CECE CONGRESS
MADRID 2024

# REINDUSTRIALIZING EUROPE

## WHERE IS THE CONSTRUCTION EQUIPMENT SECTOR GOING?

23-25 Oct
2024
MADRID

#CECEcongress

CECE CONGRESS
MADRID 2024

# Ezequiel Navarro

## Reindustrialisation as a systemic effort: the view and the experiences of a business leader

#CECEcongress

# From Oil wars to Chip wars

## 1973-1981

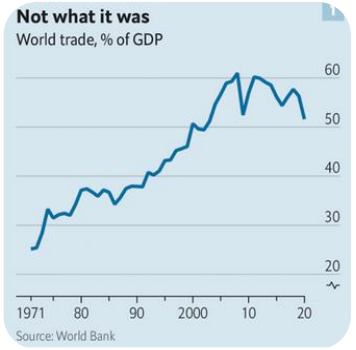
- Oil Crisis
- UK Bailed Out by FMI
- Thatcher & Reagan
- Friedman and Chicago
- 1983 GNU

## 1989-2007

- Potato Chips ( Ricardians )
- F. Fukuyama .The End of History
- China starts transformation
- Globalization and delocalization
- 1991 Linux

RISC-V

ROS.org




## 2007-2019

- World trade Peak
- Financial crack
- Manufacturing the Future
- The Entrepreneurial State.
- The 4th Industrial revolution K. Schwab
- 2007 ROS ( Robotics Operating System)
- 2010 RISC-V Berkeley

## 2019-23

- Esther Dufflo Economy Nobel
- China launches the largest Semiconductor manufacturing plan .
- Chip Wars
- US Chip ACT
- US IRA
- EU Chip Act
- EU Green Industrial Policy
- Open AI
- Near Shoring

# Ricardians & desindustrialization

The Washington Post
Democracy Dies in Darkness

## POTATO CHIPS VS. COMPUTER CHIPS -- HIGH TECHNOLOGY ANY WAY YOU SLICE IT

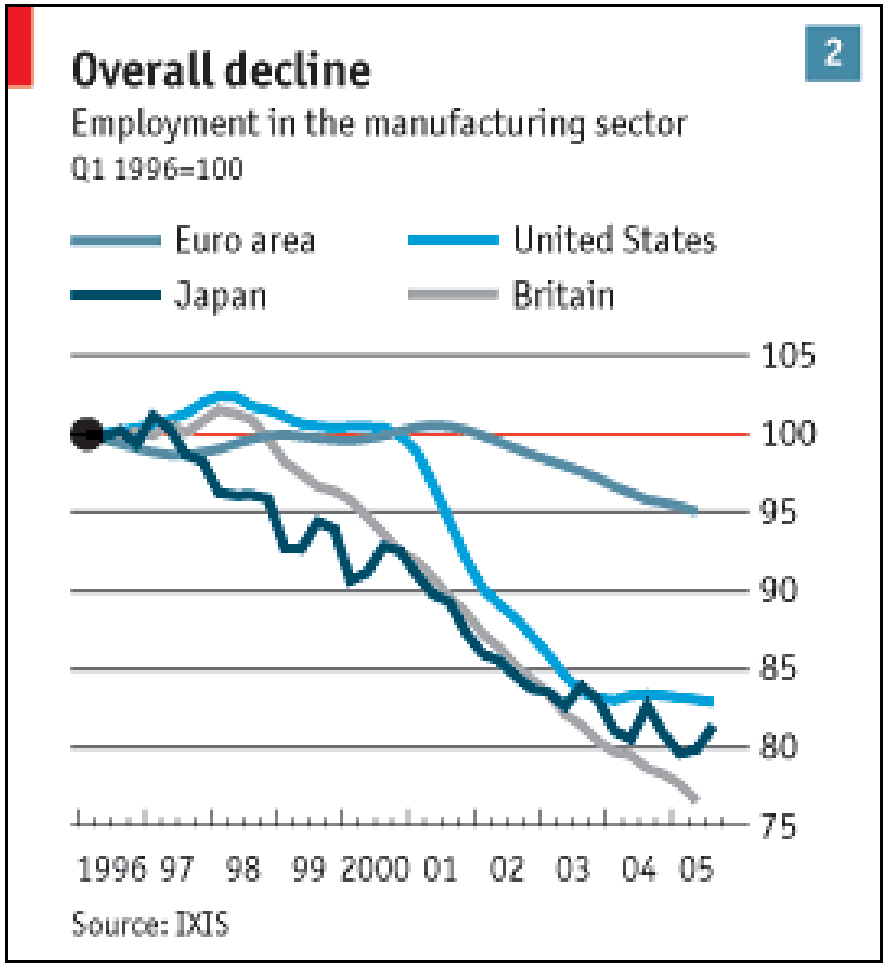
By **Michael Schrage**
January 22, 1993

SAN JOSE -- Folks here in Silicon Valley were furious when former Stanford University economist Michael Boskin -- who happened to be chairman of the White House Council of Economic Advisers -- reportedly said there was no economic difference between computer chips and potato chips. Didn't this guy understand anything about technology?

