Qserve

.....the practical approach

8 Steps towards EU-MDR & EU-IVDR implementation

Gert Bos
Executive director & Partner

A global leading medical device consultancy group
Europe - Amsterdam (HQ) | USA - Boston - San Francisco | China – Nanjing

Key steps towards EU-MDR/IVDR compliance

1. Scope and Plan
2. GAP assessment
3. Portfolio assessment
4. Global Impact assessment
5. Master compliance roadmap
6. Regulatory Training
7. Implementation
8. Effectiveness check

EU-MDR/IVDR compliance

.....the practical approach

Qserve

.....the practical approach

1 - Scope and Plan

Understand environment, sense of urgency

A global leading medical device consultancy group
Europe - Amsterdam (HQ) | USA - Boston - San Francisco | China – Nanjing

Objectives in legislative reform

- Consistently high level of health & safety protection for EU citizens
  Sufficient clinical data
- Free and fair trade of medical devices throughout the EU

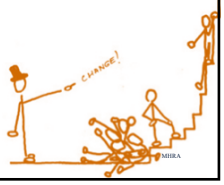
CE = Clinical Evidence

- Adaption to significant technological & scientific progress in the sector over last 2 decades.
  State of the art

Changes to Notified Bodies

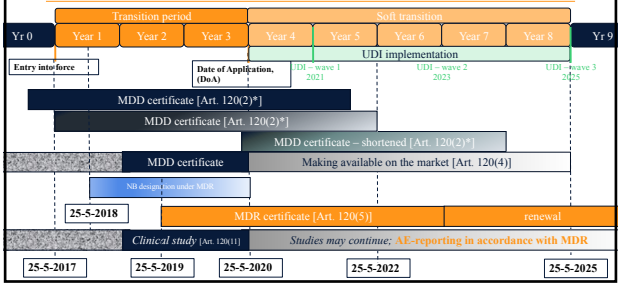
Expected 50% not re-designated or with significant scope change !

- Regulation on NB designation & recommendation on NB work
- Notified Body number dropped from 87 to 56 expectations for next 6-12 months: 10-15 more to go
- Some remain with reduced scope
- Notified bodies under pressure and scared
  - Ongoing initial reviews stifle on growing requirements on clinical data and limits to equivalence use
  - Line-extension reviews getting cumbersome
  - Renewal halted; certificates not renewed in time
  - Certificates suspended without clear warning
  - NBs careful in accepting transfers
  - Waiting lists generally increasing

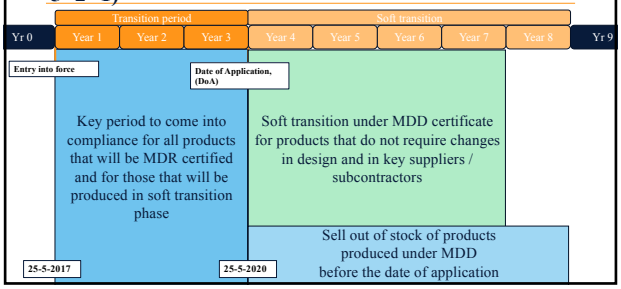


Transition details and timelines

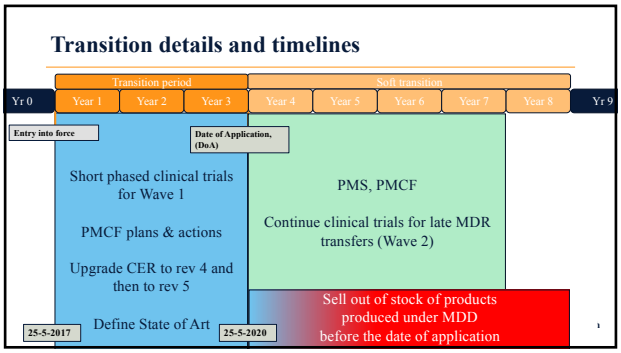
**From DoA of MDR, NO significant changes and PMS, Vigilance EO requirements of MDR to be met*



