



UDI Product Data & EUDAMED Get onboard!

2022-January-27 at 1:00pm ET

Presenters: John Lorenc

Director Product Management Medical Devices – Life Sciences, Reed Tech

Gary Saner

Sr. Mgr. Information Solutions – Life Sciences, Reed Tech

MEDICAL DEVICE QUALITY IS ALL WE DO, AND WE'RE ALWAYS AHEAD OF THE GAME.

75

years industry
experience

275k

podcast listeners

#1

blog and podcast
in the industry

114k

look to us for the
latest in quality

FEATURED IN

THE VERGE

TC
TechCrunch

Forbes

QUALITYDIGEST

MDDI
MEDICAL DEVICE AND DIAGNOSTICS INDUSTRY

Inc.

MedTech
Intelligence

MED DEVICE
ONLINE

Medical Design
& OUTSOURCING

TNW
THE NEXT WEB

Entrepreneur

MPO
MEDICAL PRODUCT OUTSOURCING

G² | CROWD

LEADER

QMS
SOFTWARE



Since Winter 2019

"Great eQMS Software..."

"The software is easy to use with little to no customization needed. It has been a great tool for developing our device through design control. The post-market additions have been amazing as well as tasks. **After using multiple types of eQMS software over the years, this is the best by far!**"

"My QMS is world
class"
★★★★★

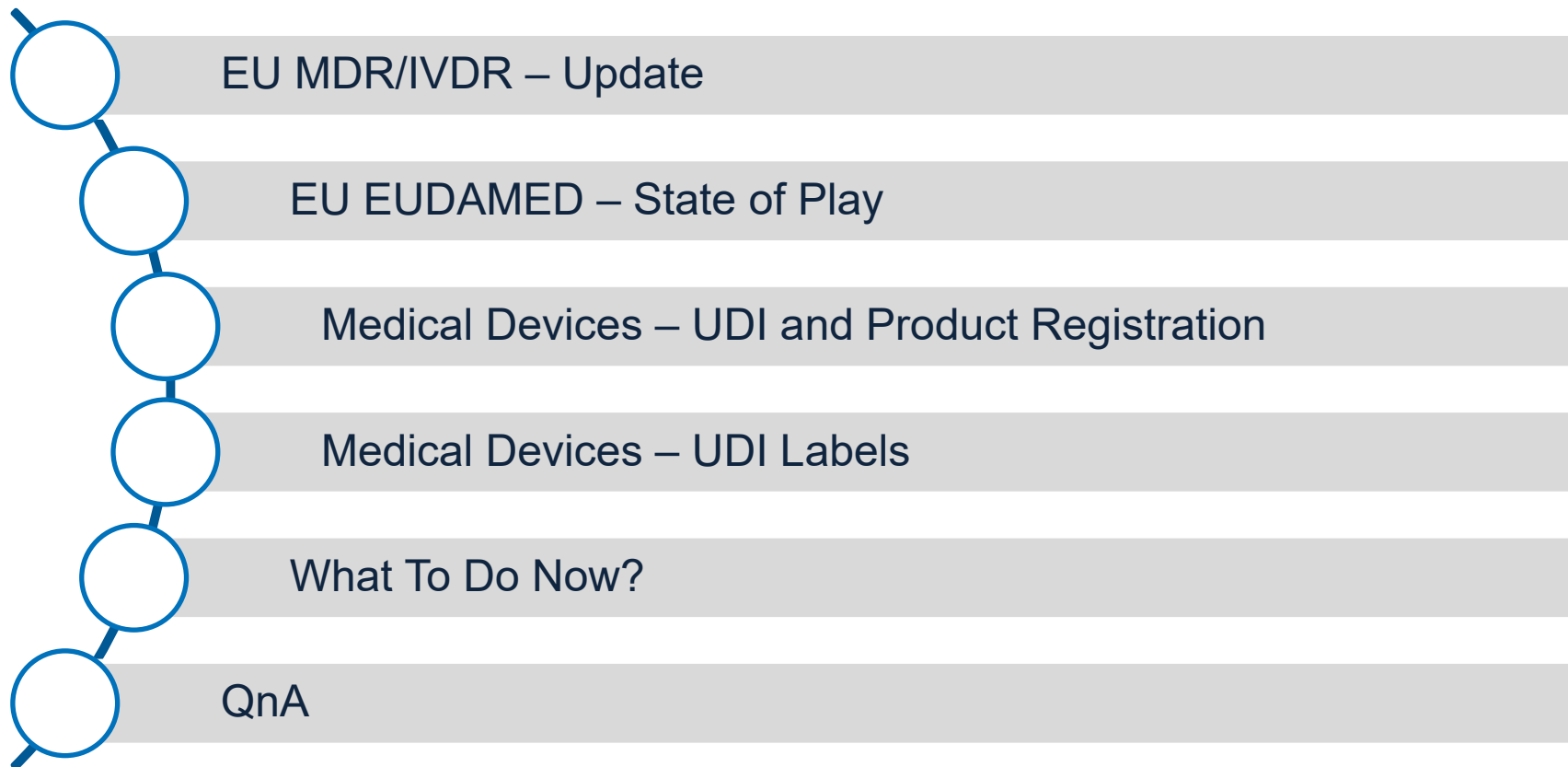
"One-stop shop"

★★★★★

"Design controls
lifesaver"
★★★★★

"Fantastic product, even better
team"
★★★★★

Discussion Topics





Gary Saner

Sr. Manager, Information Solutions
Life Sciences
Reed Tech



John Lorenc

Director Product Management, Medical Devices
Life Sciences
Reed Tech

About Reed Tech

Preparation, Submission, and Lifecycle Data Management of Medical Device UDI product information



Industry Experts

18+ years of SPL knowledge (SPL-UDI since 2014); up-to-date SME knowledge from guidance, pilots, and trade groups (MedTech Europe committees, etc.)



Proven, Current, Compliant Systems (21 Part 11, Annex 11, Audit Trail)

730,000+ SPLs submitted to FDA GUDID; 2,500+ records to EU EUDAMED;
Direct M2M (AS2/4, APIs) connections to HAS for auto, bulk submissions



Experienced, Major Industry Provider

32% of all FDA GUDID SPL records
Support US, EU, China, Korea; Roadmap for international UDIDs



Trusted Team Partner

450+ medical device customers since inception
Small (1 record) to large (250,000 records) customers
Flexible role assignments for in-country representatives and corporate users



ISO 9001
Quality
ISO 27001
Security



HL7 Member
since 2005



GS1 Solution
Partner



1World Sync
Alliance



**PREMIUM
SOLUTIONS
PARTNER**



MedTech Europe
from diagnosis to cure

MedTech Europe Member



**THE
VISION
COUNCIL**
The Vision Council Consultant



**DENTAL
TRADE
ALLIANCE**
DTA Consultant

EU MDR/IVDR – Update



EU MDR/IVDR Description

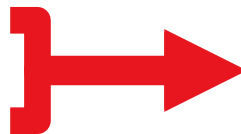
Major EU Medical Device *Regulatory Reform* driven by:
Recent incidents highlighting weaknesses in the framework
New rules intended to restore confidence across the industry



EU Directives

Varying implementations in EU MS

- **Medical Devices Directive**
([MDD](#)) 93/42/EEC
- **Active Implantable Medical Device Directive** ([AIMDD](#)) 90/385/EEC
- **In Vitro Diagnostic Directive**
([IVDD](#)) 98/79/EC



EU Regulations

Legally binding across all EU MS

- **Medical Devices Regulation**
([MDR](#)) 2017/745
- **In Vitro Diagnostics Regulation**
([IVDR](#)) 2017/746

Key MDR / IVDR Changes

Sweeping Changes to Process and Stakeholders

- All Notified Bodies need re-designation (new role)
- All Products need re-registration
- Some Products are up-classified
- Some Products need clinical re-evaluation
- All Products need UDI identification and registration
- All Products need updated Labeling content
- Revised Quality Management and Post-market Surveillance Systems
- Revised EUDAMED infrastructure



Issues to be addressed:

- Timelines
- Resources
- Systems
- Portfolio Evaluation
- Data (registration, UDI, etc.)
- Change Management

Much to Do !!!