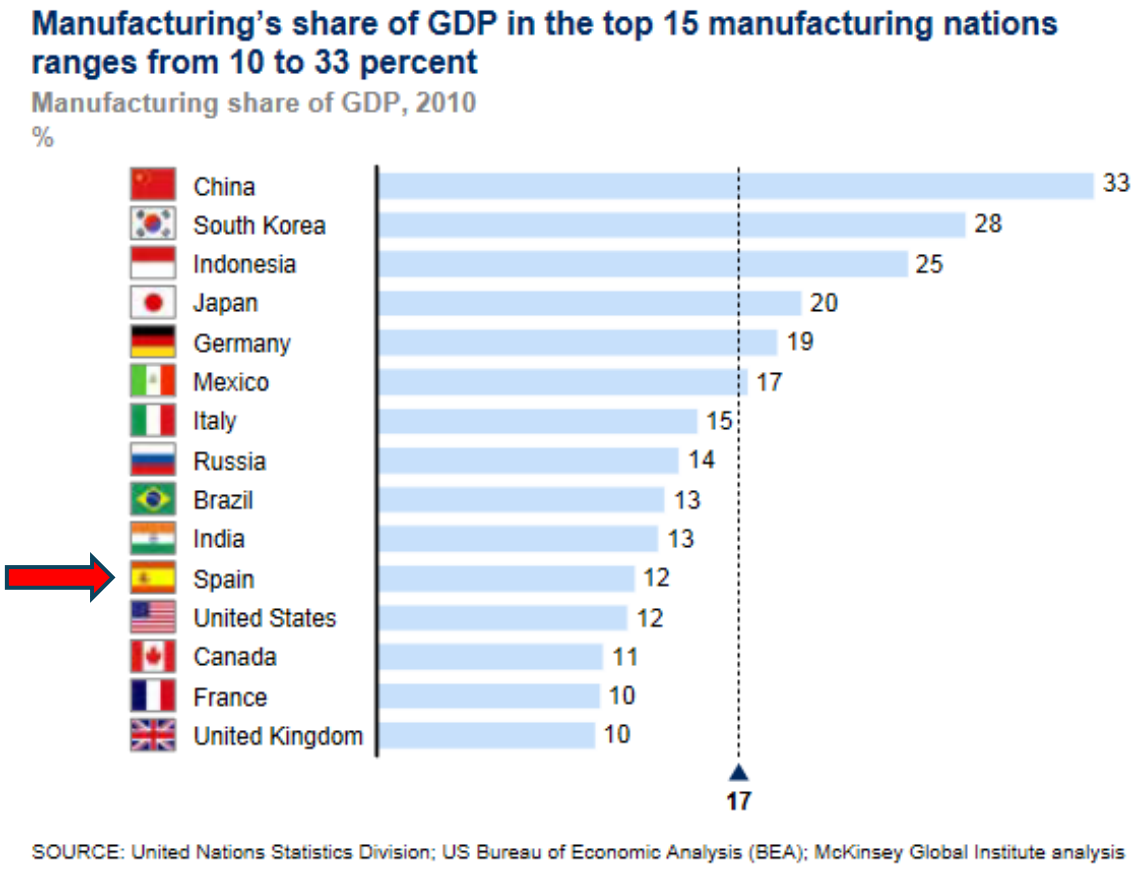
So high-tech honchos from Intel Corp. to Hewlett-Packard Co. were thrilled when Bill Clinton was elected and competitiveness champion Laura D'Andrea Tyson, a University of California at Berkeley economist, was named to succeed Boskin. Finally, here was an economist who understood that the nation's economic future needs silicon far more than snack foods. Finally, here was an administration that valued DRAMs more than

https://www.washingtonpost.com/archive/business/1993/01/22/potato-chips-vs-computer-chips-high-technology-any-way-you-slice-it/08a30106-6bed-4076-8252-f64294e