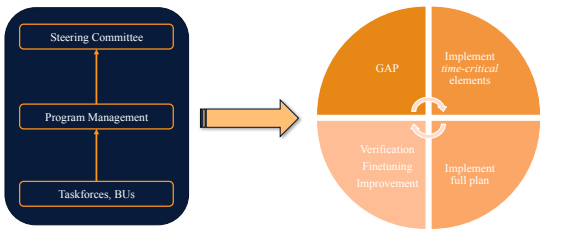
Transition details and timelines MDR (IVDR = 5+2+1)



Transition details and timelines



Scope and Plan



.....the practical approach

2 - GAP assessment

High level review

A global leading medical device consultancy group

Europe - Amsterdam (HQ) | USA - Boston - San Francisco | China – Nanjing

Impact assessment – high level vs. detailed

- Key dossiers first

		<Product 1>	<Product 2>	<Product 3>	<Pr
Product information	Product name				
	Variant				
	Brief intended use				
	CE marked YES/NO				
	Classification (MDD)				
	Classification Rule (MDD)				
	NB				
	Certificate number				
	Expiration date				
	Conformity assessment route (e.g. Annex II)				
MDR Gap analysis	Before coming into force				
	Is product still covered by definition: added investigation, replacement or modification of the pathological process or state	OK	OK	OK	
	Is product still covered by definition: removed: control or support of conception	OK	OK	OK	
	Check if cosmetic implant or other product is on Annex XV list	Problem	OK	Problem	

.....the practical approach

Impact assessment

- Clinical details separate if necessary

	A	B	C
1			
2	Article/Clause	MDR requirement	
3	Article 1		
4	2(1)	(1)'intended purpose' means the use for which the device is intended according to the data supplied by the manufacturer on the label, in the instructions for use or in promotional	
5	2(22)	(22) 'clinical evaluation' means a systematic and planned process to continuously generate, collect, analyse and assess the clinical data pertaining to a device in order to verify the safety and performance, including clinical benefits, of the device when used as intended by the manufacturer;	
6	2(35)	(35) 'clinical investigation plan' means a document that describes the rationale, objectives, design, methodology, monitoring, statistical considerations, organisation and conduct of a clinical investigation;	
7	2(37)	(37) 'sponsor' means an individual, company, institution or organisation which takes responsibility for the initiation, for the management and for setting up the financing of the clinical investigation;	
8	2(35)	(35) 'clinical evidence' means the clinical data and clinical evaluation results, pertaining to a device of sufficient amount and quality to allow a qualified assessment of whether the device achieves the intended clinical benefit(s) and safety, when used as intended by the manufacturer;	
9	2(31)	(31) 'clinical performance' means the ability of a device to achieve its intended purpose as claimed by the manufacturer, including any direct or indirect medical effects on humans as well as the clinical benefit on patients resulting from the technical or functional, including diagnostic characteristics of a	

.....the practical approach

Impact assessment

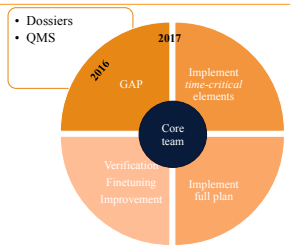
- QMS elements next

		QMS1	Status (OK, Change, Problem)	Does reviewed	Gap analysis
QMS information	Covered products	xx	<to be filled if necessary>		
	Legal entity	xx	<to be filled if necessary>		
	MA Current	xx	<to be filled if necessary>		
	MA Future	xx	<to be filled if necessary>		
	Certificate number	xx	<to be filled if necessary>		
	End of validity of certificate	xx	<to be filled if necessary>		
	Best guess expected end of extended certificate time	xx	<to be filled if necessary>		
	Conformity assessment route-MDD	xx	<to be filled if necessary>		
	Conformity assessment route-MDR	xx	<to be filled if necessary>		
QMS GAP based on new MDR	Consolidated MDR rev.3				
(26)	Does the manufacturer have a quality management system, a post-market surveillance system, a system for risk management and a system for reporting of incidents and field safety corrective actions in place?	no	Problem	<to be filled>	<to be filled>
(27)	Is it ensured that supervision and control of the manufacturer of and the post-market surveillance and vigilance activities of medical devices is are carried	yes	OK	<to be filled>	<to be filled>
(51a)	Does the Manufacturers demonstrate to play an active role during the post-market phase by systematically and actively gathering information	yes	OK	<to be filled>	<to be filled>

