

Claims and Realities of Digitization

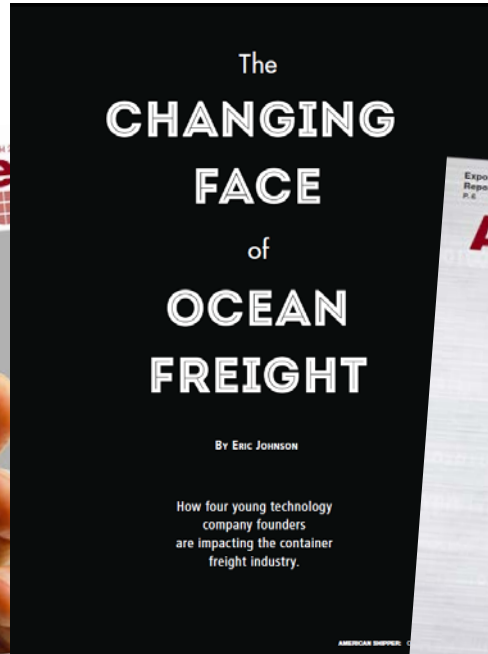


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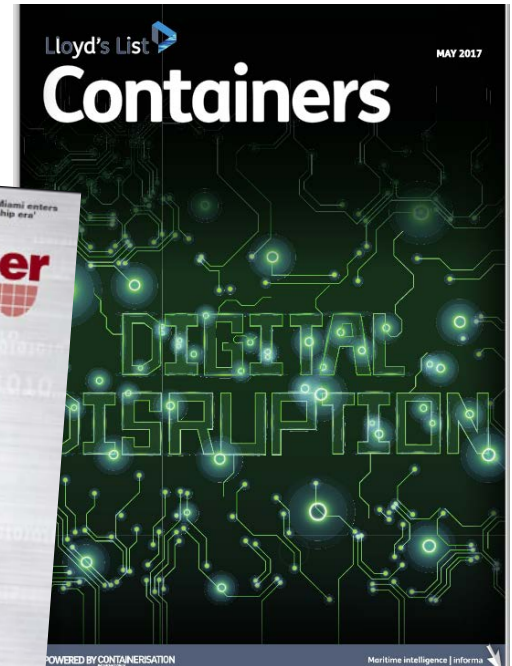


A Hot Topic in Current Maritime Trade Press

American Shipper
GLOBAL TRADE & LOGISTICS



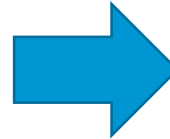
Reverse transloads (Part 2)	6
Slimmed-down Doha	14
The other way around	32
Slow roll	36



Defining Digitization vs. Digitalization

Digitization

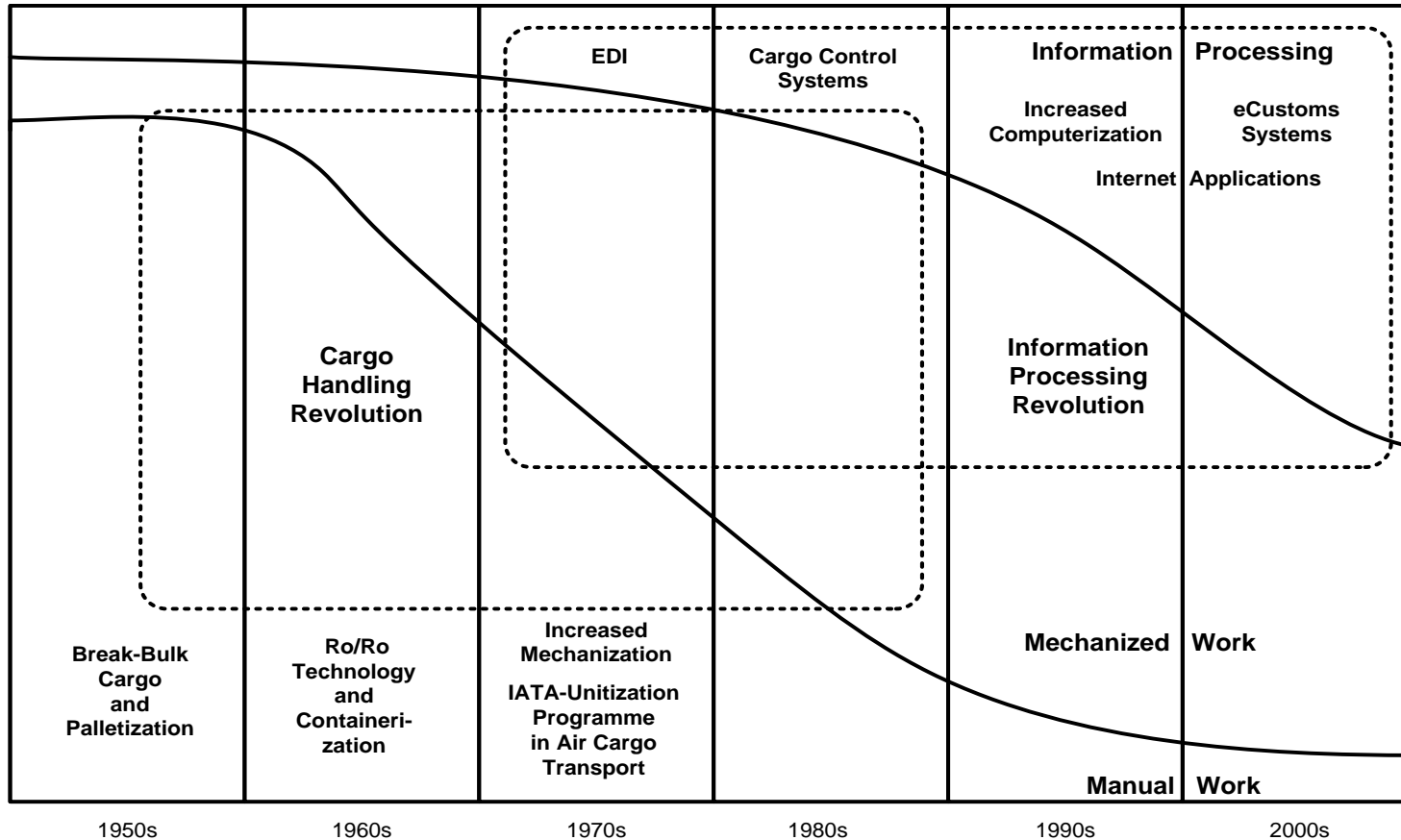
- Converting analogue into digital data for further processing by electronic means.
Examples are
 - Cargo control systems
 - Paperless trade environments
 - eCustoms systems
 - ePayment systems
 - eB/L, eAWB, eCMR, ...
- This is an underlying condition for digitalization.



