



**Asia-Pacific
Economic Cooperation**

2021/CTI/WKSP2/016

Day 2 Session 2

Content and Emerging Technologies: A Trade/Regulatory Ecosystem

Submitted by: World Trade Organization



**Workshop on Protection of Intellectual
Property Rights in Digital Content Trade
20-21 April 2021**



Content & emerging technologies

A trade/regulatory ecosystem



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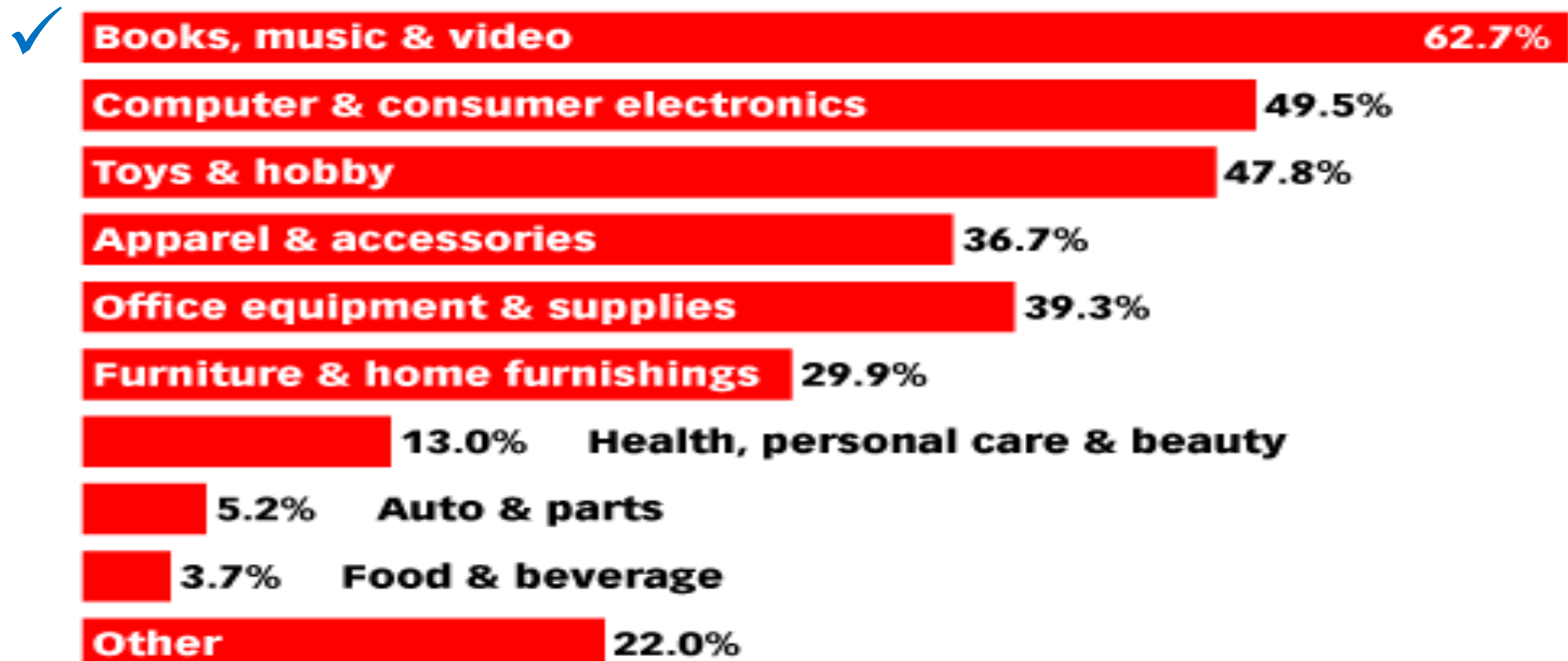
Dual role of technologies in the digital economy ecosystem

- Technologies are both digital services, themselves, and also enablers of other digital content and activities – in services and manufacturing
- Therefore, not only is content regulation important, but also the regulation of new technologies
- Are best practices emerging? How do we know it when we see it?
- Can APEC, WTO and other organizations encourage regulatory innovation to match tech innovation?