Draft high level rationales early

- Rationales on classifications
- Rationales to exclude clinical study requirement
- Rationales on equivalence based on own product line
- Rationales on use of historic data
- Rationales on exemption lists

GAP assessment



Qserve®

.....the practical approach

3 - Portfolio assessment

Rationalisation and choice of focus

A global leading medical device consultancy group

Europe - Amsterdam (HQ) | USA - Boston - San Francisco | China - Nanjing

Focus and portfolio rationalisation

- Where are the gaps?
  - Sufficient clinical data for each indication?
  - Strong supply chain management, withstanding UAV?
  - Access to all technical data?
- What is key in my pipeline?
  - Which products are already nominated to be replaced?
  - Which development projects absorb most resources?
- Where will new opportunities arise?
- For which products are we a strong player?

Portfolio analysis

- Still covered by definition?
- Change in class?
- Enough historic (clinical) data?
- Costs for rewrite – upgrade – new data – conformity assessment?
- Dependence on CE in RoW market?
- ROI feasible?

Portfolio Assessment – visualisation helps!

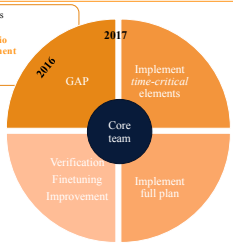
	Product A	Product B	Product C	Product D	Product E	Product F
Clinical evidence	Limited data	No data	No data	Data available	Data available	No data
PMCF	Unstructured data	Limited data	Limited data	Limited data	Data available	No data
Transparency and traceability	New systems to be implemented (e.g. UDI, Summary of safety and clinical performance, Implant card)					
Economic operators	Contracts, responsibilities, liabilites, information flow in complaint handling and vigilance to be reworked					
QMS	Massive overhaul of processes and procedures in conjunction with ISO 13485:2016 system					
Reclassification	Reconfirmation with NB	Stay as they are				upclassifications
Scrutiny	No scrutiny expected	Some products				Not expected
Notified Body	NB1		NB2	NB3	NB4	

Portfolio Assessment – simplification

	WAVE 1	PHASE OUT 2024	PHASE OUT 2024	WAVE 2	WAVE 1	STOP 2020
Clinical evidence	Collect clinical data PMCF and focussed study	No money spending	No money spending	Top up clinical data	Early start	
PMCF						
Transparency and traceability				Top up consultation	Top up consultation	
Economic operators						
QMS	Integral QMS system - PDCA – life-cycle management					
Reclassification						
Scrutiny / Consultation						
Notified Body	NB 1			Shift NB	NB 4	

Portfolio assessment

- Dossiers
- QMS
- **Portfolio assessment**



.....the practical approach

4 - Global Impact assessment

Balance EU versus RoW regulatory status and market share

A global leading medical device consultancy group

Europe - Amsterdam (HQ) | USA - Boston - San Francisco | China - Nanjing

Global impact of rationalisation

- Many countries rely on existing certificates in their market approval
- Repurposing of data is complicated in case of differences
- Changes in EU might lead to change notice elsewhere

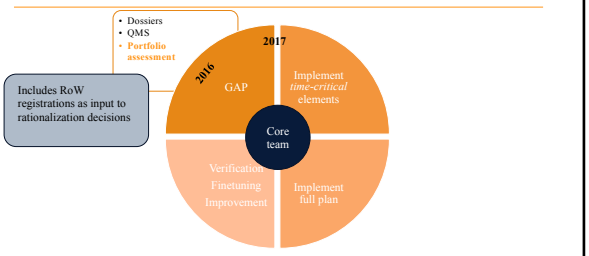
Repurposing of data

- Complicated in case of differences in e.g.
  - Claims
  - Intended use
  - Clinical equivalence base
- Design dossier elements will differ in substantial elements:
  - STED summary
  - Risk management
  - Labeling, IFU
  - Marketing wording
  - Etc.

