









4-8 December, 2017 I New Delhi



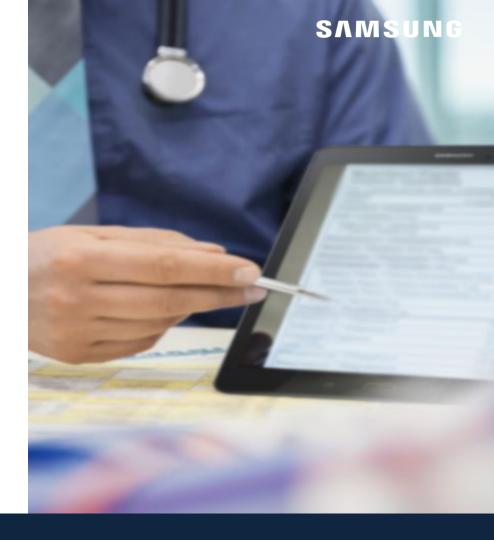
Changing Global Regulatory Environment

Opportunities & Threats in Industry – Focused on Premarket



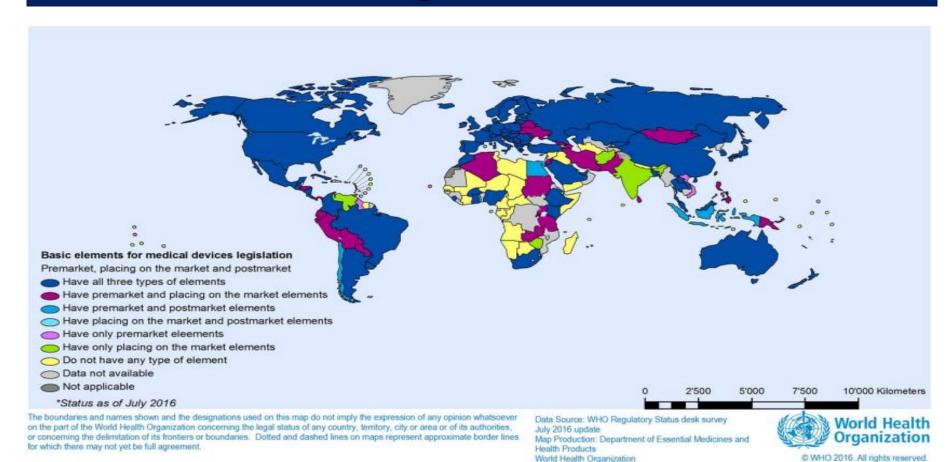
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Worldwide Medical Device Legislation





* Reference: WHO website, http://www.who.int/medical_devices/safety/all_basic_levels_types_mod.jpg?ua=1, extracted at Aug.28, 2017