1. Pre-Assessment
2. Gap Analysis and Actions
3. Quality Management System (QMS)
4. Legal Entities
5. Portfolio
6. Master Implementation Plan
7. Notified Bodies
8. Regulatory Training
9. **Execute Master Implementation Plan**
10. Review Efficiency and Effectiveness
11. Notified Body Submission
12. Ongoing Monitoring

Sub-Projects

- Clinical Evaluation
- Technical Documentation,
- Economic Operators' Relations
- Unique Device Identification
- Registration
- Labelling
- Post-market Surveillance
- Vigilance
- Reporting IT Systems

Source: EC Implementation Model for MDR
Step by Step [Guide](#)

IVDR: More stringent rules. ~85% of all IVDs will need NBs oversight. New post-market performance follow-up, etc.

EU Reference – MDCG Guidance

Medical Device Coordination Group (MDCG)

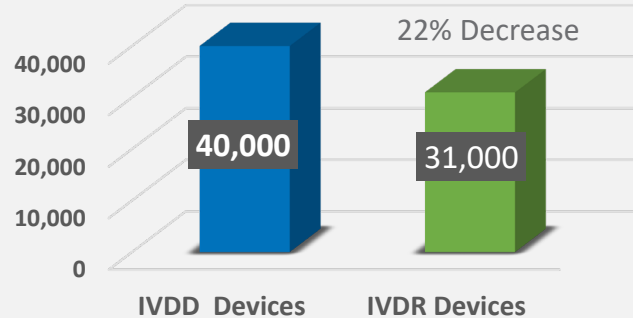
[Guidance Documents List](#)

Partial UDI List

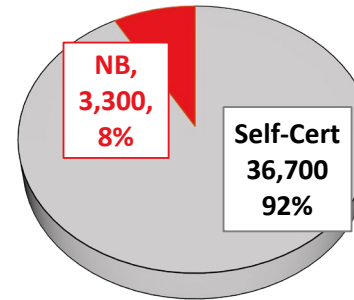
Reference	Title	Publication
<u>MDCG 2021-19</u>	Guidance note integration of the UDI within an organisation's quality management system	July 2021
<u>MDCG 2021-10</u>	The status of Appendixes E-I of IMDRF N48 under the EU regulatory framework for medical devices	June 2021
<u>MDCG 2021-09</u>	MDCG Position Paper on the Implementation of UDI requirements for contact lenses, spectacle frames, spectacle lenses & ready readers	May 2021
<u>MDCG 2018-1 Rev.4</u>	Guidance on basic UDI-DI and changes to UDI-DI	April 2021
<u>MDCG 2019-18</u>	MDCG Position Paper on UDI assignment for Spectacle lenses & Ready readers	December 2020

EU IVDR Pending Crisis

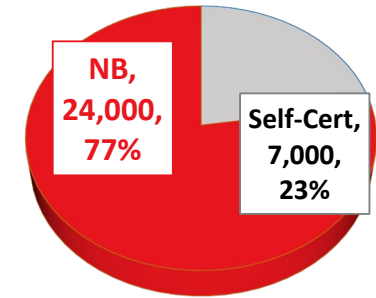
Total Industry IVD Counts



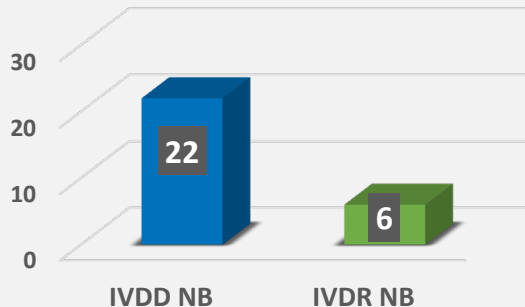
IVDD ASSESSMENTS



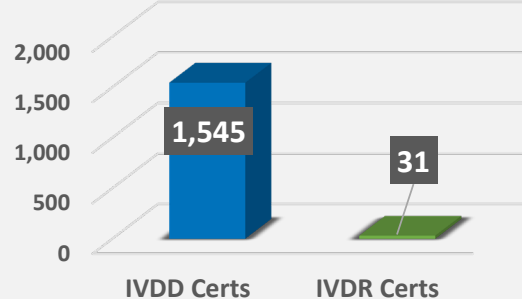
IVDR ASSESSMENTS



Designated NBs



Certificates



As of 2021-Oct

EU IVDR Amendment

Notice: 2021-Oct-14 EC IVDR Amendment Proposed

“If not addressed, this situation would lead to a significant disruption in the supply of a multitude of in vitro diagnostic medical devices on the market”



Provisions: 2021-Dec-15 EC IVDR Amendment Adopted

(targeted to enter into force before 2022-May-26)

- No change to IVDR DoA, still at 2022-May-26
- No change to IVDR Self-Certification by DoA for Class A (~20% IVDs)
- No change to IVDR compliance at DoA for “New” IVDs without Cert or DoC under IVDD
- No change to voluntary and mandatory UDI/Device Registration periods
- No change to UDI placed on product labels
- **Extend Legacy IVD transition period 1 year from 2024-May-26 to 2025-May-26**
- **Create transition schedule for IVDs w/o IVDD certificate that need IVDR certificates**



EU IVDR Amendment (2)

Provisions:

Applies to “**First Cert**” IVDs = IVDs on the market with an IVDD Declaration of Conformance (no Cert) prior to 2022-May-26 and require a NB conformity assessment for first time under IVDR

IVD Type	Place on Mkt	Sell Off*	Change
Directive IVD	2022-May-26	2025-May-26	None
Legacy IVD	2025-May-26	2026-May-26	+1 year
First Cert Class D	2025-May-26	2026-May-26	New
First Cert Class C	2026-May-26	2027-May-26	New
First Cert Class B & A/sterile	2027-May-26	2028-May-26	New

* “Sell Off” = Make Available on Market (supply chain) and Put into Service (patient use)

Legacy / Regulation Device












Characteristics	Legacy Device	Equivalent Device	MDR/IVDR Device
Design, intended use, functions, efficacy, safety, etc.	Original	Same	Different
Legislation / Evaluation	MDD/AIMDD/IVDD Directives	MDR/IVDR Regulations	MDR/IVDR Regulations
Registered	MS & EUDAMED (EUD-DI & EUD-ID)	EUDAMED (BUDI & UDI-DI)	EUDAMED (BUDI & UDI-DI)
Label	No UDI Req'm't	UDI, MD Symbol, (Warnings, etc.)	UDI, MD Symbol, (Warnings, etc.)

