

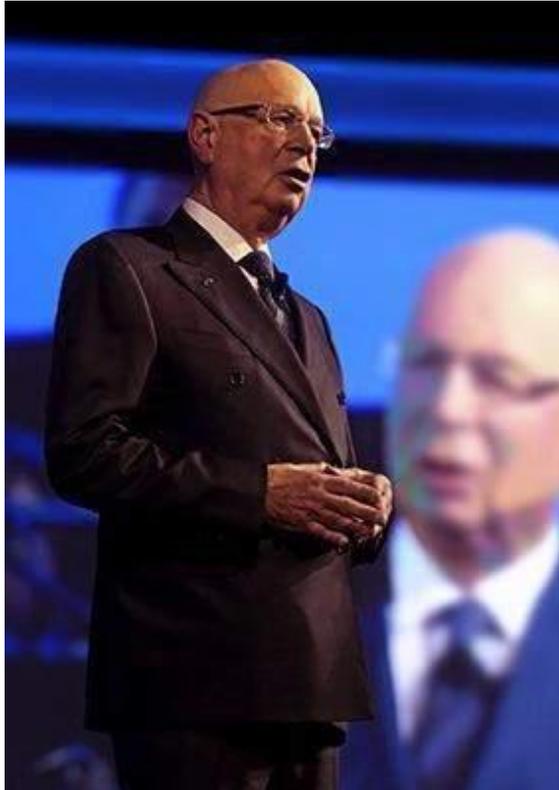


COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

The digital world today and the 4IR

17 May 2018

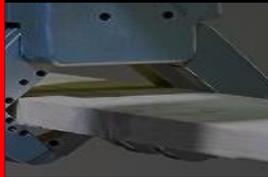
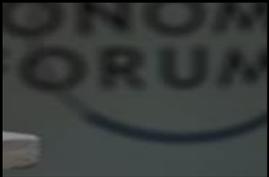


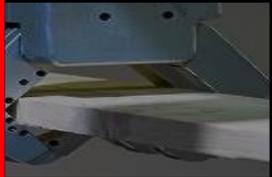
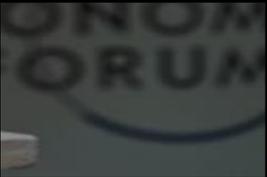


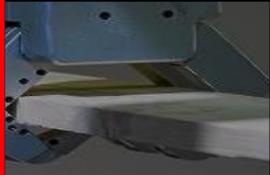
“The changes unleashed by the Fourth Industrial Revolution are so profound that, from the perspective of human history, there has never been a time of greater promise or potential peril.”

Klaus Schwab

Founder and Executive Chairman,
World Economic Forum

	Mobility	Comms	Energy	Agricultural	Production
					
					
					
					
Pre-industrial revolution	Sail-powered shipping	Ad-hoc, private communication networks	Biomass, water, animal and air power	Domesticated farming, small-scale agriculture	Artisanal manufacturing

	Mobility	Comms	Energy	Agricultural	Production
					
					
					
First industrial revolution	Steam-power, rail networks, new navigation aids and sea routes	Organized postal networks, newspapers, widespread printing	Coal and coal mining, heat engine and steam power	Increasingly capital-intensive, scale farming, global supply chains	Factory production, first scaled automation
Pre-industrial revolution	Sail-powered shipping	Ad-hoc, private communication networks	Biomass, water, animal and air power	Domesticated farming, small-scale agriculture	Artisanal manufacturing