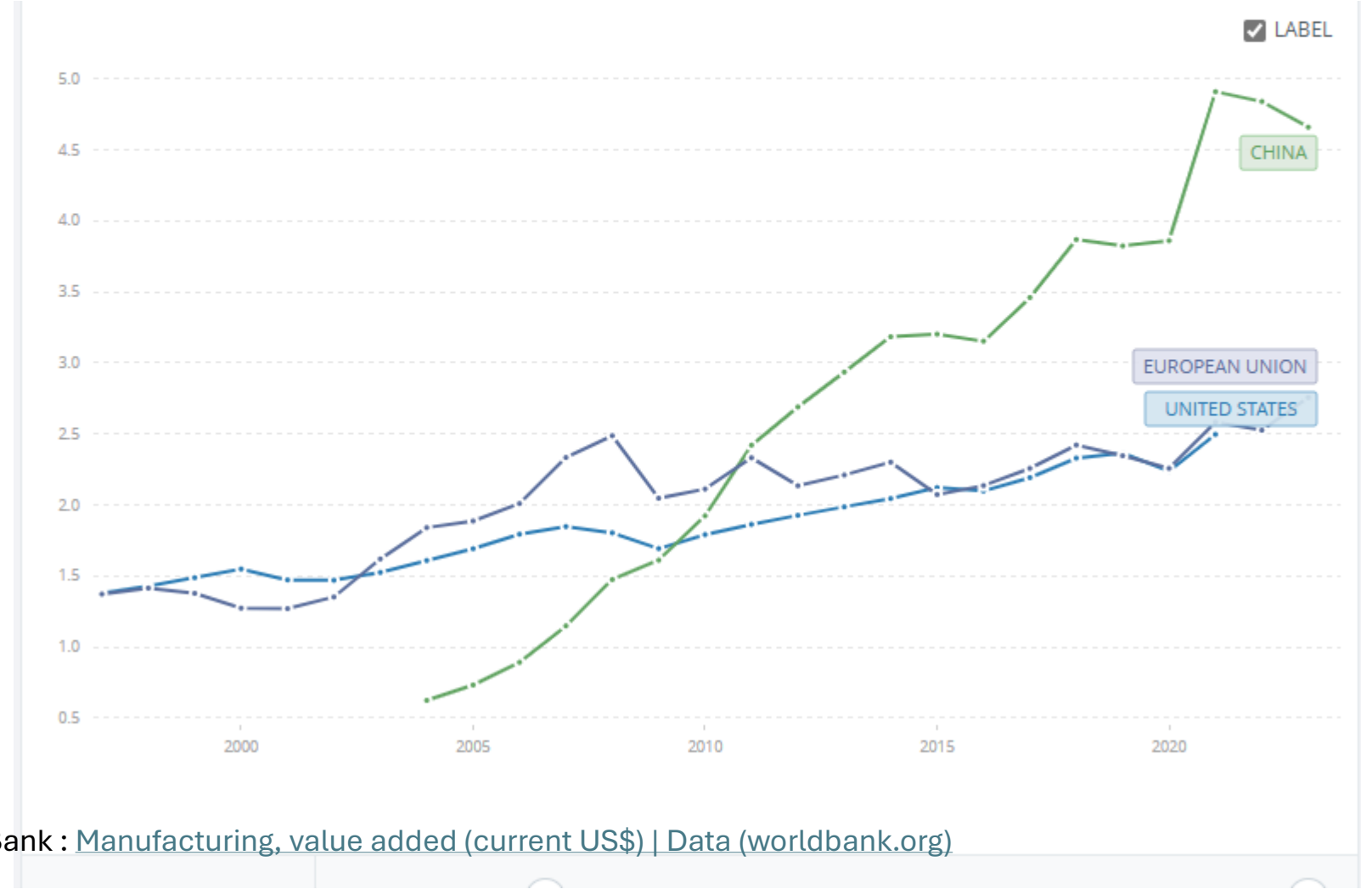
# Industry Jobs in OECD decline

# Industry. Manufacturing share of GDP

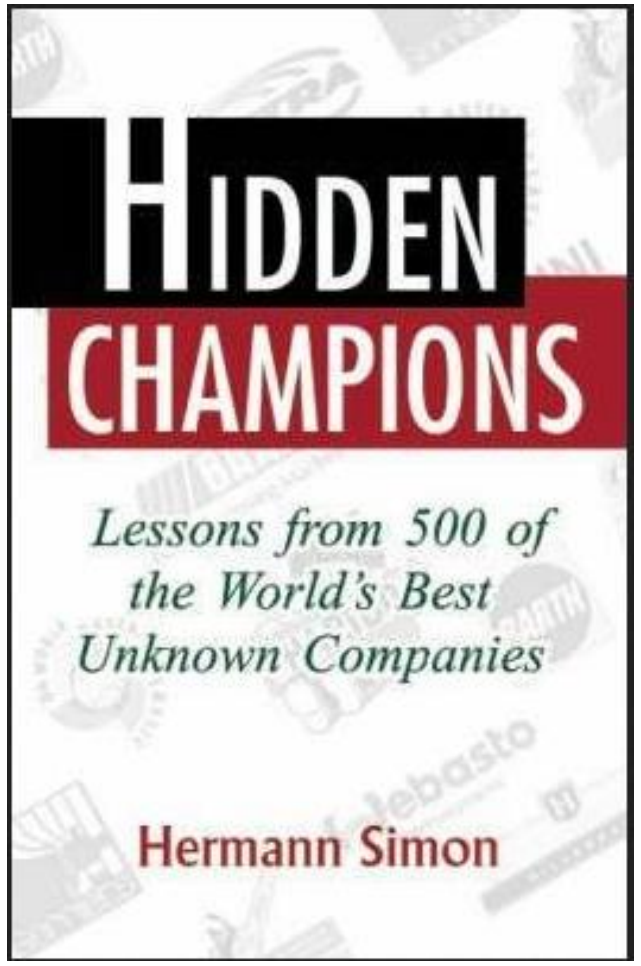



# Manufacturing, value added ( current US$), USA, China, EU




Source: World Bank : Manufacturing, value added (current US$) | Data (worldbank.org)