Digitalization

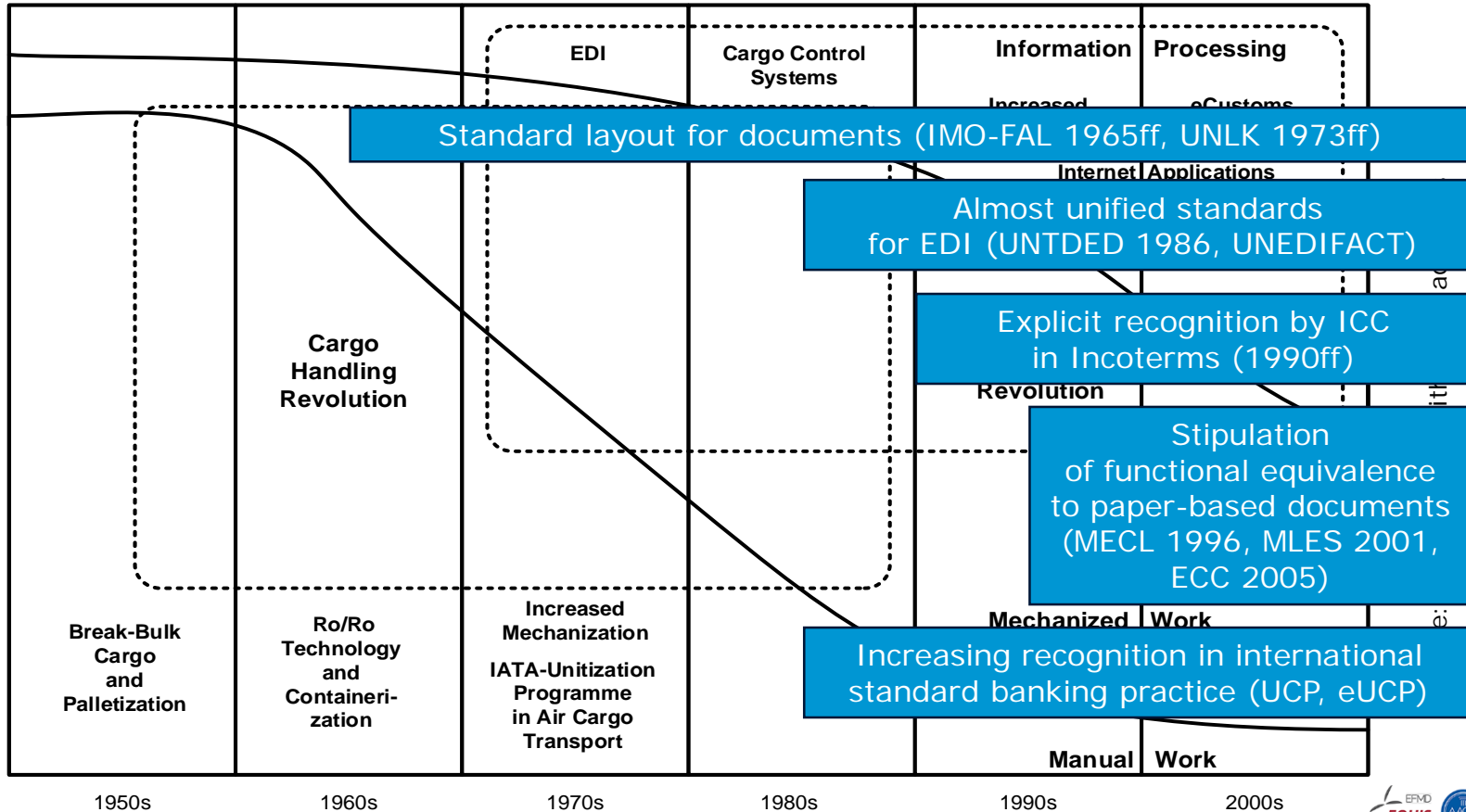
- Applications of digital technologies by organizations, industries or societies like
 - Big Data
(Waller and Fawcett, 2013)
 - Datafication (Lycett, 2013)
 - Internet of Things
(Vermesan et al, 2013)
 - Uberization (Davis, 2015)
 - Digital transformation
(Korpela et al.,2014)
- Automation of operations or administrative processes and connecting different service, development of new business models and the more disruptive transformation within supply chain

