

A light gray world map is visible in the background, showing the outlines of continents and oceans. The map is centered on the Atlantic Ocean.

UN/ECE WP 6
International Model for
Technical Harmonization

Earth-Moving Machine Safety

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Outline of Presentation

- **Earth Moving Machines**
- **International Model for Technical Harmonization**
- **Experience With Model**
- **Improvements for Compliance Clause**
- **Model Global Certificate for Earth-moving Machines**



Earth-Moving Machines (EMM)

Machines for Excavating, Loading, Transporting, Spreading and Compacting Earth and Other Materials.



Earth-Moving Machines

- Global Industry
- Multiple National Requirements Are Challenge for Low Volume Industry
- Industry Promotes
 - High Safety Level
 - ISO Standards as National Standards
 - Technical Requirements for Regulations from ISO Standards





International Model for Technical Harmonization

- **Industry Associations From EU, USA, and Japan Worked Together to Develop an International Model for Earth-Moving Machines in 2004.**
- **The International Model Outlined General Principles for Technical Regulations Following the WP 6 Guidelines.**
- **The International Model Is Based on the Technical Requirements From the ISO 20474 Machine Safety Standard.**



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International Model for EMM

- 1. Scope Statement** – Applies to Earth-Moving Machines Defined by ISO 6165
- 2. Machine Requirements** – Minimize Machine Safety Risks During Life Cycle of Machines Using Technical Requirements in ISO/TC 127 Standards
- 3. Compliance Clause** – Use Supplier's Declaration of Conformance (SDoC) Defined in ISO 17050 Parts 1 and 2
- 4. Market Surveillance** – National Level

General Experience Promoting UN/ECE International Model



- **Currently Working With China, Russia, India, Korea, and Chile.**
- **ISO/TC 127 Standards Are Accepted as National Standards, With Some National Differences Due to the Culture, Social and Technology Level**
- **The General Principles of the International Model Regulation Can Be Applied to Different Types of Regulatory Processes.**
- **Additional Guidance is Needed for the Compliance Clause in International Model**

Conformity Assessment Experience

- **The USA, Japan, and Other Areas Accept the Manufacturer's Commitment of Conformity Assessment**
- **Europe Has New Approach Directives**
 - **The New Approach Directives Emphasize the Use of Harmonized Standards**
 - **Recommends Conformity Assessment by the Manufacture**
 - **SDoC is Accepted for EMM (ISO 17050)**
- **Developing Economies Generally Do Not Accepted SDoC, But Require Third Party Certification**

Conformity Assessment - Challenges in Developing Economies

- **Manufacturers So Far Are Not Trusted to Do Their Own Compliance Declaration**
- **Some Small and Medium Manufacturers Are Considered to Need Help With Conformity Assessment and Certification**
- **Resources for Market Surveillance Are Limited and a Third Party Conformity Assessment and Certification Process Is Considered As a Way to Compensate for the Challenges With Market Surveillance**

Improved Conformity Assessment

- **Long Term Goal Still Is Manufacturer Compliance Commitment - Supplier's Declaration of Conformity**
- **In Some Economies Where Manufacturers Are Not Prepared to Do SDoC or Are Not Trusted Yet to Do SDoC, the Assistance of a Third Party May Be Necessary for Conformity Assessment.**
- **For These Economies, the Manufacturer Can Work With a Third-party for Conformity Assessment. Conformity Assessment Testing That Has Already Been Done by the Manufacturer Can Be Used If the Manufacturer Has the Following:**
 - **A Quality Plan That Is at Least Equivalent to ISO 9000**
 - **A Documented Conformity Assessment Process**
 - **A Conformity Assessment Group to Manage the Conformity Assessment**
 - **Access to Conformity Assessment Facilities (Internal or External)**

Model Global Certificate for Earth-moving Machines

Manufacturer's Name Declaration of Quality and Conformity			
I, the undersigned, _____, hereby certify that the construction equipment specified hereunder			
1. Category			
2. Make			
3. Type			
4. Serial Number			
5. Year of construction			
has been manufactured in conformance with quality requirements			
- Quality Standard:		Certified by:	
- Quality Standard:		Certified by:	
and has been constructed with regard to.			
Directives/Standards	No.	Date	Approval Body
Support Information:			
Certified by: (firm/third party)			
Facility & Country of Origin		Signature	

		Date: _____	

Summary UN/ECE Project

- **Global Harmonization of Machine Requirements Based on ISO Standards Allows Global Market Access for All Manufacturers**
- **Allowing Some Regional Differences Is Beneficial For Developing Economies**
- **Conformity Assessment Is Still a Challenge**
- **The Proposal in the UNECE International Model for EMM Addresses This Challenge**
 - **Maintain Long Term Goal of SDoC**
 - **Recognize the Need for Third Party Assistance**
 - **Promote Cooperation Between the Third Party and the Manufacturer to Minimize Conformity Assessment Time and Cost**
- **Model Global Certificate Is Proposed**