	Mobility	Comms	Energy	Agricultural	Production
					
					
Second industrial revolution	Oil-powered shipping, road systems, commercial airline	Radio, telephone networks, television, air mail, mass market books	Oil production, gas turbines, electricity system	Artificial fertilizer, mechanized farming, cold chain	Scientific management, mass production systems
First industrial revolution	Steam-power, rail networks, new navigation aids and sea routes	Organized postal networks, newspapers, widespread printing	Coal and coal mining, heat engine and steam power	Increasingly capital-intensive, scale farming, global supply chains	Factory production, first scaled automation
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	Mobility	Comms	Energy	Agricultural	Production
Third industrial revolution	Satellite-guided navigation, digital transport	Internet, mobile data, video, digital and social media	Alternative energy systems	Precision farming systems	Outsourced production systems, digital production and consumption
Second industrial revolution	Oil-powered shipping, road systems, commercial airline	Radio, telephone networks, television, air mail, mass market books	Oil production, gas turbines, electricity system	Artificial fertilizer, mechanized farming, cold chain	Scientific management, mass production systems
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	Mobility	Comms	Energy	Agricultural	Production
Fourth industrial revolution	Networks of autonomous vehicles	Neuro-communication	Distributed energy systems	Fully automated farming synthetic meat	Distributed manufacturing, ubiquitous robots
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**The
Question is
not...**

Am I going to be disrupted?

But...

**When is disruption coming?
What form will it take?
How will it affect me and my organization?
How can I benefit from the change?**

The speed of disruption

1900



A century ago, the face of mobility had dramatically changed in about 10 years

1900



1913





Six fields to watch



1. **The rise of the platforms**
2. **Predictive monitoring systems**
3. **Quest for clean transportation**
4. **Continuous automation**
5. **Substitutive modes**
6. **The intelligent supply chain**



