

# Fill the gap!

New product standard: IEC 82304-1





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# QAdvis team

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# QAdvis key competence areas

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## **QMS in-the cloud**

Turn key quality systems  
Sharepoint based  
Digital signatures  
Efficient and lean  
Validated and compliant

## **System development**

Project management  
Product software validation  
Regulated software validation  
Requirement management  
Risk management  
Verification and validation  
Process validation

## **QA&RA/Clinical Consulting**

Interim management  
Expert advise  
Audits/Mock audits/assessments  
Warning letter, compliance projects  
PMA, 510k, CE-mark, EC-cert  
Global regulatory support  
Vigilance, recall, post market survey  
Clinical evaluation/clinical study

## **Training/courses**

CE-marking  
ISO 13485  
IEC 62304 & IEC 82304-1  
IEC 60601-1  
SW life cycle  
SW risk management  
FDA's QSR  
Risk management  
Etc

## **Lean and Six Sigma**

Training and Consulting  
In cooperation with Oriel  
Stat-A-Matrix Inc.

## **European Authorised Representation**

Providing European representation  
for non-EU MedTech companies  
Active member of EAAR: European  
Association of Authorised Representatives

# Agenda

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- Background
- Scope
- Content
- Relations to other standards
- Status

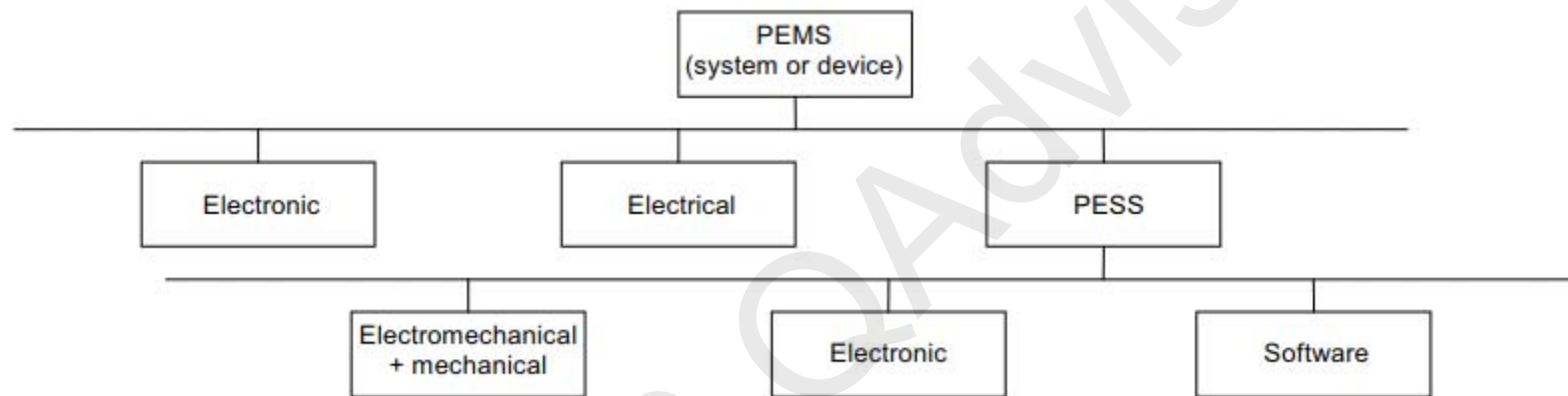
# Background

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- IEC 60601 - series of technical standards for the safety and effectiveness of medical electrical equipment
- Covers PEMS Programmable Electrical Medical Systems



# Background



## 3.90

### PROGRAMMABLE ELECTRICAL MEDICAL SYSTEM

#### PEMS

ME EQUIPMENT or an ME SYSTEM containing one or more PROGRAMMABLE ELECTRONIC SUBSYSTEMS (PESS)

## 3.91

### PROGRAMMABLE ELECTRONIC SUBSYSTEM

#### PESS

system based on one or more central processing units, including their software and interfaces

# Background

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- 60601-1, ed. 3, 2005 => 60601-1, ed. 3.1, 2012