Content - Pandemic purchase trends

US Retail Ecommerce Sales Share, by Product Category, May 2020

% of total retail sales in each category



Note: includes products or services ordered using the internet via any device, regardless of the method of payment or fulfillment; excludes travel and event tickets, payments (such as bill pay, taxes or money transfers), food services and drinking place sales, gambling and other vice goods sales
Source: eMarketer, May 2020

B2C E-commerce predictions

Retail Ecommerce Sales Worldwide, by Region, 2020

billions

Asia-Pacific **\$2,448.33**

North America **\$749.00**

\$498.32 **Western Europe**

\$92.91 **Central & Eastern Europe**

\$83.63 **Latin America**

\$41.56 **Middle East & Africa**

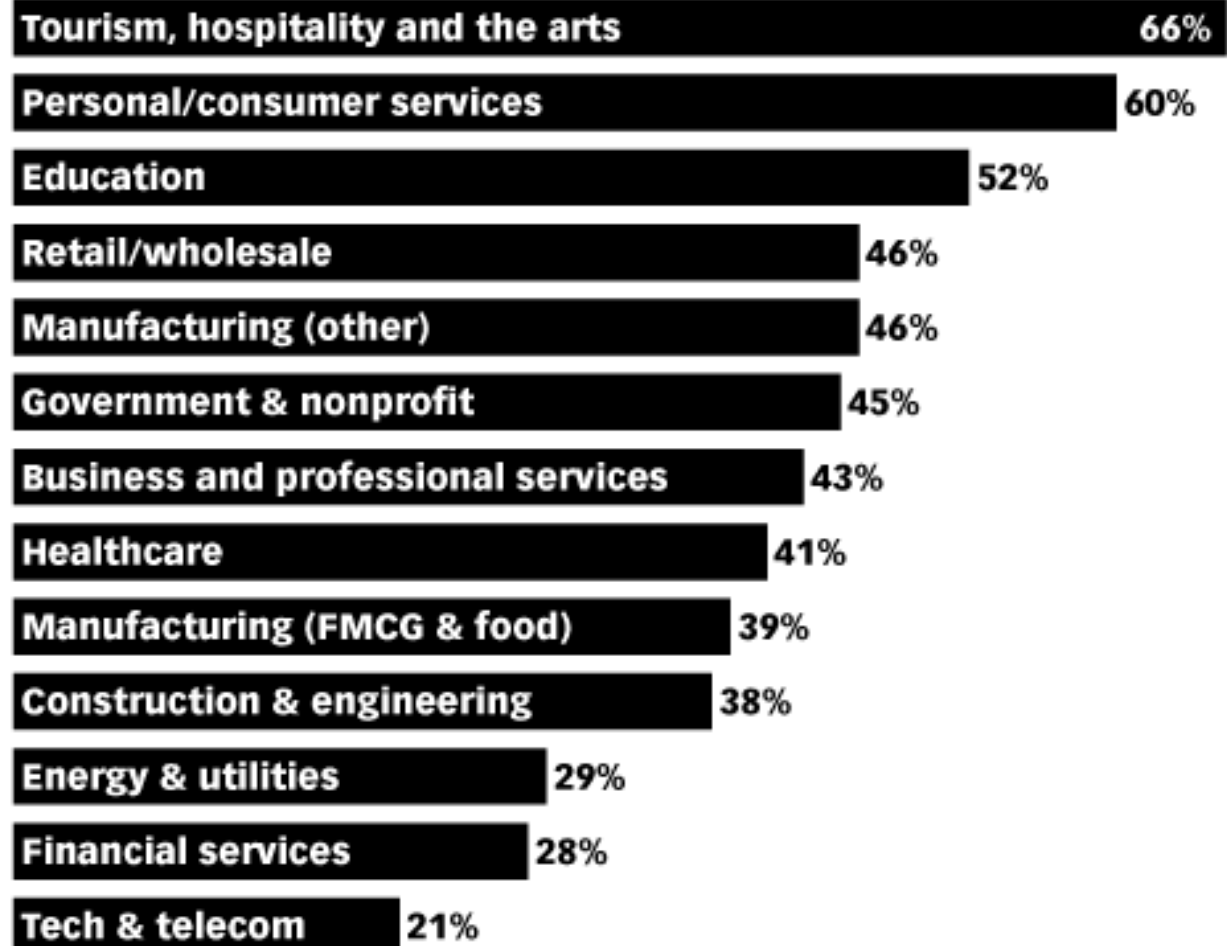
Note: includes products or services ordered using the internet via any device, regardless of the method of payment or fulfillment; excludes travel and event tickets, payments such as bill pay, taxes or money transfers, food services and drinking place sales, gambling and other vice goods sales; total retail ecommerce spending worldwide=\$3.914 trillion

