



**AMELICOR**  
Engineering

The background is a collage of three circular images. The left circle shows two construction workers in hard hats and safety glasses looking at a set of blueprints. The right circle shows a long, brightly lit industrial hallway with a grid ceiling and rows of equipment. The bottom circle shows a close-up of hands using a pair of tweezers to work on a small component on a grid surface.

**PHARMA  
HEALTHCARE  
MICROELECTRONICS**

**Design&Build  
Turn-key projects  
in cleanroom environment**



Seeing what doesn't exist yet



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# About us

One group, 4 companies, 47 years of history  
 Know-how | Experience | Agility



Cleanroom and HVAC  
 production,  
 R&D, logistics



Cleanroom engineering,  
 design, planning,  
 execution, assembly,  
 construction



Flexible cleanroom  
 solutions for  
 microelectronics



Energy  
 management, virtual  
 power plant

Technology has always been at the heart of our company. Ever since the beginning in 1975, we are creating technology that impacts people's lives and makes their working and living environment healthier and safer, and the future stronger.

**Today Amelicor Group is one of the global leaders in HVAC, Cleanroom Solutions, and CAPEX engineering in Pharma, Healthcare and Microelectronics, operating in more than 50 countries worldwide.**



## OUR EXPERTISE

- Design and manufacture high-quality Cleanroom/HVAC equipment
- Cleanroom technology and engineering
- Providing fast-track projects for pharmaceutical, microelectronics, health and automotive industry
- Logistics, installation and maintenance
- Validation/Qualification services
- Training and after-sales support services



We understand that every cleanroom is unique.  
Our experienced engineers create cleanrooms  
based on specific needs.

### STRENGTHS

- Turn-key solutions tailored to customer needs
- Flexibility and attentiveness to details
- One stop-shop approach to optimize time, energy and financial resources
- Innovation and sustainability

### PHILOSOPHY

- Passion driven
- Commitment to work
- Courage to go forward
- Desire to take care of our employees
- Developing and producing high-tech solutions
- Providing comprehensive engineering services

## Our values

- Constant learning and evolvement
- Foreseeing changes, adjusting our business strategy accordingly
- Focus on the development based on professional knowledge
- Active cooperation with the center of excellence
- Applying the latest technologies
- Financial stability & risk control
- Recognizing challenges, providing solutions
- Innovations, product competitiveness
- Expansion into new markets
- Desirable and competitive employer able to retain and transfer knowledge
- Healthy work atmosphere & work-life balance



## Our story



1975

Klimaoprema  
was founded  
12 empl.

1982

We started  
working in the  
cleanroom industry

2005-2012

First factory in  
Samobor and its  
extension  
6 000 m<sup>2</sup>  
220 empl.

2015-2019

First factory in  
N.Gradiška and its  
extension  
31 000 m<sup>2</sup>  
470 empl.

2021

Aquisition  
of MCRT GmbH  
600 empl.

2022

Amelikor Group  
was founded.  
Expansion to new  
markets  
850 empl.

## WHAT MAKES US DIFFERENT

### FASTER EXECUTION

- Turn-key projects from the earliest phase
- Design, production, construction and CQV with one partner

### COST-EFFECTIVE PROJECTS

- The result exceeds expectations
- One stop-shop
- Fast-track projects
- Responsibility for the final result

### PEOPLE RELATIONS

- Close cooperation with the project management
- Prevention of poor communication



**1000+**  
employees

**250 000 m<sup>2</sup>**  
panel/year

**250**  
types of products

**3**  
production facilities



**143**  
employees

**25**  
PM/CM

**26**  
engineers

**52**  
installation crew

## YOUR BENEFITS

- In-house production with robotics department
- Experienced well-coordinated company
- In-house R&D
- Customized solutions
- Achieving ambitious deadlines
- Cost effectiveness

