

26.-27. SEPTEMBER
DIN. E.V. | BERLIN

MEDxD

**MEDTECH
MEETS
DIGITAL**

2023

THE REGULATORY REVOLUTION

MDKU

MEDICAL DEVICE KNOWLEDGE UNITS

**potential of the open source
data model & status update**

Sarah Panten
Speaker of the Board

THE REGULATORY REVOLUTION

MDKU

MEDICAL DEVICE KNOWLEDGE UNITS

Benefits of the Data Model

The MDKU data model will be published free of charge in order to support the industry.

1.
**STANDARDIZED
REGULATORY LANGUAGE**

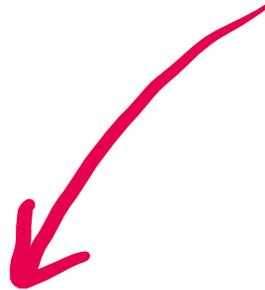
2.
**ACCELERATION
OF DIGITALIZATION**

INPUT FOR REGULATORY DOCUMENTS

**LESS
INCONSISTENCIES**

**MDKU
Data Model**

**EASIER
INTERPRETATION**



Laws

Guidelines

Standards

CONTENT OF KNOWLEDGE TOPIC (KT) DEFINITION

KI ID-3238 - Undesirable side-effects

ID-3133 ID-3161 ID-3229 ID-3308 ID-6410 +

← Unique ID / Name of KT

General KT information

Description:

Side-effect means an unintended effect, usually undesirable, on patients, users or other persons, which occurs during the interaction of the device in connection with the desired effect and which is related to the use of the device, and which is not due to a malfunctioning characteristic or performance, or inadequacy in the information supplied by the manufacturer.

KT Attributes:

- Expected (known)
- Unexpected (unknown)

← Clear description and list of attributes (if available)

CONTENT OF KNOWLEDGE TOPIC (KT) DEFINITION



Information for application of the KT



How is the KT term used?

Information for KT application:

- Expected side-effects must be evaluated in the Risk Analysis AND Clinical Evaluation
- Expected side-effects must be mentioned in the Instruction Manual (IFU).
- (New) Unexpected side-effects are identified via PMCF/PMS data or Clinical Evaluation and sideeffects. should be considered in the PSUR/PMS Report
- (New, unknown) unexpected side-effects are later expected side-effects, when documente

Information for KT Application:

Application for PMS:

MDR ANNEX III: 1.1 (a): The post-market surveillance plan shall address the collection and utilize undesirable side-effects;

MDCG 2022-21, ANNEX III: The manufacturer should assess the data in relation to the threshold benefits intended to be gained.

Binding Force of KT Title: **Regulatory - Mandatory**



How binding is the use of the term?

Limitations: **Unknown (not defined)**

Description of known Limitations: **NA**



Is the term applicable to all medical device types?

CONTENT OF KNOWLEDGE TOPIC (KT) DEFINITION



Background information, why and how the KT was defined

Source of KT Definition: **MDKU Specific**

Justification of KT Definition: German definition available that has been translated.

1) German definition from "Nationalen Arbeitskreis zur Implementierung der EU-Verordnungen MDR/IVDR"

Source: [BMG - FAQ Vigilanz](#):

„Nebenwirkung“ bezeichnet einen unbeabsichtigten, meist unerwünschten Effekt bei Patienten, Anwendern o Gebrauch eines Medizinprodukts im Zusammenhang mit dem gewünschten Effekt auftritt und auf die Anwen der nicht auf eine Fehlfunktion, Verschlechterung der Eigenschaften oder Leistung oder eine Unzulänglichkeit Informationen zurückzuführen ist.

