Standards:
A key to unlock the SDGs

Lorenza Jachia
Secretary, Working Party on Regulatory Cooperation and Standardization Policies (WP.6)
Jointly organized webinar with DIPLO Foundation 09.02.2017

Secretary to the
Working Party on
Regulatory Cooperation and
Standardization Policies

UNECE “helps implement
the Sustainable Development Goals
by
translating the global goals into
norms, standards and conventions”

Plan of the webinar

13:00 – 13:30	**Basic facts about standards and why they matter for the SDGs**
	- How can standards help for SDGs?
	- What are standards/how are they developed and used?
	Q&A
13:30 – 14:00	**Getting hands on with a real standard**
	- What if your workplace was hit by a fire?
	- Continuity management standard ISO 22301
	Q&A

Part 1

- Can standards help achieve the SDGs? How?
- What are standards?
- How are they developed and used?

Post-2015 Development Agenda

- 2015 a historic year for the United Nations
- **March 2015**: Sendai Framework for Disaster Risk Reduction
- **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

"Standardization has the potential to play a **leading** role in promoting sustainable development in all of its three spheres: economic growth, environmental integrity, and societal equity."

(Mr. Hakan Murby, then President of ISO, 2007)

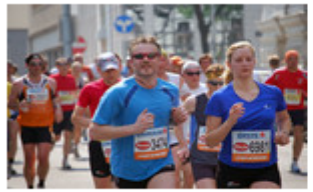
A morning in the life of Mister G

Starting a successful day with the unnoticed support of standards

6:00 a.m.: The alarm clock rings. Dozy, Mister G opens his eyes. A look at the alarm clock tells him that it is time to get up. The first meeting is already scheduled for 9 o'clock. So, rise and shine! But honestly: who likes to push away a cosy and soft down quilt whose quality is ensured by a series of European standards and get out of bed.

Mister G sits up abruptly. His bed does not creak and the mattress does not cave in. Standards ensure the stability of the bedframe and the durability of the mattress.

Still a bit drowsy, Mister G goes to the bathroom first, seeing only blurred contours. As Mister G is near-sighted, the first thing he does in the morning is to insert his contact lenses. During the night, they were stored in a care product meeting the requirements defined in EN ISO 9394. Of course, the contact lenses themselves are well tolerated (thanks to standards). A good feeling. Then Mister G brushes his teeth. The toothbrush (EN ISO 20126) does not lose any bristles and the toothpaste (EN ISO 11609) does not scratch his teeth like scouring powder.



6:30 a.m.: To shake off his sleep completely and really get going, Mister G decides to go for a jog before breakfast. Although his jogging shoes are new, he immediately feels like running on clouds as the soles of his running shoes are agreeably springy. And this is owed to the fact that the manufacturer complied with the relevant standards – something that Mister G is not aware of.

7:00 a.m.: After returning home, Mister G takes his breakfast. As you may have guessed already, standardization does not even neglect breakfast. Mister G is able to easily spread the butter thanks to ÖNORM DIN 10331. The good quality of his coffee is ensured by ÖNORM EN 14132. Toaster, coffee maker and egg boiler also function well on account of standards. Now, Mister G quickly loads the dishwasher: knives, spoons, cups and plates will again be perfectly clean tomorrow, without any stains or cracks. They are in line with numerous standards and therefore are dishwasher-safe. The dishwasher' suitability for use was tested in line with a standard. The same applies to the washing machine into which Mister G puts his sweaty jogging suit.

A standard: «Agreed way of doing something.»

