

Panel sobre: Espacios de cooperación para el desarrollo de la innovación y el ecosistema digital en América Latina y el Caribe

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Innovación en un mundo digital

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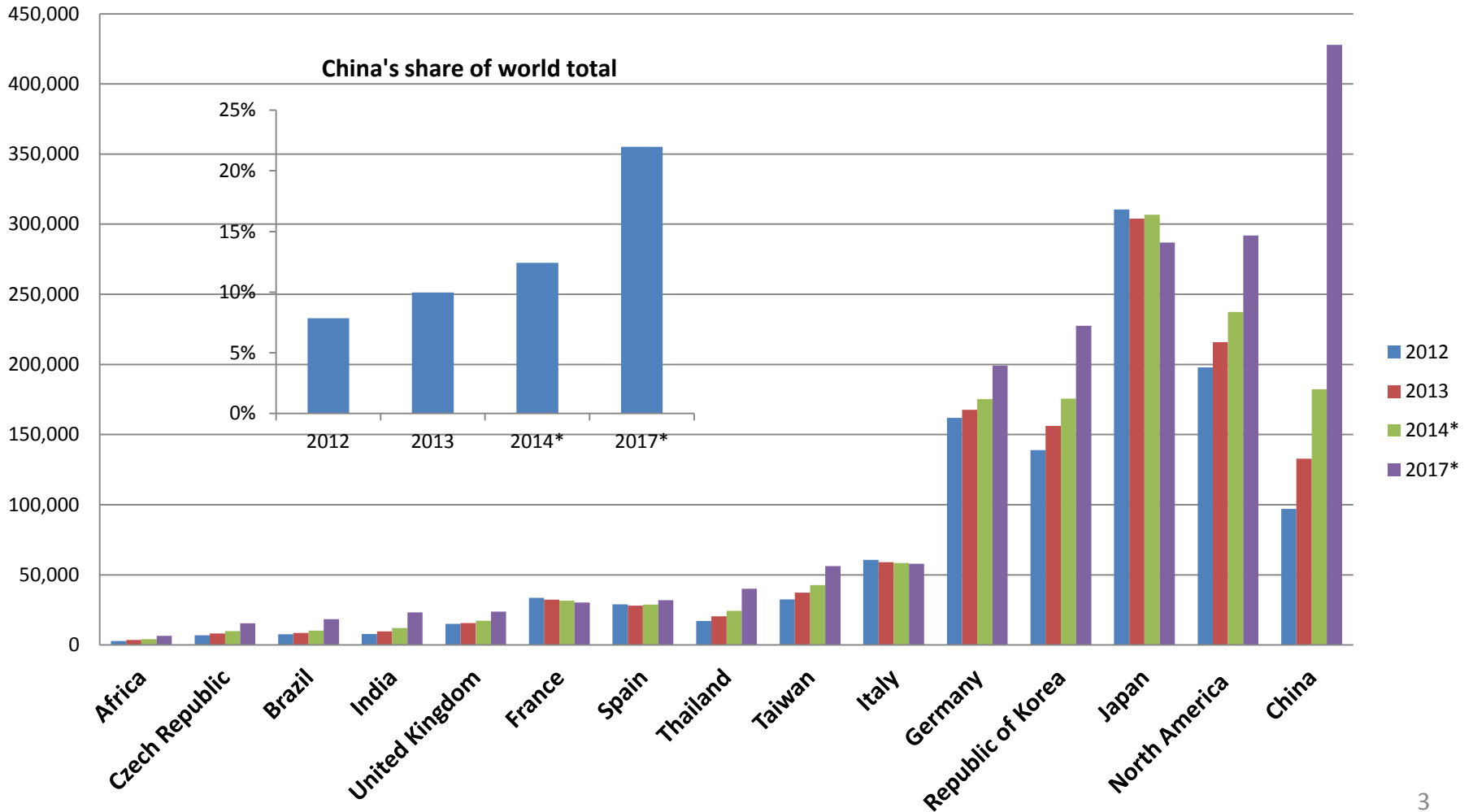
Discussing cooperation for digital innovation systems:

Focus on the global context and the (changing) needs for cooperation: Internet of Things, automation, robotization, platform economics, digital manufacturing, etc.