## ENGINEERING

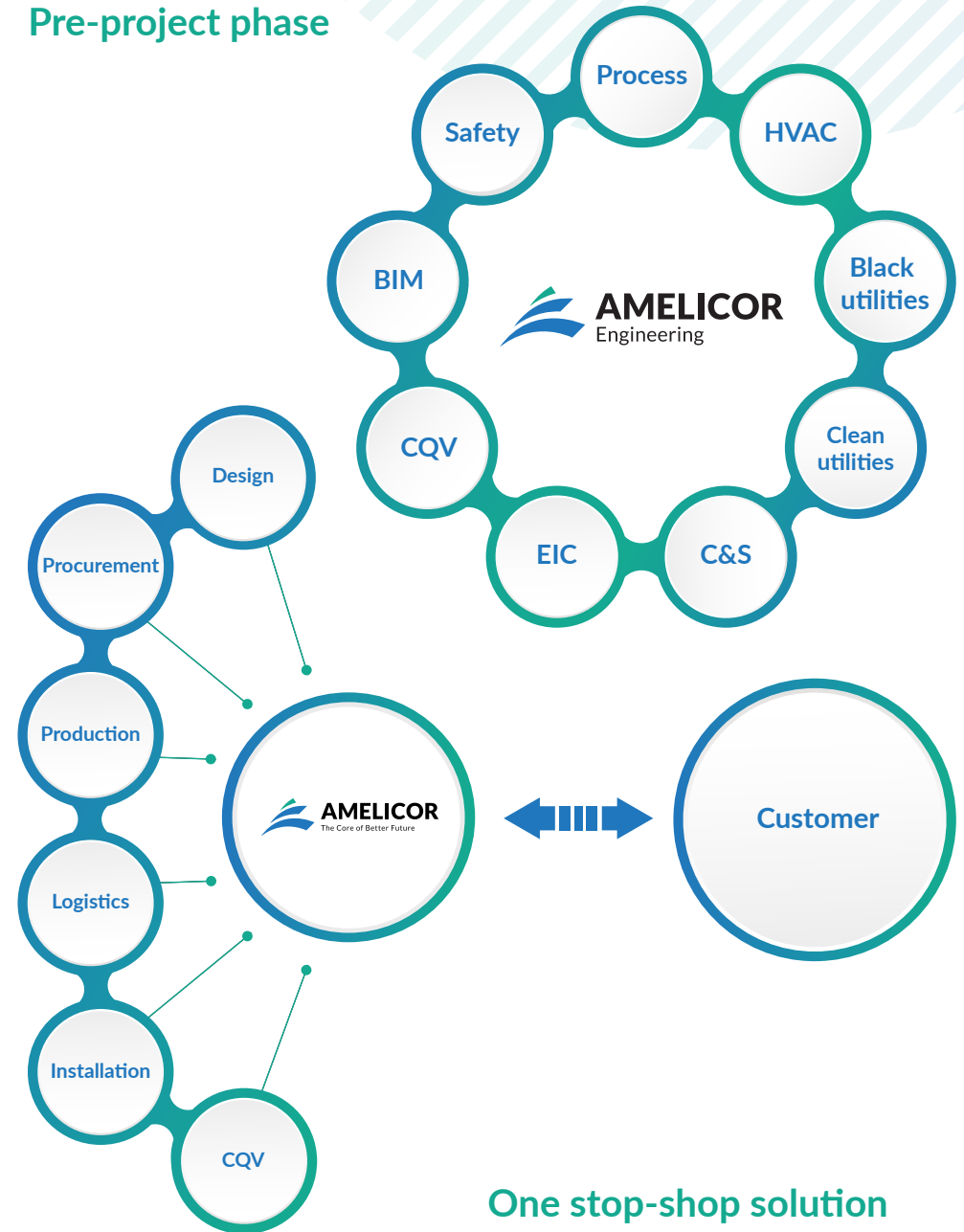
  
Pharmacy

  
Microelectronics

  
Healthcare

Turn your idea into reality.