Changes in EU might lead to change notice elsewhere

- Initially in MDR compliance jump
  - MDR application
  - MDD and MDR in parallel
  - Confusion during transition period and soft transitioning
  - Timeline for reporting change outside EU: MDD => MDR
- Continuously, as EU-MDR moves to continuous improvement
  - Annual and faster updates CE certificate forseen
  - RoW registration slow to follow as not yet on improvement spiral

Inclusion of RoW impact in portfolio assessment



. . . . the practical approach

5 - Master compliance roadmap

Strategic planning and commitment

Stakeholders, structure, dependencies

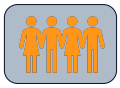
- Contributors to extended core-team
- Corporate lead versus business unit independency
- Coordination and Cooperation
- Central versus local training and communication

Time critical elements

- Clinical data generation if gap is big
  - Clinical studies if no own data for high risk devices and implants
  - PMCF data in general
  - Stimulation of literature generation on low risk products
- Supply chain changes that have significant impact
  - New suppliers of key ingredients
  - New subcontractors of critical sub-assemblies / devices
  - Transition away from existing OBL structures
- Shift in Notified Body where needed
  - Full portfolio, or selected product lines

Link to concurrent changes

- ISO 13485:2016
- MDSAP
- ASEAN
- Eurasian Union
- Compliance improvement systems
- Corporate programms



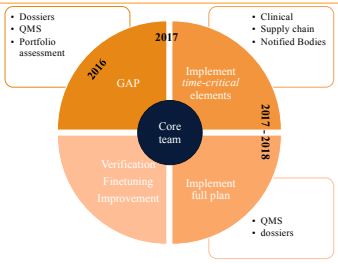
✓Timelines might be different
✓Focus and drive might be challenging to combine

➢Alignment requires corporate / top management sponsorship

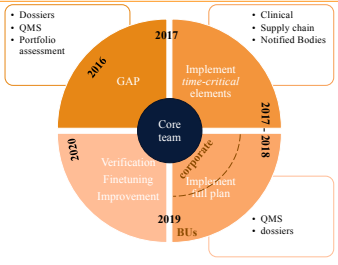
Early debate with Notified Bodies

- Resources
- Readiness and timelines; new sampling mechanisms
- Discussions on rationales
- Discussions on portfolio rationalization
- Discussions on transfer from other NBs

Master compliance roadmap



Master compliance roadmap



.....the practical approach

6 - Regulatory Training

Awareness, webbinars, F2F training & workshops

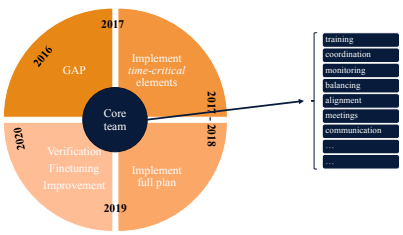
A global leading medical device consultancy group

Europe - Amsterdam (HQ) | USA - Boston - San Francisco | China – Nanjing

Communicate repeatedly….

- Create awareness
  - Sharepoint
  - Internal website
  - Newsletters
  - Town hall meetings
- Training and workshops
  - Workshops at the start of task force projects
  - Workshops to focus on the new philosophy of regulatory continued improvement
  - Training on all new processes
- Webbinars
  - Many topics
  - Frequent
- Growing knowledge in Board
  - Awareness workshops
  - Budget workshops