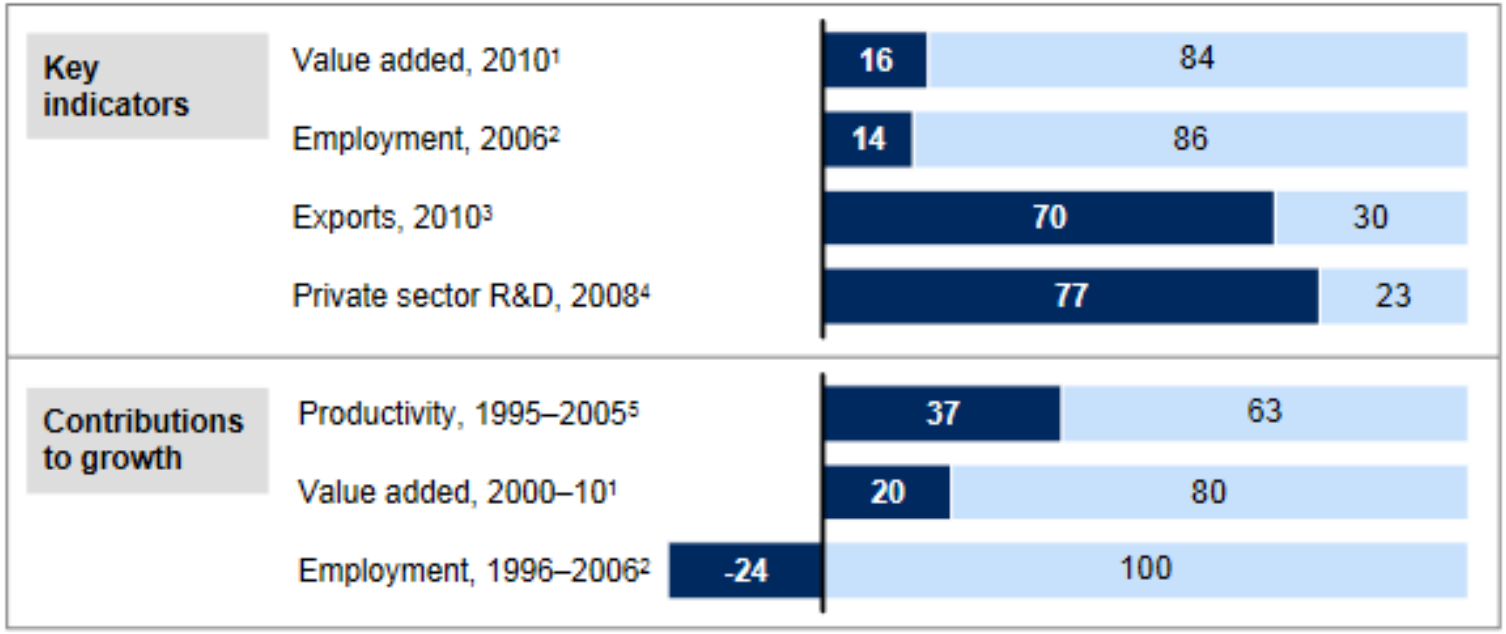
# 2009 Hidden Champions. Hermann Simon

# 2012: Manufacturing The Future

## Manufacturing contributes disproportionately to exports, innovation, and productivity growth

%

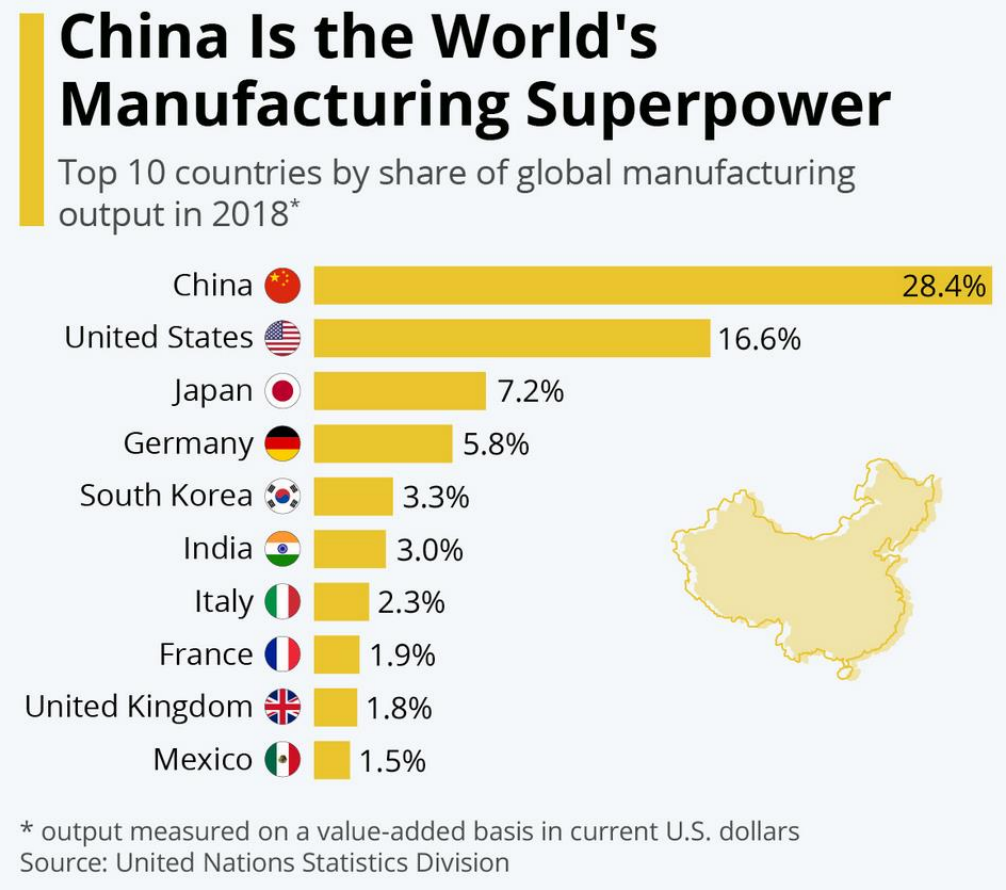



1 Manufacturing GDP as share of global GDP.
2 2006 data for advanced economies sample of United States, Japan, and EU-15; employment growth contribution calculated for 1996–2006 period.
3 Sample of 28 advanced and 8 developing economies.
4 2008 average of manufacturing share of business R&D spend in Germany and Korea (89%), Japan and China (87%), Mexico (69%), and United States (67%).
5 Manufacturing share of productivity growth in EU-15 for 1995-2005 period.