Pre-project phase

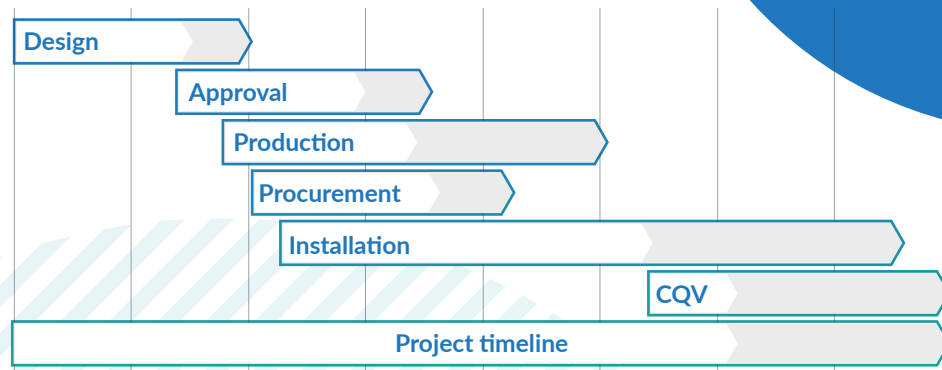


One stop-shop solution

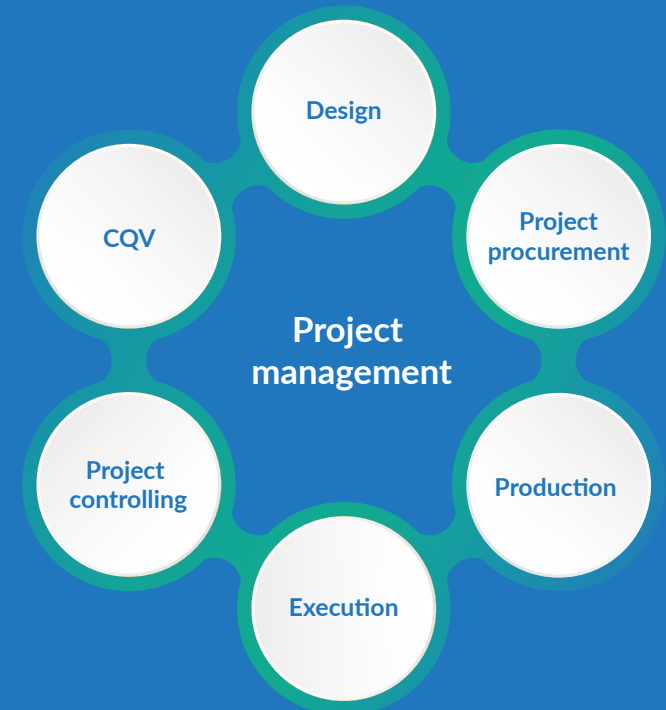
## Project management

- Clear, organized plans
- Managing budgets and timelines
- Documentation control
- Well defined goals
- Team accountability
- Interdependencies across teams
- Early risks identifying
- Visibility to project progress and status
- Balance between the time, cost and quality

One stop-shop approach results in fast and cost-effective projects.



Teamwork.  
Incredible power  
to achieve anything.



## Design

- Evaluating the personnel and material workflow
- Defining the cleanliness classes
- Defining the pressures and air-flow
- Defining all relevant parameters
- Mechanical installations layout
- Heating/Cooling calculations

## BIM modeling

- Information for multiple disciplines, companies and project phases
- Managing design information across life-cycle of entire project
- Shared file of design components, tools, workflows, and production standards
- Efficient coordination of building system
- Creation of simulation scenarios by defining areas, activities and operational information
- Establishing customizable requirements

Feasibility study

Conceptual design

Basic design

Detailed design

"As built" design

Excellence and innovation  
built into every design.

## Visualization

- Enabling virtual design reviews
- Enabling setting-up a digital twin of the facility
- Ensuring crystal clear communication and direction for flawless project execution, time and cost savings
- Enabling customer to have accurate building plans and 360° image
- Minimisation of re-planning efforts
- Remote and effective communication with team members





## Project procurement

- Planning of internal/external items
- Vendor evaluation
- Vendor coordination
- Fully transparent procurement process
- Creating and controlling procurement documentation
- Minimizing the risks
- Ensuring compliance with the specifications
- Maintaining high ethics codes

We adhere to strict codes of conduct and make sure our process meets the customer's needs.

## Production

- 3 production facilities (approx. 40 000 m<sup>2</sup>)
- High-rack storage warehouse
- Robotized and automated production lines
- CNC machines
- Monitoring by MES software
- Incoming and outgoing quality control
- Waste management



Equipment you can count on.  
People you can trust.

## Production capacity

**100** m<sup>2</sup> / 1h  
cleanroom panels

- Automated and robotized Cleanroom production lines
- Production based on innovative and sustainable solutions
- No impact on the environment
- Focus on a safe and healthy working environment
- Focus on the behavior and business model of material suppliers

**We create cleanrooms,  
respect details, and solve problems.**

## Execution

Execution is a structured database for Good Engineering. Practices fully integrated within our Quality Management System (QMS).

Based on Amelcor's guidelines for Project Execution Model and external standards, it includes all elements of a project life-cycle from the Front End (Conceptual Design), Engineering (Basic&Detail Design) to Construction, Commissioning&Qualification and Handover.

## Construction management

Amelcor's construction management approach aims to increase productivity and construction quality from constructability reviews to the completion of the building.

## HSE Health, Safety&Environment

Millions of hours are spent working across our international operations every year. Our number one priority is to ensure everyone's safety each day. Amelcor Group approach ensures safety as an integral part of design processes. The result is a safe project and facility to use after the handover.



## CQV

### Commissioning, Qualification, Validation

Amelcor Group offers complete turn-key services such as the design, manufacture, construction of cleanrooms, as well as servicing, regular preventive maintenance, and validation.

Regular servicing, maintenance and validation of equipment or facilities ensure safety during the use and longer life. Our modern approach to running a system requires continuous maintenance and documentation traceability throughout the exploitation.

## SERVICES

- HVAC commissioning and balancing
- Cleanroom and device qualification
- Integrity testing of HEPA filters
- Particle counting
- Cleanroom recovery test
- Smoke test
- Temperature mapping/monitoring

## DOCUMENTATION

- URS – User Requirement Specification
- GMP RA – Risk Assessment
- RDS – Room Data Sheet
- FS – Functional Specification
- TS – Technical Specification
- DQ – Design Specification
- MC – Mechanical Completion
- FAT – Factory Acceptance Test
- SAT – Site Acceptance Test
- IQ – Installation Qualification
- OQ – Operation Qualification
- TEMPERATURE MAPPING cold or hot rooms, chambers, warehouse
- Calibration certificates

## QMS Quality Management System

Amelcor Group QMS is a process-oriented, integrated management system that ensures requirements specified in ISO 9001.

Through the implementation and compliance with the QMS requirements, we make sure our services are in line with customer expectations, regulatory requirements and the company's own requirements at all times.

Amelcor Group QMS is certified in accordance with an internationally approved and accredited certifying body.




## SELECTED REFERENCES







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