

13 Setembre, 2022

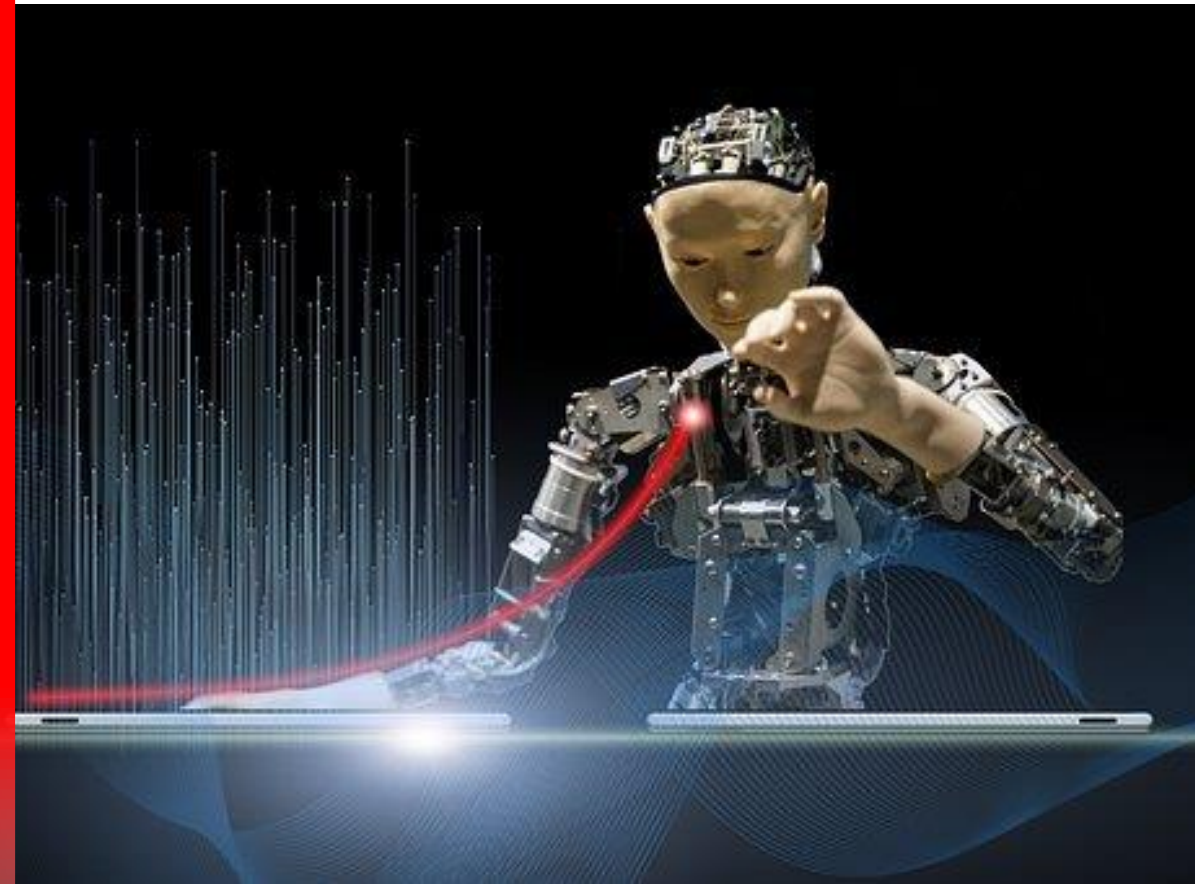
THE FUTURE OF MANUFACTURING

USA

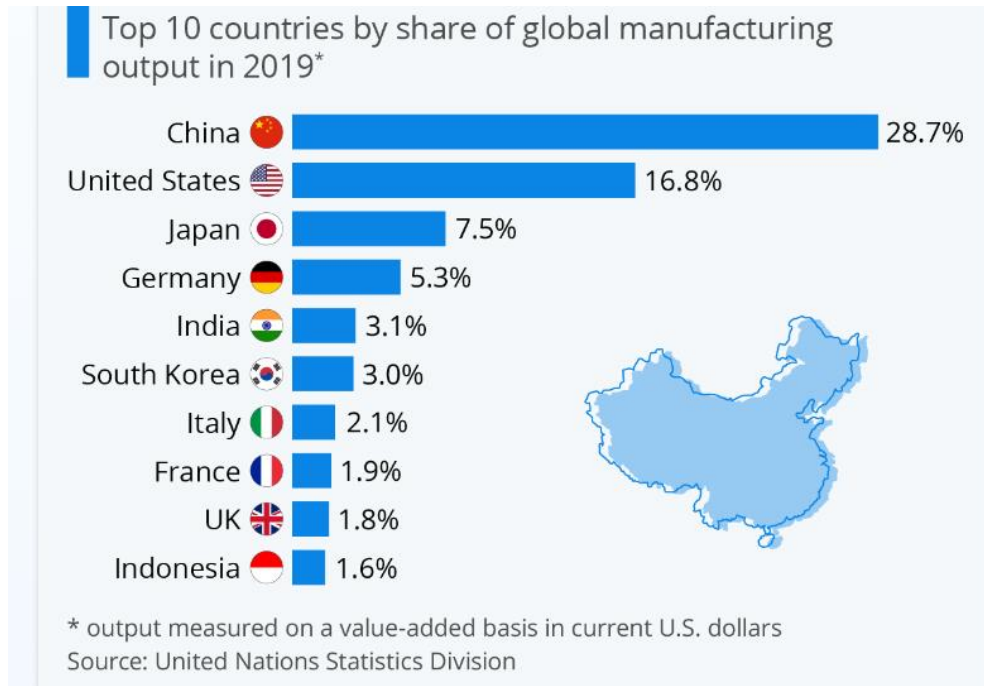