Training is essential to keep the pace



.....the practical approach

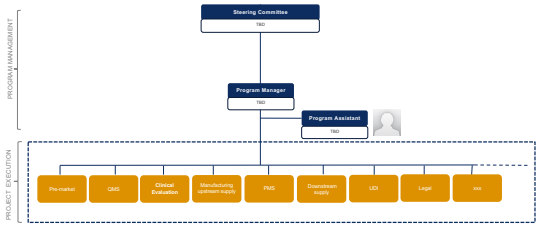
7 - Implementation

The big TEAM work

A global leading medical device consultancy group

Europe - Amsterdam (HQ) | USA - Boston - San Francisco | China – Nanjing

Program Governance Structure



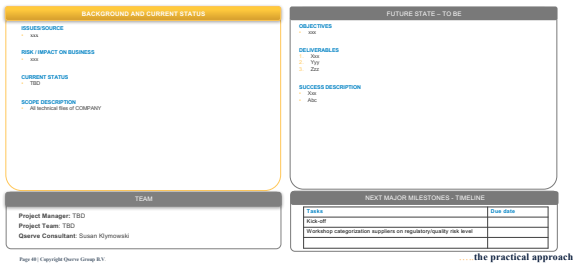
.....the practical approach

Resources divided over taskforces

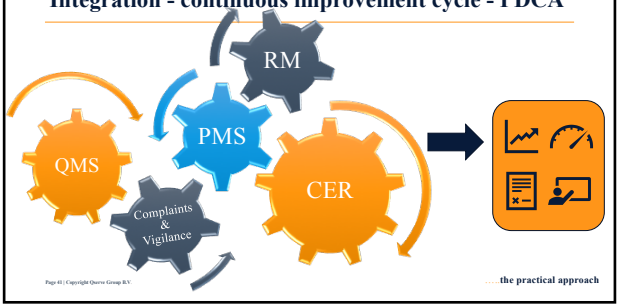
Project Manager		Project Team
PRE-market	Name	Names
QMS	Name	Names
Clinical evaluation	Name	Names
Manufacturing and upstream supply	Name	Names
PMS	Name	names
Downstream supply	name	Names
UDI	Name	Names
Legal	name	Names
xxx	Name	Names

.....the practical approach

Project Charter : Pre-market (example)



Integration - continuous improvement cycle - PDCA



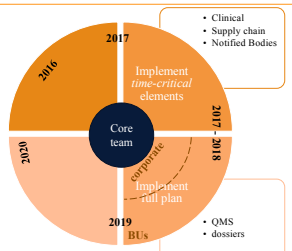
Challenges

- Resources:
  - Staff
  - Budget
  - Patients
  - Investigators
- Internal commitment
  - Board level
  - Management level
  - Staff level

"I choose a lazy person to do a hard job because a lazy person will find an easy way to do it…"

Bill Gates

Implementation



. . . . the practical approach

8 - Effectiveness check

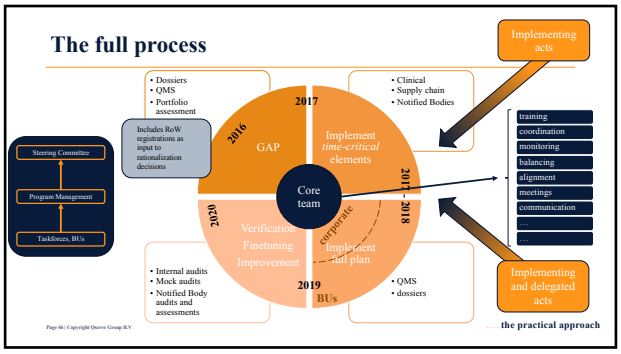
Time for self reflection and final improvements

A global leading medical device consultancy group

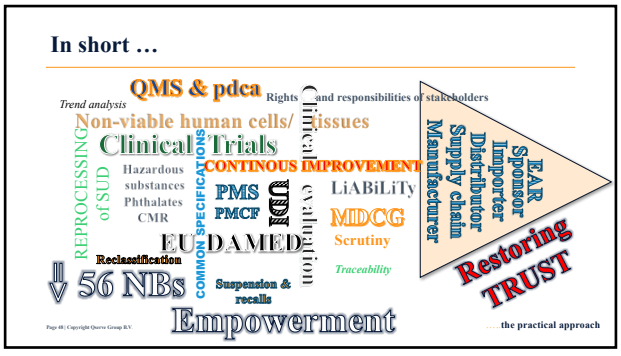
Europe - Amsterdam (HQ) | USA - Boston - San Francisco | China – Nanjing

