

# UNECE initiative on Education on Standardization

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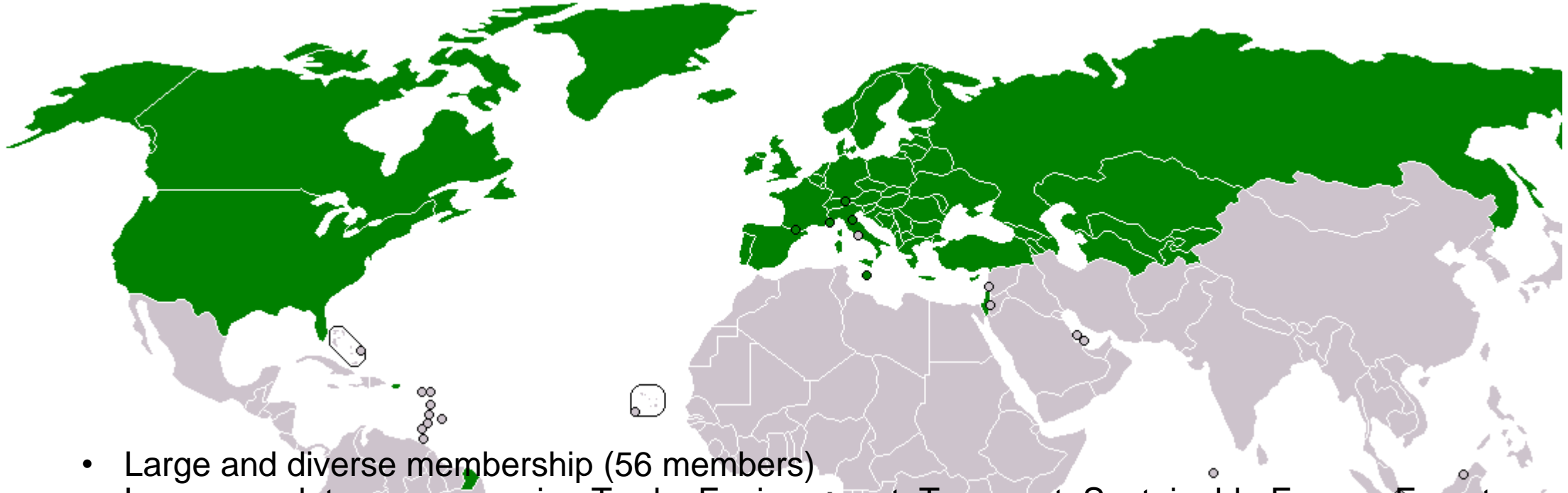
Secretary, Working Party on Regulatory Cooperation and Standardization Policies

WSC Academic Day 2016 – 12 October 2016 - Frankfurt



# UNECE: United Nations Economic Commission for Europe

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- Large and diverse membership (56 members)
- Large mandate encompassing Trade, Environment, Transport, Sustainable Energy, Forestry, Housing and Land Management, Statistics, etc.
- UNECE helps implement the Sustainable Development Goals by translating global goals into norms, standards and conventions, building capacity and engaging in partnerships with the private sector, the academia, and civil society
- “UNECE’s achievements have made it a go-to source for improving global public goods and services, with more than 100 countries beyond the UNECE region benefiting from its work” (UN Secretary-General Ban Ki-moon)



# UNECE Working Party on: Regulatory cooperation & stds policies

## What we are:

- Intergovernmental body
- Participation by: authorities, regional & int'l org, standards-setting bodies, business, certification bodies, test houses, civil society
- From all UN Member States
- 1970 – 2015: 45+ years

## Our mandate:

- Standardization  Technical regulations  Conformity assessment  Accreditation  Metrology  Market surveillance  Risk Management  Education on standards and standards related issues

## Our activities

- Develop and share info & best practice
- Capacity-building (trainings and awareness-raising events)
- Develop and maintain a set of recommendations
- Implement a set of initiatives on specific industrial sectors



# Post-2015 Development Agenda



- 2015 a historic year for the United Nations
- March 2015: Sendai Framework for Sustainable Development
- June 2015: Financing for development
- September 2015: Adoption of the SDGs by the UN General Assembly
- December 2015: COP 21 Adopted the Paris Agreement
- October 2016: The New Urban Agenda



FINANCING FOR DEVELOPMENT  
13-16 JULY 2015 • ADDIS ABABA • ETHIOPIA  
TIME FOR GLOBAL ACTION



PARIS2015  
UN CLIMATE CHANGE CONFERENCE  
COP21·CMP11



# The 2030 agenda & the standards community?



- Participate, participate, participate
- Standards bodies need to «be there» when these frameworks are agreed to, and they are also not there when member states discuss how to go about their implementation
- Standards bodies can also be an enabler for the participation of business – UN compact