If changes include a different product version, i.e., significant changes to design, intended use, functions, efficacy, safety, etc., then a new MDR/IVDR device must be created











EU EUDAMED – State of Play



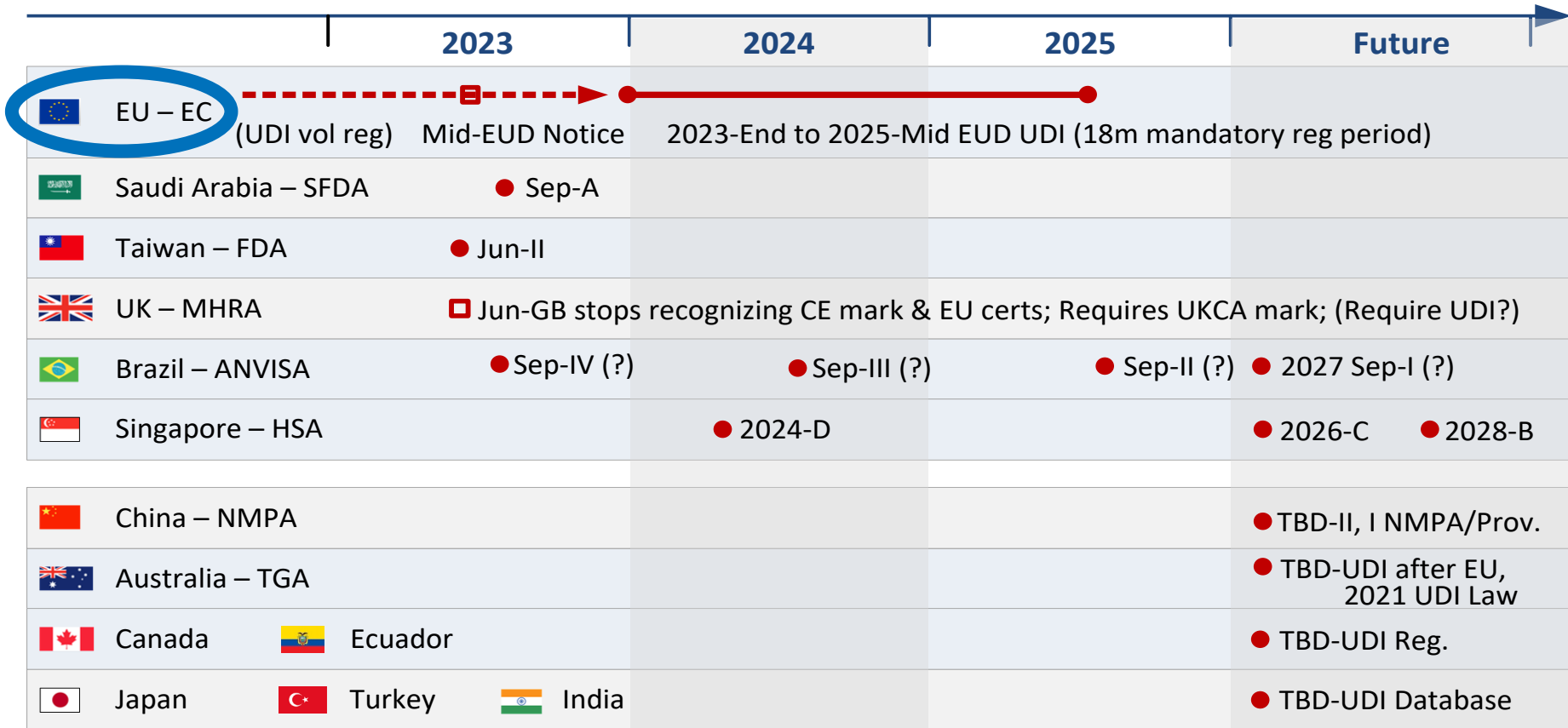
Past UDI Data Reporting Req'm'ts

	2014	2015	2016	2017	2018	2019	2020
 US – FDA	● Sep-III	● Sep-I/LS/LS	● Sep-II				
 UK – NHS England				● Sep-III	● Sep-IIa/b	● Sep-I	
 South Korea – MFDS						● Oct-IV	● Jul-III
 Netherlands – LIR						● Jan-Incl. List	
 EU – EC						Dec-EUD Actor (vol) □	
 UAE – Dubai HA						2020-All? Devices ●	
 Brazil – ANVISA						Jun-Implants UDI Pkg Insert □	
 Japan – PMDA		← □ 2008-Device reg & barcode label (recommended)					
 Turkey – TMMDA		← □ 2004-Device reg & barcode label					

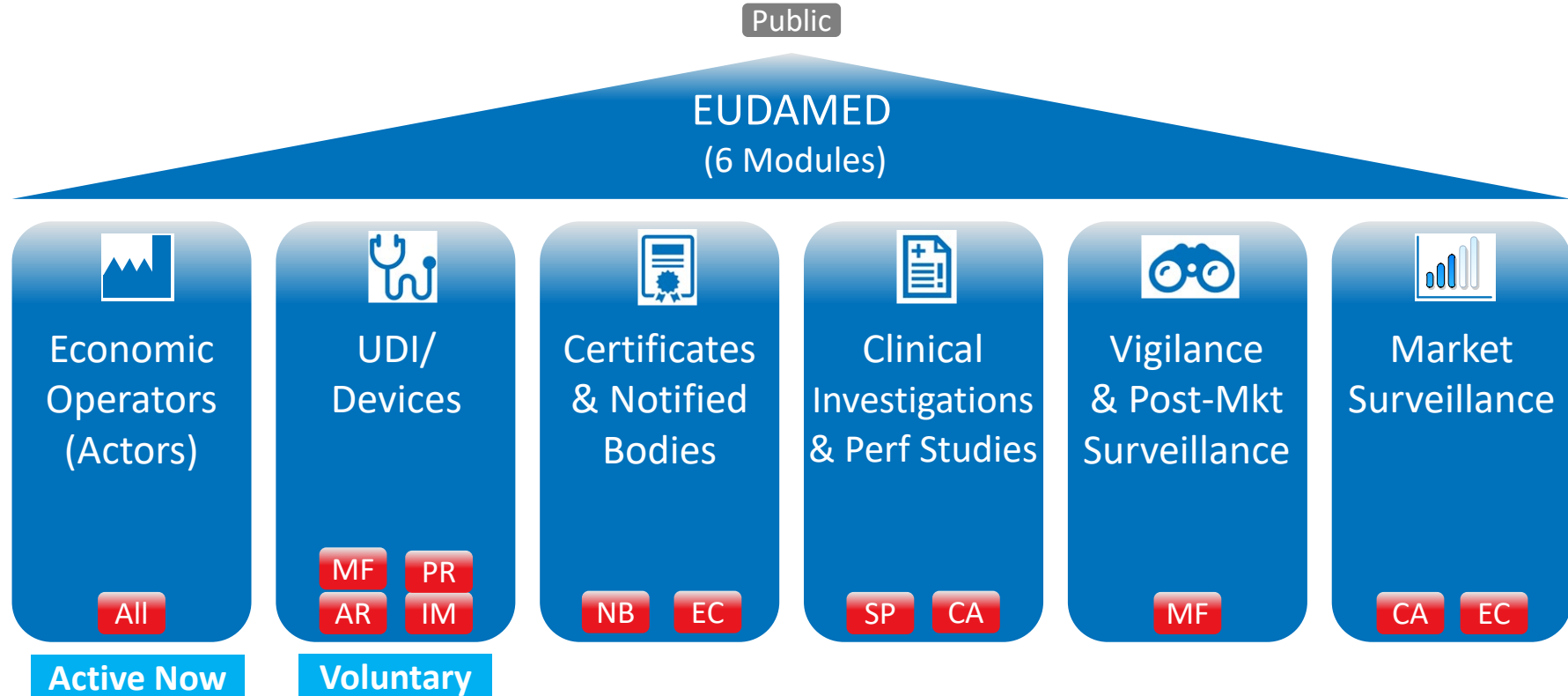
Short-Term UDI Data Reporting Req'm'ts

	2021	2022
 China – NMPA	● Jan-Batch 1	● Jun-Batch 2 (other IIIs)
 EU – EC	□ May-MDR DoA	● Oct-EUD UDI & Cert (vol) May-IVDR DoA
 Taiwan – FDA	● Jun-III Implants	● Jun-III Others
 South Korea – MFDS	● Jul-II	● Jul-I
 Saudi Arabia – SFDA		● Sep-B,C,D
 UK – NHS England	● Sep-IVD A,B,C,D	
 US – FDA		● Sep-I
 Singapore – HSA		● 2022-(3) Implants
 India – CDSCO	□ Jan-UDI labels	
 UK – MHRA	□ May-III, IIb Imp, Active Imp, IVD-A (device reg) □ Sep-IIb other, IIa, IVD-B, IVD-Self Test (device reg)	□ Jan-I, IVD-General (device reg)

Long-Term UDI Data Reporting Req'm'ts



What is EUDAMED?



