SAFETY DESIGN PACKAGES
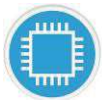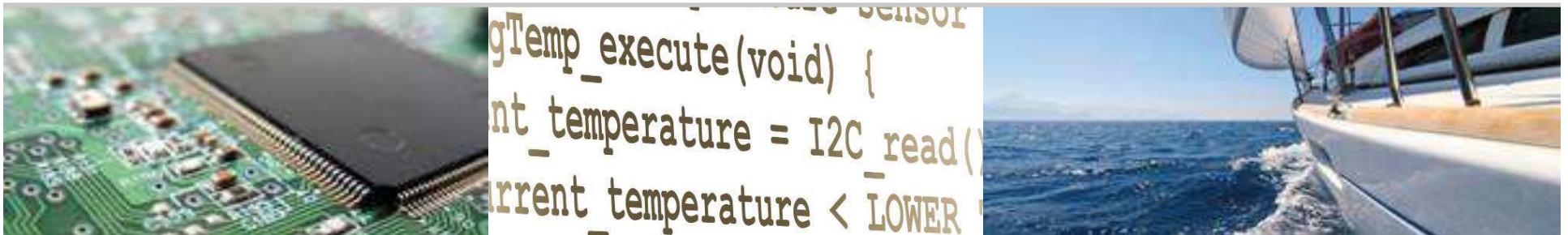
Innovative electronics development by experts

… where ideas turn into success!

THE COMPANY

…where ideas turn into success!

MESCO is your partner for innovative software and hardware development in the field of process and factory automation.

We have a unique and comprehensive knowledge in the areas of industrial communication, functional safety and explosion protection.

Benefit from our many years of expert knowledge and our expertise in the development of customer-specific solutions from concept to approval.

OUR RANGE OF SERVICES

Factory Automation & Process Automation
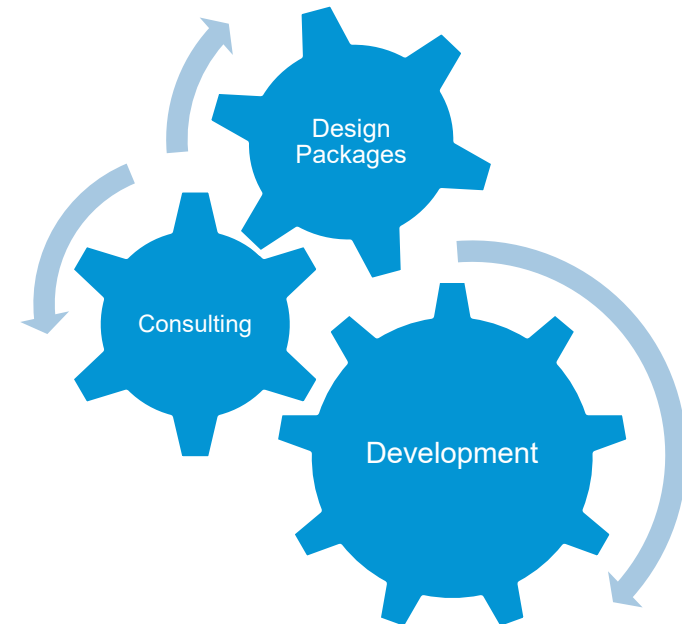
Tailor-made Development Solutions

Customized hardware and software development with flexible use of design packages.

Directly applicable DESIGN PACKAGES

Proven circuits and software components for rapid implementation of your development project.

Development Consulting

Development accompanying consulting and coaching in the areas of functional safety, explosion-proof and industrial communication.

Design Packages

Consulting

Development

OUR OFFERING

MESCO

Your success is our driving force

Consulting

- Technology Consulting
- Functional Safety Management
- Explosion-proof trainings
- Industrial Communication
- Support in the creation of Requirements

Concept – **Architecture**

- Creation of the Functional Safety Concept
- Creation of the Explosion-proof Concept
- System Architecture
- Quality Assurance Measures