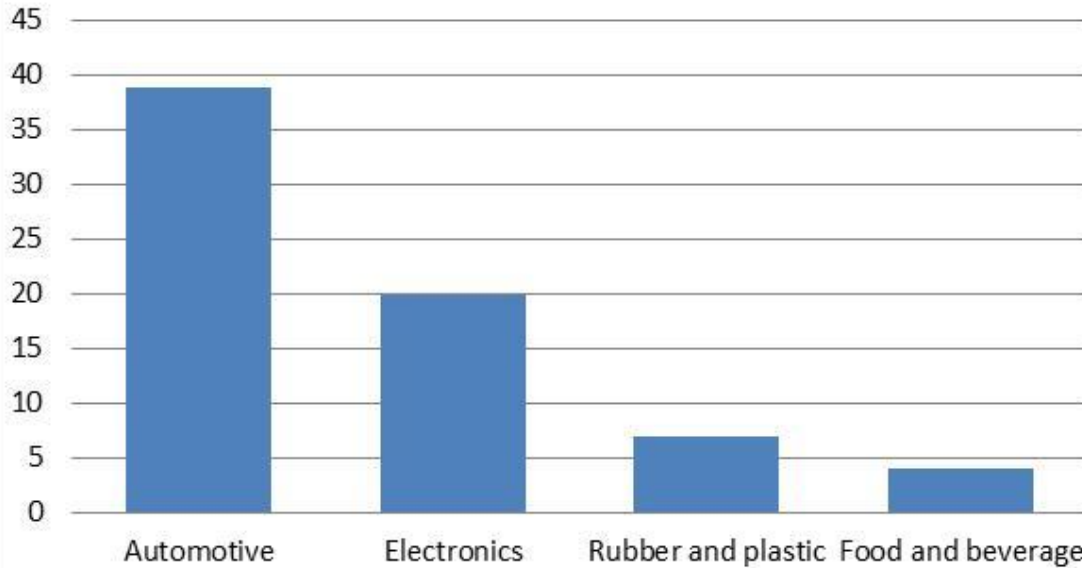
What is really happening?

New production dynamics in industrial systems, within firms and in service delivery
Automation in Production