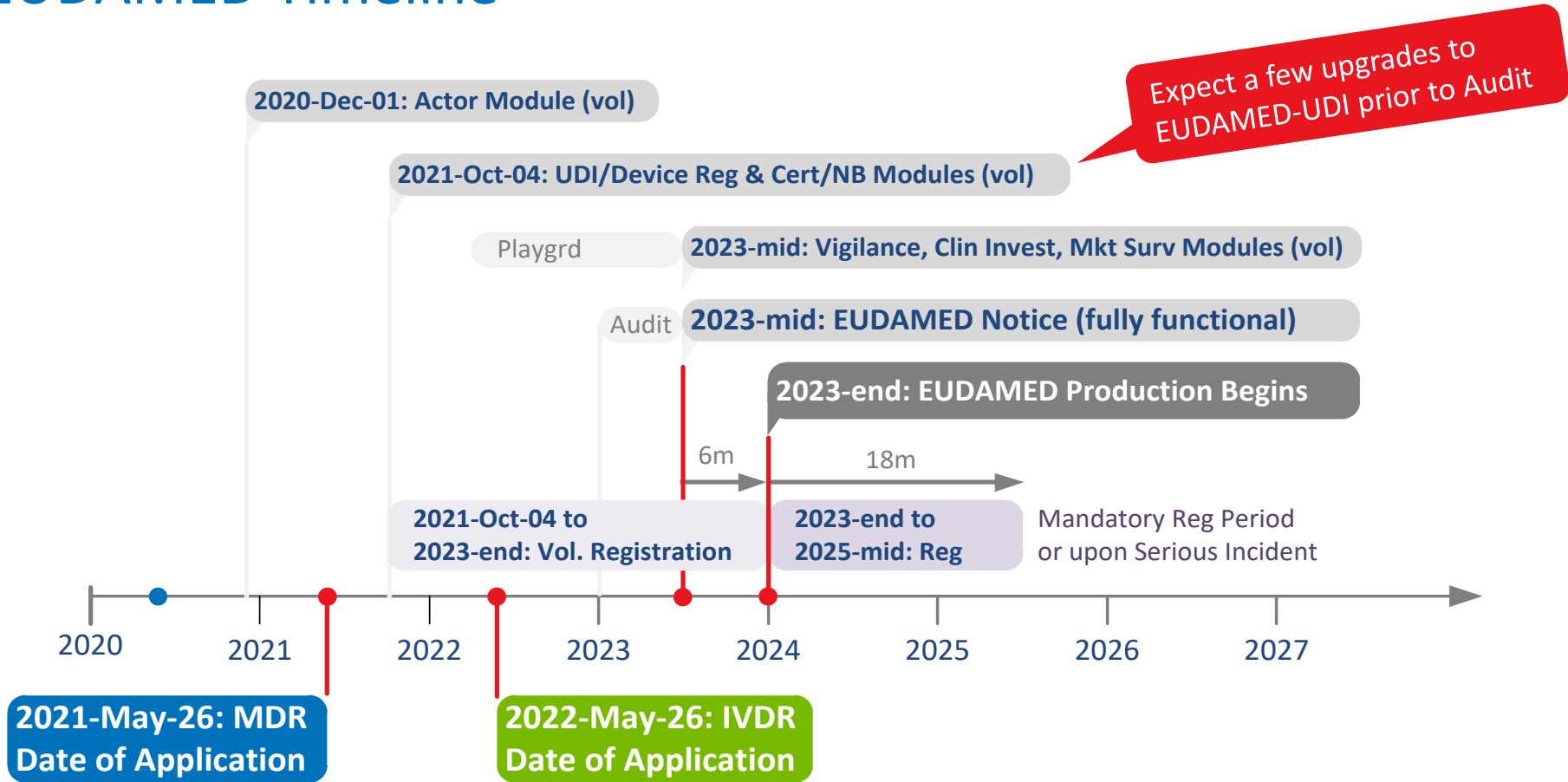
Note: Only primary associations are shown; AR - Authorized Representative, CA - Competent Authority, EC - European Commission, IM - Importer, MF - Manufacturer, NB - Notified Body, PR – (S/PPP) System/Procedure Pack Producer, SP - Sponsor

EU EUDAMED

Timing

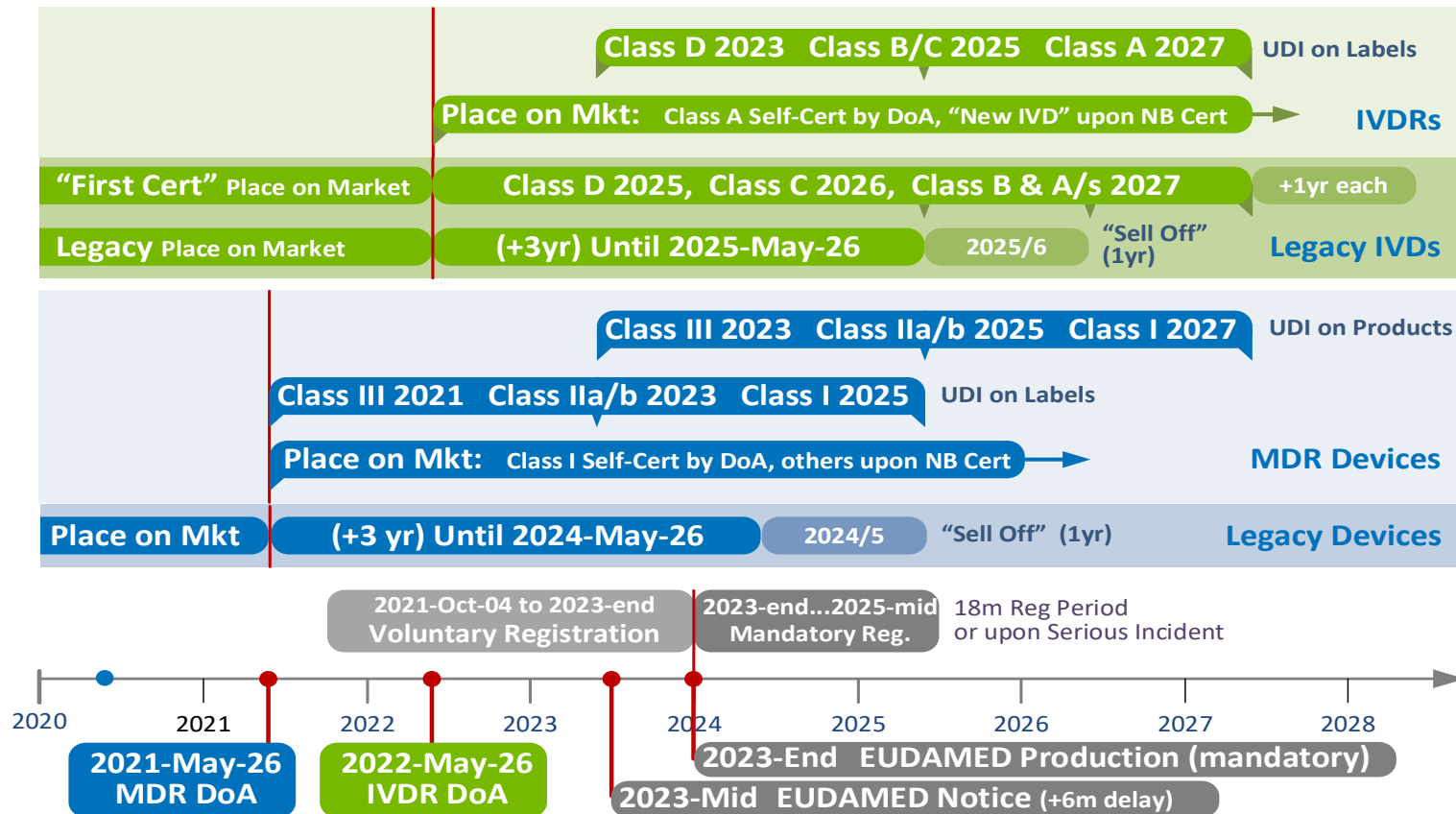


EUDAMED Timeline



- **Work in Progress**
 - Bugs reported in previous iterations of “Playground” testing are still pending resolution
 - Multiple Playground and Production environment updates expected in 2022
 - Several data exchange services pending release
 - Add/update market information and container package
 - Improvements to bulk data exchange download of device information
- **Reminder:** initial EUDAMED go-live will be a Minimally Viable Product (MVP)
- **Implementation Timing TBD for Non-MVP Change Requests**
 - EUDAMED publication status receipt/updates via data exchange
 - Data exchange error message improvements