A moment of self reflection

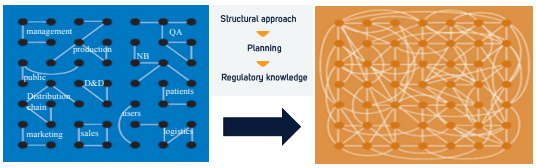
- Self reflections
  - Effectiveness check on revised processes and procedures
  - Effectiveness check on training of staff
  - Internal audit
  - Mock audit (optional)
  - Management review
- Notified Body Compliance audit
- Finetuning and CAPA close-out
- MDR/IVDR certification !!


The full process
Implementing acts
• Dossiers
• QMS
• Portfolio assessment
• Clinical
• Supply chain
• Notified Bodies
Includes RoW registrations as input to rationalization decisions
Steering Committee
Program Management
Taskforces, BUs
2016
2017
GAP
Implement time-critical elements
Core team
2017 – 2018
2020
Verification Finetuning Improvement
corporate
Implement roll plan
2019
BUs
training
coordination
monitoring
balancing
alignment
meetings
communication
...
...
• Internal audits
• Mock audits
• Notified Body audits and assessments
• QMS
• dossiers
Implementing and delegated acts
the practical approach


Qserve
the practical approach
Summarizing
A global leading medical device consultancy group
Europe - Amsterdam (HQ) | USA - Boston - San Francisco | China - Nanjing


In short …
QMS & pdca
Rights and responsibilities of stakeholders
Trend analysis
Non-viable human cells/ tissues
Clinical Trials
CONTINOUS IMPROVEMENT
REPROCESSING of SUD
Hazardous substances Phthalates CMR
PMS
PMCF
LiABiLiTy
MDCG
Scrutiny
Traceability
EUDAMED
Reclassification
56 NBs
Suspension & recalls
Empowerment
Clinical evaluation
COMMON SPECIFICATIONS
EAR
Sponsor
Importer
Distributor
Supply chain
Manufacturer
Restoring TRUST
the practical approach

Change in culture might be essential …



Structural approach

Planning

Regulatory knowledge

Working together towards strong and timely EU-MDR/IVDR compliance !!

In conclusion .....

STEPS	TOOLS	DELIVERABLES
1. Scope and Plan	Interviews, benchmarks, checklists	Plan defining scope, timelines, methods, resources, structures, and tasks including presentation to stakeholders
2. GAP Assessment	Impact assessment checklist for product, clinical and QMS	Master Impact Matrix
3. Portfolio Rationalization	Product Portfolio Analysis template and remediation/dirt cost budget template	Report Product Portfolio Analysis including budget impact
4. Global Impact Analysis	Global Impact Analysis template	Global impact report country by country
5. Master Compliance Roadmap	• Master implementation Plan template • Project cluster definition sheet • Resource requirements template • Steering committee report	• Master implementation roadmap • Governance model including project charters
6. Regulatory Training	• Specific in-house workshops • Detailed workshops MDR Iterative formats	Alignment on changed SOP's, and MDR compliance
7. Implementation of Roadmap	• Project charter progress sheet • Project charter status dashboard	Implementation of the different charter projects
8. Effectiveness Check	Audits	Resolve any discrepancies
9. EU-MDR Compliance	Notified Body Checklist	Continuant Compliance

1. Understand environment, sense of urgency
2. High level review
3. Rationalisation and choice of focus
4. Balance EU versus RoW regulatory status and market share
5. Strategic planning and commitment
6. Awareness, webbinars, F2F training & workshops
7. The big TEAM work
8. Time for self reflection and final improvements
9. Timely MDR certification

Qserve®

. . . . the practical approach

Thank you for your attentio

www.qservegroup.com

gert.bos@qservegroup.com

A global leading medical device consultancy group

Europe - Amsterdam (HQ) | USA - Boston - San Francisco | China – Nanjing