United Nations  
Global Compact



# The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework)

## 1 OUTCOME

The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries

## 1 GOAL

Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience

## 4 PRIORITIES

Understanding disaster risk

Strengthening disaster risk governance to manage disaster risk

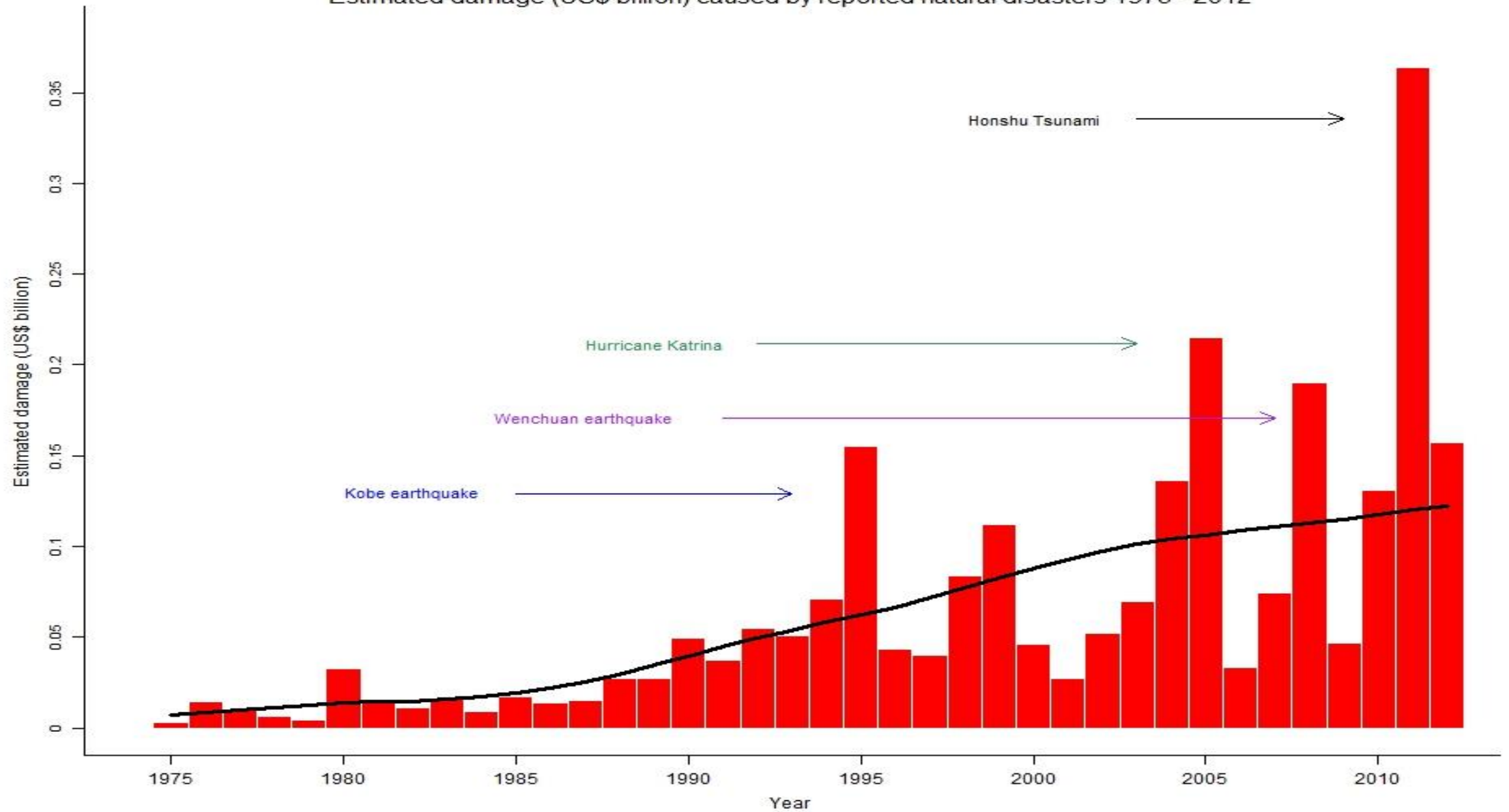
Investing in disaster risk reduction for resilience

Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction

## 7 TARGETS

- ↓ DISASTER MORTALITY BY 2030
- ↓ # of AFFECTED PEOPLE BY 2030
- ↓ ECONOMIC LOSS BY 2030
- ↓ INFRASTRUCTURE DAMAGE BY 2030
- ↑ DRR NATIONAL/LOCAL STRATEGIES BY 2020
- ↑ INTERNATIONAL COOPERATION BY 2030
- ↑ EWS AND DR INFORMATION BY 2030

Estimated damage (US\$ billion) caused by reported natural disasters 1975 - 2012



# Impact of disasters globally



## DISASTER IMPACTS / 2000-2012

\*Disasters refers to drought, earthquake (seismic activity), epidemic, extreme temperature, flood, insect infestation, mass movement (dry & wet), storm, volcano, and wildfire / Data source: EM-DAT: The OFDA/CRED International Disaster Database / Data version: 12 March 2013 - v12.07  
OCHA Humanitarian Symbol (2012): <http://reliefweb.int/map/world/world-humanitarian-and-country-icons-2012> / Find out more about UNISDR: <http://www.unisdr.org>



• Globalization has led to an unprecedented accumulation of risks:

- Global supply chains: risks ripple across continents
- A lot more value in disaster-prone locations

• Hazards are endogenous in our development model: we need to do more than manage emergencies, we need to change our development model to prevent them from occurring