Development – **Design / Implementation / Prototyping**

- Hardware Development
- Software Development
- Safety Development
- PCB Layout
- Prototyping
- Type Testing
- Integration Test
- Use of existing Safety Design Packages
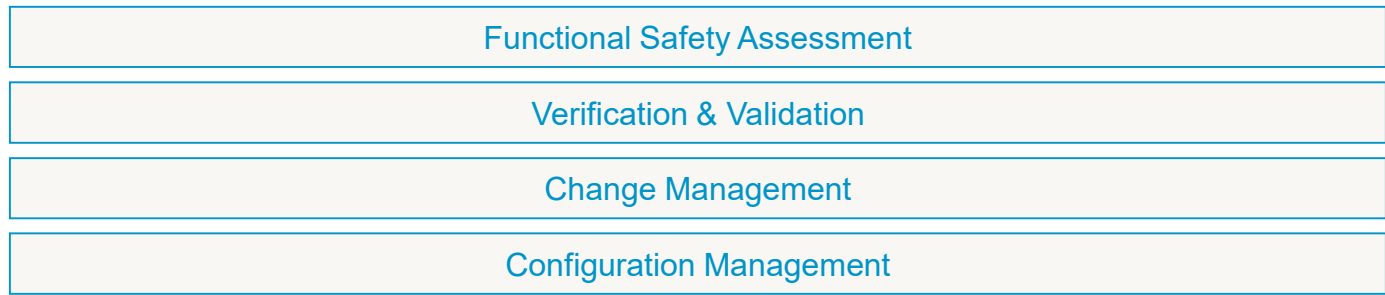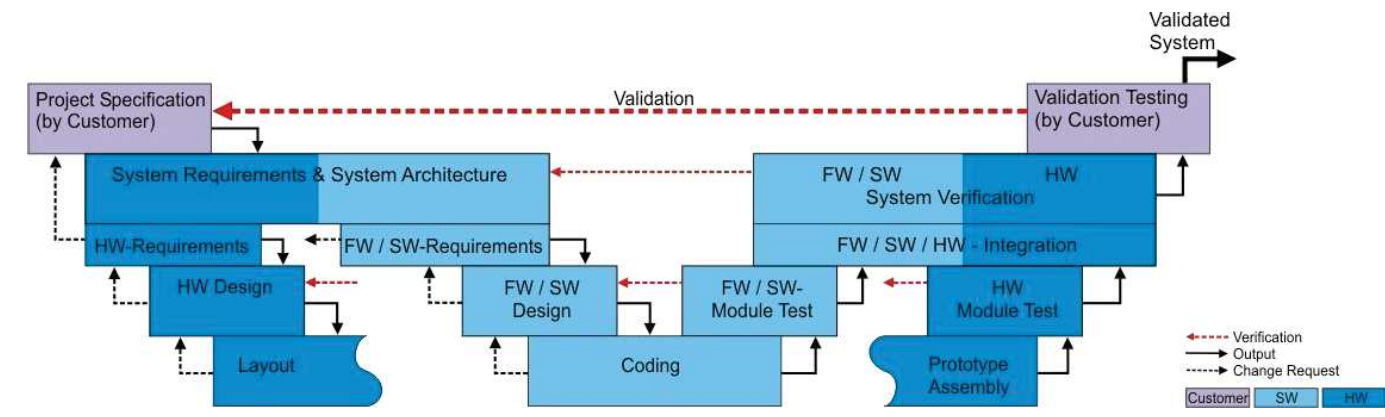- Support of product launching into production

Certification

- Comprehensive Support of the Certification

FUNCTIONAL SAFETY DEVELOPMENT

MESCO

MESCO Development - Process (V-Model)