Standards in our daily lives

Standards are key for virtually all the SDGs: some examples

Standards for rural electrification - microgrids - for wind turbines (i.e. the IEC 61400 family of standards) as well as safer, more reliable, more efficient devices, bringing sustainable electricity and light to cities and economies

Standards that help manage environmental responsibilities: help monitor and reduce energy consumption, emissions into the air and water streams (i.e. UNECE Flux Standard, ISO 14000 family, ISO 50000 family energy management etc)

Standards are the foundation of international trade and help ground an open, non- discriminatory and equitable multilateral trading system (Goal 17 and specifically Target 17.10)

Standards & SDGs

- Challenges have global proportions ➡ need for globally cohesive and coherent solutions
- International standards provide sound metrics across sectors & geographical locations
- Standards speak the language of business
- Support productivity gains (ISO 9000 certification achieved average productivity gains 5% in China)
- Help facilitate the adoption of good regulatory practice and create economies of scale
- Help protect communities and consumers from unsafe and harmful products/practices

Definitions (WTO)

- Technical regulations: document drawn up by a regulatory body which lays down product characteristics (shape, labelling, design, performance etc.) or related processes and production methods with which compliance is mandatory.

≠

- Standards: document established by consensus & approved by a recognized body that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods with which compliance is voluntary.

Standards ≠ Regulations

Standards	Regulations
Developed by standards development bodies	**Developed by** regulatory agencies, ministries, and parliaments
Reasons for introduction: - Protect communities, environment & workers from hazards - Correct market failures - Address public concerns	**Reasons for uptake**: - Access to markets / supply chains - Lower operational costs - Increase stability in operations - Gain public trust - Regulations: Help monitor compliance/ Preempt unfriendly reg.
Development in some countries, consultation of interested is required, but consensus not a binding requirement;	**Development** Consensus-based process; Publication of draft standards; review of approved standards every 3 or 5 years

Advantages of using standards in regulations

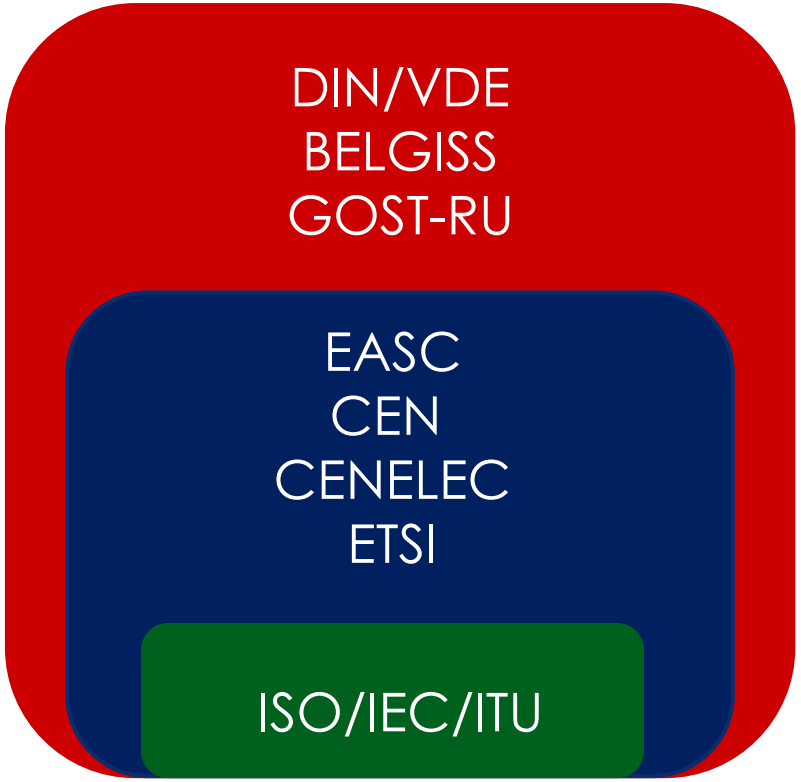
- Recent technological developments can be fed into the national regulatory system
- Efficiency of regulatory work is enhanced
- Ease the burden of compliance for economic operators
- Puts responsibility on the individual firm for meeting a specific target through its own criteria and systems
- "Good regulatory practice"

How standards are developed: The international standards system

International Plant Protection Convention (IPPC)