Taking Stock: Cargo Handling and Information Processing Revolution



Source: Ojala (1993) with some additions

Evolution of Legal Foundations towards Paperless Trade Environment



Present Problems in Digitization of Documentary Paperwork

- Present legal foundations of paperless trade environment are not enough!
- International transport law mainly based on **multinational conventions** focusing on one mode of transport and applied for transports between those countries that ratified or adopted it on its national level.
- **Digitization of documentary paper work**
 - **Necessity of issuance a certain document**
e.g. receipt, evidence of contract, document of title etc.
 - **Certain formal requirements** of such a document
e.g. strictly written form demanded or openness to some electronic equivalents
 - **Certain signature requirements**
to demonstrate authenticity of a document, issue of negotiability
 - **Persistence of old habits** (esp. shippers and banks)
 - **Slowness in legal instrument modernization** (esp. in maritime domain)

Evolution of Legal Instruments

Legal Source	Need to Issue Documents	Formal Requirements	Signature Requirements
HR of 1924	Art.10: BL necessary (exception is Art.6)	Art. 3(3),(7): BL is issued upon request	No explicit requirements mentioned
WC of 1929	Art. 6,9: AWB necessary, otherwise full liability	Art. 5,6: written form necessary being an accompanying document	Art. 5(4): printed or stamped also possible
HP of 1955	Art. 6,9: AWB necessary, otherwise full liability	Art. 5,6: written form necessary being an accompanying document	Art. 5(4): printed or stamped also possible
CMR of 1956	Art. 4: CN not necessary, but Art. 8,9,12,13,24,34!	Art. 5,6: written form necessary being an accompanying document	Art. 5(1): printed or stamped also possible
VR of 1968	Art.10: BL necessary (exception is Art.6)	Art. 3(3),(7): BL is issued upon request	No explicit requirements mentioned
MP4 of 1975	Art.5,9,11: AWB not necessary, but serves as a receipt	Art. 5(2): AWB in written form but any other form is possible	Art. 6(9): printed or stamped also possible
HamR of 1978	Art. 1(7),18: BL is evidence of contract, anything else possible	Art. 1(8),14(1): upon request, telex, telegram treated as equal	Art. 14(3): printed or stamped possible and electronic form
CIM of 1999	Art. 6(2): CN not necessary, except in case of Art. 6(7)!	Art. 6(9): electronic form possible as explicitly mentioned	Art. 6(3): same as CIM of 1980 or in any other appropriate manner
MC of 1999	Art. 4, 9: WB not necessary, but notice of receipt	Art. 4(1): AWB or any other form of record allowed	Art. 7(3): printed or stamped also possible
eCMR of 2008	Art. 1: eCN is issued by electronic communication	Art. 2(2): eCN is regarded to be equivalent	Art.3: electronic signature or other authentication method
RR of 2009	Art. 1(14): transport document just as evidence of contract	Art.1, 35-42: transport document or electronic transport record	Art. 28: explicit allowance of electronic signature