EU MDR/IVDR Timeline



Medical Devices

UDI and Product Registration



EU UDI Requirements



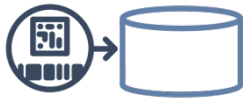
Label

- Add UDI (Device Id + Production Id) on Device Label & Pkg
- Present UDI in human-readable plain-text and Automatic Id and Data Capture (AIDC) technology (e.g., 1D/2D barcode, RFID)



Direct Marking (DM)

- Permanently mark UDI on reusable devices



EU UDI Database (EUDAMED)

- Submit DI and device attributes (102+ total) to EUDAMED



Reporting

- Include UDI in Annual Reports, Post Marketing Surveillance, Patient Implant Card

EU UDI – Components

The globally unique, numeric or alphanumeric UDI code consisting of two parts is generated by the owner per an approved Issuing Agency standard:

Device Identifier (DI)

Mandatory, fixed portion that identifies the labeler and the specific version or model of a device

00855361005016

Production Identifier (PI)*

Conditional, variable portion that identifies one or more of the following when included on a device label:

<i>Manufactured Date</i>	2014-09-24
<i>Expiration Date</i>	2019-09-24
<i>Lot or Batch Number</i>	B35
<i>Serial Number</i>	S123
<i>Software ID</i>	(if present on the label)

UDI = DI + PI

(01)00855361005016(11)140924(17)190924(10)B35(21)S123

EU EUDAMED: UDI Data “MDR/IVDR Group” Basic UDI-DI (36 total)

Identification

Basic UDI-DI
Issuing Entity

Model Info

Device Model
Device Name
*System/Pack
**Kit (y/n)
Special Device

Organization

Mfr SRN
Auth Rep SRN

Regulatory

Legislation
Risk Class

Clinical Invest. #
Clinical Invest. Link
CI Non-EU Countries

Cert Type
Cert #
Cert Revision #
Cert Date
Cert Notified Body #

Characteristics

Animal Tissue/Cell (y/n)
Human Tissue/Cell (y/n)
*Active Device (y/n)
*Implantable (y/n)
*Measuring (y/n)
*Reusable Surgical (y/n)
*Admin Medicine (y/n)
*Medicinal Product (y/n)
*Human Blood/Plasma (y/n)
*Suture, Staple, Filling... (y/n)
**Reagent (y/n)
**Instrument (y/n)
**Companion Diagnostic (y/n)
**Near Patient Test (y/n)
**Patient Self Test (y/n)
**Professional Testing (y/n)
**Microbial Tissue/Cell (y/n)

Common 19

***MDR Only 9 (28 total)**

****IVDR Only 8 (27 total)**

EU EUDAMED: UDI Data “MDR/IVDR Device” UDI-DI (85 total)

Identification

Basic UDI-DI
 UDI-DI
 UDI-DI Issuing Entity
 Sec UDI-DI, Iss Entity
 UoU UDI-DI, Iss Entity
 DM UDI-DI, Iss Entity
 Related Legacy Device
 Relationship Type

Device Info

Trade Name+
 Reference/Catalog #
 Product Description+
 Info URL

Product Designer (Original Mfr)

PD SRN
 PD Name
 PD Street Name, #
 PD Addr Complement
 PD PO Box, City
 PD Postal Code
 PD Country
 PD Phone, Email

Packaging

Base Device Quantity
 Pkg UDI-DI, Iss Entity
 Pkg Level Quantity
 Pkg Contain UDI-DI
 Pkg Status
 Production ID Type

Regulatory

Device Status
 Device Substatus, Start/End
 Recall Precision+, Scope
 MS Place on Mkt
 MS(s) Made Available,
 Start/End Dates
 Nomenclature Code
 **New Device (y/n)
 *Non-medical Purpose

Safety Info

Max # Reuses
 Labelled Single Use (y/n)
 Labelled Sterile (y/n)
 Sterile Req'd For Use (y/n)
 *Containing Latex (y/n)

Characteristics

*Clinical Size Type
 *Clinical Size Precision
 *Clinical Size Range Max, Min
 *Clinical Size Value (single)
 *Clinical Size Unit
 *Clinical Size Text
 *ClinSize Other Type Descrip+
 *ClinSize Other Unit Descrip+
 Storage & Handling Type
 S&H Description+
 *Medicinal Type, Name+, INN
 Reprocessed SUD (y/n)

*CMR Type, Name+, CAS#, EC#
 *Endocrine Name+, CAS#, EC#
 Critical Warning/Contra-
 Indications Type, Text+

Comm 52 + 5 Lang+ = 57

***MDR 22 + 5 Lang+ = 27**

****IVDR 1 + 0 Lang+ = 1**

“**BUDI-DI**” is a product **group identifier** for related medical devices, i.e., a product family

- BUDI-DI “parent” identifier includes one or more “child” medical devices (UDI-DI)
- Each medical device child (UDI-DI) has only one BUDI-DI parent
- All BUDI-DI attributes are common for the product group, i.e., same intended purpose, risk class, design/mfg characteristics, certification
- **Creation**
 - EU MDCG format reqm'ts: max 25 characters & include check digit/character
 - Mfr creates BUDI-DI per Stds (GS1, HIBCC, ICCBBA, IFA) & independent of packaging
- **Use**
 - Used in EU Documentation for Device Registration, etc. and for Trade Item identification in EUDAMED
 - BUDI-DI is different from and does not replace UDI-DI
 - **NOT** used on any product labeling, physical marking, or AIDC data carrier

Basic UDI-DI – GS1 Implementation

GS1 “Global Model Number” (GMN) for Regulated Healthcare Medical Devices (BUDI-DI)

- [GS1 General Spec](#) – search “GMN”; [EC-GS1-BUDI-DI](#) – change notice for GMN
[GS1 GMN Generator](#) – creates 2 check chars
- GMN created by brand owner, not to be reused, 25 max characters, no spaces, GS1 Company Prefix + Model Refer (alphanumeric, A-z/0-9, no special characters) + 2 check characters

GMN
format

BUDI-DI
(25 max)

0855361005

GS1 Company
Prefix

MyModelRef342

Model
Reference

A7

2 Check
Char

**No
Barcode**

Device
Identifier
format

UDI-DI
(GTIN-14)

0

Indicator
Digit

0855361005

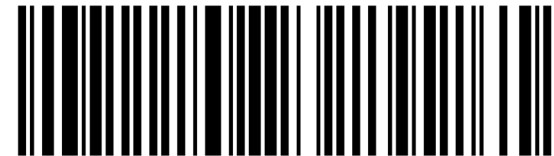
GS1 Company
Prefix

01

Item
Ref

6

Check
Digit



(01)00855361005016

Basic UDI-DI Group Example

BUDI-DI: 0855361005MyForceps59

UDI-DI: 00855361005016 Forceps, Plastic

PKG-DI: 10855361005013 Forceps, Pouch - Qty 3

PKG-DI: 20855361005010 Forceps, Box - Qty 2

UDI-DI: 00855361005023 Forceps, SS

UDI-DI: 00855361005030 Forceps, SS, Locking

UDI-DI: ...