OASIS

GS-1

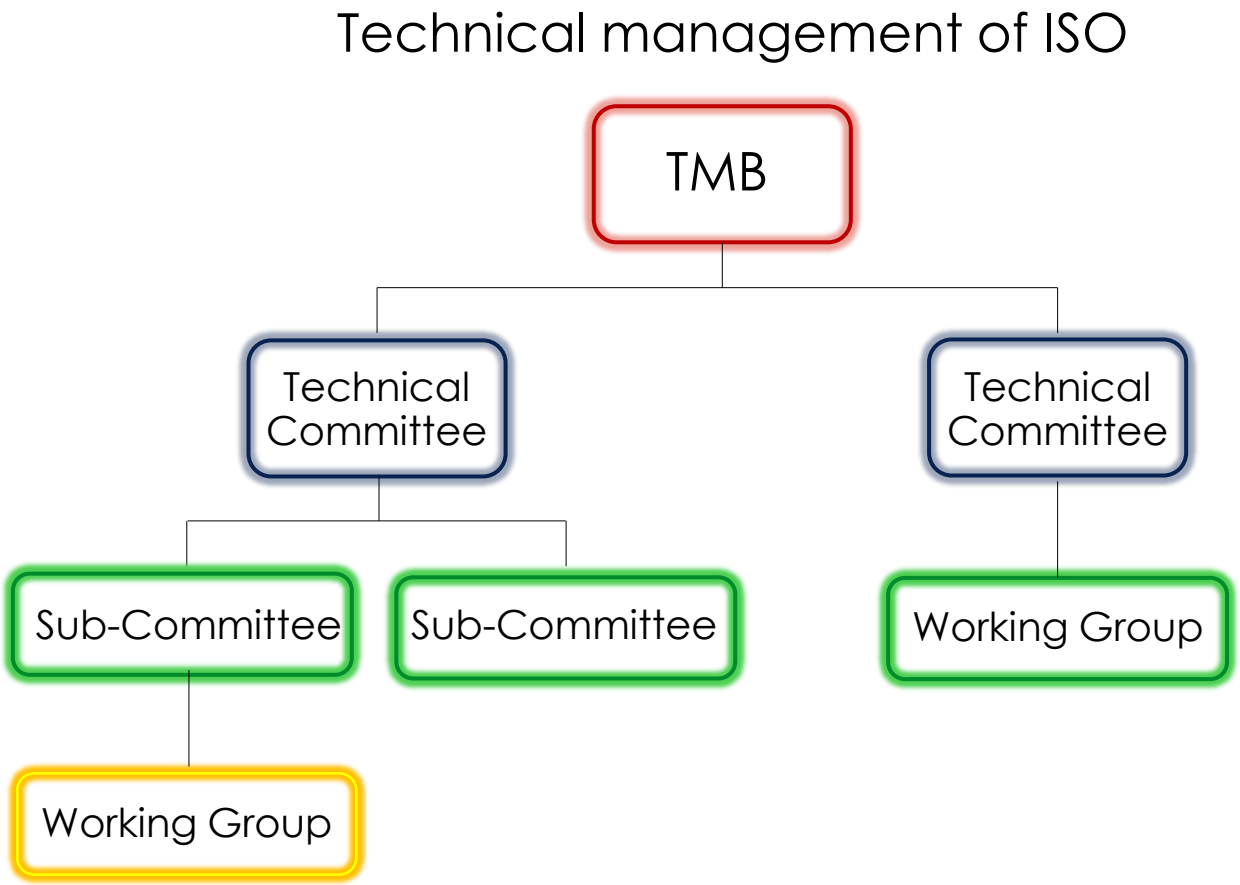


World Organization for Animal Health (OIE)

UNECE

Codex Alimentarium Commission (CODEX)

How standards are developed: A consensus-driven process



Use of standards in policy work

- Standards – referenced in regulations
- Standards – support, enhance and help evaluate policy action: procurement, voluntary certification schemes (i.e. cuts in insurance premiums)
- As the basis of Regulatory Cooperation
- Standards – such as risk management standards – can also be used as both the basis and the foundation of regulatory systems

