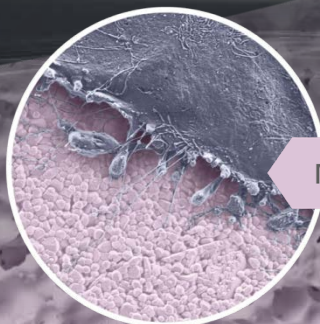


# Safety challenges in arthroplasty - Manufacturer's views

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# BIOLOX<sup>®</sup>



MATERIAL MATTERS<sup>®</sup>

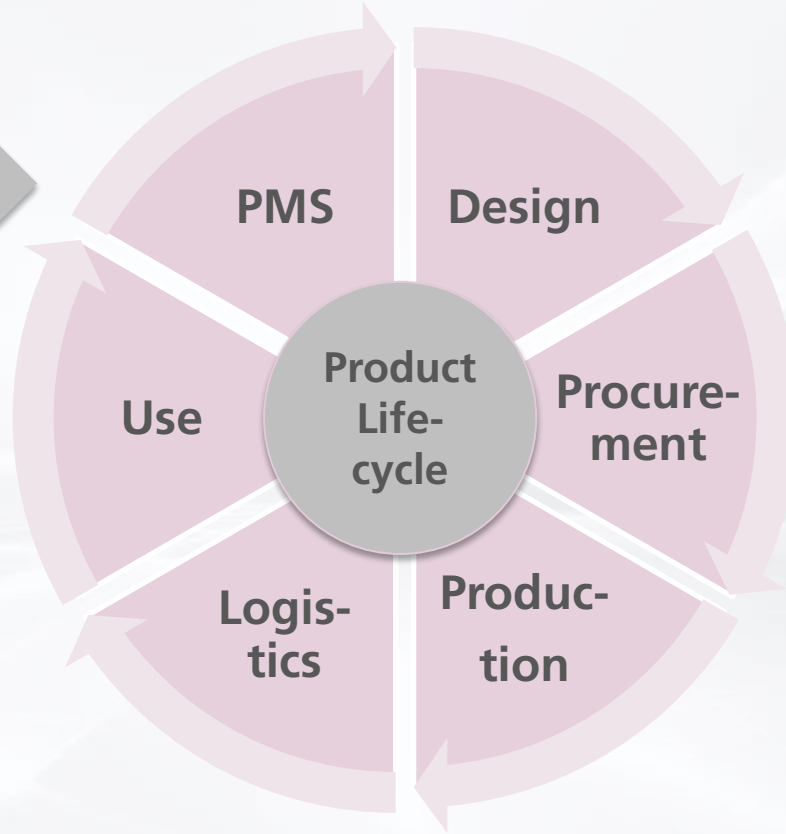


BIOLOX<sup>®</sup>delta conventional femoral heads and inserts, as well as BIOLOX<sup>®</sup>OPTION and BIOLOX<sup>®</sup>CONTOLRA<sup>®</sup> are registered by CeramTec's customers. The bicondylar knee implants made of BIOLOX<sup>®</sup>delta are registered in the EU by CeramTec's customers. They are not registered/available in all countries. Caution: All other shown implants (e.g. shoulder, H1 hip resurfacing, direct-to-bone or ceramic foam products) are under development and are not approved by any authorities.

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# Introduction

Conformity Assessment /  
Product Registration



# Introduction

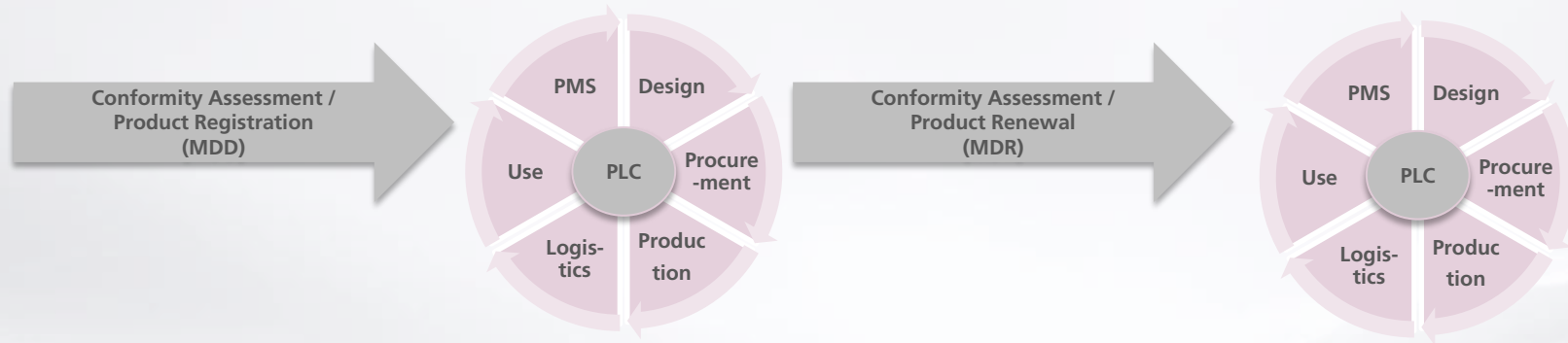
With the new **Medical Device Regulation (MDR)** the regulatory **requirements will be intensely increased** for Medical Devices in the EU.

