

# *F75P Railway Certification Packages*

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# *Benefits of a Certification Package*

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Shortens Time to  
Market

Reduces Customer  
NRE

Reduces Certification  
Risk

Gives Central Support

## *Two Packages Available*



**Same basis:** SIL 4 railway certification package according to EN 5012x

For F75P hardware

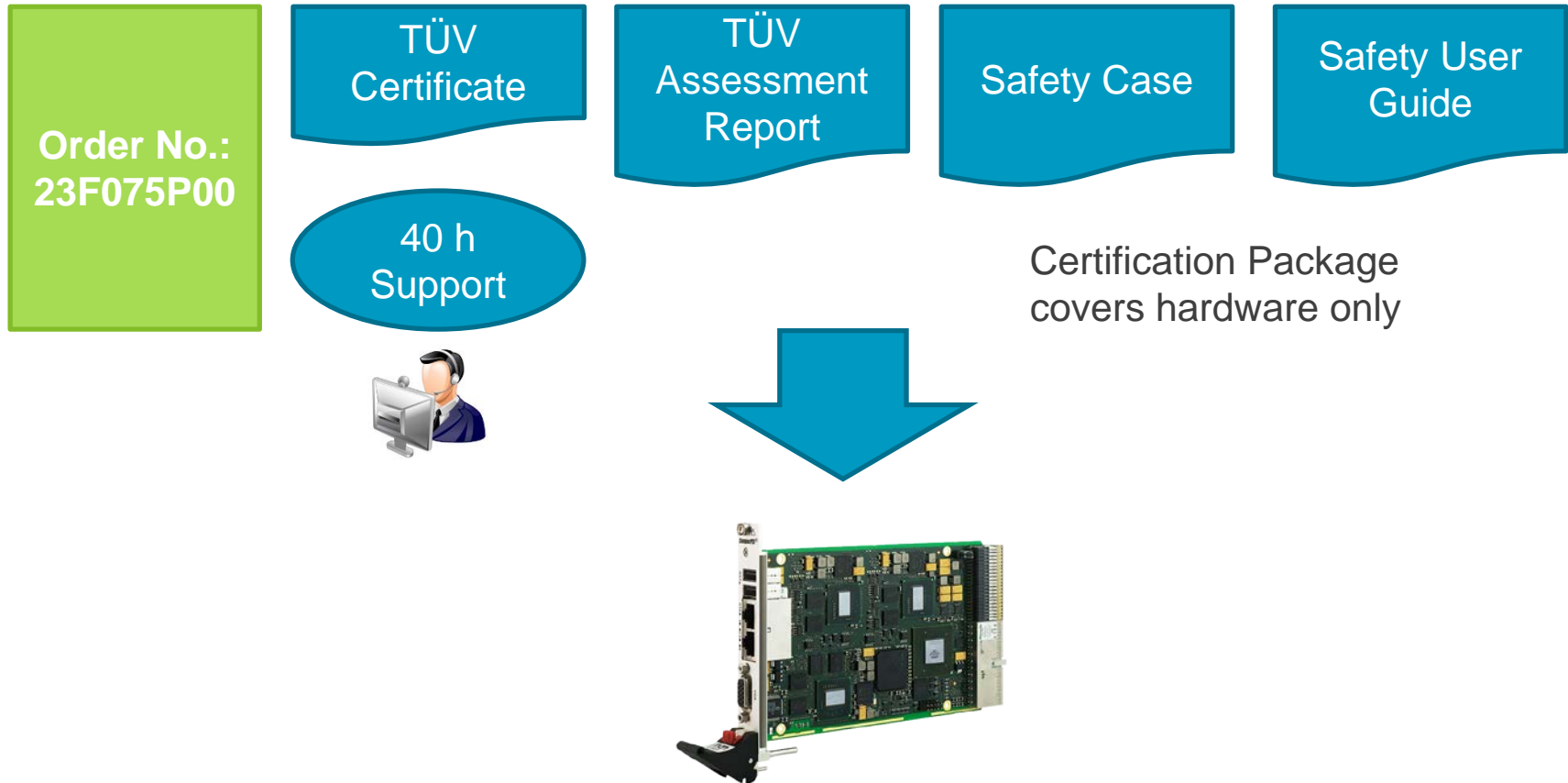
For F75P hardware +  
QNX



# F75P Certification Package



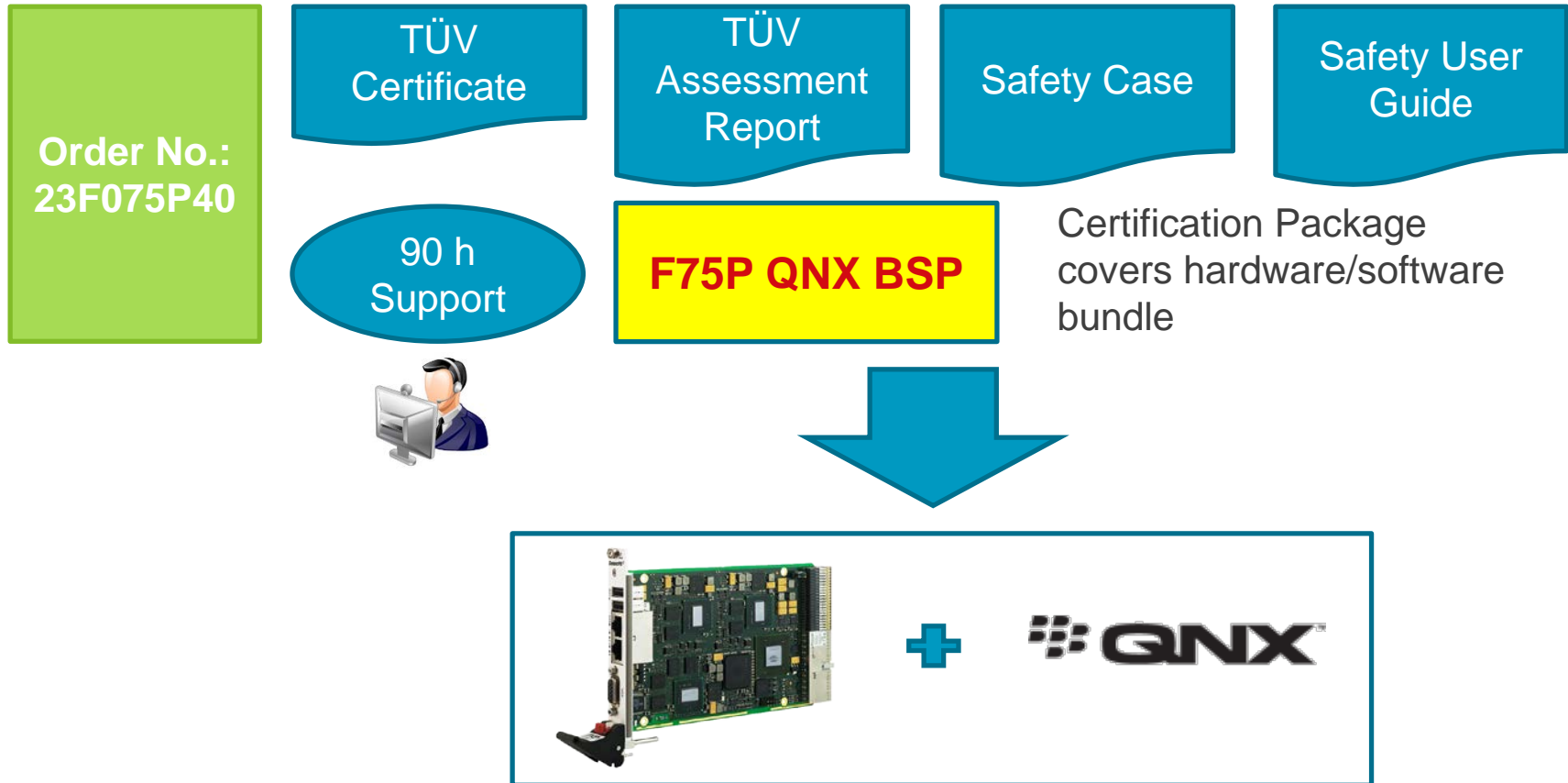
SIL 4 railway certification package according to EN 5012x for F75P including:



# F75P & QNX Certification Package



SIL 4 railway certification package according to EN 5012x for F75P with QNX, including:



# What's Included in the Certification Packages?



## + Included in 23F075P00

- Safety User Guide including safety-relevant application requirements, detailed description of the hardware and instructions for appropriate operation
- Safety Case describing the concepts for reaching functional safety as well as all safety and quality-relevant processes and measures to meet the SIL 4 requirements
- Assessment report and SIL 4 certificate from TÜV SÜD (German Technical Inspection Agency)
- 40 hours support

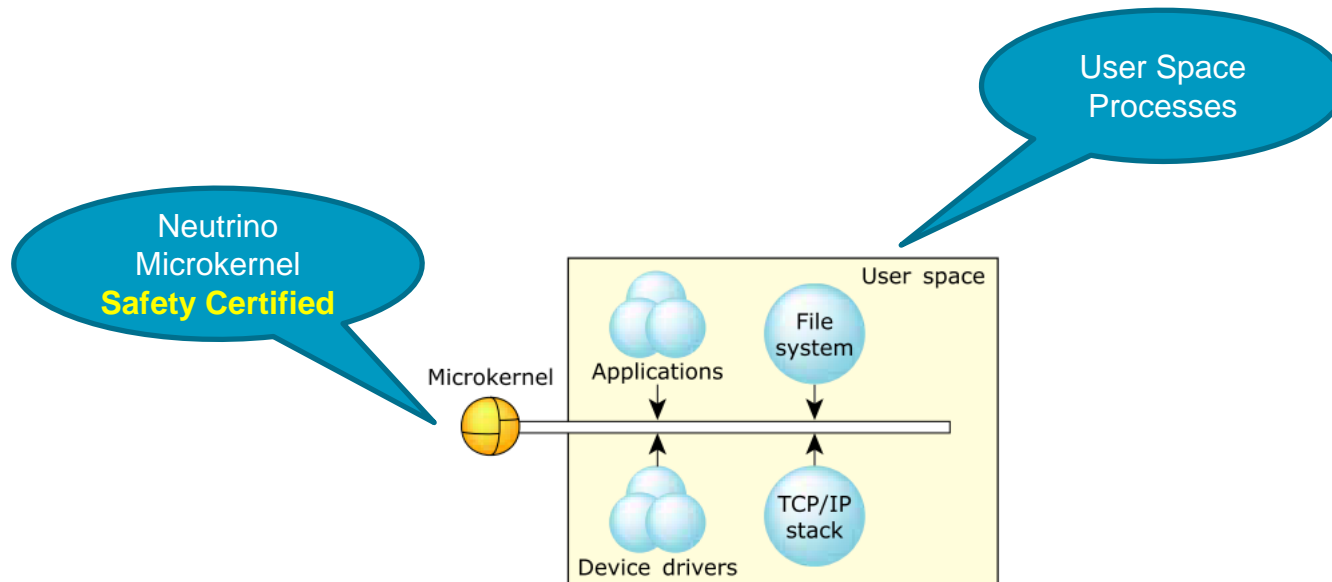
## + Included in 23F075P40

- Safety User Guide including safety-relevant application requirements, detailed description of the F75P/QNX HW/SW package and instructions for appropriate operation of the hardware/software package.
- Safety Case describing the concepts for reaching functional safety as well as all safety and quality-relevant processes and measures to meet the SIL 4 requirements
- Assessment report and SIL 4 certificate from TÜV SÜD (German Technical Inspection Agency) covering the F75P/QNX hardware/software bundle
- Safe QNX BSP for F75P Control Processors including Safety Manual and User Manual
- 90 hours support