Estimated operational stock of industrial robots - number of units

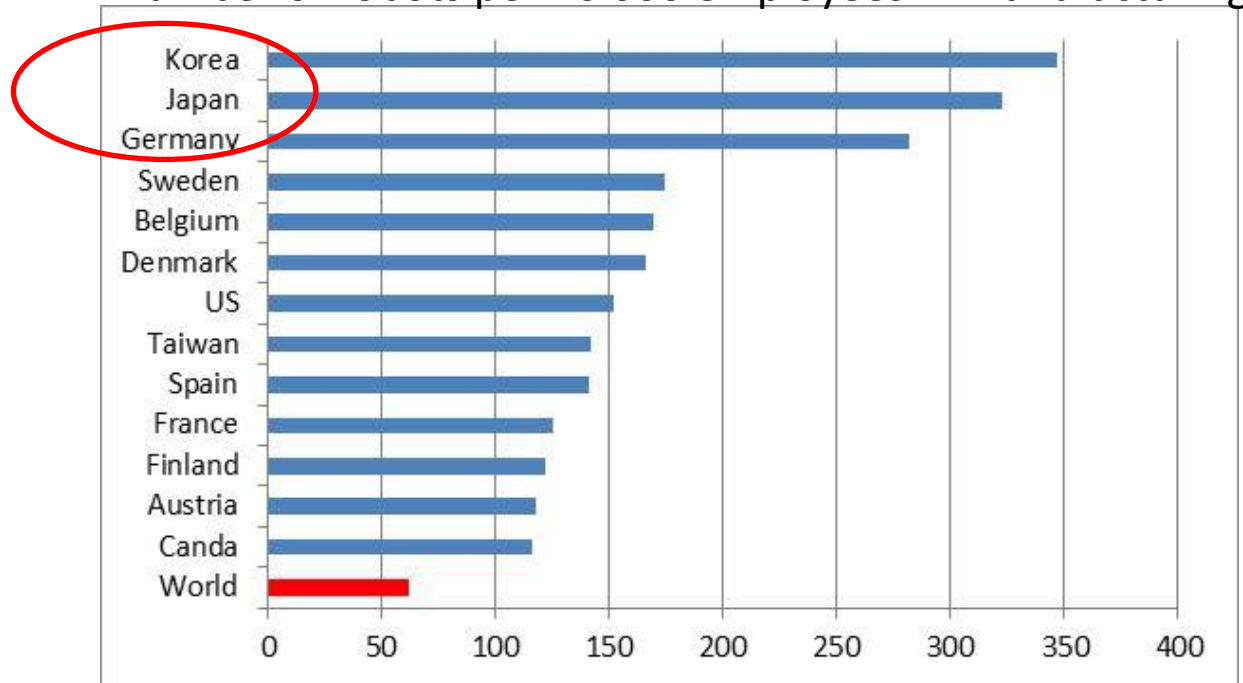


Share of the total supply of industrial robots, 2013



Including software /licences the market value is **three times higher**

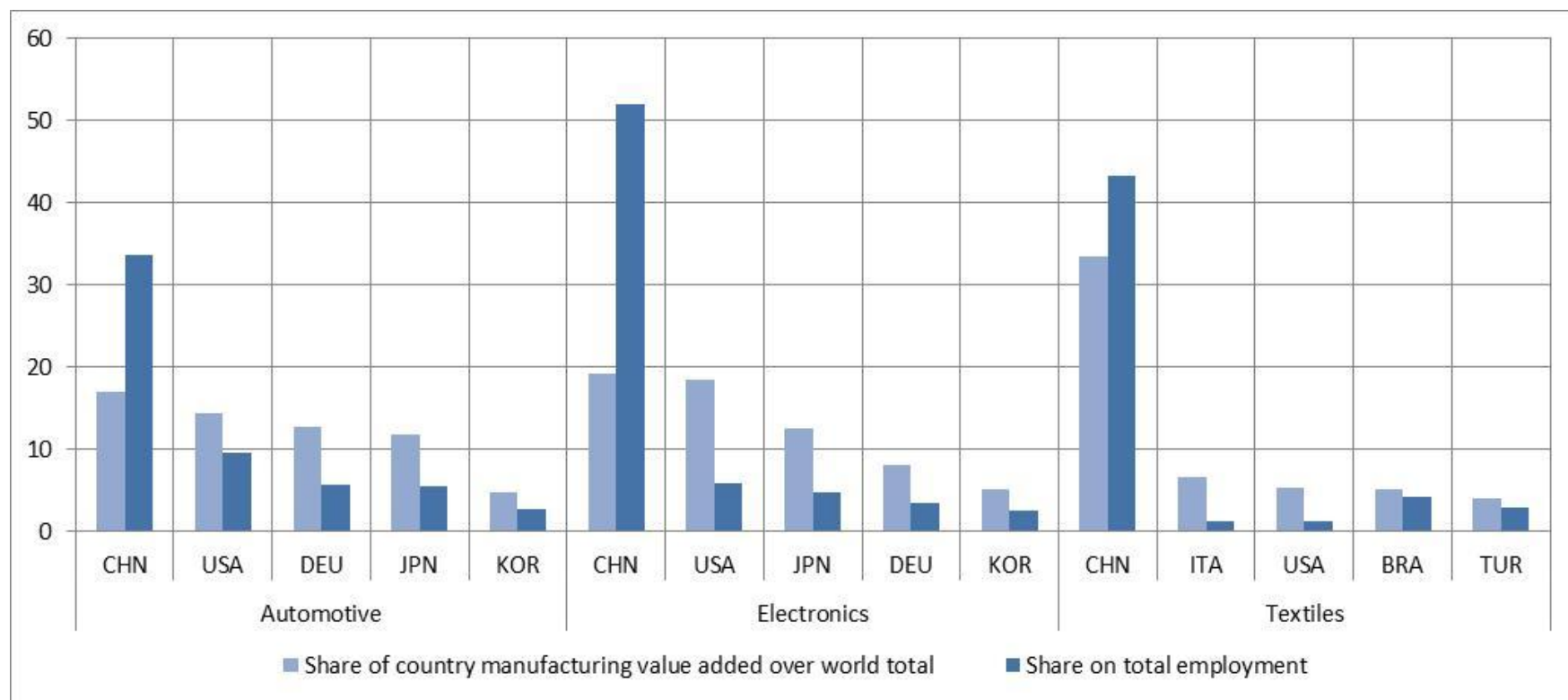
number of robots per 10 000 employees in manufacturing