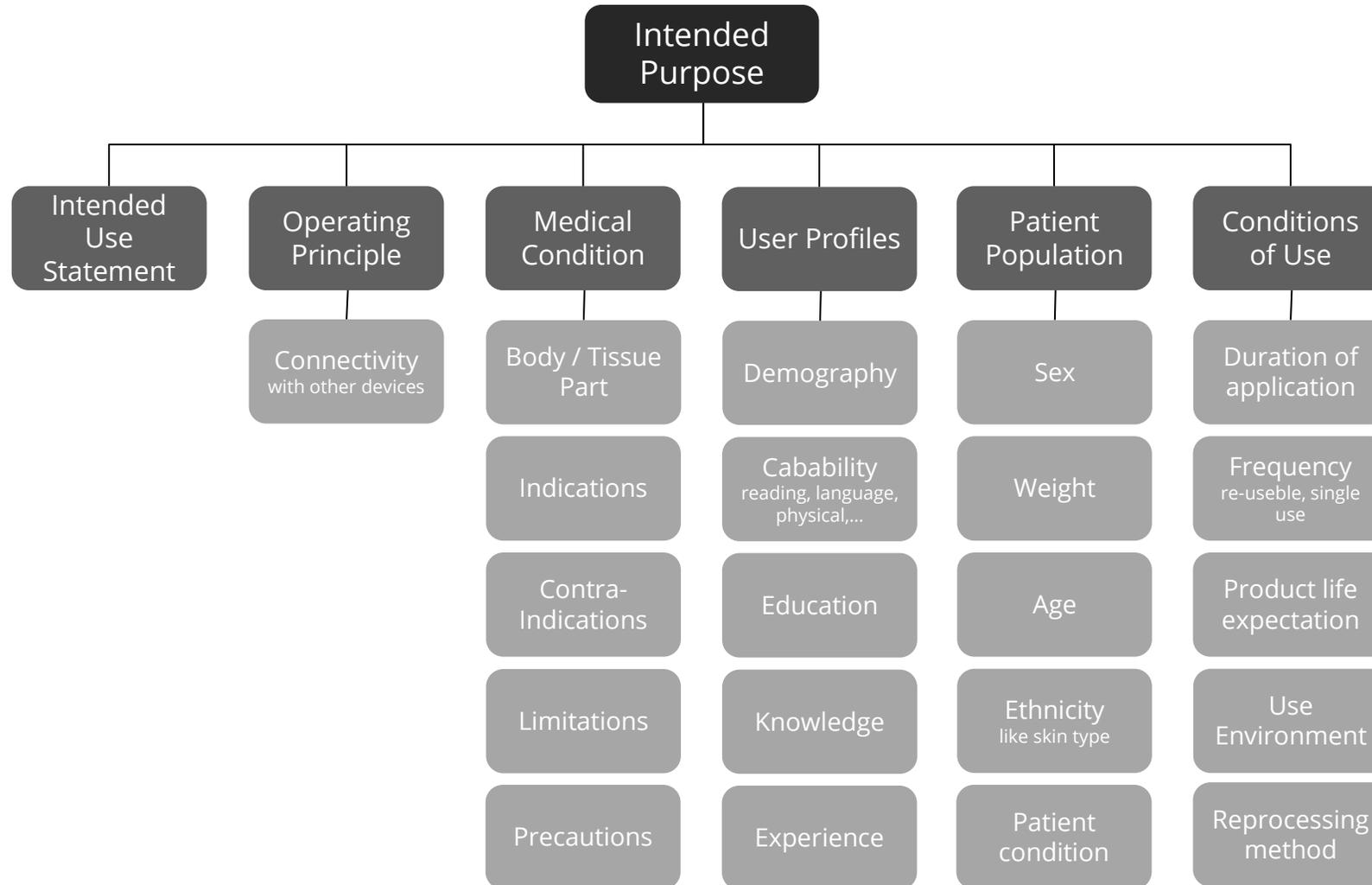
Existing regulatory definitions:

2) MDCG 2023-03 8.:

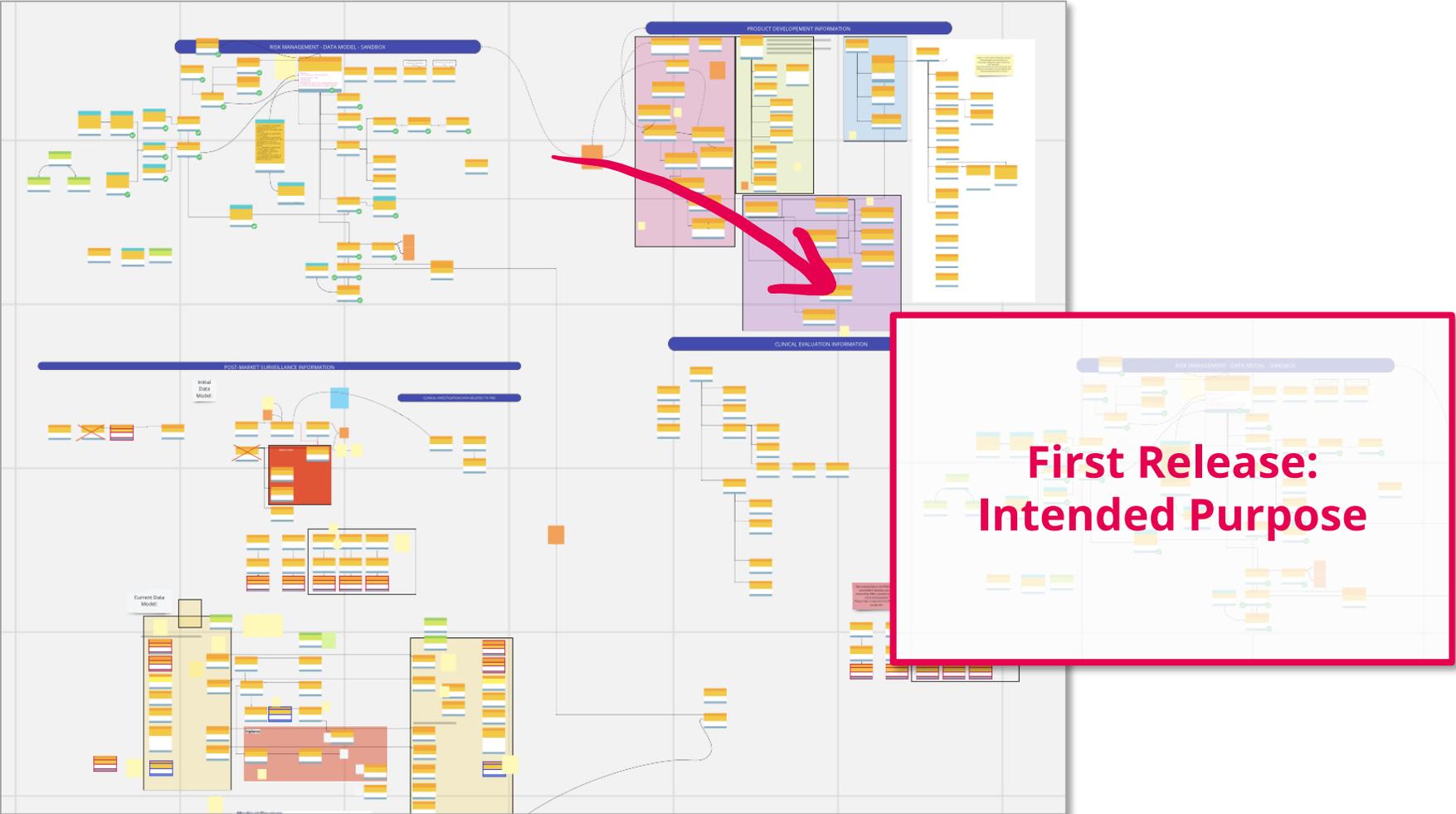
An 'undesirable side-effect' under the MDR should be understood as any unintended and unwanted medical consequence of the normal use of a device.¹⁷ Undesirable side-effects are not the result of a malfunction, de performance, or an inadequacy in the information supplied by the manufacturer. An unsuccessful treatment (considered an undesirable side effect. For the purpose of this guidance, undesirable side-effects can be expec incidents under the MDR (Article 2(64) MDR).