Medical Devices

UDI Labels



EU MDR Label Sample

MDR Label Elements:





- “MD” symbol (new)
- Warnings
- eIFU URL
- UDI (new) ...

UDI presented in human-readable plain-text and Automatic Id and Data Capture (AIDC) technology (e.g., 1D/2D barcode, RFID)

Enlarged views of PI and UDI

REF PROD12345
LOT LOT123
SN 123456
2018-01-01
2013-01-01

(01)12345678901231
(11)130101
(17)180101
(10)LOT123
(21)123456

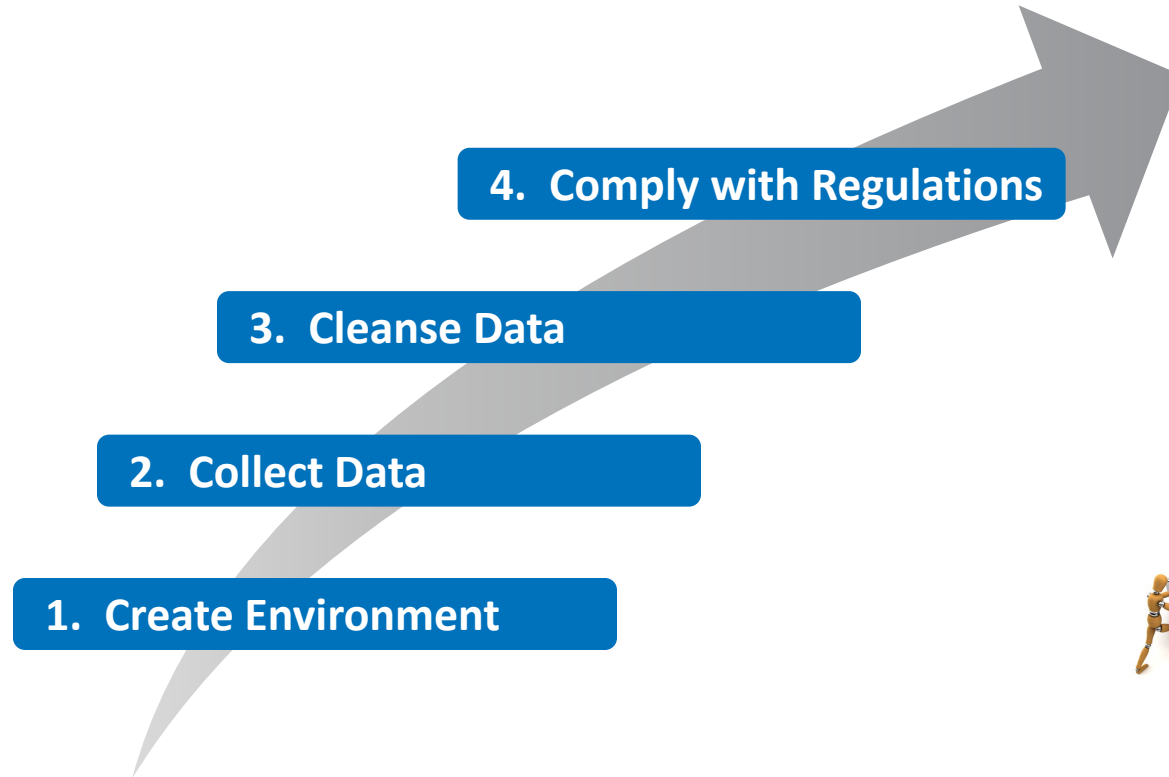
Sample Product	
Product Name Product Description Description du produit, Descrizione del prodotto, Produktbeschreibung, Descripción del producto	150mm
	REF PROD12345 LOT LOT123 SN 123456 2018-01-01 2013-01-01
<div>1</div> <div>MD Rx Only</div> <div>1 / 5</div> <div>STERILEEO</div> <div>-5°C 130°C</div> <div>70</div> <div>10</div> <div>PHT DEHP LATEX</div>	
 (01)12345678901231 (11)130101 (17)180101 (10)LOT123 (21)123456	 Warnung: Die Verwendung dieses Geräts kann zu Verletzungen Ihres ungeborenen Kindes führen. Verwenden Sie nicht, wenn Sie schwanger sind. Warning: Using this device can cause injury to your unborn baby. Do not use if you are pregnant. Advertencia: El uso de este dispositivo puede causar lesiones a su bebé por nacer. No lo use si está embarazada. Attention: L'utilisation de cet appareil peut causer des blessures à votre bébé à naître. Ne pas utiliser si vous êtes enceinte. Avvertimento: L'uso di questo dispositivo può causare lesioni al neonato se sei incinta.
See Insert for Symbols Glossary  http://info.manufacturersite.com CE 0123 Company Name Address EC REP Company Name Address	

What To Do Now?

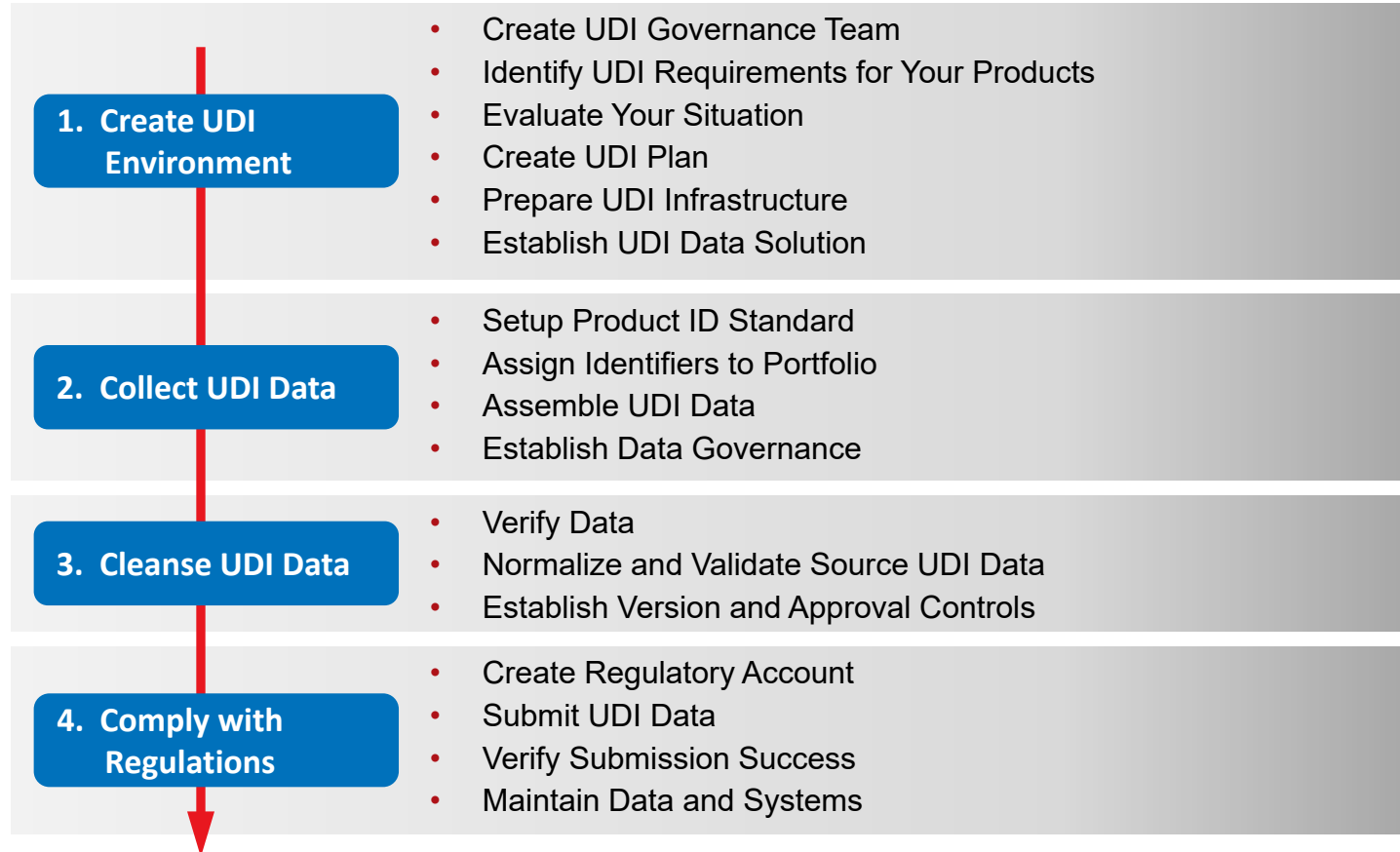
GET on Board!



