Technology and Trade: The Trade & Transport Facilitation of the future

London, June 2018, Jan.Hoffmann@UNCTAD.org
The mindset
Concrete solutions
Science Fiction?
Back to basics
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The mindset

► How to set today’s rules for the future?

Technological progress will never be as slow as today
The mindset

- The negotiation, ratification and implementation of conventions take time
- Need to commit to **whatever** is the best [**future**] technological solution
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Review of FAL Manual

► Need for FAL Committee
  ▪ Need to coordinate with National TF Committees under WTO

► Update on latest technologies
  ▪ Fewer references to electronic submission
WTO Trade Facilitation Agreement

► **Article 2** “Opportunity to Comment, Information before entry into force, and consultations”

► **Article 23** on National Trade Facilitation Committees
The mindset

Concrete solutions

Science Fiction?

Back to basics
Out of date already?

In the future the concept of “copies” versus “originals” as per Article 10.2 TFA will become obsolete as processes focus on data rather than on documents.
Out of date already?

The same will apply to “information technology to support the single window” as per Article 10.4, as focus shifts to data and information on a distributed ledger.
A dynamic dimension in the TFA

- In the long term, Article 10.1 will gain in importance, it does not prescribe any specific technological solution.
A dynamic dimension in the TFA

► In the long term, Article 10.1 will gain in importance, it does not prescribe any specific technological solution.

► Progressively, various provisions will become antiquated or obsolete and we will just want to **minimize** “the incidence and complexity of import, export, and transit formalities”; continuously **review** requirements; keep **reducing** the time and cost of compliance for traders and operators”; and always choose “the **least** trade restrictive measure” (10.1 TFA)
Changing logistics expenditures

**Inventory** holding expenditures decrease, and **Transport** expenditures increase

UNCTAD estimates, based on CSCM – State of Logistics Report various issues. Data for United States
New ways to optimize maritime transport and its facilitation

“The Internet of Things, in combination with ever more availability of data – thanks to e.g. Automatic Identification System (AIS) for ships and tracking devices for trucks and containers – will allow for an exponential growth of automated processes and transactions. The combination of enhanced digital and physical connectivity will help carriers, seaports and inland transport providers integrate their processes with the shippers’ own globalized supply chains - and all this sooner rather than later with the help of Artificial Intelligence (AI).”

Source: MarineTraffic Blog, Jan Hoffmann, May 2018
Science Fiction?

- Artificial Intelligence AI systems will learn and adapt faster to new challenges and technologies than humans, as newly acquired knowledge is passed on immediately to fellow AI-endowed units – no need for schools, reading or Forums...
Science Fiction?

► It will become increasingly important that AI systems be taught a set of values upon which to base their learning and decisions.

► E.g.: self-driving cars need to be taught to base decisions on pre-defined criteria
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Many challenges remain. The use of the Internet is still not universal, especially in many LDCs and remote areas.

In LDCs only 1 in 6 people use the Internet.
Three final considerations

1 • Standards
2 • Cybersecurity
3 • Competition
Three final considerations

1 • Standards:

The most important standard for international trade has been the container. In today’s digital transformation, standards for data will be just as important.

The challenge is to encourage the use of and development of the necessary standards, including by the industry itself, while avoiding that these become closed standards that could exclude some players.
Three final considerations

2 • Data security:

Cyber-security is of growing concern as we become more and more dependent on sharing and storing data on-line. Our own data may be difficult to control once shared in cyberspace.

Some tools, such as distributed ledger technologies, promise to be secure, yet they still depend on interfaces that may not be so secure.
Three final considerations

3 • Competition:

Sharing data to improve operations is one thing. Using this same data thereafter to collude in capacity management or price setting is another.

The challenge for governments and competition authorities is to ensure that service providers can make the best use of the digital transformation, while at the same time safeguard that these benefits are passed on to the clients, the shippers.
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