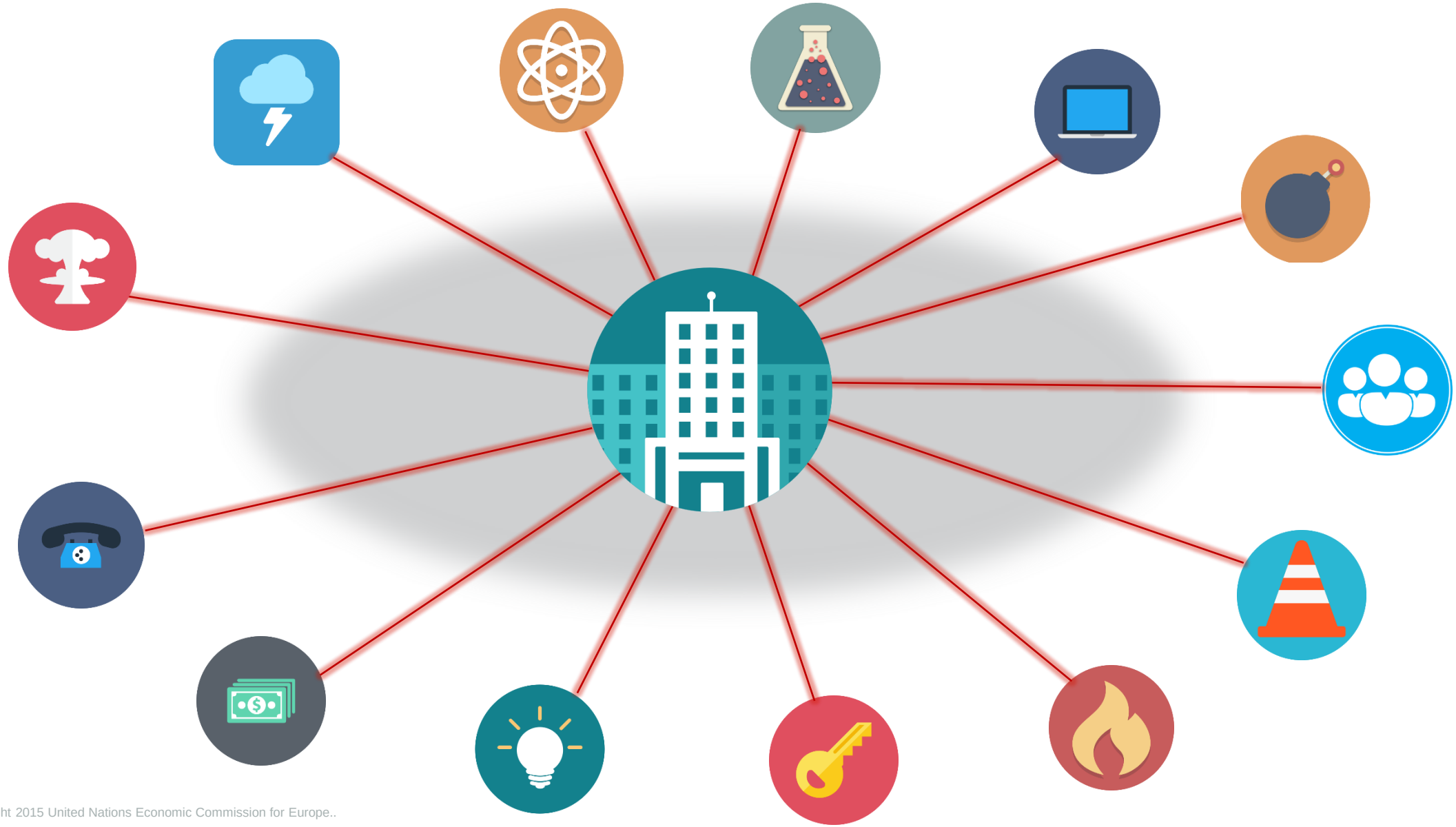
Use of standards in policy work

Method	Example
Incentive	US: National Flood Insurance Program's (NFIP) offers reasonably priced flood insurance for homeowners of communities that comply with minimum standards for floodplain management. In addition, the Community Rating System (CRS) is a voluntary incentive program for communities that go beyond minimum requirements, entitling homeowners in their communities to cuts up to 45% on insurance
Procurement	UK: Government Buying Standards (GBS) allow authorities to buy "green " goods/services
Evaluate policy work	Emergency Management Accreditation Program (EMAP) to certify state and local emergency management programs against standards such as the Standard on Disaster/Emergency Management and Business Continuity (jointly developed by ANSI – the American National Standards Institute – and the NFPA - National Fire Protection Association).