Source: eMarketer, May 2020

B2B Impact of the pandemic

B2B Organizations in Select Countries* Experiencing Significant Disruption due to the Coronavirus, by Industry, April-May 2020

% of respondents in each group



*Note: *Australia, Canada, China, France, Germany, Japan, Singapore, UK and US*

Source: B2B International as cited on company blog, May 6, 2020

Emerging tech trends

Technologies

- Broadband & mobile Internet advances
- Artificial Intelligence – software algorithms
- Blockchain and other transactional networks
- 3D printing – a.k.a. additive manufacturing

Business models

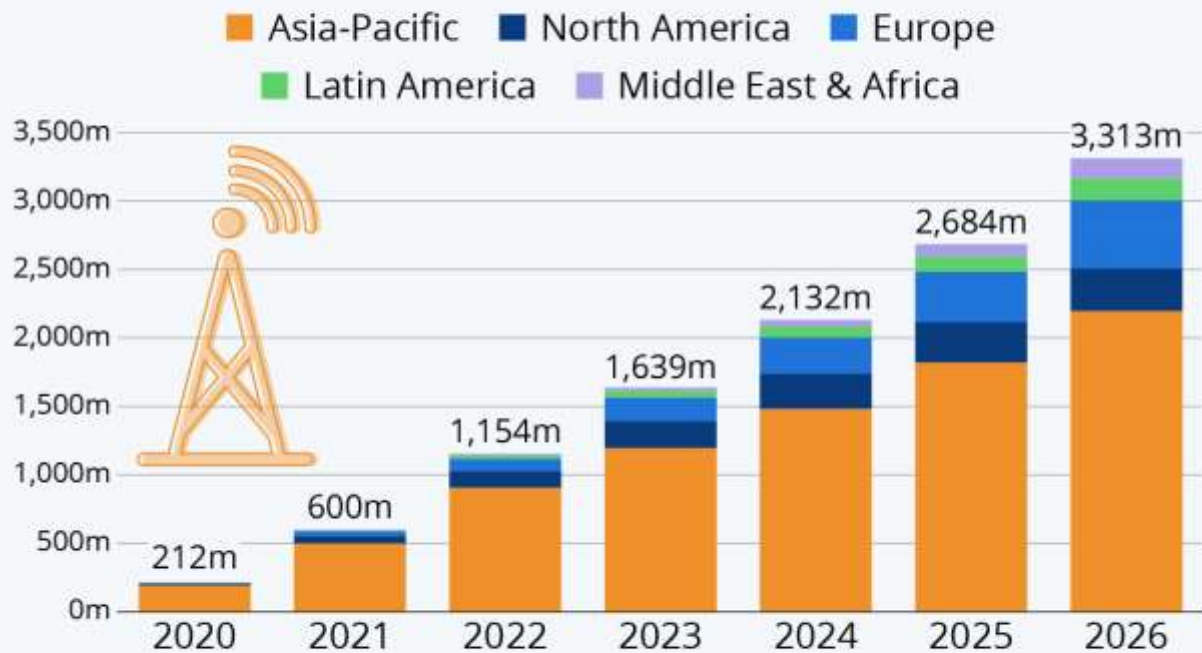
- Cloud (storage, processing & delivery)
- Big Data – Large scale data processing
- Internet of Things – connecting physical objects

Mobile Internet is the future;

Not only for consumers, but also for industrial applications

Global 5G Adoption to Triple in 2021

Forecast of 5G smartphone subscriptions by region (in millions)