Judit Sendra

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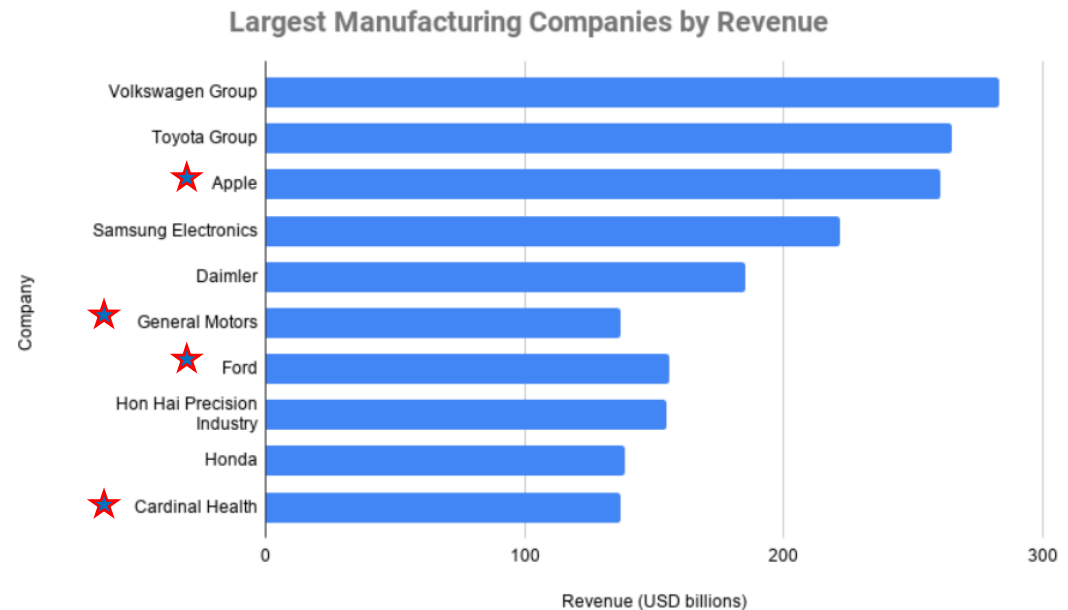
Catalonia Trade & Investment – New York