The Quest for Making eB/Ls Viable

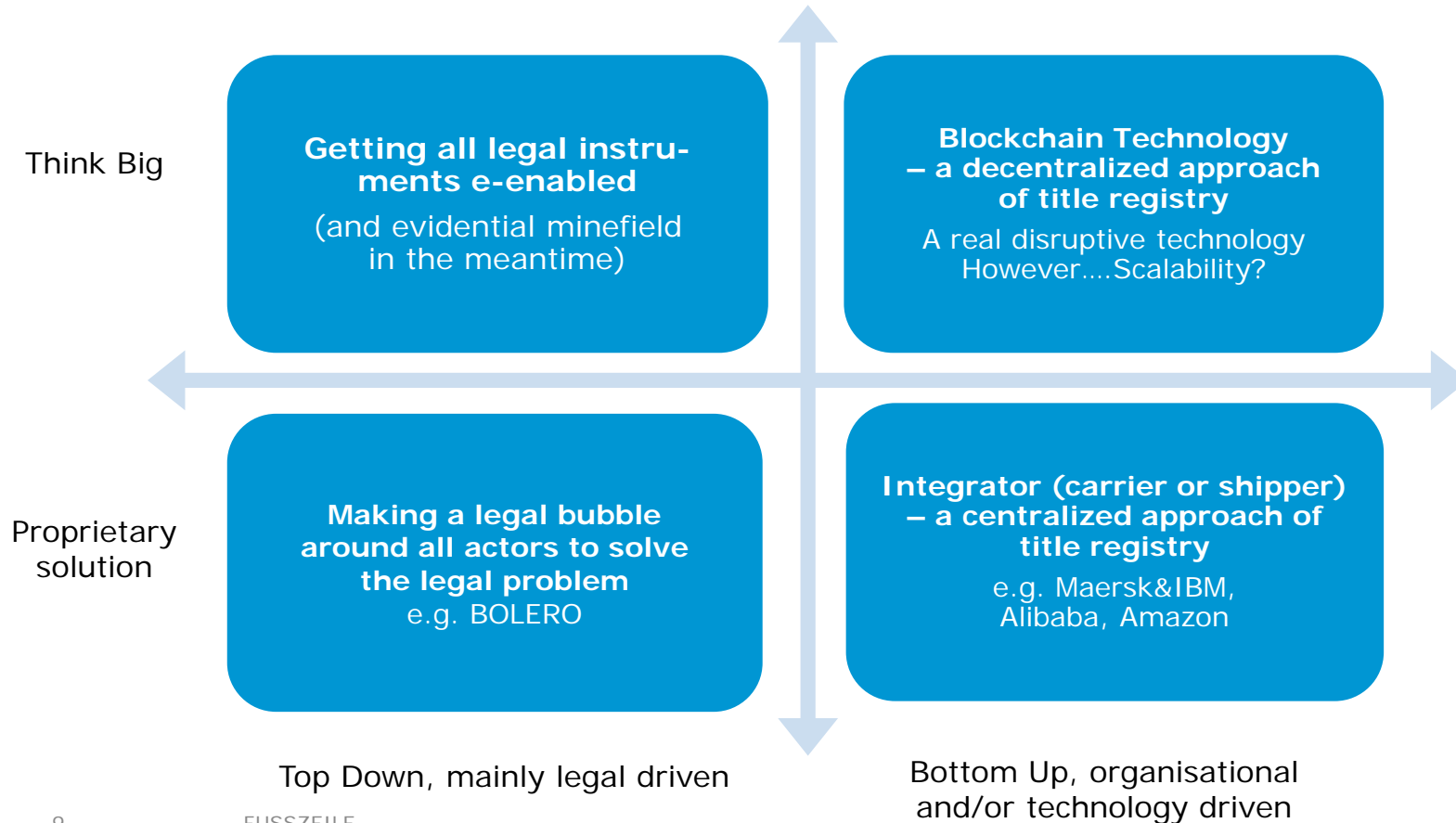
Just Give up Negotiability

- **Non-negotiable straight BL** or a **seaway-bill** (SWB)
- First time already done by ACL in 1971 introducing a **Data Freight Receipt** (DFR)
- UCP500 Art.24 / UCP600 Art.21 support SWB usage for DC/LC purposes

Try to Replicate Negotiability

- **SeaDocs System (1986)**
Chase-Manhattan Bank as private title registry holder and PIN-Number
- **CMI-Rules (1990)**
Issuing Carrier as private title registry holder and unique private key (PK)
- **BOLERO (1994ff)**
Bolero Bill of Lading (BBL)
constrctued as a „legal bubble“:
Legal framework based on private contract law, closed operating system with independent central title registry

Four Scenarios of Digitization



Thank you for your attention!



More about? See:

Schramm, H.-J., Prockl, G. and Kolar, P. (2017) About Claims and Realities in Digitization in Current Maritime Transportation Chains, IAME 2017 Conference June 27-30, Kyoto, Japan.



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