Forecast as of November 2020

Source: Ericsson Mobility Report



statista

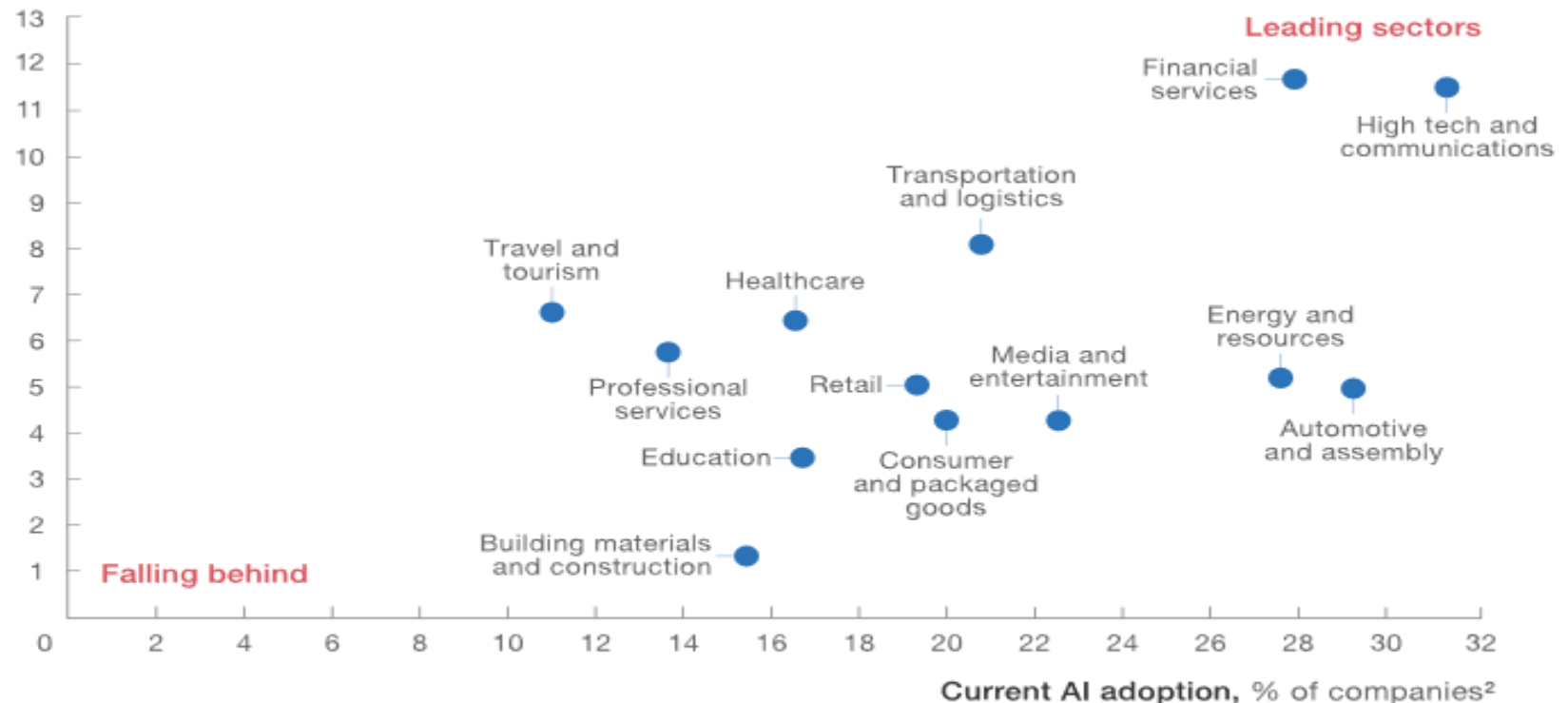
Cloud and Big data

- **Cloud**-based technology is more robust, powerful and flexible than ever. Today's software-as-a-service **e-commerce platforms** offer a full suite of customizable features retailers can create unique, feature-rich websites.
- **Cloud:** Alibaba's cloud business skyrockets. The Chinese e-commerce giant's nascent data center services division hopes to compete with Amazon Web Services. Its 130% initial growth rate made that a realistic aspiration
- **Cloud:** The public cloud services market in India was growing at 35.9 per cent the mid-2000s. Cloud system infrastructure services (infrastructure as a service [IaaS]), was growing most, at 45.5, followed by platform as a service
- **Big Data:** Worldwide revenues for big data and business analytics expected to grow to will grow to \$203 billion in 2020, due in part to availability of data, new generations of technology, and companies' shift to data-driven decision making.
- **Cloud use has reportedly increased even more during the pandemic.**

Industry adoption of AI

Leaders in the adoption of AI also intend to **invest more in the near future** compared with laggards.

Future AI demand trajectory, % change in AI spending over next 3 years¹



¹Estimated average, weighted by company size; demand trajectory based on midpoint of range selected by survey respondent.