→ The general intention is to improve product quality and safety

→ i.a., this is to be achieved by providing more data and increased transparency

These new requirements will not only affect new devices but will also **challenge the already approved devices on the market.**

# Introduction



## From manufacturer / supplier perspective:

The **regulatory requirements** will become one of the biggest challenges that might influence the **availability of safe and clinically proven devices in the near future.**

# Regulatory Challenges

Product specification / performance	Processes	Product quality / safety
<ul style="list-style-type: none"><li>• Clinical data: retrospective studies / data for approved devices</li><li>• Equivalence: only if access to the TD is granted</li><li>• Common Specifications</li><li>• GSPR</li><li>• ...</li></ul>	<ul style="list-style-type: none"><li>• UDI</li><li>• Eudamed</li><li>• PMS-TD</li><li>• ...</li></ul>	<ul style="list-style-type: none"><li>• Amount of requested data for TD will increase</li><li>• Supply chains will become more complex</li><li>• IP-protection</li><li>• amount of suppliers will might be reduced</li><li>• ...</li></ul>
➤ widely discussed / <b>obvious</b> within MDR	➤ widely discussed / <b>obvious</b> within MDR	➤ Results from MDR requirements / <b>not that obvious</b>

# Question

Why **MDR might challenge the product quality /safety** for already approved products in some points?

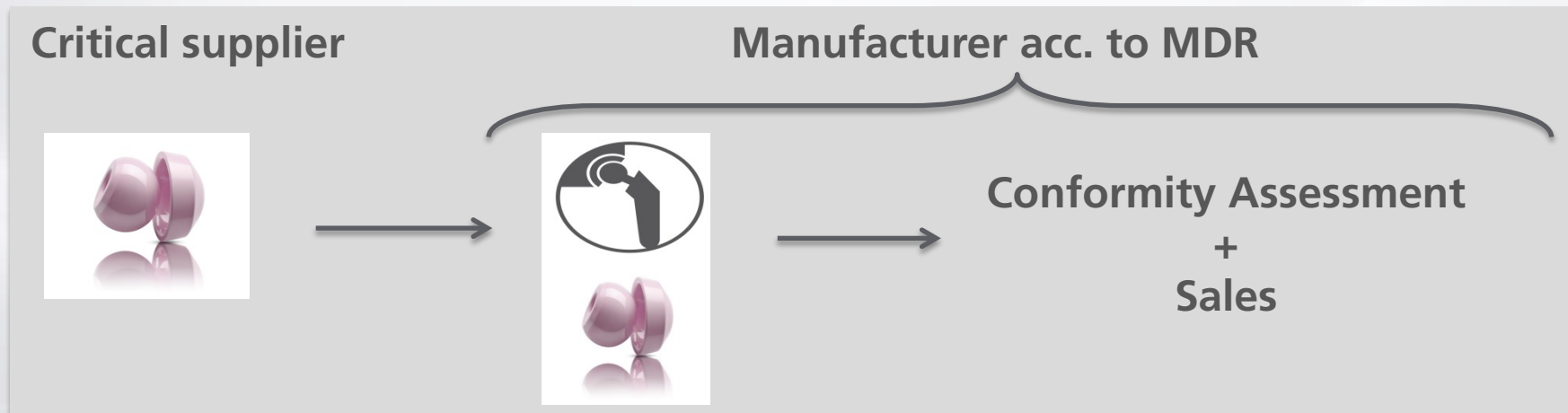
# Amount of data

Annex II of MDR is outlining in detail what information needs to be included in the TD

- This includes data from the manufacturer itself, as well as data from all suppliers / subcontractors etc.
  - the increased amount of data could lead to important information being lost / overlooked
  - review times will increase /availability will be delayed
  - content is often complex and not comprehensible without further explanation (especially when data comes from subcontractors)
- **in this case more is not automatically better**

# Supply chains

Products or components that require a high degree of know-how and specialization are often provided by critical suppliers



→ nevertheless the conformity assessment and provision of data is solely performed by the legal manufacturer



# Supply chains

MDR requirements are mainly addressed to (legal) manufacturers of medical devices, but:

- suppliers take over important steps or even the complete process of „physical“ manufacturing
  - in some cases the „critical suppliers“ are mainly involved / responsible for the product development and maintain most of the expertise
  - Documentation of the suppliers needs to be involved in the TD
- **involvement during conformity assessment might be required**

# IP-Protection

Annex II of MDR outlines the content of the TD, including data from suppliers / subcontractors

- As the products delivered through critical suppliers are often not processed, a lot of **information** included in the TD needs to be **provided through the critical supplier** itself, to cover MDR requirements
- However, the required information often include **internal know-how**, of the supplier, e.g. validation documents with process parameter, machine settings or detailed working instruction

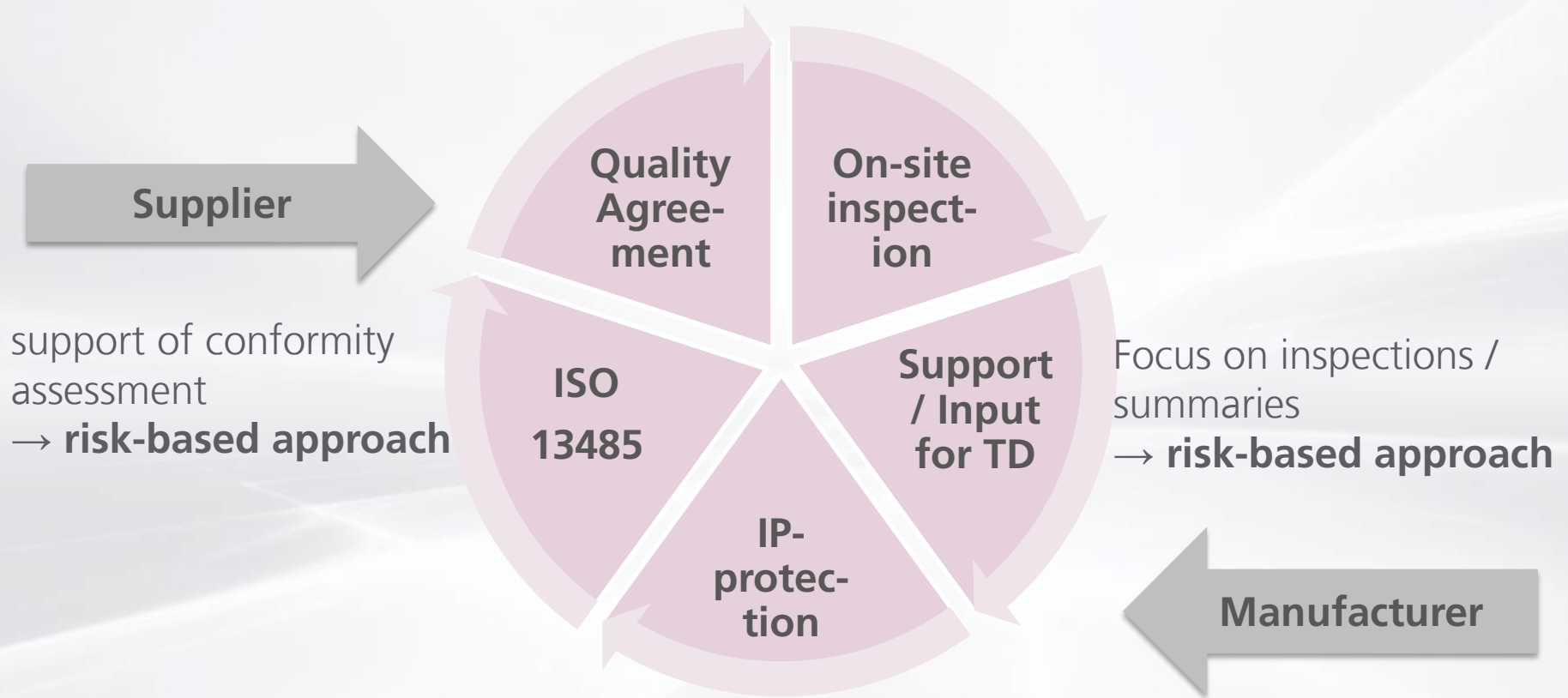
→ **IP-protection might endanger highly specialized and qualified suppliers**

## Possible solution → amount of data

- involve the critical suppliers into the conformity assessment process
- don't collect as much „paper“ as possible but focus on the important steps (together with the supplier)
- Outline and use the supporting verification measures such as on-site inspection, QMS, quality contracts etc.

→ **Risk-based approach**

# Possible solution → Supply chain



# Conclusion

- Regulatory requirements will influence the availability of safe and well-known products in the future
- There are many challenges that are not that obvious on a first site within MDR
- A strong collaboration between all involved parties will be required
- Existing tools / processes must (again) be given more validity
- Alternative ideas must be found and discussed

**I am happy to  
answer your  
questions.**