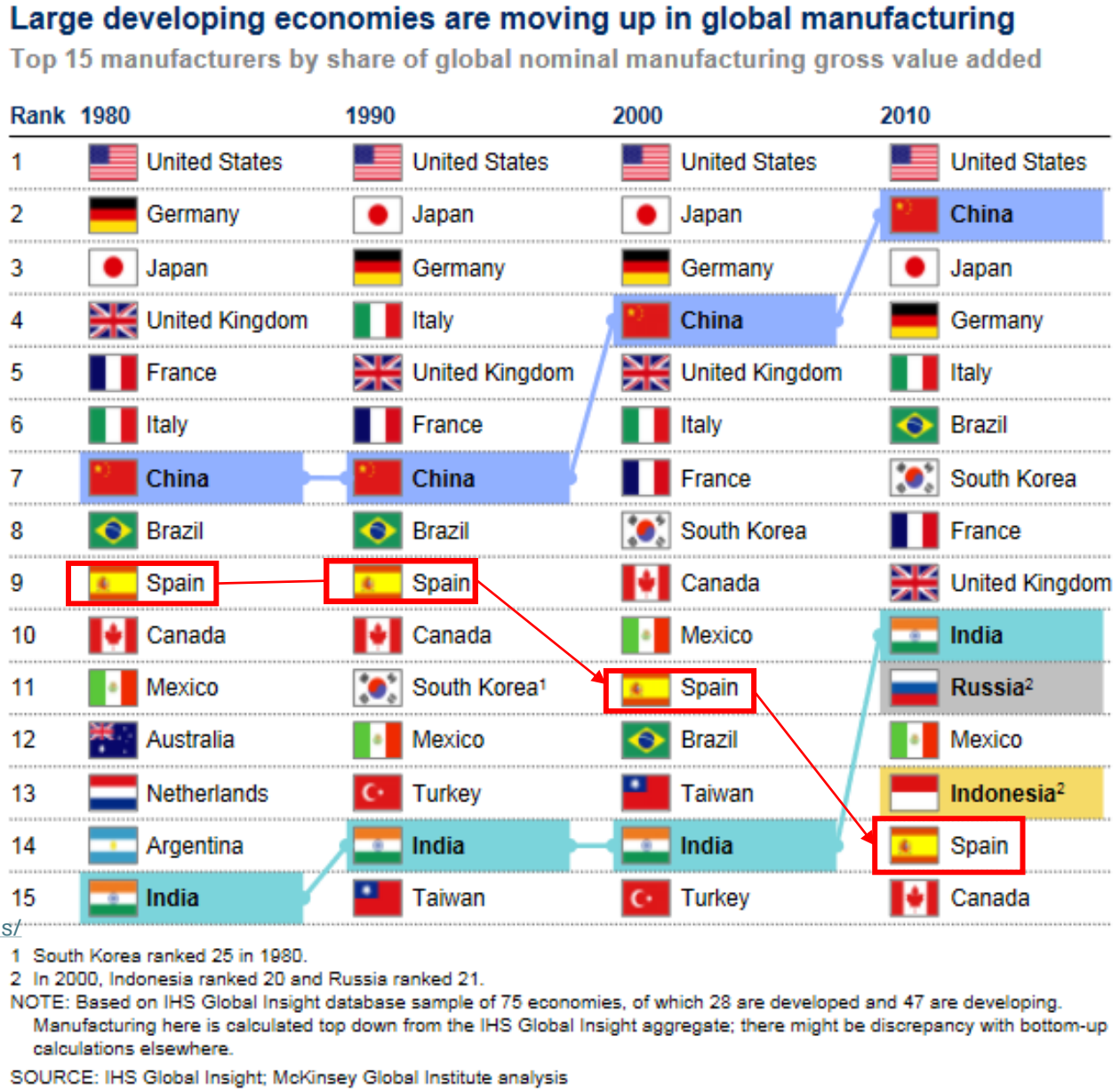
SOURCE: EU KLEMS; IHS Global Insight; OECD STAN, and ANBERD; Eurostat; World Bank; McKinsey Global Institute analysis

https://www.mckinsey.com/~/media/mckinsey/business%20functions/operations/our%20insights/the%20future%20of%20manufacturing/mgi_%20manufacturing_full%20report_nov%202012.pdf