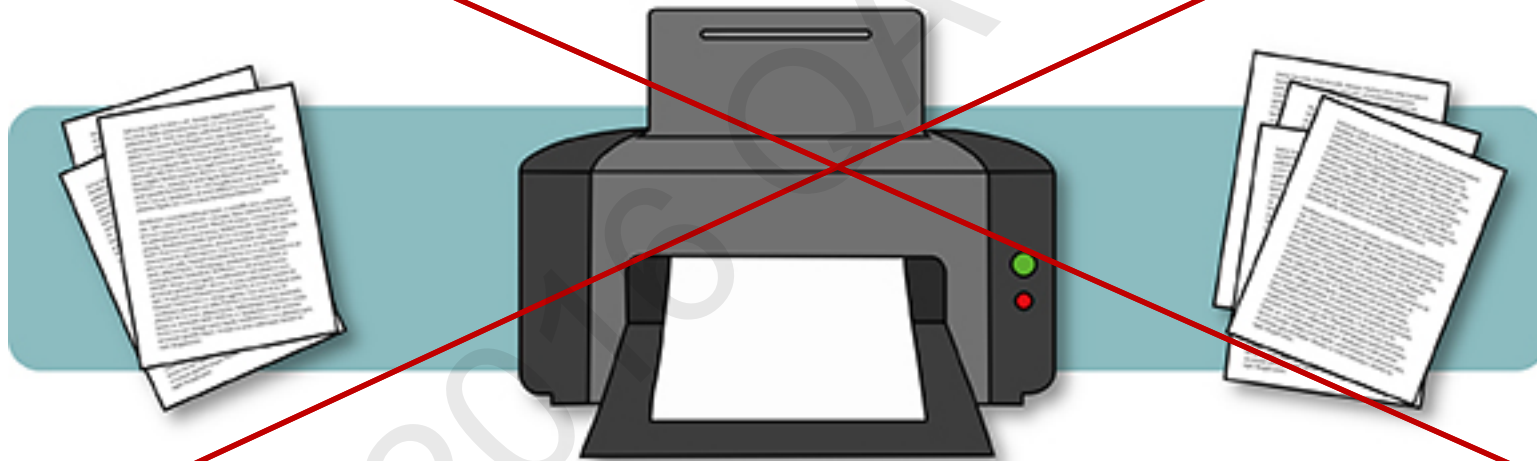


# Background

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Clause 14  
PEMS

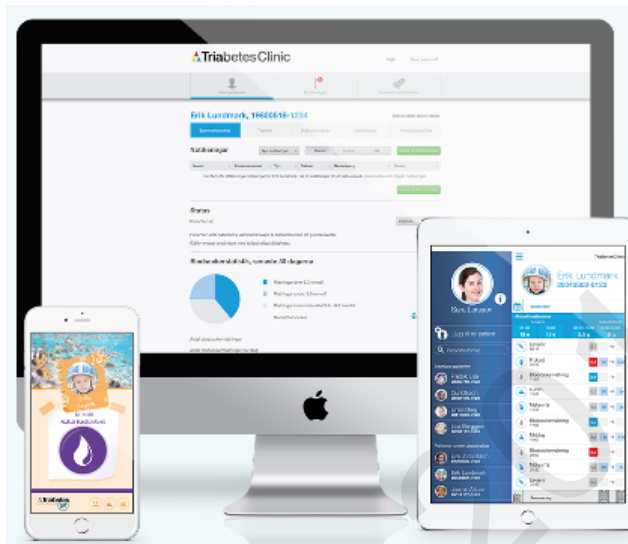
Clause 18,  
“standalone SW”



- **New standard needed! => IEC 82304-1**

# Scope

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1. SW for general computing platforms
2. Health software products
3. Safety & security
4. Manufacturers
5. Entire lifecycle

# Scope

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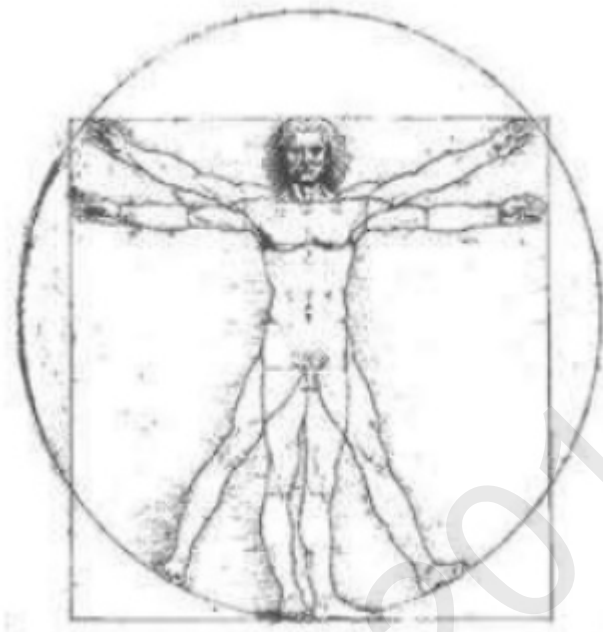