**Background
information**

EXAMPLE: KT HIERARCHY



PRIORITIES & FOCUS



EXCHANGE WITH OTHER COMMUNITIES

DIN **DKE** IDiS – Initiative Digitale Standards

Unternehmen							
Verbände & Behörden							
Wissenschaft							

eCLASS - STANDARD FOR MASTER AND SEMANTIC FOR DIGITIZATION

PARTICIPATION OF MDKU MEMBERS IN IDiS WORKING GROUPS

INTERNAL OPTIMIZATION

MDKU - Knowledge Topics

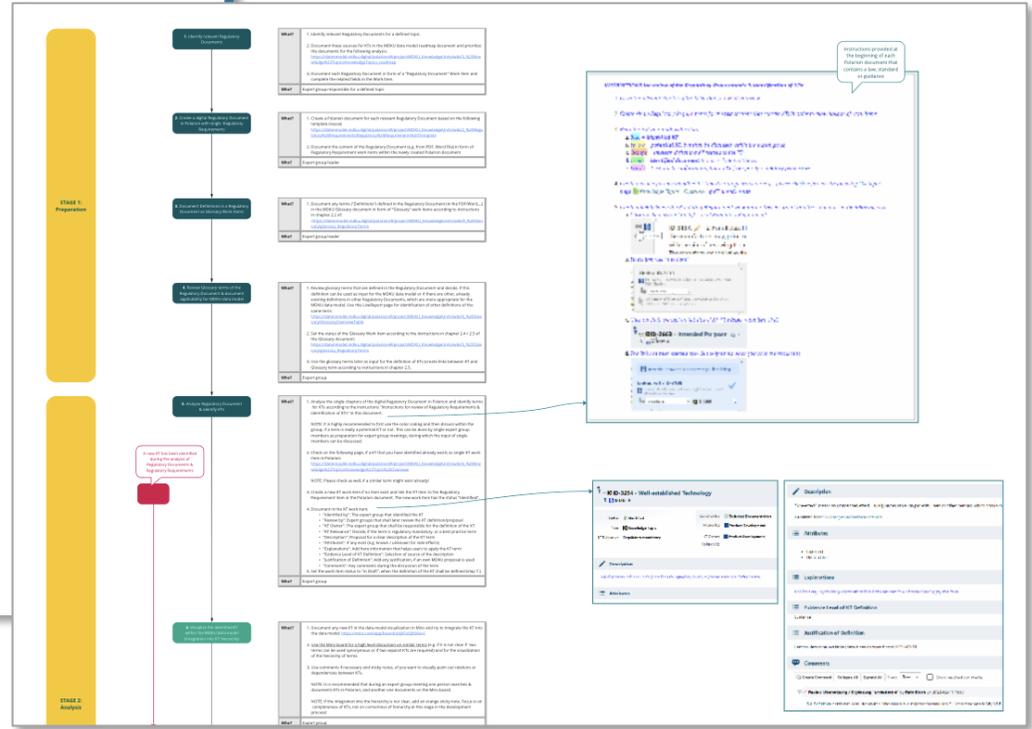
Instruction - Data ...

CREATE...

SIEMENS

Instructions: Data Model Development

- Purpose & Scope**
- Introduction of Data Model**
 - 2.1 Relation between Regulatory Documents, Requirements and Knowledge Topics
 - 2.2 Relation between Knowledge Topics and Documents of the Technical Documentation
- Data Model Development Procedure**
 - 3.1 Overview of Development Procedure
 - 3.2 Road Map of Data Model Topics
 - 3.3 Documentation of Development Activities
- Data Model Documentation & Visualization**
 - 4.1 Polaron - Development Plattform & Database
 - 4.2 Miro - Visualization
- Instructions for Documentation**
 - 5.1 Regulatory Documents
 - 5.2 Regulatory Requirements
 - 5.3 Knowledge Topics
 - 5.3.1 Introduction: Knowledge Topic (KT) vs. Knowledge Unit (KU)
 - 5.3.2 Description of single Knowledge Topics
 - 5.3.3 Hierarchy of Knowledge Topics
 - 5.3.4 Relation between Knowledge Topics (no hierarchy)
 - 5.3.5 Relation of Knowledge Topic and Regulatory Document/Regulatory Requirement
 - 5.3.6 Rules for definition of Knowledge Topics
 - 5.3.7 FAQ
 - 5.4 TD Documents/Process Documentation
- Review Process**
 - 6.1 Overview of Review Procedure
 - 6.2 Internal Review Process
 - 6.3 External Review / Consensus Process



LINKEDIN ACCOUNT

Medical Device Knowledge Units (MDKU) e.V.