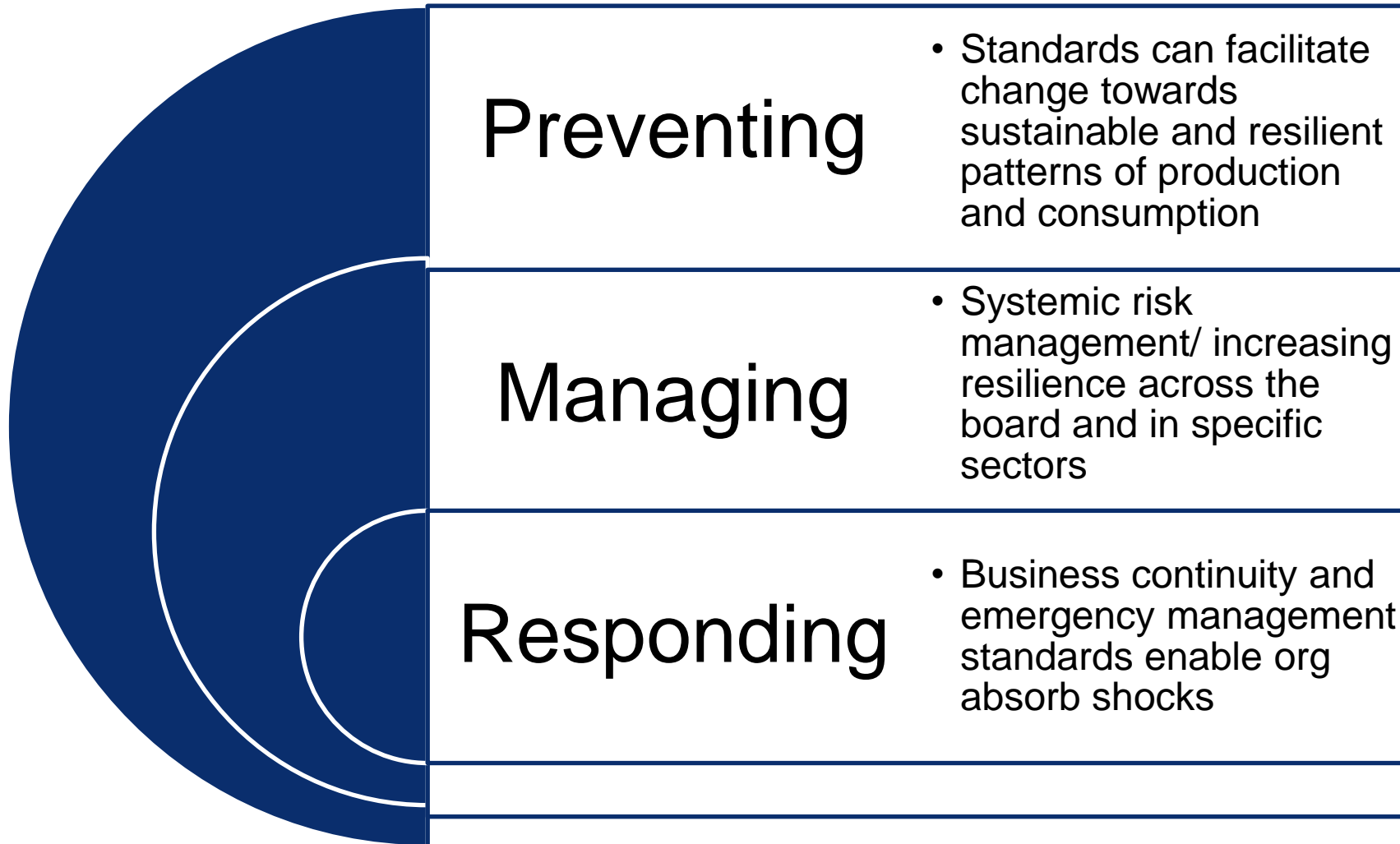


# Can standards & standards-related institutions and infrastructure help?

- Hazards have global proportions → need for globally cohesive and coherent
- Standards provide sound metrics across sectors & geographical locations
- Standards speak the language of business



# How?



**UNITED NATIONS**  
ECONOMIC COMMISSION  
FOR EUROPE

# Preventing accumulation of disaster risk....



# Managing risks..

Managing risks to critical infrastructure

Food & Agriculture	Banking and Finance	Chemical
Commercial Facilities	Communications	Critical Manufacturing
Dams	Defense Industrial Base	Emergency Services
Energy	Government Facilities	Information Technology
Healthcare & Public Health	National Monuments & Icons	Nuclear Reactors, Materials & Waste
Postal & Shipping	Transportation Systems	Water

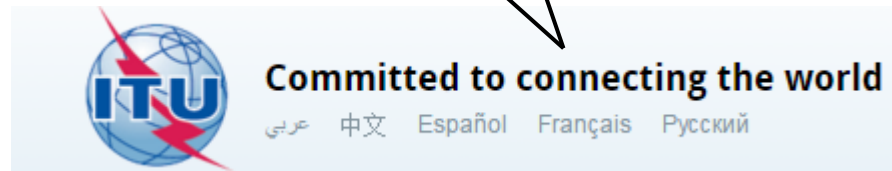


Managing risks to civilian buildings



- Not just standards but all the standards-related infrastructure

Example: metrology



# Responding...

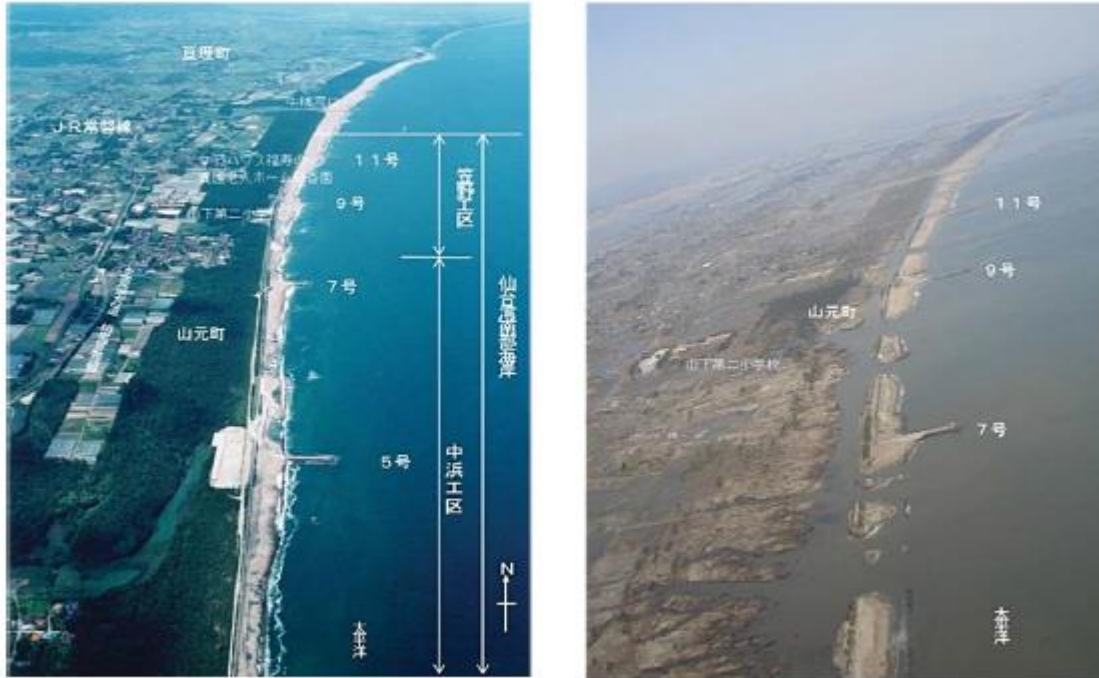


Figure O.3 Dikes in Sendai before and after the tsunami of March 11, 2011

Source: Ministry of Land, Infrastructure, Transport and Tourism, 2011.