TOP 10 Countries Manufacturing Output

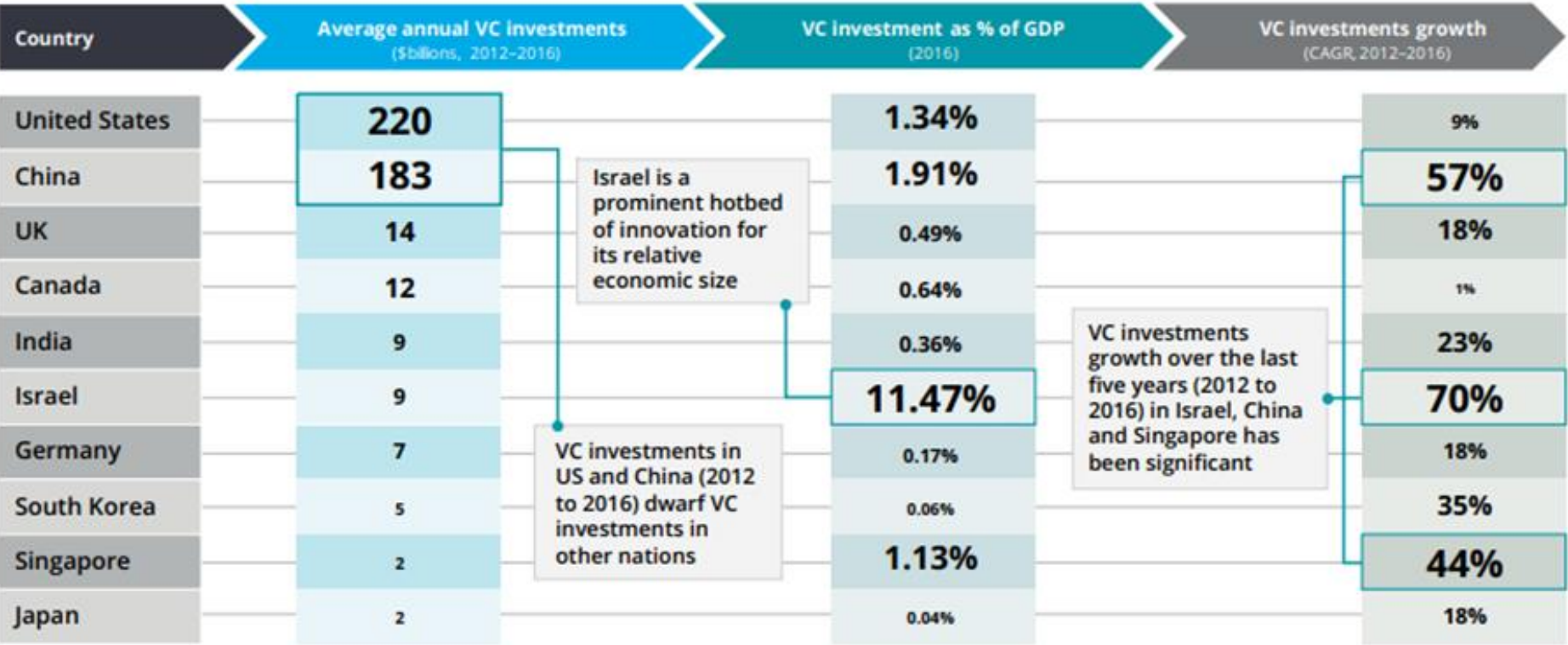


Largest Manufacturing Companies By Revenue



USA leads private and public investment in the Manufacturing sector

Figure 17. VC investments feed innovation pipelines within top manufacturing nations



Source: Deloitte analysis based data from Thomson Reuters and Organisation for Economic Co-operation and Development (OECD)