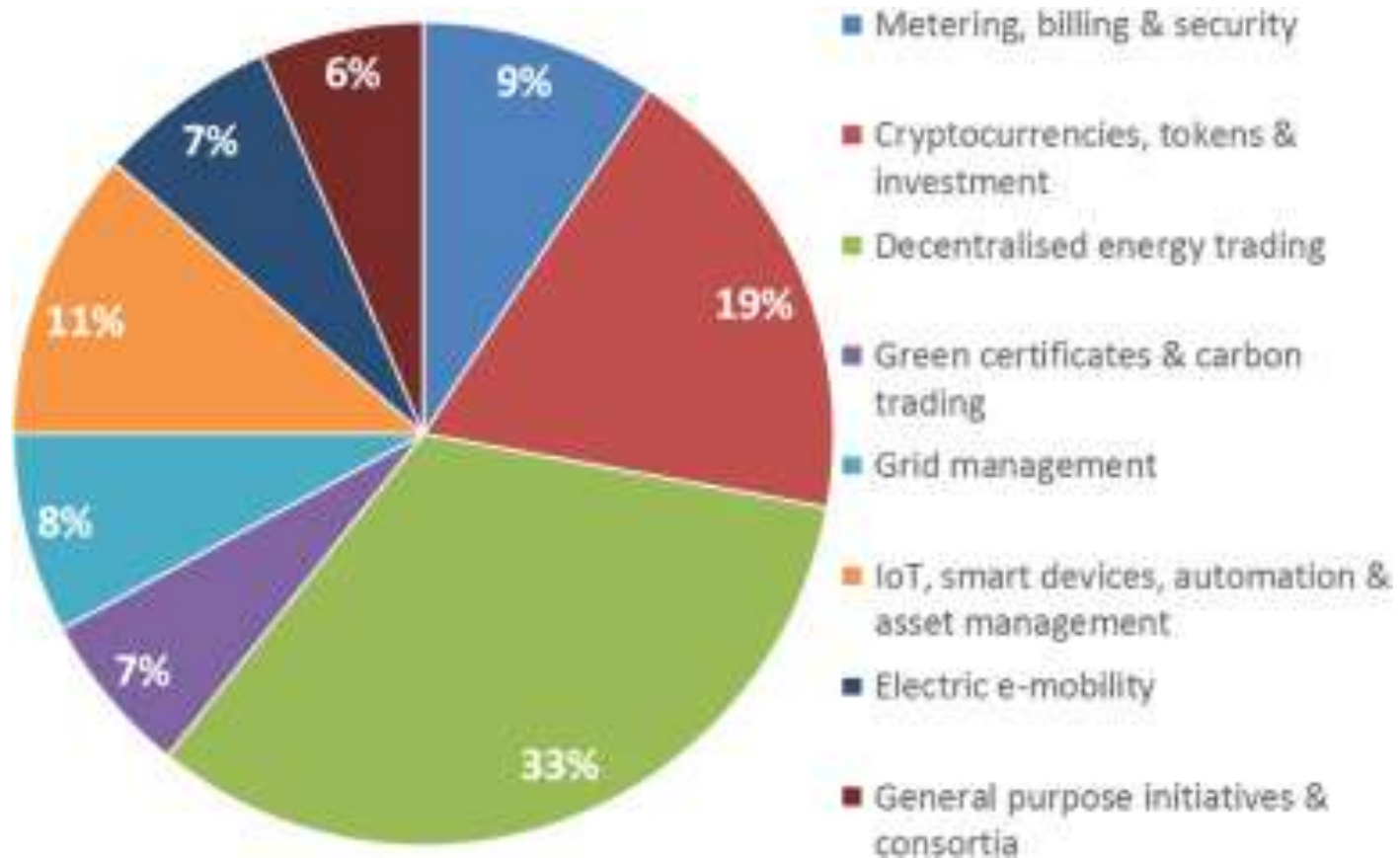
²Adopting 1 or more AI technologies at scale or in business core; weighted by company size.