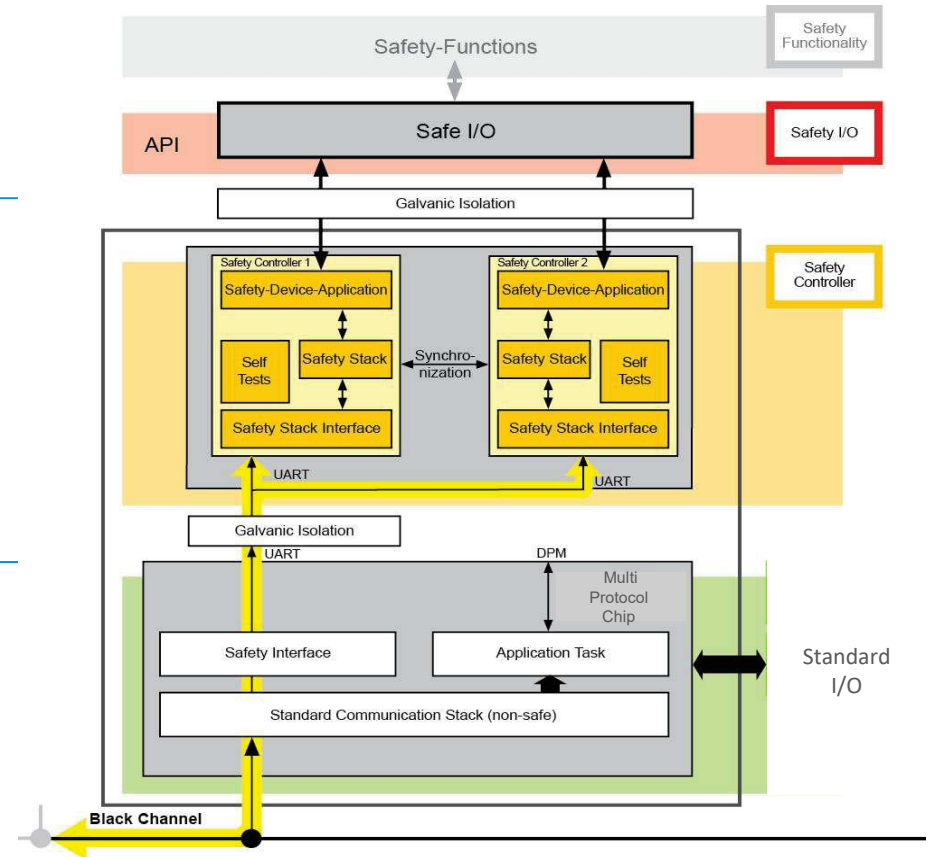| Functional Safety Assessment |
| :---: |
| Verification & Validation |
| Change Management |
| Configuration Management |

ARCHITECTURE OF SAFETY ELECTRONICS

Safety Module with Safe Communication

- Safe Inputs and Outputs
- Safe serial interfaces

- Packing and unpacking of safe F-Data
- Implementation Safety Communication Profiles
- 1oo2 Architecture with Synchronizing
- Activation of Safe Functions

- Separation Safe / Nonsafe communication packets
- Safety Industrial Communication (Black Channel)
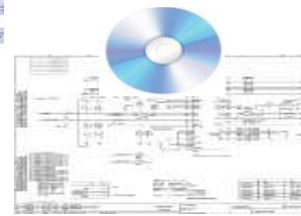
What is a DESIGN PACKAGE?

Description

As a result of many years of experience in the field of product development
MESCO has come up with the concept of Safety Design Packages

MESCO Design Packages are:

Hardware / Software Packages with proven circuits and software components/ libraries:

- Functional blocs
- Requirements & Architecture
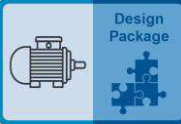- Software Code
- Schematics
- Test
- Documentation

Your Requirements ➡ **MESCO Design Package** ✚ **MESCO Development Service** ═ **Your Product**