Part 2

- Hands on
- ISO 22301
  Business continuity
  Management systems

Risk scenarios



Business continuity management

BC:

capability of an organization to continue to deliver products and services at acceptable level following a disruptive event

BCM is a process that:

- Identifies potential threats;
- Quantifies the impact that the threats could pose to the organization
- Provides a framework for building resililence

The standard

INTERNATIONAL STANDARD

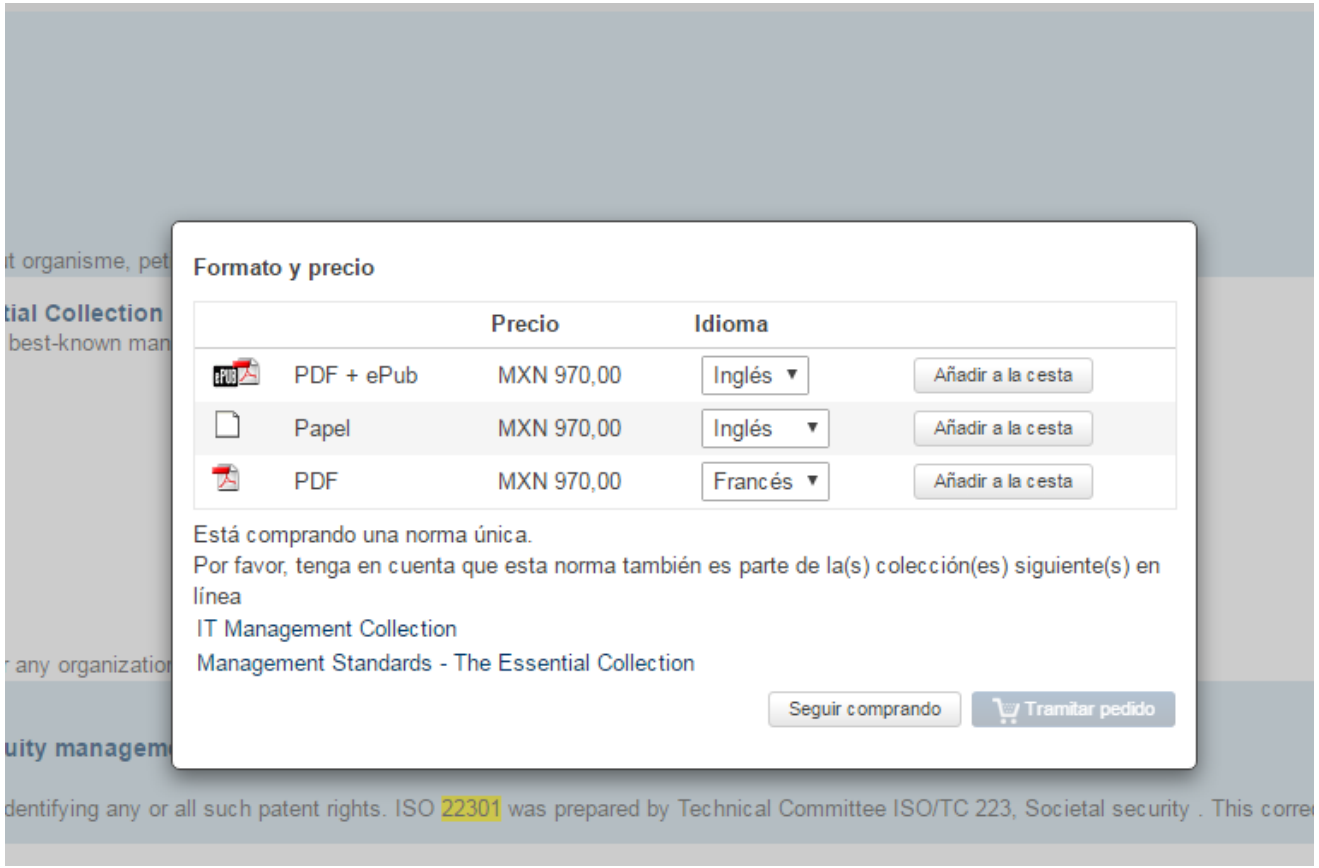
ISO 22301

First edition
2012-05-15

Corrected version
2012-06-15