We develop an open source data model for the technical documentation of medical devices to speed up digitalization

Technologie, Infor

Medical Device Knowledge Units (MDKU) e.V.
935 Follower:innen
3 Wochen ·

After a long but nevertheless intensive summer break, we are starting the autumn with great news: We have joined forces with **RAPS Deutschland e.V.** and organised a joint meeting: ... mehr anzeigen

[Übersetzung anzeigen](#)

KNOWLEDGE EXCHANGE IN SEPTEMBER

MDKU & RAPS GERMANY ROUND TABLE MEETING
25. September, 18 - 22 h
Café am Neuen See
Lichtensteinallee 2, 10787 Berlin

THE REGULATORY REVOLUTION

MDKU
MEDICAL DEVICE KNOWLEDGE UNITS

RAPS
Germany Chapter
REGULATORY AFFAIRS PROFESSIONALS SOCIETY
Driving Regulatory Excellence™

Medical Device Knowledge Units (MDKU) e.V.
935 Follower:innen
10 Monate · Bearbeitet ·

We are pleased to announce that **Markus Pöttker** has been elected as member of the Board by the MDKU members this week. ... mehr anzeigen

[Übersetzung anzeigen](#)

Medical Device Knowledge Units (MDKU) e.V.
935 Follower:innen
5 Monate ·

The digital transformation of processes and the technical documentation of medical devices is picking up speed in Germany! The medical technology of the industry association Spectaris founded a new working group ... mehr anzeigen

[Übersetzung anzeigen](#)

Sie und 4 weitere Personen

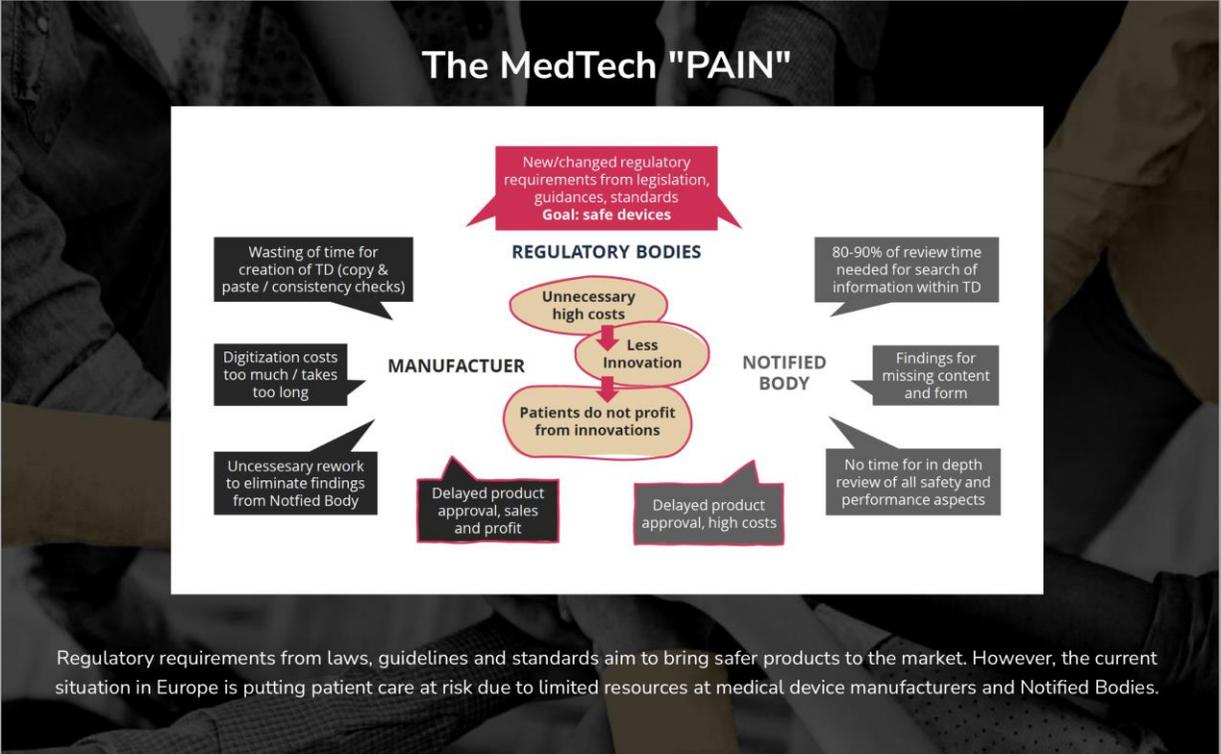
NEW WEBSITE



Let's imagine... in our regulated MedTech industry we

- have a clear regulatory language that enables easier interpretation of regulatory terms in regulatory documents
- can easily digitalize regulatory processes in order to speedup creation and review of the technical documentation
- can increase efficiency of medical device development, market access and thus reduce costs in the overall medtech ecosystem
- enable more and faster innovation and thus better patient care

... and ensure that the European MedTech industry is well positioned for the age of digitalization and global competition.