# 1980-2018 South Korea from 25th to 5th



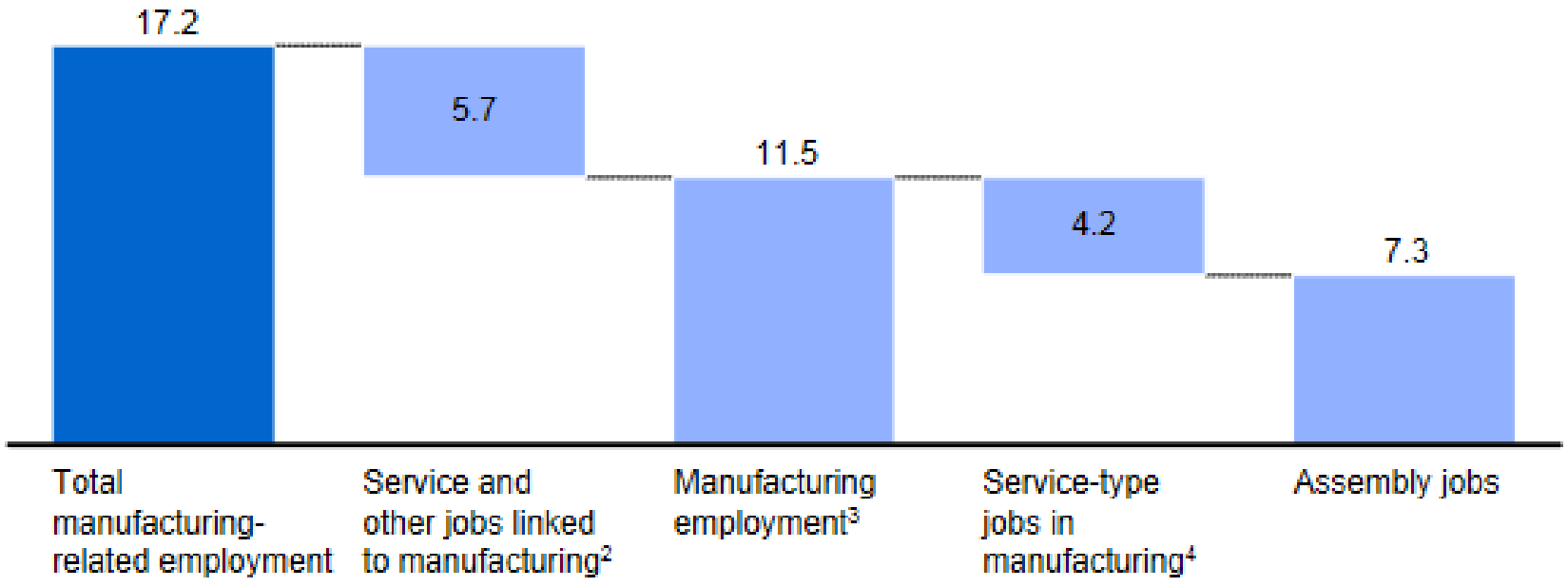

https://www.weforum.org/agenda/2020/02/countries-manufacturing-trade-exports-economics/



