

We handle complex tasks, including **BGA replacement, LGA repair, MIL-grade connector replacement** and **hidden solder joint rework**, restoring your products to full functionality.

## Operational Support – From Start to Finish

We don't just manufacture – we partner with you. Our support extends **before, during, and after production**, offering:

- | A **dedicated single point of contact** (POC) for seamless communication
- | **Transparent reporting** on delivery planning, performance, and quality
- | **Flexible, responsive support** tailored to your needs

## Purchasing & Supply Chain Management

We take full responsibility for your supply chain, ensuring **end-to-end traceability and reliability**. Our services include:

- | **Conditioned component storage** (dry, vacuum, nitrogen, ITAR-secured)
- | **Lifecycle management** (EOL/LTB) and material cost optimization
- | **Robust internal processes** for complete component traceability



# QUALITY AT OUR CORE

Our commitment to quality is embedded in every process, decision, and interaction – ensuring **long-term customer satisfaction** through controlled, quality-assured processes.

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## CERTIFIED EXCELLENCE

Our **Integrated Management System (IMS)** combines quality, environment, safety, and information security, built on globally recognized standards:

STANDARD	SCOPE
ISO 9001	Quality Management
AS9100 / EN9100	Aviation, Space & Defense
ISO 14001	Environmental Management
ISO 45001	Occupational Health & Safety
ISO 27001	Information Security

  
PROJECT CERTIFIED

## QUALITY LEADERSHIP & GOVERNANCE

### A CULTURE OF ACCOUNTABILITY & CONTINUOUS IMPROVEMENT:

- | **Clear roles & responsibilities** with authority to halt production for quality risks.
- | **Quality Policy & Addendum** aligned with ST Engineering's values: Integrity, Value Creation, Courage, Commitment, Compassion.
- | **Regular reviews** to assess performance, risks, audits, and customer feedback.
- | **Customer-centric focus:** Contract qualification, delivery performance, and satisfaction surveys drive our decisions.

## PROCESS-DRIVEN QUALITY

### STRUCTURED APPROACH TO RISK MANAGEMENT & CONTROL:

- | **Process maps** covering sales, purchasing, manufacturing, and quality assurance.
- | **Formal risk management:** FMEA, business continuity, risk-based thinking for security, environment, and compliance.
- | **Supplier control:** Qualification, scorecards, audits, and corrective actions ensure external provider reliability.

## OPERATIONAL EXCELLENCE & FULL TRACEABILITY

### A DIGITALLY SUPPORTED, HIGHLY CONTROLLED FACTORY:

- | **Advanced capabilities:** SMT, assembly, inspection, cleaning, conformal coating, test, and repair – all with full traceability.
- | **Strict calibration & maintenance** for measurement equipment, with 'Do Not Use' controls.
- | **Preservation & handling:** Cleanliness, counterfeit prevention, ESD-safe EPA, hazardous materials, and packaging rules.
- | **Comprehensive testing:** Functional testing and failure analysis ensure products meet all customer and regulatory requirements.



## HUMAN CENTERED APPROACH

### EMPOWERING OUR TEAM FOR SUSTAINED QUALITY:

- | **Continuous Learning:** Learning Management System and competence matrices foster collective advancement.
- | **Empowerment:** Encouraging initiative and idea-sharing, creates a culture of ownership, staying agile and responsive to market and customer needs.
- | **People drive innovation:** Skilled, motivated employees are the backbone of our future-ready factory.

## OPERATIONAL PERFORMANCE & CONTINUOUS IMPROVEMENT

### MEASURING SUCCESS, DRIVING PROGRESS:

- | **Annual quality objectives & KPIs:** Delivery performance, complaint handling, customer satisfaction, 5S.
- | **Extensive monitoring:** Process KPIs, product conformity, supplier performance, audit results, and environmental/security metrics.
- | **Structured nonconformity management** via JIRA (CAR, IPM, NCR, incidents) using 8D, 5 Whys, Pareto, and trend analysis.
- | **Improvement programs:** 5S, Gemba walks, STEPS, and FMEA-driven risk reduction.

## THE MCC DIFFERENCE

MCC combines advanced technologies with a **human-centered** approach, where skilled people collaborate with integrated systems to drive efficiency, innovation, and sustainability.

Through our **integrated system** of standards, leadership, processes, competence, and continuous improvement, MCC always strives to deliver every product and service on spec, on time, and with the highest quality and reliability.

*Your success is  
our **mission**.*



## A PARTNERSHIP BUILT ON YOUR SUCCESS

At MCC, we embrace challenges – whether you're launching an innovative concept, entering a new market, or refining a critical design.

We stand by you at every stage, especially during prototyping, offering **open expertise and hands-on guidance**.

Our commitment to transparency and collaboration means you always have:

- | **Direct**, open communication
- | **Regular progress updates** with your dedicated POC
- | **Proactive** checks, validations, and factory tours
- | **Flexible**, responsive support tailored to your needs

## A LEGACY OF RECOGNIZED EXCELLENCE

MCC is the only **EMS provider in Belgium** to be awarded the **Factory of the Future title four times** (2015, 2018, 2021, 2024).

This prestigious recognition underscores our leadership in **innovation, digital transformation, operational excellence**, and **sustainable manufacturing** – principles that define everything we do.



## LET'S MANUFACTURE SUCCESS TOGETHER

Discover how our expertise can bring your vision to life. Whether you're developing a groundbreaking product, optimizing your manufacturing process, or seeking a trusted partner for high-reliability electronics, **we're here to support you**.

Contact us today to discuss your project, schedule a factory tour, or explore how our expertise can help you achieve your goals.

- | **phone:** +32 53 60 50 20
- | **mail:** [sales\\_mcc@idirect.net](mailto:sales_mcc@idirect.net)
- | **www:** [www.idirect.net/manufacturing](http://www.idirect.net/manufacturing)

*We look forward to partnering with you.*

*Our Commitment to Quality, our Highest Priority!*

# FOR THE FUTURE THAT MATTERS



## INDUSTRIAL



## MEDICAL



## SPACE



## AERONAUTICS