# Collaboration between UN & Stds community



- Joint research on stds x DRR
- Joint participation in Sendai
- Joint work to identify standards that can help in the implementation of Sendai



# How can academia help?



- Research on: impact of standards and standards-related infrastructure and institutions for sustainable and resilient development
- Equip graduates with tools that will enable them **to tackle technical, and organizational issues with a pragmatic, hands-on and holistic approach**
- Strengthen exchanges with the UN through internships, joint research projects, field visits for classes...



# What we've achieved so far:

## 1970

- Adoption of Recommendation I
- Governments encouraged to include standardization in the curricula of educational institutions

## 2011

- More than 40 years had passed
- Few educational institutions have included standards in their curriculum
- Very different educational approaches internationally

## 2012

- Workshop on «Education on Standards Related issues»
- Revision of Recommendation I adopted by Member States (more on that later)
- Ad Hoc Group of Experts on Education on Standards related issues (STARTed) set up & held 1<sup>st</sup> meeting
- Development of a model curriculum for teaching standards-related issues in Universities

## 2013-2014-2015

- Annual meetings of the STARTed Group
- Development of 4 of the 15 modules in the curriculum
- Partnership with the Russian Academy for Standardisation, Metrology and Certification
- Partnership with EURAS - European Academy for Standardisation
- Development of a repository of education-related materials  
<http://www.unece.org/trade/wp6/educationonstandardization.html>



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# Recommendation I



## Education on standards-related issues<sup>9</sup>

The Working Party on Regulatory Cooperation and Standardization Policies,

**Recognizing** the role and place of standards and of quality infrastructure in accompanying or controlling products during their life cycle,

**Underlining** the important contribution of standards and regulatory framework (technical regulations, metrology, conformity assessment, accreditation, market surveillance) in the attainment of national and international development goals (including the United Nations Millennium Development Goals) and in promoting sustainable development,

**Recommends** that—in collaboration with appropriate intergovernmental and other organizations and academia, and taking into account the activities of global, regional and national standards bodies—Governments should encourage, wherever feasible and where the national legal framework permits:

- (a) the introduction by educational establishments of the subject of standardization into the curricula of educational establishments and particularly of universities for students majoring in technical and scientific subjects, as well as in legal, economic and management studies;
- (b) the vocational education and training of specialists in standardization;

Governments should encourage:

- the introduction of the subject of standardization into the curricula of educational establishments and particularly of universities for students majoring in technical & scientific & legal & economic & management studies;
- the vocational education and training of specialists in standardization;
- the enhancement of awareness-raising activities targeted to the business community and regulatory authorities;
- the further study of standardization issues to ensure that standardization and regulatory regimes contribute to legitimate concerns of society



# Model educational programme on standardization

- Should ideally cover, in a logical order, the minimum set of issues that a programme on standardization should contain to give a student a general understanding of the major standardization, regulatory and related issues relevant to business and regulatory and administrative authorities.
- For implementation by general university level academic programmes (bachelor and master) in economics, business administration and law, rather than to specialized training in standardization.
- While the model programme aims at establishing a core curriculum, the specific set of issues and the time allocated to each area would clearly have to be tailored to the needs of a specific educational institution and programme.
- Developed in consultation with a group of experts from educational institutions from Europe and CIS region



# Curriculum – 15 modules

1. Standardization basics
2. Standardization for a sustainable and resilient development
3. Standardization and companies
4. National legal and institutional framework
5. Regulatory policies and related institutional mechanisms
6. Managing risks through regulatory systems
7. Metrology
8. Conformity assessment
9. Market surveillance
10. Management system standards
11. International standardization
12. International trade, standards and regulations
13. Standardization of information requirements and supply chains
14. A practical exercise: Standardization within a company
15. Policy issues and challenges in standardization



# Proposed cooperation with universities and standards-setting bodies

- UNECE unique mandate: standardization, metrology, technical regulations, conformity assessment, market surveillance and risk management.
- Other institutions focus on only one area UNECE promotes a holistic understanding and approach
- Opportunities for:
  - Joint studies and research projects
  - Joint development of online or offline teaching modules
  - Internships
  - Regular/ad hoc interventions in classes or courses by UNECE staff
  - Advice/contributions for the development of courses/curricula on standards-related issues by UNECE staff



**How can we work together**  
**- more effectively**  
**- at both global and national level**  
**- using education as an enabler**  
**??**

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