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# An Opportunity for Medical Device Companies: CE Marking and Coming EU Regulatory Changes

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The EU market represents a huge opportunity for medical device sales but, due to proposed regulatory changes for medical devices, things will be changing in the coming years.

Recently, I attended a workshop organized by the Ontario Ministry of International Trade and Global Affairs Canada ("CE Marking: Revision of Medical Device Directives for the European Union") which focused on this and I will explain why those changes are important and why your company should be paying attention.

If you aren't familiar with CE Marking, in order to sell medical devices in the EU, you need to obtain CE Marking for your product. Upon crossing this EU regulatory hurdle, you can quite literally apply the letters "CE" to your product to mark it "Conformité Européene" or "European Conformity" compliant.

The next question is "why sell your product in the EU?" Most importantly, the EU is a huge market – 500M consumers, with $56B in medical devices imported into the EU annually. Second, regulatory approval via CE-Marking in many cases is less onerous and quicker than FDA approval. Third, although reimbursement and adoption systems in the EU differ greatly by country, some of the larger countries like Germany have very innovation-friendly reimbursement that allow companies to gain rapid traction. And finally, thanks to CETA, we now have very favorable export conditions and competitive procurement processed in the EU where Canadian companies can bid for EU hospital/university contracts. Crossing the regulatory gate to exploit these favorable business

conditions will soon get more difficult once the window for gaining approval via the old European regulatory directives closes in the next 2.5 years.

This May, important changes in the EU CE-Marking regulations came into effect and these were discussed at the workshop. Manuela Ahlers from TÜV NORD reviewed the new Medical Device Regulations (MDR 2017/745) and touched upon the new *In Vitro* Diagnostic regulation (IVDR 2017/746) which were officially published (pdf link) on May 5, 2017. The old Medical Device Directive (MDD) and *In Vitro* Diagnostic Directive (IVDD) are being replaced by the Medical Device Regulation (MDR) and *In Vitro* Diagnostic Regulation (IVDR) which came into force on May 26, 2017 in all EU countries and do not need to be ratified by individual EU members. Both MDR and IVDR are quite distinct from the respective old EU directives (MDD, IVDD) they replace, and have moved the medical device regulatory environment much closer to FDA standards. However, there are important transition periods to facilitate moving from the old directives to these new regulations. This leaves open a unique time-window where devices can still be approved via the old regulations, will require less clinical evidence to upgrade to the new regulations required after 5 years for MDR (7 years for IVDR), and may avoid backlog and bottleneck issues with implementation of the new regulations.

Before getting to how your company should interpret the changes, I will list some of the changes that have been made and why they matter:

**Overreaching scope changes**:

- There is a strong shift from a pre-approval (for CE-Marking) to a life-cycle and risk management approach, which includes traceability, usability testing, training, and postmarketing surveillance.
- MDR will apply to medical devices, their accessories, and "products without an intended medical purpose" which includes a diverse set of products ranging from contact lenses and injectables for cosmetic purposes to devices for brain stimulation, conception support or control, and cleaning/sterilization of devices.

**Risk classification, equivalence and clinical data**:

- Risk classification into class I, IIa, IIb, and III remains, but several device groups have been up-classified into higher risk classes.
- Software risk classification is now tied to the risk category of device it supports, or for independent software, is classified alone.
- There will be a much greater emphasis on clinical data and clinical evaluations, and the new definition of what constitutes equivalence is much narrower. Hence demonstrating safety using published clinical studies for other devices will be more difficult.
- For instance, implantable and class III devices will require high quality peer reviewed clinical investigations since the current equivalence rationale will no longer be accept. However, for already registered devices clinical evidence obtained through postmarketing surveillance may be sufficient to update to the new regulations.

**Postmarketing surveillance, reporting, traceability, and the Eudamed database**:

- Postmarketing surveillance via periodic safety update reports will be a continuous requirement for all class II and III devices. For instance, serious incidents such as serious public health threats will need to be reported within 2 days and deaths within 10 days after the manufacturer becomes aware of the incident.
- The EU plans to implement Eudamed, a comprehensive database which among other things tracks CE-Marking applications, clinical trials, manufacturers, postmarketing surveillance, and provides a much higher degree of transparency and traceability.
- New traceability rules will require all manufacturers and suppliers to register with Eudamed, and a Unique Device Identification (UDI) will be required for all MDR approved devices.

**Administration of the MDD to MDR transition and important timelines**:

- Supervision of Notifying Bodies (these are the regulatory institutions that process CE-Marking applications and provide approval) is greatly increased and Notifying Bodies will need to re-apply for EU country accreditation to be able to assess whether a companies' product meets CE-Marking requirements under the new regulations.
- MDR will start being applied in May 2020, and IVDR in May 2022, until then your product can still receive CE-Marking under MDD/IVDD. Furthermore, after May 2024 you can only place MDR CE-Marked products on the EU market and after May 2025 you can no longer make available or put into service devices approved via the old directives. Timelines for IVDR provide 2 additional years.
- It is expected that at the earliest manufacturers can apply for CE-Marking under the new MDR is in 2019. However due to the relatively short transitions periods (3 and 5 years) there may be some uncertainty and transition-pain associated with implementing the new regulations.

What does all this mean for companies? Overall the new EU regulatory environment will introduce more demanding clinical data requirements, data management and reporting over the whole product lifetime, for high-risk medical devices (class IIb and III) more complex conformity assessments, and product liability and penalties for non-compliance. It is still rather unclear how these changes will be implemented and if the Notification Bodies will gain new accreditation in time and have sufficient capacity to meet demand. Furthermore, timelines for creating, testing, and deploying the new highly complex Eudamed database seem aggressive. Significant delays and bottlenecks are expected due to these changes as well as the new ISO 13485:2016 standards that will become mandatory in early 2019.

Because of the expected complexities, companies must carefully evaluate if gaining CE-Marking and selling their device in the EU are on their commercialization path. There can be huge benefits down the road in key markets (such as Germany) that are highly supportive of innovation adoption.

Timing will be of utmost importance as submitting a CE-Marking application too close to the deadline may be stalled in backlog. Similarly planning to submit a new MDR application at the earliest possibility (e.g. in 2019) can encounter delays if the system is not ready yet. Probably the best strategy will be to submit an old MDD application within the 3-year transition time window,

thus benefiting from the less stringent old rules, and then upgrading once the MDR system in fully operational and your CE-Mark certificate expires after 5 years.

Fortunately, much has been written and published on the internet about the new CE-Marking regulations. For some excellent white papers and articles please see the following links:

- New MDR/IVDR regulation text as pdf
- Emergo Group:
  - Emergo European CE Marking Strategy for Medical Devices
  - MDR white paper
  - MDR overview slides
- BSI Group:
  - Medical Device Regulations overview with many interesting links to white papers
  - FAQ's for MDR

In any case, these will be interesting regulatory times with lots of changes coming in the immediate future. To navigate these, and eventually to tap the large EU market, you need to act now to develop an EU regulatory strategy with a knowledgeable expert/consultant. OBIO is more than happy to help you find someone who understands this space.

Stay tuned for a follow-up post about which the reimbursement environments in EU countries and which are the most innovation-friendly.