# >2 Jobs in services for 1 in industry

## In the United States, production jobs make up less than half of total manufacturing-related employment

US manufacturing employment, 2010[1]
Million

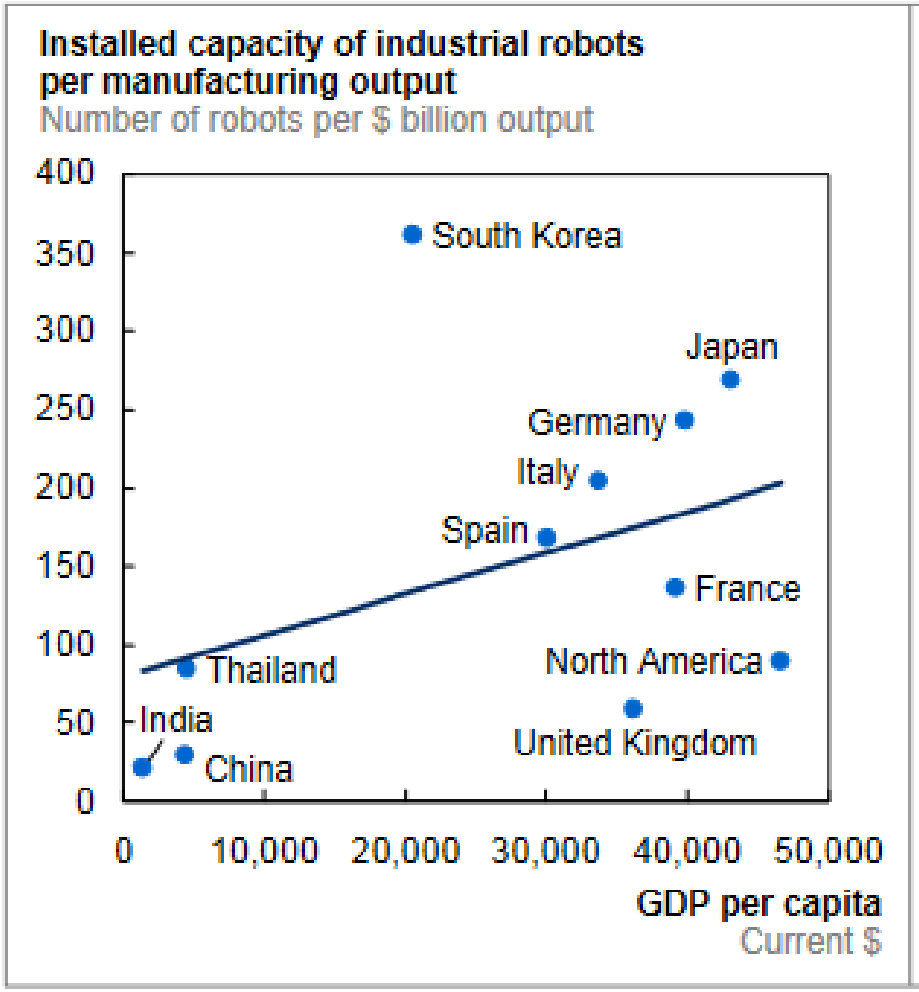


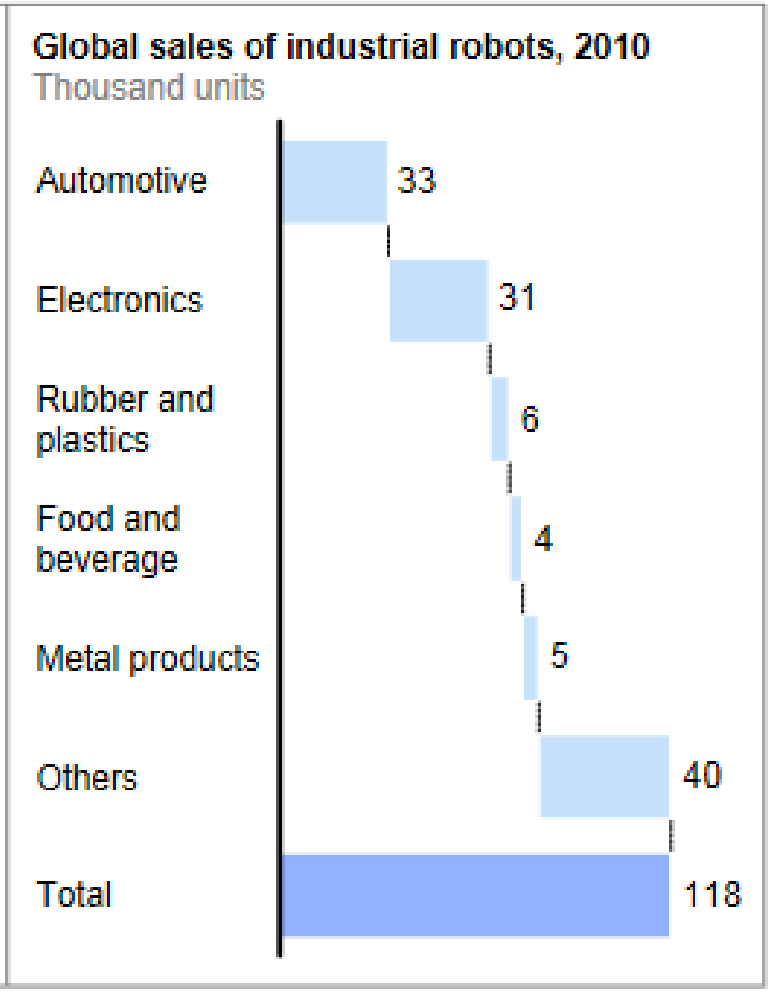

1 Employment is total FTEs plus self-employed.
2 4.7 million jobs in services and 1 million jobs in primary resource industries that are directly and indirectly linked to manufacturing. Employment multipliers were applied to import-adjusted final demand for manufacturing. Employment multipliers were calculated applying employment to output ratios to the output multiplier table. Output multipliers were advanced using an import-adjusted input-output table.
3 Manufacturing employment as reported by the US Bureau of Economic Analysis.
4 Non-production jobs in manufacturing sectors, such as product R&D, marketing and sales, customer care and service, back-office functions, and facilities management.

SOURCE: BEA; BLS; McKinsey Global Institute analysis

# 2 Decades deploying robots

## Advanced economies and innovative industries have installed the most industrial robots

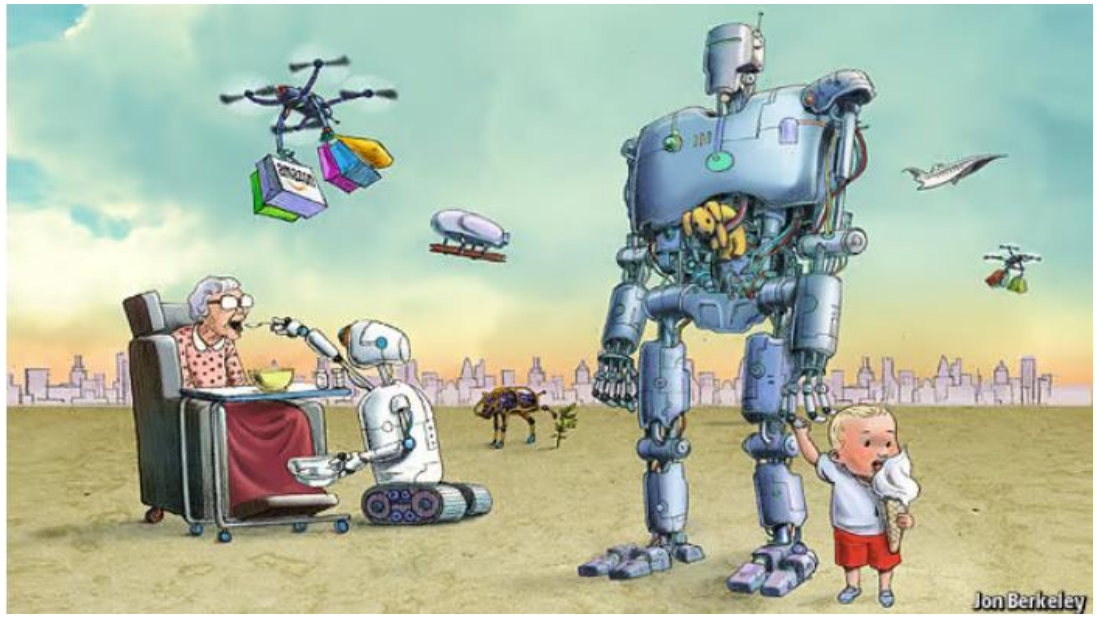


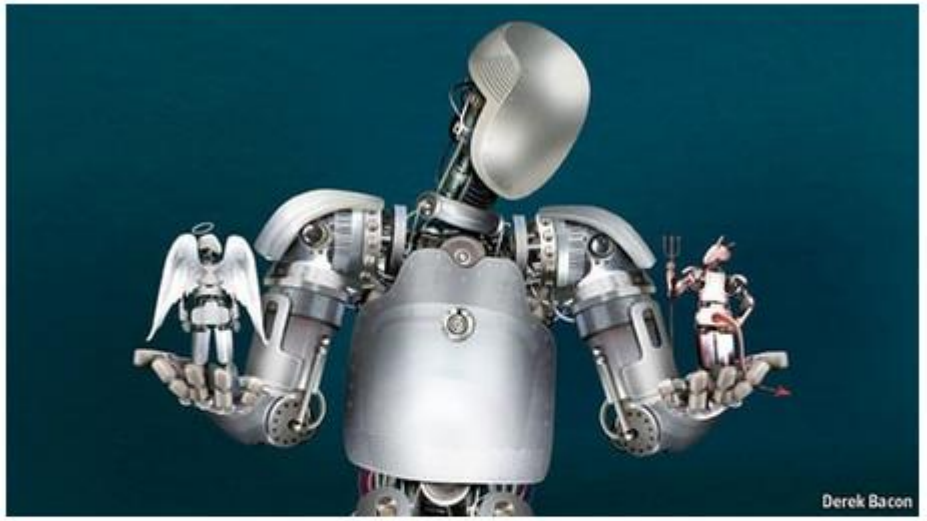




NOTE: Numbers may not sum due to rounding.