## - Not included

- Hardware
- QNX Kernel

# Why QNX? Because it's Safe!

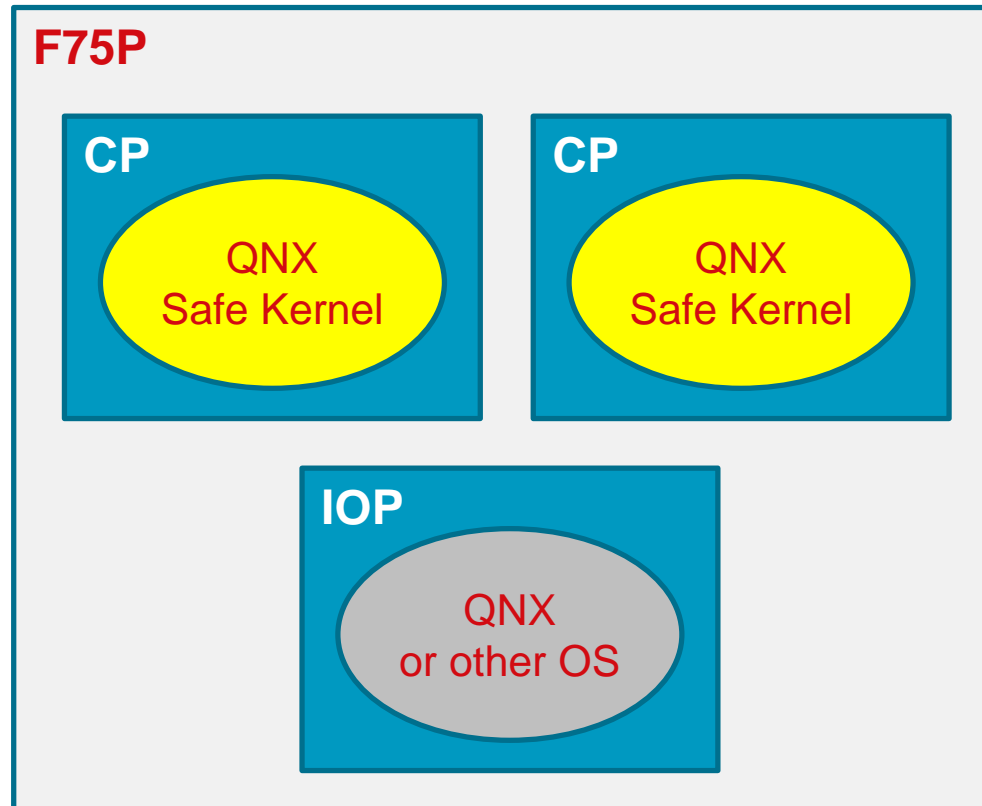


Neutrino:

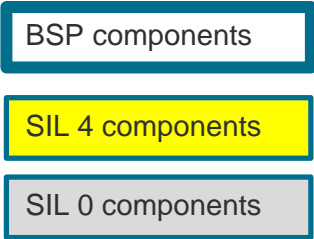
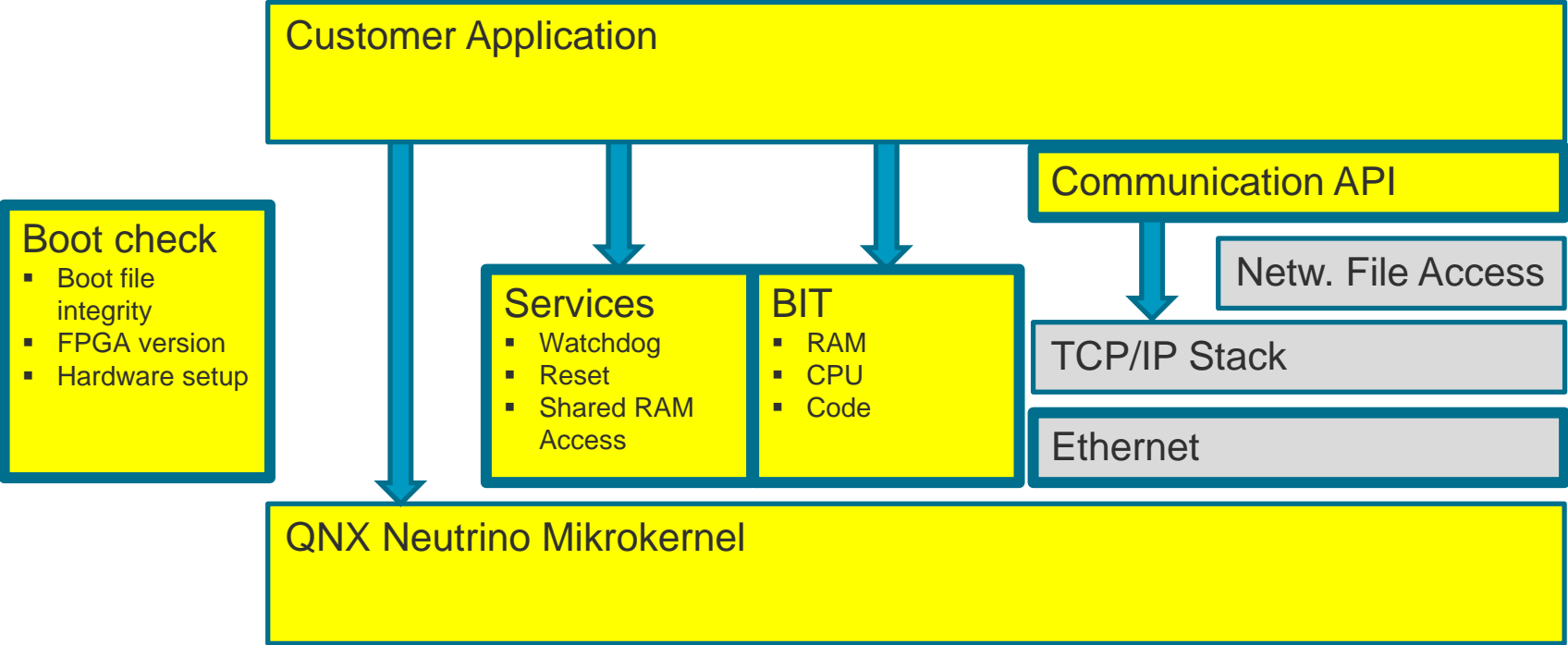
- Memory protection
- Interprocess communication
- Deterministic scheduling

Neutrino protects user processes from each other:

- Processes can have different SIL
- Standard drivers/middleware can be used







# F75P/QNX Safety Bundle



A safe operating system bundled with safe hardware

**F75P Safe Hardware**



**QNX Safe Kernel**

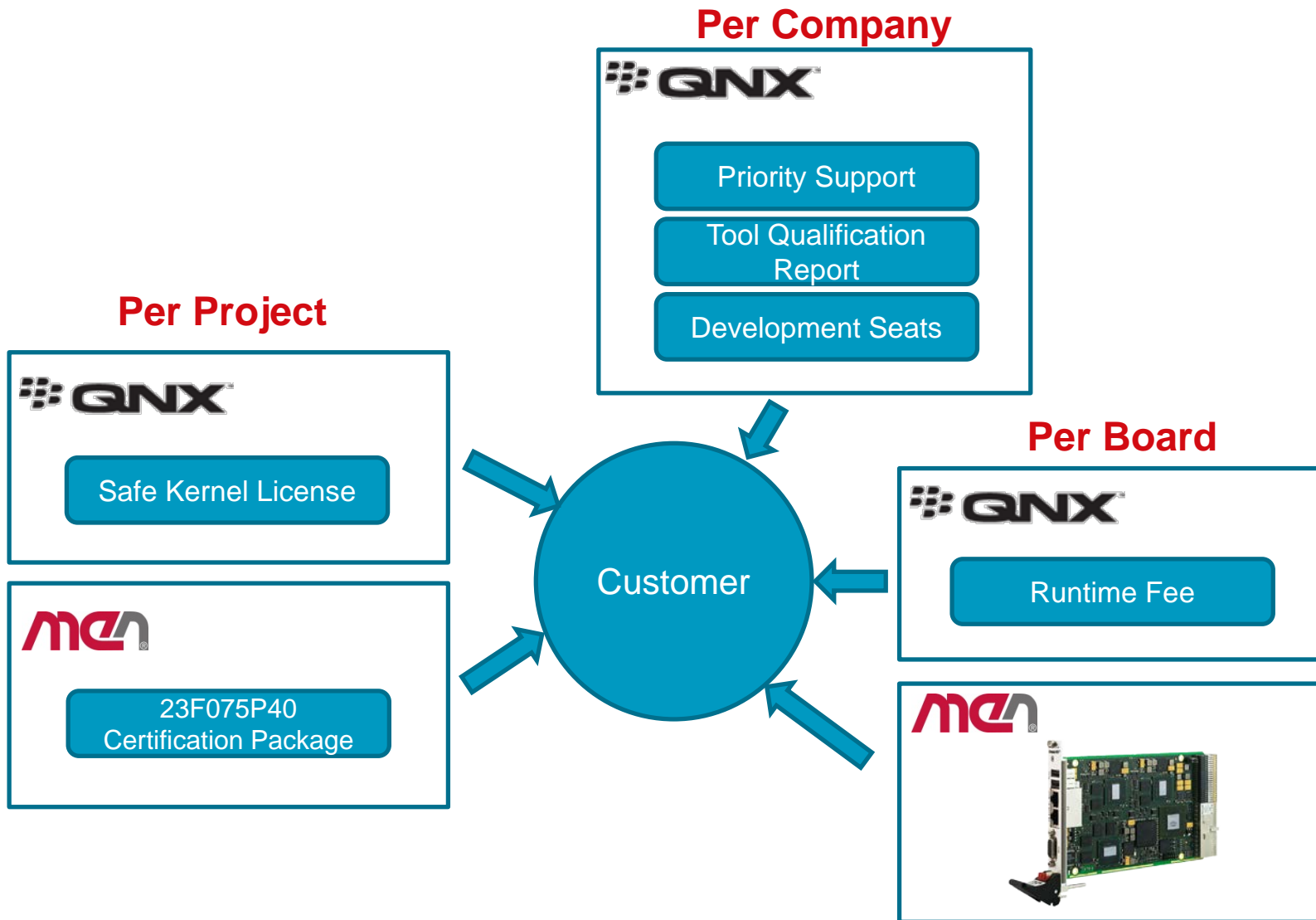


**Certification Package**

F75P/QNX  
Certification Package  
incl. QNX BSP



**Ideal combination to build functionally safe systems**



MEN offers railway certification packages

- for F75P hardware and
- for F75P hardware + QNX software

MEN provides a safe hardware/software bundle



- F75P + QNX on Control Processors
- No need for customer to develop/order his own safe BSP
  - Saves time: BSP will be in place
  - Saves cost: only need to buy certification package and QNX licences
  - No risk: BSP comes with certificate
- Central support contact
  - MEN provides central support for all questions around F75P and QNX BSP

**Please contact us to get more information about the certification packages and to request a copy of the documents.**

**[www.men.de/contact/](http://www.men.de/contact/)**

**Typically**



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