4 C's of UDI/Device Registration

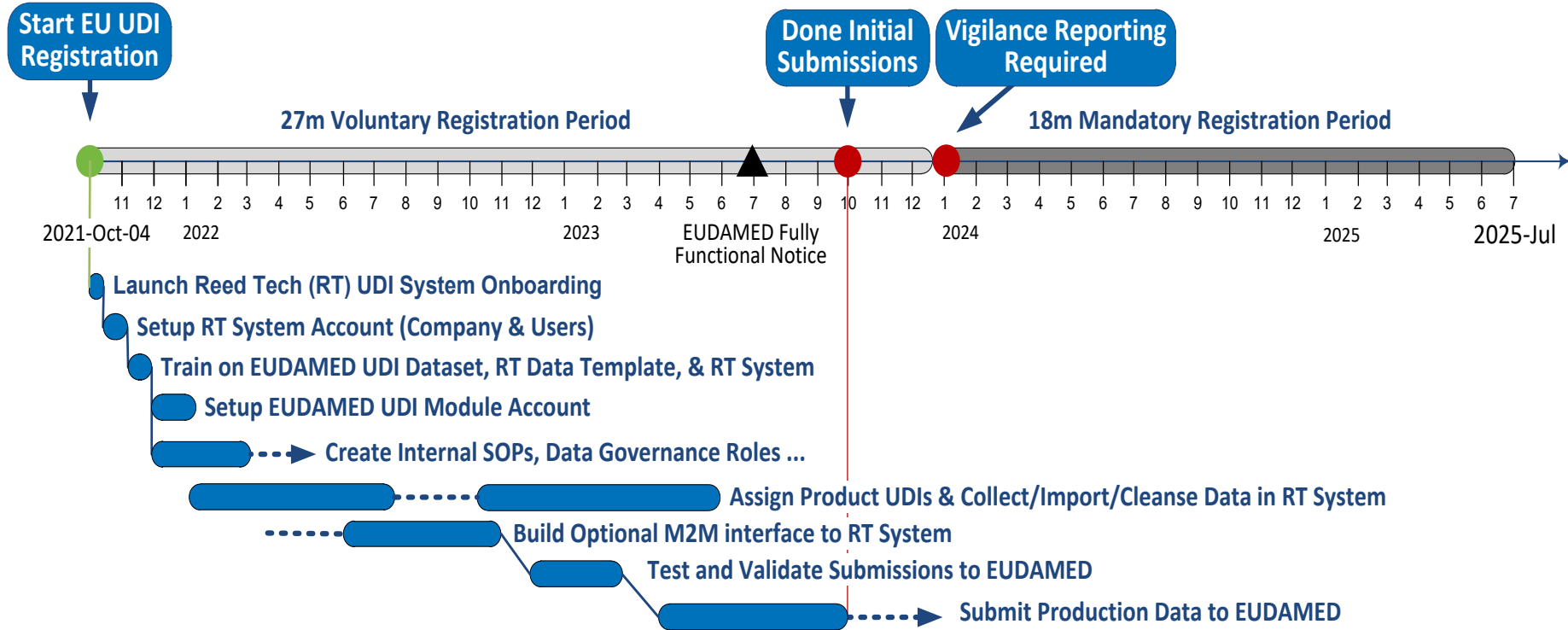


EU UDI/Device Registration Summary

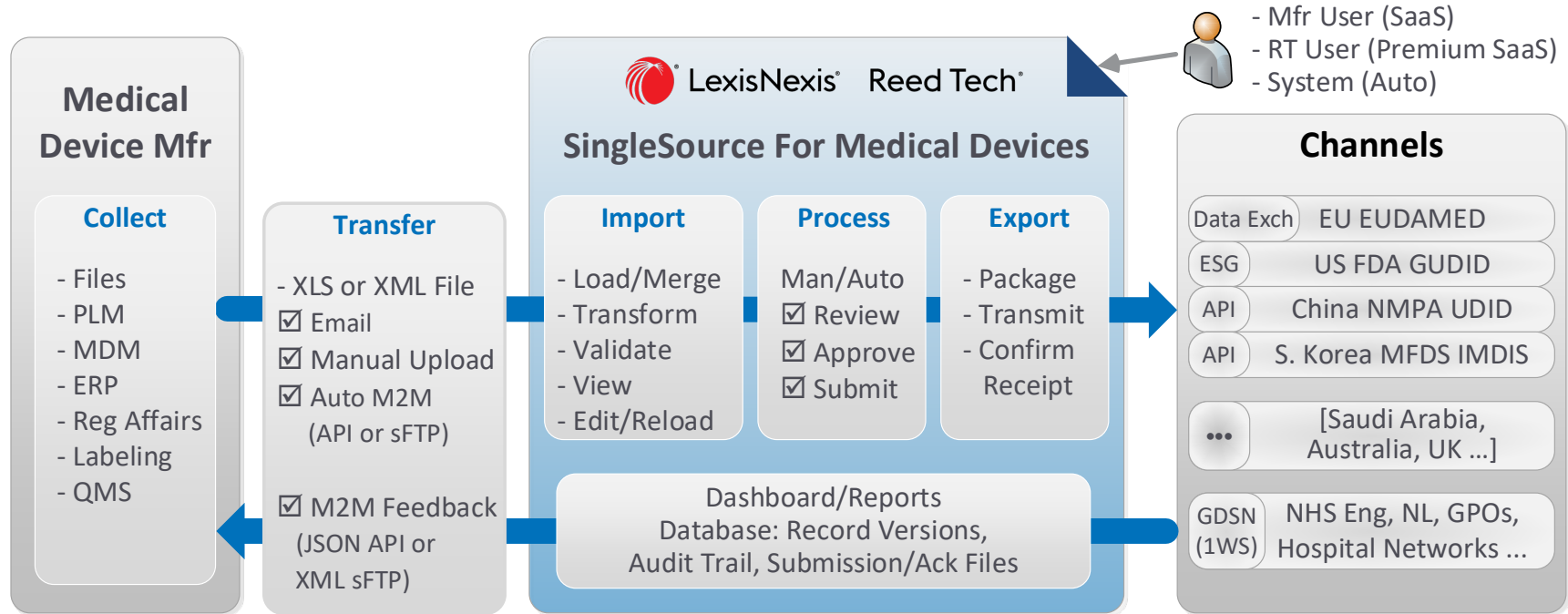


Reed Tech SSMD-EU Implementation Plan

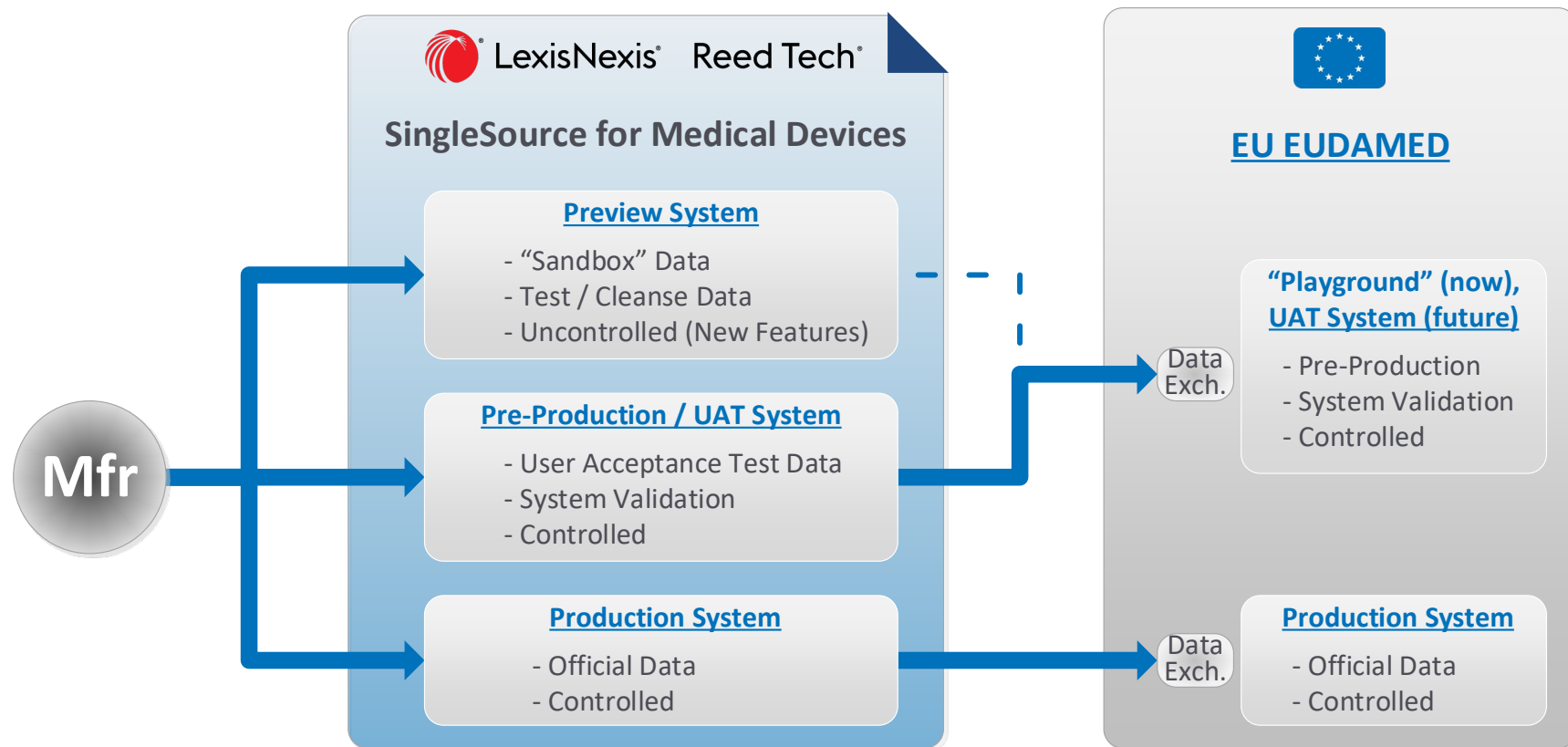
Sample Plan



SingleSource™ UDI Data Mgmt



SingleSource System Environments



UDI Lessons Learned / Best Practices

- **Think Globally**

- Make EU part of your Global UDI Solution – avoid single-point solutions
- Move to a master data solution that can expand to other Health Authorities, including HAs with local representation requirements



- **Start Early**

- Learn EU MDR/IVDR policy, EUDAMED, UDI, your requirements/timing, etc.
- By MDR Date of Application (DoA):
 - Assign Basic UDI-DI and UDI-PI to products
 - Self-certify MDR Class I devices
- Create EUDAMED account – register in Actor Module now to receive SRN
 - Prepare/collect Docs before registering (AR must register before Non-EU Mfr)
- Start product certification using NBs
- Avoid expected backlog of EC and NB support; Do what you can based on published info; EC quote, “High number of devices on the market, Anticipated bottleneck in reviews by notified bodies, Ongoing need to interpret certain provisions of the Regulations”



UDI Lessons Learned / Best Practices (cont'd)

- **Watch for Updates**

- EC MDR/IVDR implementation is subject to change!
- Expect EC and MDCG to frequently update timing and add guidance



- **Prepare Infrastructure and UDI Data**

- System upgrades can be time consuming
- EU UDI dataset has twice the number of US UDI attributes and is more complex
- Data collection and cleansing always seems to take longer than expected
- Prepare to leverage EUDAMED Playground once it opens to additional Mfrs



- **Reed Tech can Help**

- Access SME UDI knowledge, training, and industry news
- Collect and cleanse EU data using Reed Tech UDI templates and system
- Engage a global UDI data management and submission data hub



Questions?



Resources

For more information, contact:

Reed Tech Life Sciences Team

MedDevice@ReedTech.com

+1-215-557-3010

www.ReedTech.com

Reed Tech Educational Resources



