FROM RESEARCH TO INDUSTRY

cea tech

CEA TECH SERVICES FOR THE FACTORY OF THE FUTURE

Technology for tomorrow's factories

CHALLENGES FOR THE FACTORY OF THE FUTURE

Productivity and flexibility
Virtual factories, production line design and modelling, cost and space optimization, multifunction production lines

Energy and the environment
Waste and emissions treatment and recycling, biomass, energy efficiency, integration of renewables, lifecycle analysis, water quality and savings

Ergonomics
Handling assistance, information and communication, human-machine interfaces, interactive decision-assistance tools, "companion robots"

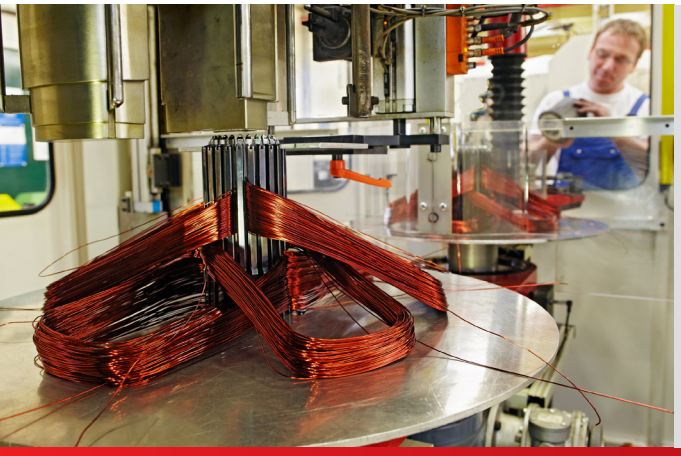
Security
Worker security, securing the working environment, emissions control, traceability

Continuous product design and quality
Customer feedback management, information logistics, collaborative design, defect detection, quality control and monitoring

Training
Virtual training workshops, robotically-assisted training, virtual protocols, distance learning, "school at work"

CEA Tech technology

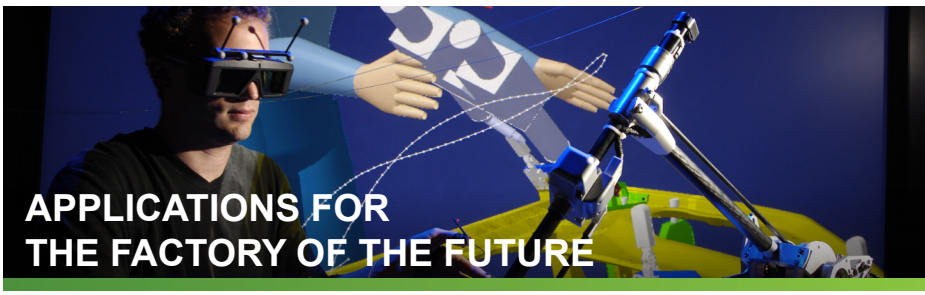
- Thermal systems
- Robotics and cobotics
- Non-destructive testing
- Data processing and knowledge management
- HMI, virtual and augmented reality, interactive simulation
- Sensor networks
- Vision systems



CEA Tech can help the following businesses:

- Manufacturers in all industries
- Production-line equipment manufacturers
- IT services companies
- Technical certification centers

Here are some of the ways CEA Tech can support your development:



Robotics and cobotics	Reduce repetitive stress injuries, provide handling and palleting assistance
Non-destructive testing (x-ray, ultrasound, etc.)	Quality control simulation and strategy development, weld and composite material characterization
HMI (virtual and augmented reality)	Maintenance assistance, virtual training workshops, real-time information eyeglasses, multi-mode interfaces (programmable buttons, haptic feedback interfaces)
Vision systems	Worker safety, product control via color or shape recognition, quality control of production inputs
Sensor integration	Gas detection, emissions control, water quality, worker safety and geolocation
Thermal systems	Heat-energy recovery, storage, and recycling; heat networks
Interactive simulation	Assistance designing production lines and workstations to reduce RSIs and increase productivity; training
Energy production	Energy systems for industrial handling equipment, factory energy efficiency, energy recovery
Materials	Surface treatment to improve production tools, mold coatings to boost productivity, materials for reactors, paint durability
Big data and data analysis for e-services	Optimized data flows for logistics, continuous design and quality control via social networks, quality feedback for purchasing and procurement (inventory optimization)
Connectivity and protocols	Remote administration of sensor networks and communication protocols
Data mining and expert systems	Information management and expert systems for more efficient factories
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