## **SW for general computing platforms**

- Standalone software
- Software medical device
- Software-only products
- SaMD, Software as a Medical Device
- SaaS, Software as a Service

# Scope

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## Health

WHO definition: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1946)



# Scope

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## **Health software**

Software intended to be used specifically for managing, maintaining or improving health of individual persons, or the delivery of care

# Scope

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## **Safety**

Freedom from unacceptable risk



## **Security**

Protection of information and data so that unauthorized persons or systems cannot read or modify them and authorized persons or systems are not denied access to them

# Scope

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## **Manufacturer**



Natural or legal person with responsibility for the design, development, packaging, or labelling of a health software product, or adapting a health software product before it is placed on the market or put into service, regardless of whether these operations are carried out by that person or on that person's behalf by a third party

# Scope

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## Entire lifecycle

- Design
- Development
- Validation
- Installation
- Maintenance
- Disposal



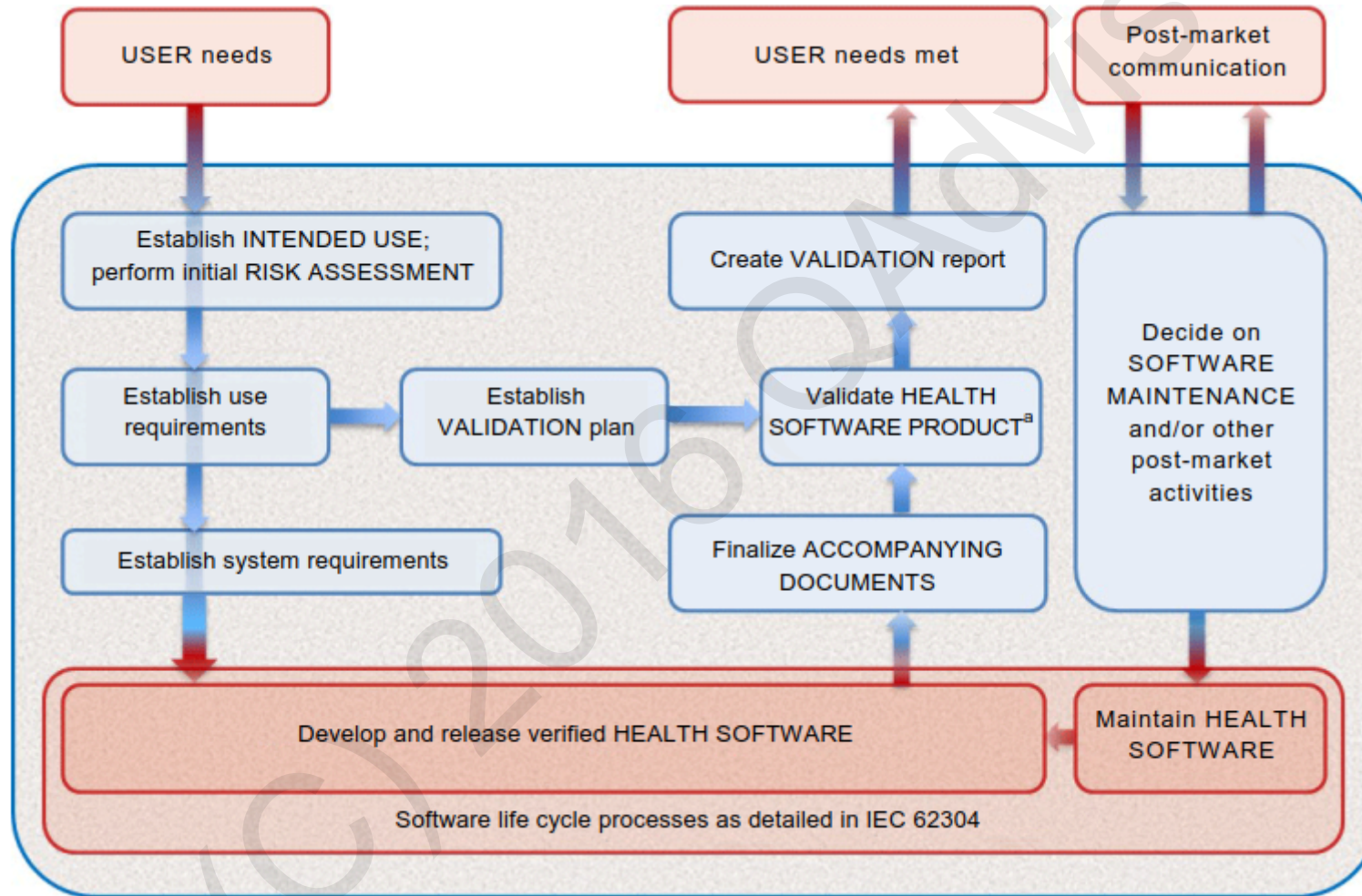
# Content

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## Product standard



# Content



# Content

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- Requirements specification
- Software life cycle processes
- Validation
- Identification
- Accompanying documents
- Post-market activities

# Content

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## § 4 Health software product requirements