amazon go

amazon go

amazon go

amazon go





SAT-GRID
880-43

VESSEL RR-2352

SYSTEM 4001

INITIATING

DO NOT CROSS THE LINE

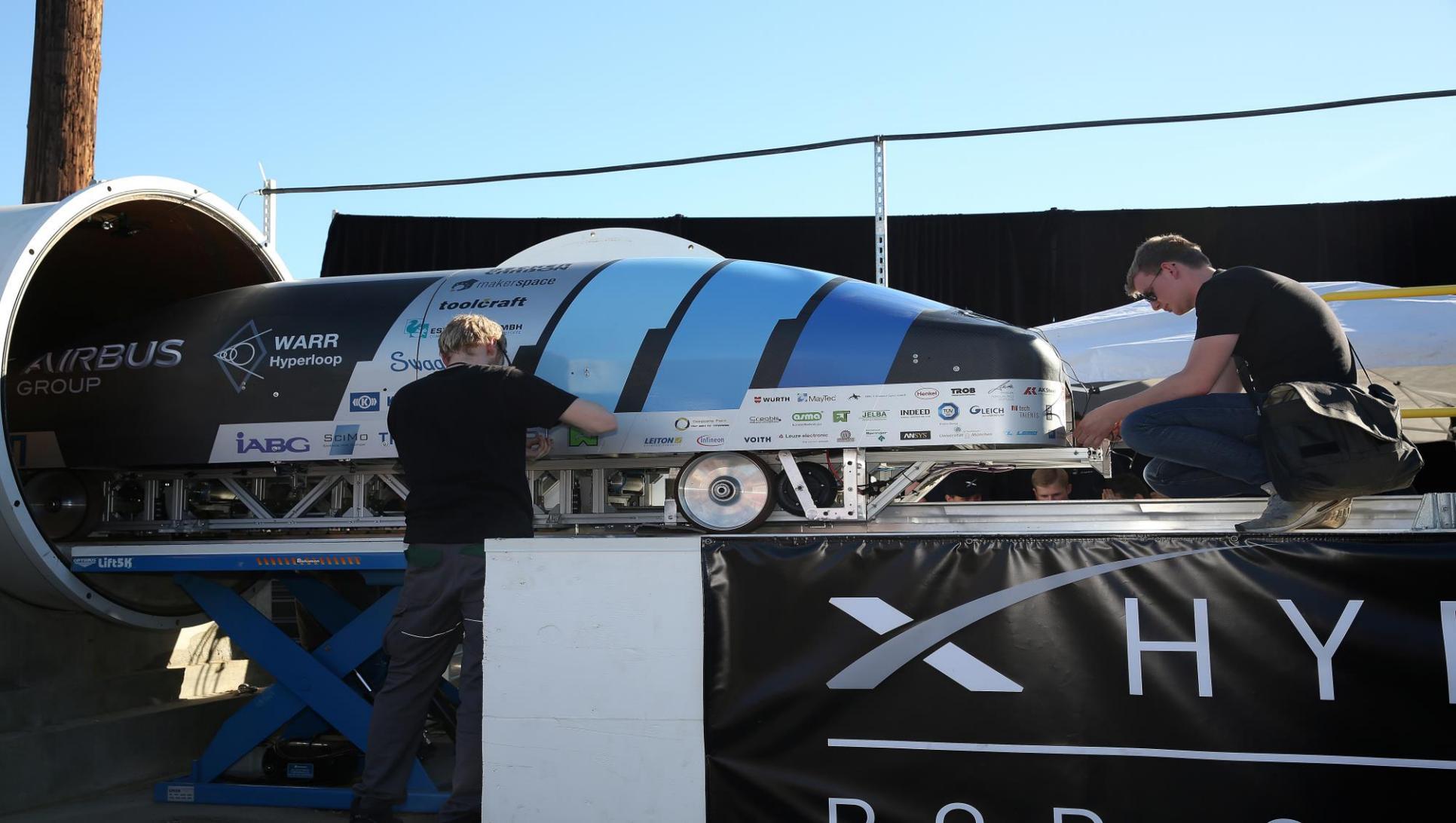
DO NOT CROSS THE LINE

ZERO
EMISSION



YARA
BIRKELAND





AIRBUS GROUP

WARR Hyperloop

makerspace toolcraft

iABG SEIMO

LEITON

VOITH

WURTH MayTec Henkel TROB ANSYS JELBA INDEED GLEICH

HYPERLOOP

POD



**The
Question is
not...**

Will I be exposed to new risks?

But...

**What are new risks brought by the 4IR?
How can we protect us?
What level of resilience is required?
What new contingency plans are needed?**

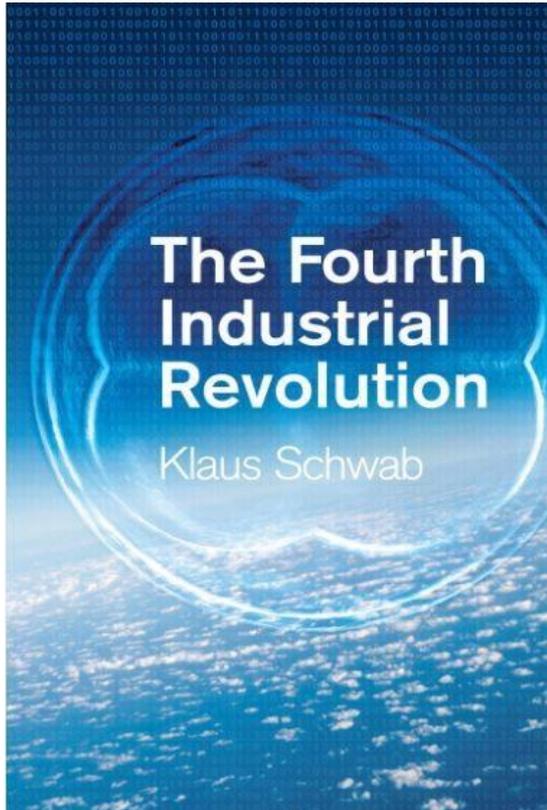
CUABER

CRIME

Policy makers – the challenge to find the right balance between protection and progress



We need to learn how to navigate in an interconnected system of systems



The world is experiencing **unprecedented change**, driven by the technological shifts of the Fourth Industrial Revolution.

We now live in an **interconnected system of systems**. Disruption is not confined to individual industries, countries or regions: one single innovation has the power to impact entire global structures.

Government and business need to understand the implications, while game changers are being at work.

And yet, most formal dialogue and cooperation occurs within specific issue domains and stakeholder groups, rather than across them.

Leadership in this complex environment requires a collaborative platform capable of bringing together global society **to work together to make sustained, positive and systemic change**.

WORLD ECONOMIC FORUM

Thank you