SUPPORT OF GERMAN INDUSTRY ASSOCIATIONS



**Working Group:
Digitalization QM & RA**

ANNUAL BVMed CONFERENCE

	<p>DIGITALIZATION OF DOCUMENTATION</p>
 <p>EU MDR Medical Device Regulation</p>	<p>THE REGULATORY REVOLUTION</p>  <p>MEDICAL DEVICE KNOWLEDGE UNITS e.V.</p>
<p>MDR-Branchenkonferenz Panel Regulatorik</p> <p>11. Mai 2023 Aesculap Akademie Berlin</p>	<p>SARAH PANTEN & MARKUS PÖTTKER</p> <p>Members of the board and expert groups Medical Device Knowledge Unit (MDKU) e.V.</p> <p>Contact: vorstand@mdku.digital</p>

IMDRF WORKING GROUP

 **IMDRF** International Medical Device Regulators Forum

English ▼

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[Home](#) > [Documents](#) > Non-In Vitro Diagnostic Device Market Authorization Table of Contents (nIVD MA ToC)

Technical document

Non-In Vitro Diagnostic Device Market Authorization Table of Contents (nIVD MA ToC)

IMDRF Code: IMDRF/RPS WG/N9 **Published date:** 21 March 2019 **Status:** Final

IMDRF code: IMDRF/RPS WG/N9FINAL:2019 (Edition 3) **Published date:** 21 March 2019

[↓](#) **Non-In Vitro Diagnostic Device Market Authorization Table of Contents (nIVD MA ToC)**
[PDF \(2.05 mb\)](#) [DOCX \(349.12 kb\)](#)

eSTAR = DIGITAL SUBMISSION?!



electronic Submission Template And Resource (eSTAR)

For non-In Vitro Diagnostic Medical Devices

Version 0.6 (2020-12-15)

STATUS: eSTAR INCOMPLETE This and

Voluntary eSTAR Program

Update: June 9, 2023 The electronic Submission Template and Resource (eSTAR) for Pre-Submissions is now available for submissions to CDRH. Please refer to the new eSTAR template.

Starting **October 1, 2023**, all 510(k) submissions, unless exempted, must be submitted as electronic submissions using eSTAR, as noted in the:

[Electronic Submission Template for Medical Device 510\(k\) Submissions](#) final guidance.

- eSTAR is the only available electronic submission template to facilitate the preparation of 510(k) electronic submissions.

IMDRF WORKING GROUP REGULATED PRODUCT SUBMISSION

 **Regulated Product Submission Working Group**
PDF (259.98 kb)



 www.imdrf.org/meetings/berlin-germany-hosted-european-commission-behalf-eu

A white information card for the 'Regulated Product Submission Working Group'. It features the IMDRF logo and lists Patrick Axtell (US Food and Drug Administration) and Daniel Yoon (Health Canada) as members. At the bottom, it includes the text 'IMDRF 24th Session – Berlin, Germany' and a feedback link: 'Provide your feedback on this Working Group!' with the URL 'https://forms.office.com/e/uXzAhHFxs8'. A red oval highlights the feedback link, and a red arrow points from the text 'Provide your feedback!' to it.

**Provide your
Feedback!**



COOPERATION DIN – CONSENSUS PROCESS



Consensus procedure based on DIN SPEC process

BUT: modified for MDKU specific licence, data and processes

FUNDING OPPORTUNITY

Modul 2: Innovationscommunities

30.08./08.09.2023

Online-Infoveranstaltungen

16.10.2023

Einreichung der Konzeptskizzen

Nov. 2023 bis Feb. 2024

Begutachtung durch externe
Jury, Präsentation
ausgewählter Bewerberinnen
und Bewerber

Finale Auswahlentscheidung



Bundesministerium
für Bildung
und Forschung

DAIipilot -

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