Industry	Enabling Technologies	Benefits
Agriculture	<ul style="list-style-type: none"> • Drones • Predictive Analytics 	<ul style="list-style-type: none"> • Smarter irrigation and deliberate application of chemicals
Cold chain	<ul style="list-style-type: none"> • Sensors and Automatic Identification 	<ul style="list-style-type: none"> • Ability to manage and monitor quality remotely
Pharmaceuticals/Life Sciences	<ul style="list-style-type: none"> • Sensors and Automatic Identification 	<ul style="list-style-type: none"> • Product traceability and batch control
R&D lab management	<ul style="list-style-type: none"> • Predictive Analytics 	<ul style="list-style-type: none"> • Forecasting and management of patient enrollment during clinical trials
Health Care	<ul style="list-style-type: none"> • Predictive Analytics • Cloud Computing and Storage 	<ul style="list-style-type: none"> • Enhanced ER diagnostics to drive variable wait times based on severity of patient issue • Customer portals to access doctors, test results, and scheduling
Media	<ul style="list-style-type: none"> • Cloud Computing and Storage 	<ul style="list-style-type: none"> • Better management of media distribution channels leading to greater revenue generation
Oil & Gas	<ul style="list-style-type: none"> • Robotics and Automation • Sensors and Automatic Identification 	<ul style="list-style-type: none"> • Remote sensing, underground visualization, and automated safety controls for drilling and fracking
Mining & Construction	<ul style="list-style-type: none"> • 3D Printing • Cloud Computing and Storage 	<ul style="list-style-type: none"> • On-demand replacement parts built with 3D printers at remote sites to increase asset efficiency
Direct-to-Consumer	<ul style="list-style-type: none"> • Inventory and Network Optimization Tools 	<ul style="list-style-type: none"> • Anticipatory shipping based on predicted demand • Alternate shipping modes and ship-to locations with drones and drop boxes

These changes are happening in a challenging context

- A “sinocentric” manufacturing world
- Reduction in domestic value added content of exports for most countries => due to GVCs and high fragmentation of production
- Increasingly unequal societies



The impacts of the ongoing “changes”

- Reduction in routine-intensive/low skilled jobs partially compensated by rise in new technical jobs
- Higher speed (the windows of opportunities close up faster...)
- Potential high concentration of rents&power
- Reduction in disruptive innovations
- High heterogeneity
- Targeted medicine & tailor-made solutions
- Increased quality in service provision and creation of new services
- Increased security for people and workers
- Greener economies
- ...

What role for policies?

Anticipating and shaping the changes putting “well-being & citizens” at the core

Consensus areas (in theory)	Key areas for shaping the future
Skills for the future	Standards & compatibility
Infrastructure (ICT and physical)	Regulations on data storage, cybersecurity/privacy
	IP and copyright including on data ownership
	Redefining social contracts (responsibilities and rights)
	Enabling technology transfer and innovation diffusion
	Advancements in science

Enabling factors:

- **Investment! Investment! Investment!** The transition towards the new industrial world will require high level of investments.
- New and effective forms of public-private **partnerships**
- Better **evidence**: looking within the firm and within production and innovation systems to better anticipate changes.

Cooperation for innovation in a digital world

- Growing need of “effective” spaces, shifting from agreements to actions.
- Multiple areas:
 - getting a head start on the infrastructure for the future (IT and physical & their interconnectedness)
 - Skills and human resources
 - Investments in research & development
 - Building alliances as a region also with the private sector
 - Keeping an open, peer dialogue with other regions