MESCO SAFETY DESIGN PACKAGES

Build-up with a base board & expansion boards

Design Packages based on

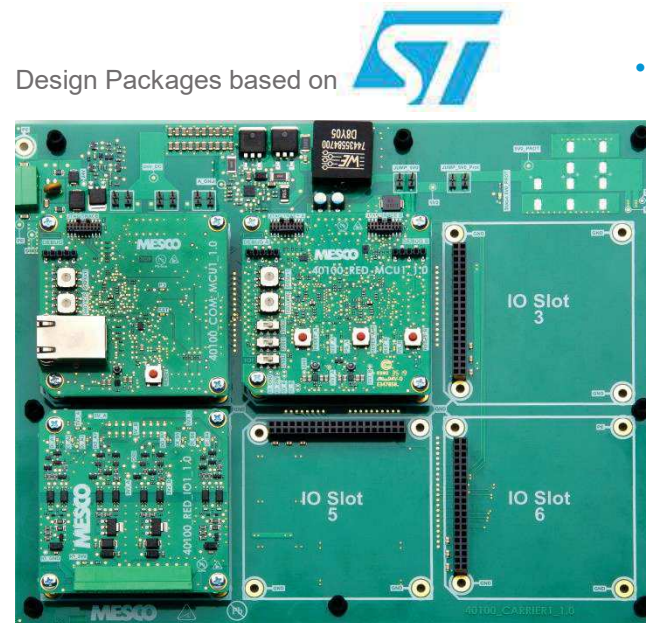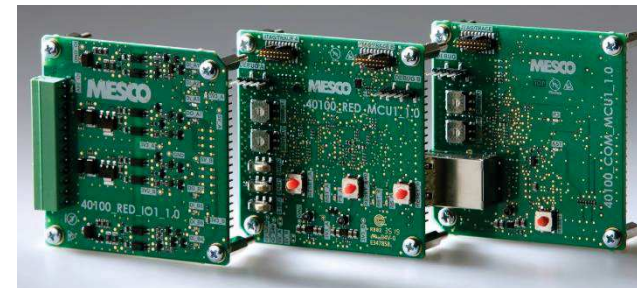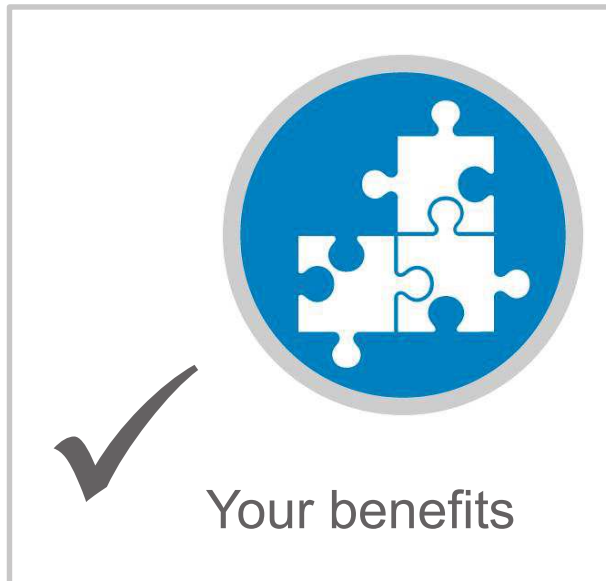- Builded up with a main board & expansion boards as a reference design, our Design Packages simplify and accelerate the development in both safety- and non-safety-related environments.

Motion Control

Sensors/Actors

I/O Modules

Expansion boards

BENEFITS OF USING DESIGN PACKAGES

MESCO

Your benefits

- Reduced specification phase
  relying on base functions of the Design Packages

- Reduced development risk

- Reduced development time and effort

- Project cost reduction

- Shorter time to market

- Lower effort in documentation

- Easy protocol certification

- Lower risk
  through MESCO's TUV certification support

MESCO SAFETY DESIGN PACKAGES

Select your package

		Application		
	Safety Design Packages	Motion Control	Sensors/ Actors	I/O Modules
Safe Ethernet Communication Profile		x	x	x
Safe Fieldbus Wrapper		x	x	x
Safe Core Architecture 1oo2 SIL3		x	x	x
Safe Core Architecture 1oo1 SIL2			x	x
Safe CrossComm		x	x	x
Safe Task handler		x	x	x
Advanced Safe Drive Functions		x		
Safe Drive Service Interface		x		
BiSS Safety Master		x		
Hiperface DSL Master		x		
IO-Link Safety Master				x

- **Supported protocols**

OUR SAFETY EXPERTISE

Many years of Expertise. Well-trained engineers. Certified processes.

- More than 25 years experience in the development of industrial electronic designs
- > 12 completed projects for safety related applications
- > 8 years close cooperation with TÜV
- > 15 years experience on development of safety related electronics
- TÜV certified hardware and software engineers

- > 50 MESCO engineers, with Master, PhD certificate in Math, Physics …
- TÜV certified and established functional safety management process
- Independent teams for quality assurance and project milestone and gate controlling
- ISO 9001 certified , IEC 61508 FSM certified
- PROFIBUS Accreditation as PROFIdrive and PROFIsafe competence center

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