Presenter: Jeongpyo Hong

At Glance - Premarket approval/clearance landscape



Modalities: Digital X-ray, Ultrasound, Mobile CT, IVD, Specialty MRI*

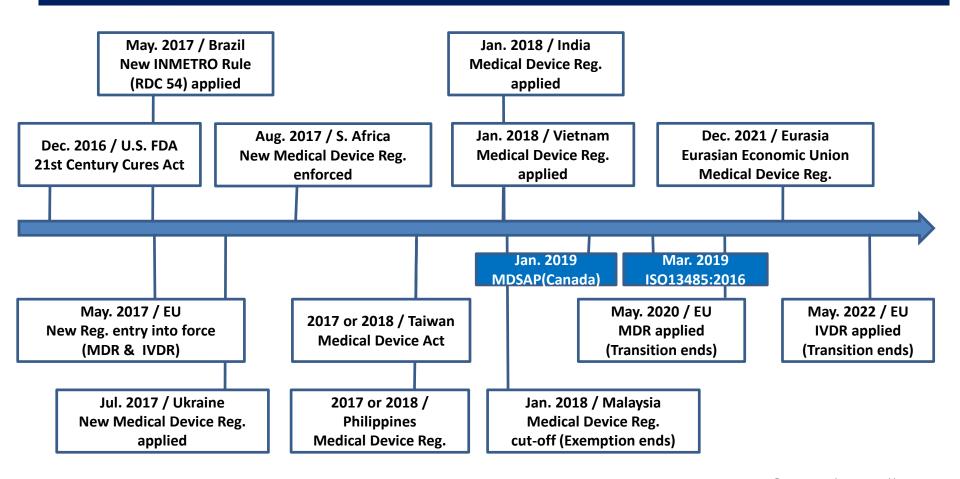
Selling 79 Countries

Hold Premarket approval/clearance from 51 countries



Presenter: Jeongpyo Hong

Changing Global Medical Device Regulatory Environment SAMSUNG





Transforming Regulatory Framework

- Introduce medical device regulation / technical review
 - . India, Malaysia start to regulate medical device.
 - . Vietnam, South Africa start to require technical documentation.
 - . Philippines expand regulated product coverage 10% to 100%.
 - . Taiwan separates Medical device Act from Pharmaceutical Act.
- European legislation change from Directive to Regulation
 - . MDD, AIMDD \rightarrow MDR / IVDD \rightarrow IVDR
 - . Premarket scrutiny review, New IVD classification, Reinforced clinical evidence, etc.



Transforming Regulatory Framework (Continued)

- The 21st Century Cures Act in US FDA
 - . Streamline premarket review process and bring treatments to market faster
 - . More PMN exemption, Accept real world evidence, Breakthrough Device Program, HDE expansion, CLIA waiver improvements, Least burdensome device review, etc.

Digital Health Software Precertification (Pre-Cert) Program*

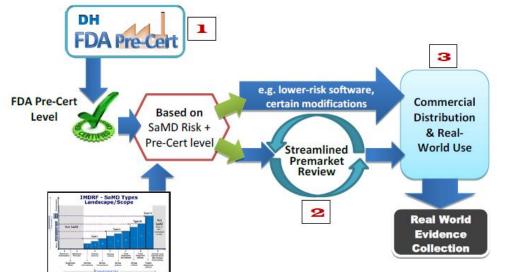
Harmonization

- Increasing harmonized regulation/standards across countries
 - . ASEAN Medical Device Directive, MDSAP, Eurasian Economic Union, etc.



* Digital Health Software Precertification (Pre-Cert) Program

- . A company based streamlined approach for SaMD that demonstrated a robust CQOE # SaMD: Software as a Medical Device, # CQOE: Culture of Quality and Organizational Excellence
- . Strive for excellence rather than compliance, Promote high quality and innovation, Increase user confidence beyond regulatory oversight, FDA to focus higher risk product



. Program Flow

- 1. Pre-Cert \rightarrow 2. Streamlined pre-market review
- → 3. FDA access to post-market data collection

. Pilot program participants

Samsung, Apple, Fitbit,
Johnson & Johnson, Pear Therapeutics,
Phosphorus, Roche, Tidepool, Verily

Presenter: Jeongpyo Hong



On-site inspection

- MDSAP
 - . Less inspection from participated countries, More requirements
- Increasing on-site factory inspection
 - . Ukraine new medical device regulation requires on-site GMP audit
 - . Brazil INMETRO requires on-site inspection for each new device certification

Clinical trial

- Increasing number of clinical trial
 - . EU MDR restricts to use literature review method using other manufacturer's device

Opportunities & Threats in Medical Device Industry



Opportunities

- Market access with same/similar technical documentation
 - . Harmonized regulation ASEAN, Eurasian Economic Union
- Strengthen product development and management process
 - . Rigorous requirements → Procedural approach Safer design, Stricter evaluation

Threats

- Increasing time and cost to market
- . Scrutinizing premarket review, More clinical investigations needed
- . Harmonized standards have more requirements. Eg. MDSAP
- Increasing technical / regulatory barriers
- Need more experts on Regulatory and Clinical research









Thank you