US Manufacturing FACTS

- For every **1\$** spent in manufacturing, there is a total impact of **\$2,68** to the overall economy
- Manufacturers contributed **\$2,77** trillion annually to the U.S Economy: **11,4%** GDP (2022 Q1)
- The manufacturing Sector employed **12.83 million** workers in July 2022 (**8,5%**)
- U.S. Manufactured goods exports totaled nearly **\$1.2 trillion** in 2020
- Foreign direct investment in U.S. manufacturing reached nearly **\$1.9 trillion** in 2020 (**40.3%**)

Future Trends In Manufacturing

5



5G & Edge Computing



IoT



Predictive
maintenance (AI)



Digital Twins



VR & Metaverse



Robots & Cobots



3D printing



Automation
& Dark
Factories



Web3 & Blockchain



Sustainability



By connecting and collecting
production data



By analyzing that data to drive better
insights



By augmenting human intelligence
with machine intelligence to deliver
sustained, step-change improvements
in performance and safety

20%

Improved asset efficiency

30%

Improved product quality

30%

Reduced costs

10%

Improved safety and sustainability





Changing your idea of what robots can do

7



CataloniaConnects



InOrbit streamlines robot operations with a cloud-based robot management platform built to maximize the potential of every robot.

8





decode

Instantly identify, track and trace products anywhere in the supply chain using user-friendly mobile apps and scanners.

TruTag's award-winning portable scanners instantly read and record products anywhere in the supply chain, from manufacturing all the way to the consumer. Learn more at [HinaLee Imaging](#).

scanners

Advanced hyperspectral imaging technology captures up to 600 true spectral bands

[See it in action](#)

mobile apps

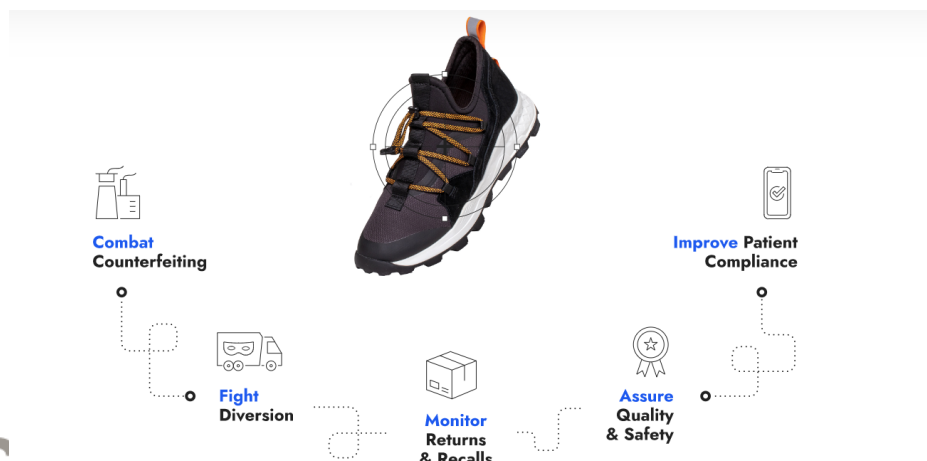
Uses on-board RGB camera with advanced machine learning and artificial intelligence software

[See it in action](#)

data and analytics

The TruTag™ system incorporates powerful analytic tools and a database of product information collected from our readers and mobile apps for tracking and tracing throughout the supply chain to enhance product security and combat counterfeiting.

< code



The Problem

Natural gas is cheap and abundant, but today, utilizing it for energy generates carbon dioxide.



1 MMBTU
Natural Gas

52kg
CO₂



The Solution

C-Zero's technology converts natural gas into hydrogen and solid carbon. The hydrogen provides clean, low-cost energy on demand, while the carbon can be permanently sequestered.

When renewable natural gas is used, the process is carbon negative, effectively extracting carbon dioxide from the atmosphere and storing it as solid carbon.



Natural Gas



Hydrogen



Renewable
Natural Gas

C||ZERO



Solid Carbon
Sequestration



<https://www.czzero.energy/>

THANK YOU!



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