Societal security — Business continuity management systems — Requirements

Sécurité sociétale — Gestion de la continuité des affaires — Exigences



47 swiss francs

ISO 22301: The «Plan – Do – Check – Act» model

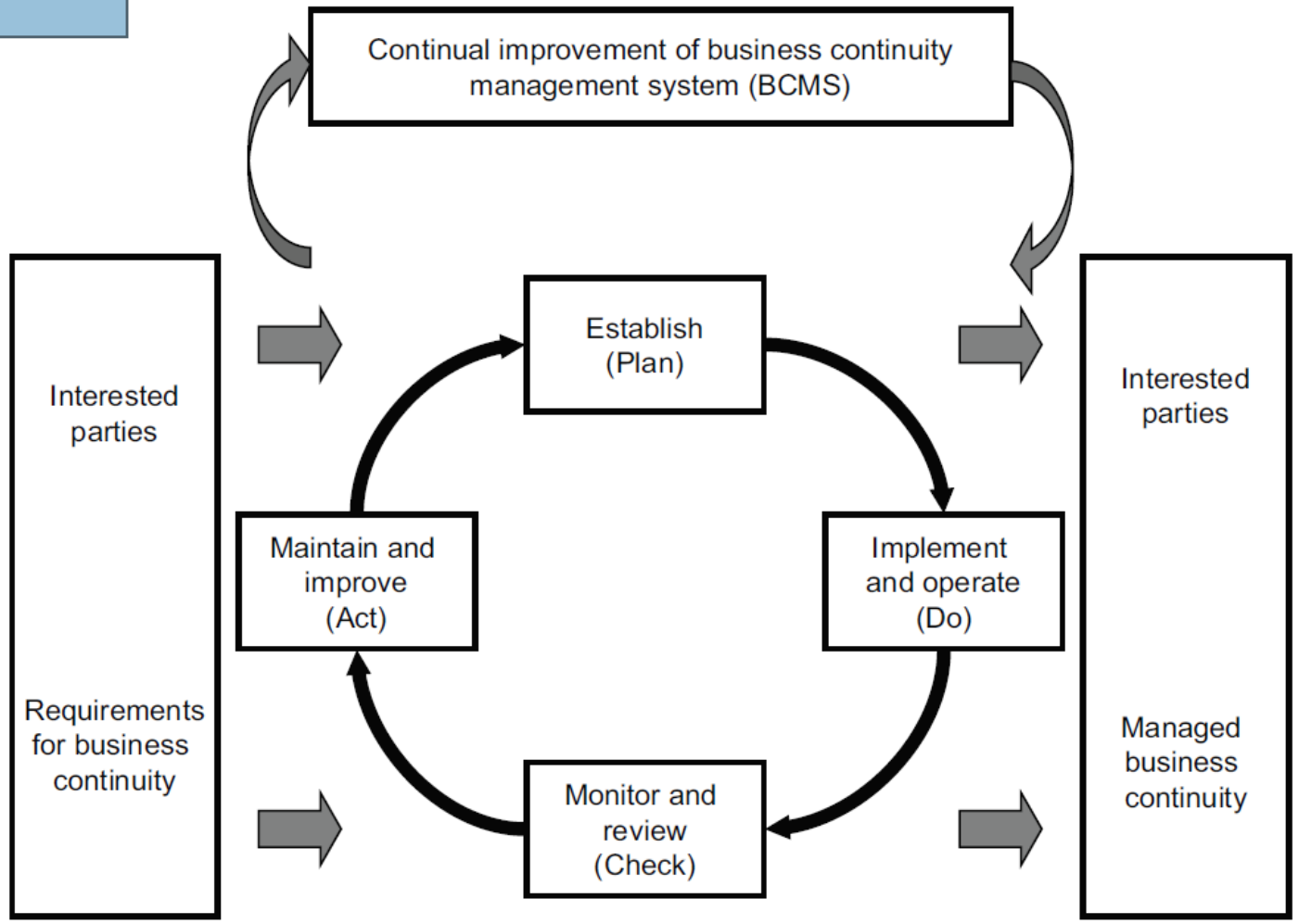
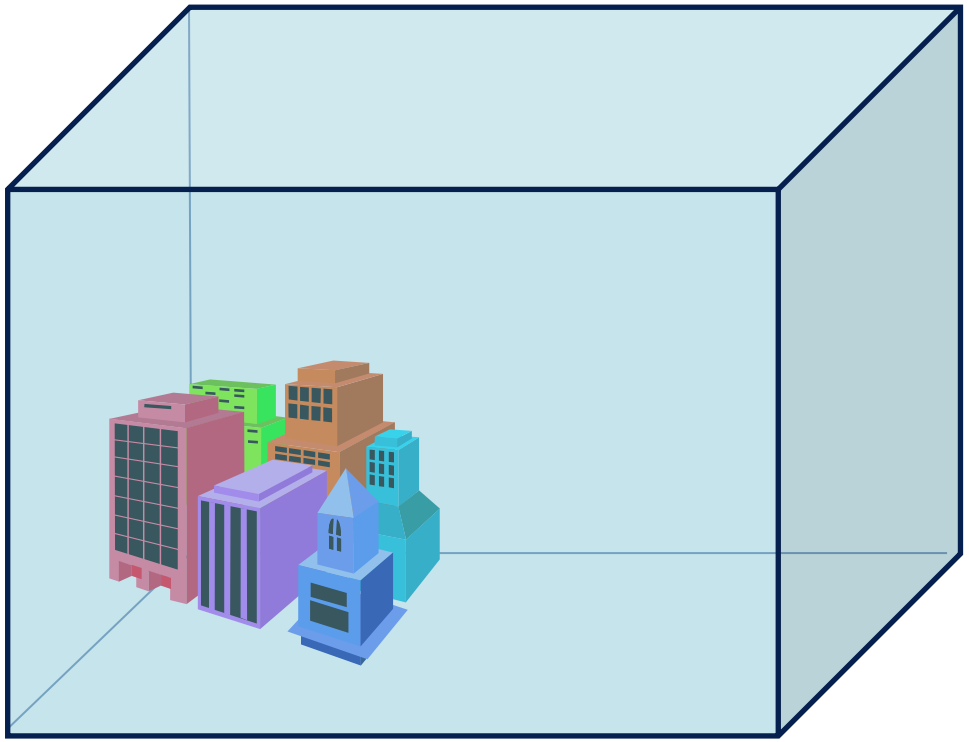