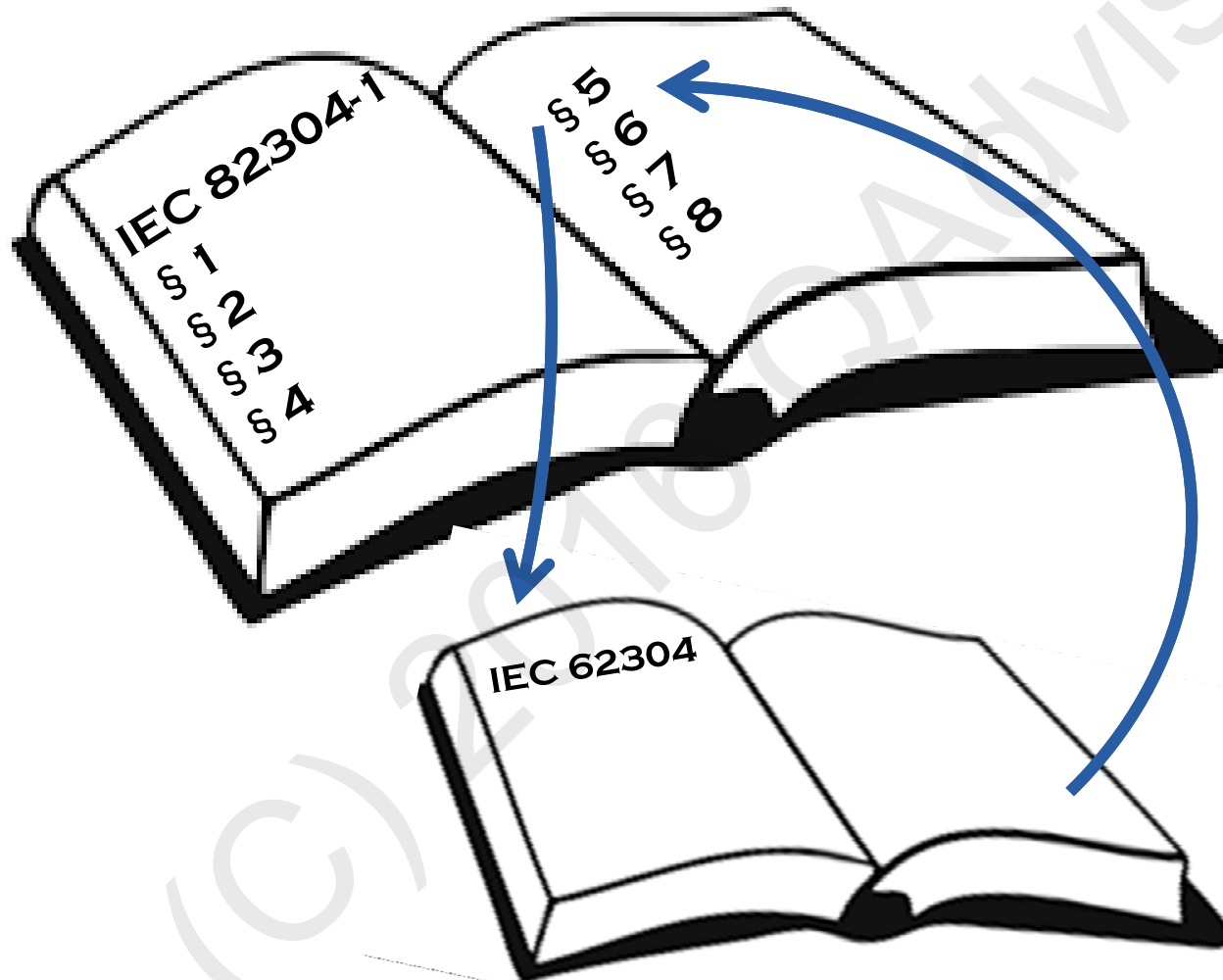


- Intended use
- Product risk assessment
- Use requirements
- System requirements