ReedTech.com > Resources > [Knowledge-Center](#)

The screenshot shows the LexisNexis Reed Tech website. The top navigation bar includes 'About Us', 'Solutions', 'Resources', and 'Contact Us'. The 'Resources' menu is open, showing options like 'Knowledge Center', 'Virtual Events', and 'Training Portal'. The 'Knowledge Center' sub-menu is also open, listing various topics including 'Medical Device Safety and Quality', 'Global Data Synchronization Network', 'UDI and Product Data', 'Drug & Biologic Product Submissions', 'Data Sheets', 'COVID-19', and 'RESOURCES'. A red arrow points to the 'Resources' menu, another red arrow points to the 'Knowledge Center' sub-menu, and a third red arrow points to the 'UDI and Product Data' option. The main content area features a banner for 'Health Authorities in Asia' with a 'LEARN MORE ABOUT UDI IN ASIA' button. Below the banner, there is a section for 'How Import Compliance Into FDA Compliance Checklist to Prepare for' with a 'WATCH RECORDING' button. The bottom of the page mentions 'Watch the Recording: 2020 Medical Device Virtual Summit December 8-9, 2020' and '5 Key Takeaways: What You Need to'.



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Thank you !

Appendix



Events

2021-May-26 MDR DoA
2022-May-26 IVDR DoA
2023-mid EUDAMED “Functional” Notice
(6 modules fully functional)

Compliance Timing

2020-Dec-01 Actor Vol Registration
2021-May-26 Class I Self-cert req'd
2021-Oct-04 UDI/Device & Cert/NB Vol Reg
2023-end Legacy, MD, IVD: UDI/Device
Registration Mandate (notice+6m)
2025-mid Legacy, MD, IVD: UDI/Device
Registration Deadline (notice+24m)



Description

- **Approach:** new regulations for approval, reg, UDI data/labels, vigilance, etc.; rules & timing for Legacy Directive, MDR, IVDR devices
- **Database:** [EUDAMED](#) 3 modules open (Actor, UDI, Cert); 3 future (Vigilance, CI, Mkt Suv)
- **Data:** 117+ attributes; new **BUDI-DI** “device group” concept
- **Sub:** website entry/XML upload or M2M XML transfer via Data Exchange (DTX)
- **Label:** HRI & AIDC by class (2021,2023,2025)
Direct Mark by class (Label + 2y)
- **STD:** GS1/HIBCC/ICCBBA/IFA; SRN; EMDN (CND)
- **Info:** [EC Reg](#), [UDI](#)