Figure 1 — PDCA model applied to BCMS processes

Realistic risk scenarios



XXXXX could cause the building to be inaccessible for 2 weeks and unusable for 18 months.

Risk description

- Pandemic influenza could result in 30% of staff being absent for 18 weeks
- Pollution in the bay could result in no new seawater supplies for 7 days
- Telephone service failure could result in a loss of electronic banking for 24 hours

Business Impact Analysis

- Identify activities that support provision of products and services
- Assessing the impact of not performing these activities
- Determining the Maximum Acceptable Outage = maximum time it would take for adverse impacts of not providing product or service to become unacceptable
- Setting a prioritized timeframe by when specific activities must be resumed and minimum acceptable level of performance

Development of BC Strategy

Risk Scenarios

Business Impact Analysis

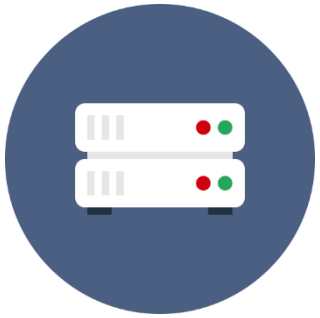
BC Strategy – How to:

- Protect prioritized activities
- Stabilize, continue, resume and recover prioritized activities
- Mitigate, respond to, manage impact
- Resource requirements required to implement BC strategy

Assessing and collating resource requirements

- People
- Budget
- Equipment
- IT hardware and applications
- Accommodation
- Information
- Telecommunications
- Storage






Key Resource Components

DEPARTMENT	BUSINESS PROCESS	RTO	STAFF NEEDED	RESOURCE REQ'MENTS
Network Services	Network Management Communication Management SCADA Management Data Center	24 Hrs 24 Hrs 24 Hrs 24 Hrs	3 4 2 4	Manuals Software CDs Procedures
Electric Supply Management	Forecast Customer Demand – Short Term	24 Hrs	4	Contracts
Fossil/Hydro Administration	Purchase Coal, Fuel Oil, Petroleum Analyze Performance	48 Hrs 48 Hrs	4	Boiler geometry, original control diagrams/heat inputs, pricing schedules, HAZMAT records, Hydro station licenses
Fossil/Hydro Station Operations	Monitor and Control Operation – Russell/Beebee Stations	24 Hrs	10	Generation records
Strategic Supply Management	Purchasing Process Invoices	24 Hrs	10	Equipment specifications, supply histories
Electric Field Operations	Maintain Electric Network System	96 Hrs	15	
Gas Field Operations	Maintain gas – Pressure, Control, Odorization	48 Hrs	2	Maps, work requests
Quality Customer Service	Customer Call Center	24 Hrs	40	Service records, historical drawings, contracts

Resource Mapping

Critical Business Function	Staff	Desks	PC	Telecom	Vital Records	Budget	Other
Payroll	3	3	3	3 x desk ph 1 x mobile	Payroll file Adjustment forms		Secure room
Cheque Payments	8	8	8	8 x desk ph 1 x mobile	Accounts file Cheque stock		Cheque printers
Critical Business Function	**Staff**	**Desks**	**PC**	**Telecom**	**Vital Records**	**Budget**	**Other**
Payroll	1	1	1	1 x desk ph 1 x mobile	Payroll file Adjustment forms		Secure room Cheque printers
Cheque Payments	3	3	3	1 x desk ph 1 x mobile	Accounts file Cheque stock		Secure room Cheque printers

Business Continuity Certified Companies

UMC First Foundry to Receive ISO 22301 BCM Certification

Hsinchu, Taiwan, April 12, 2013 – United Microelectronics Corporation (NYSE: UMC; TWSE: 2303) ("UMC"), a leading global semiconductor foundry, today announced that it has received ISO 22301 certification for its business continuity management (BCM) system from SGS (Societe Generale de Surveillance). Being the first foundry worldwide to achieve ISO 22301 certification underscores UMC's disaster response abilities and mechanisms for quick recovery. This international standard will also reassure UMC customers, insurance companies, and stakeholders regarding the strength of the company's risk management.

Certified

Daewoo E&C First in Industry to Receive ISO 22301 Certification

Ji Hong-geun (6th from right), the head of the department, and the president of BSI Korea (5th from left) are posing for a photo holding the ISO 22301 certification.

Abu Dhabi Airport first in Middle East to become ISO 22301 certified

Thursday, 25 February 2016 04:50

Abu Dhabi International Airport has been awarded a Management System Certificate for Business Continuity Management — the first in the Middle East

This makes the airport also one of the few in the world to become ISO 22301 certified.

Ahmad Al Haddabi, chief operations officer, Abu Dhabi Airports, said, "The ISO 22301 certification demonstrates that the business continuity system in place at Abu Dhabi International Airport is of the highest standard and that the airport is prepared for and able to continue its operations in the event of any disruption.

Abu Dhabi International Airport currently serves over 116

Impact of disasters at the global level

- Globalization has led to an unprecedented level 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

Thank you

Lorenza Jachia
Secretary, Working Party on Regulatory Cooperation and Standardization Policies (WP.6)
lorenza.jachia@unece.org