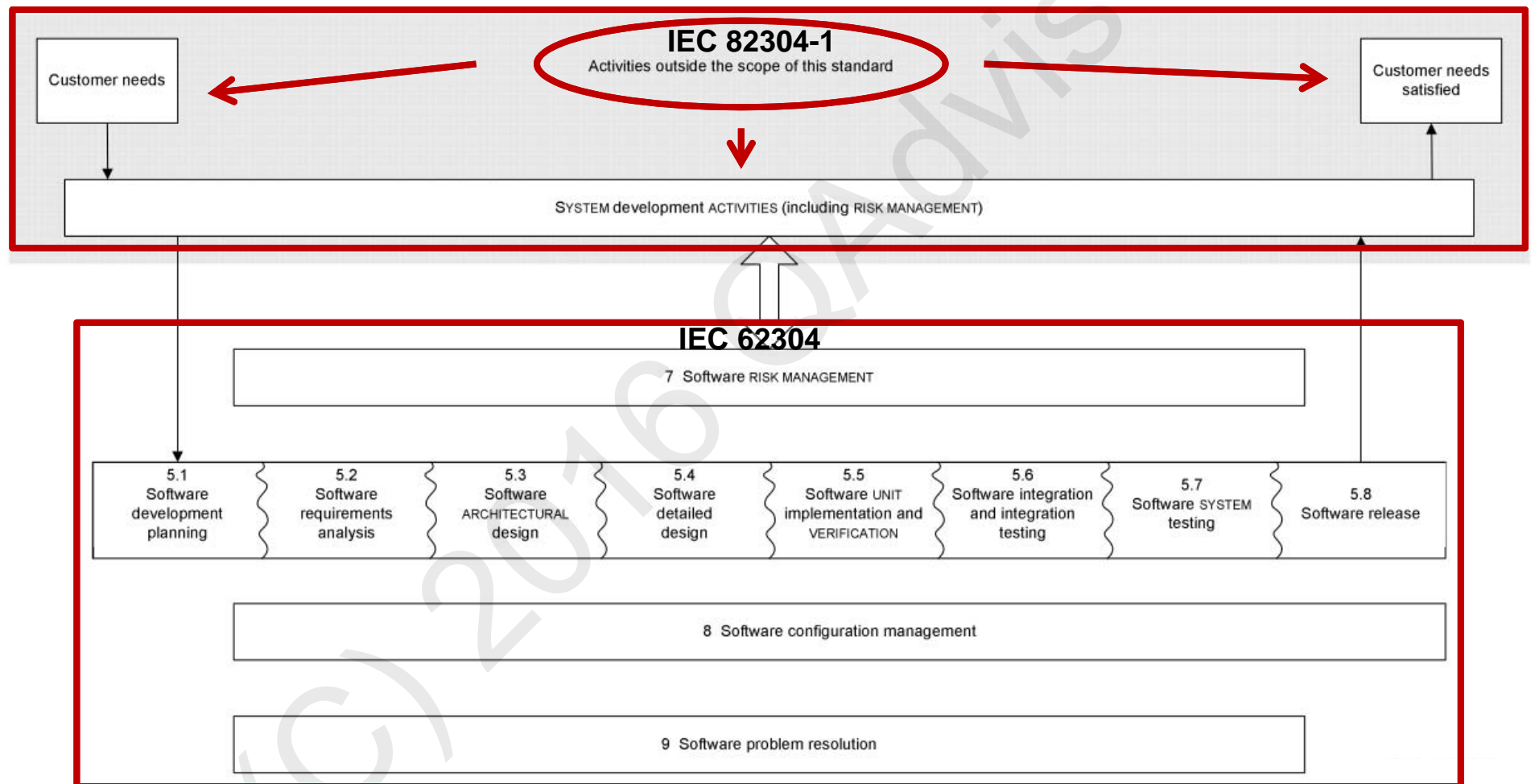


# Content

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# Content



# Content

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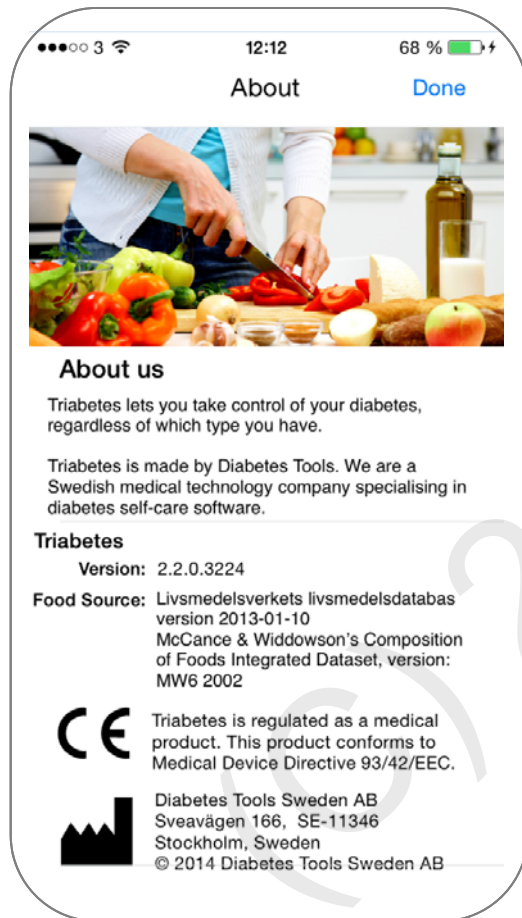
## § 6 Health software product validation



- Address Use requirements
- Plan
- Perform
- Report

# Content

## § 7.1 Health software product identification



- Manufacturer name / trademark
- Product name / type reference
- Version identifier



# Content

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## § 7.2 Health software product accompanying documents



- Manufacturer contact information
- Product identification
- Version
- Instructions for use
- Technical description

# Content

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## § 7.2.2 Instructions for use



- Health software description
- Warnings and notices
- Installation
- Start-up procedure
- Shut-down procedure
- Operating instructions
- Messages
- Decommissioning and disposal
- Technical description

# Content

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## § 7.2.3 Technical description

- System requirements
- Details of the supported SW platforms
- Environmental conditions transport/storage
- Characteristics
- Installation requirements/restrictions
- Maintenance
- Technical security options
- Detection of security breach



# Content

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## § 7.2.3.2 Use in non controlled IT network



- Technical specification, characteristics & configuration
- Information flow
- Hazardous situations
- Risk information

# Content

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## § 8 Post-market activities



- Maintenance
- Re-validation
- Post-market communication
- Decommissioning and disposal

# Content

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## § 8.2 Maintenance



- Errors impacting safety and/or security
- Modifications

**IEC 62304**





# Content

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## § 8.3 Re-validation



- Affected parts
- Update Validation plan
- Supported HW/SW platforms

# Content

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## § 8.4 Post-market communication



- Security vulnerabilities
- New releases
- Upgrade or not

# Content

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## § 8.5 Decommissioning and disposal



- Safeguarding personal and health-related data
- Use requirements

# Relations to other standards

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- IEC 60601, IEC 61010, ISO 14708
- IEC 62304
- ISO 14971
- IEC 80001-1, IEC 80001-2-2
- IEC 62366-1

# Status

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## Next step



- FDIS, Sep 02, 2016
- Voting ends Oct 14, 2016
- Publication, Dec 2016

# Status

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## Next step



- Harmonized standard?



# QAdvis can support you as needed

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## IEC 82304-1

- Gap analysis
- Implementation
- Compliance assessment
- Training
- Performing specific activities e.g. software risk management



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**QAdvis**

# Thank you

## Questions & Answers

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