Source: McKinsey Global Institute AI adoption and use survey; McKinsey Global Institute analysis

IoT applications



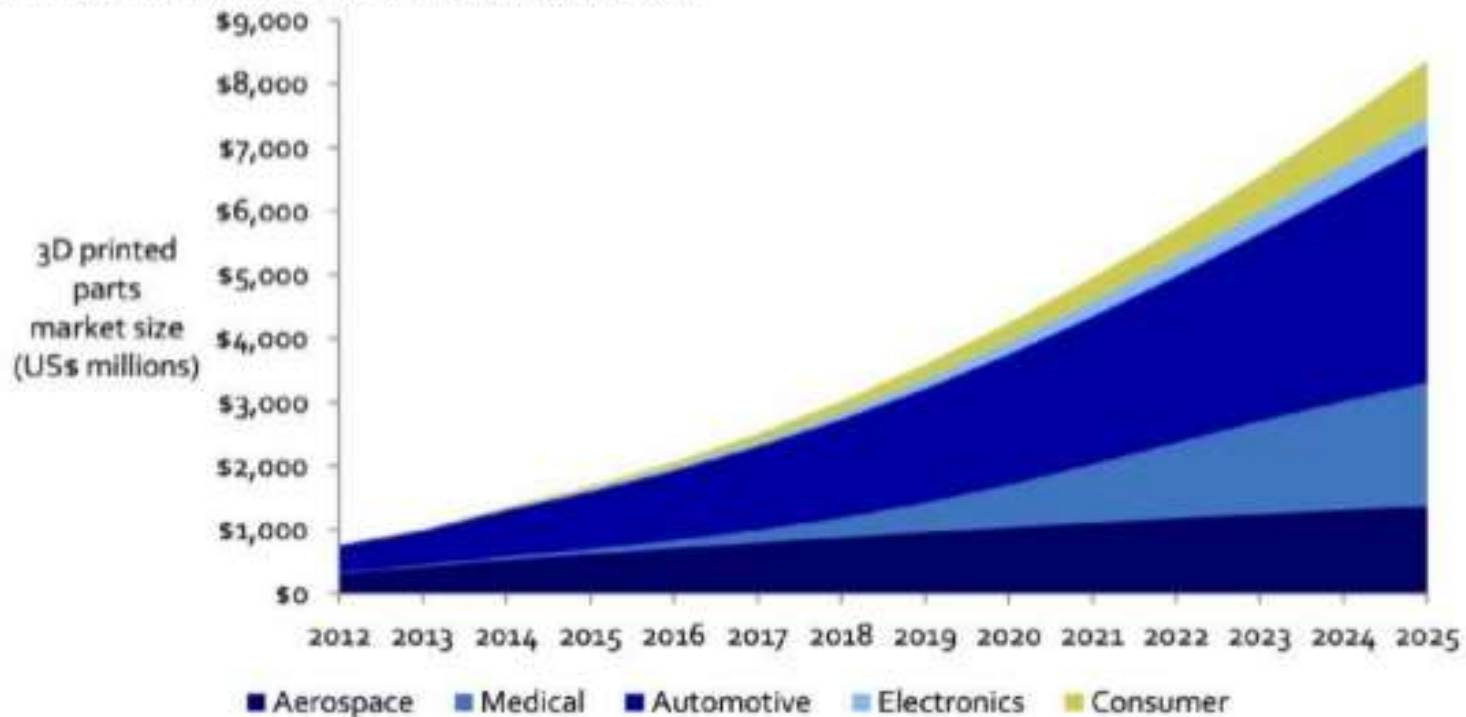
Blockchain Energy sector example



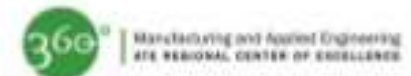
[Blockchain](#) use case classification according to their activity field: derived from a study on 140 blockchain initiatives in the energy sector being pursued by a large number of companies, startups and research institutions. [Source](#)

3D Printing Projected Industry Growth

3D Printed Part Market Grows to \$8.4 Billion in 2025



Source: Lux Research, Inc.
www.luxresearchinc.com



Territorial boundaries?



The many commercial linkages ...

To name a few ...

1. Mobile Internet (5G) will transmit new services and increasingly couple with fibre optic networks and cloud services
2. Massive data generated by 5G, IoT, etc will use the cloud for greater storage and processing capabilities
3. AI and Big Data analytics will analyze data gleaned from broadband, mobile, IoT devices, etc
4. *Likewise with storage and transmission of content*

...drive the regulatory linkages

Managing a complex ecosystem

Getting it wrong will cause massive spill over

- Content and technology trade and regulation are co-dependent
- Are best practices emerging? How do we know it when we see it? Can regulatory innovation be encouraged?
- Can regulatory collaboration be improved, both within and across borders?

Can or does WTO system provide support?

Thank you!