SOURCE: International Federation of Robots; World Bank; McKinsey Global Institute analysis

# 2012-14 Rise of the robots & Ethics



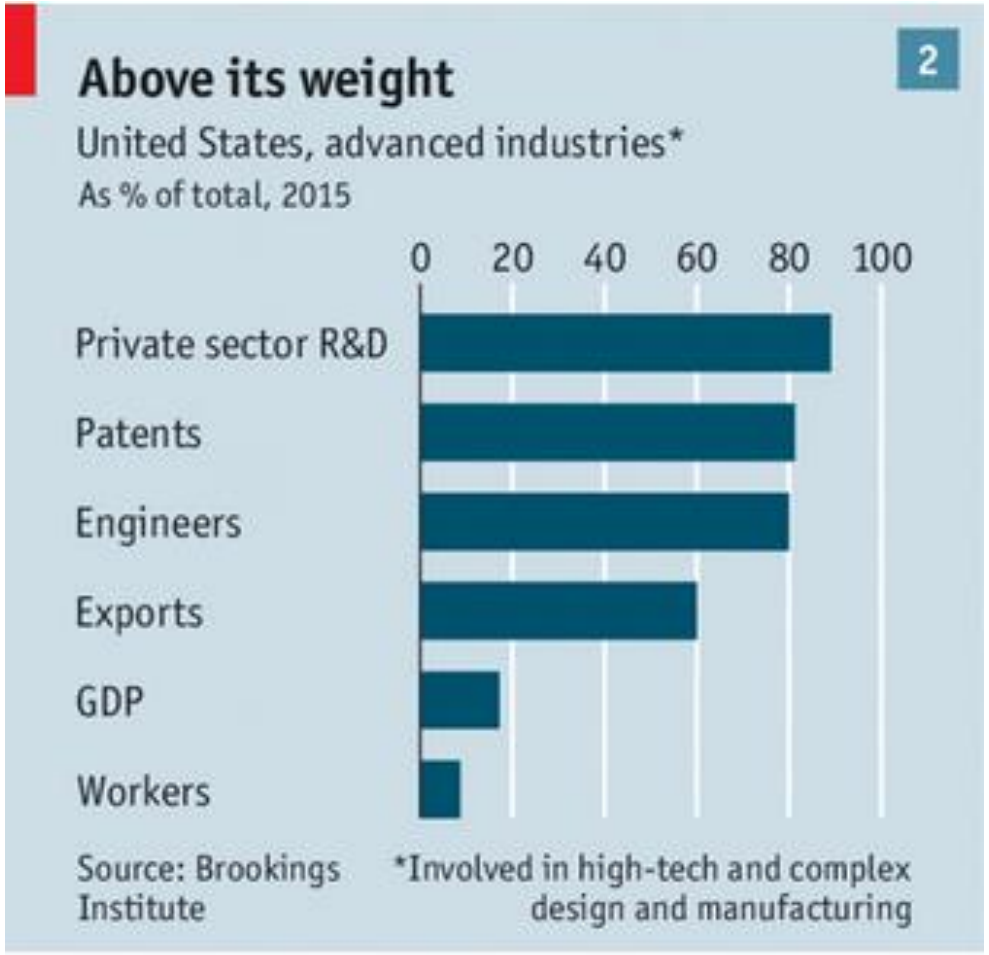




Robot ethics

## Morals and the machine

As robots grow more autonomous, society needs to develop rules to manage them

# 2015. Industries lead R&D&I



# 2011-13 Mariana Mazzucato: The Entrepreneurial State

Article | PDF Available

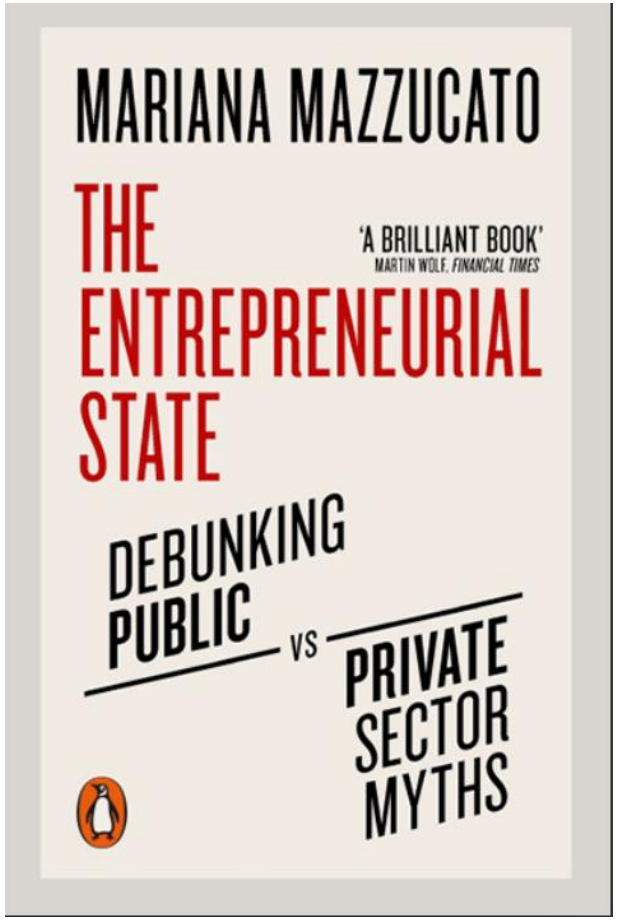
## The Entrepreneurial State

November 2011 · Soundings 49(49)

DOI:10.3898/136266211798411183

**Authors:**

**Mariana Mazzucato**
University College London




https://www.researchgate.net/publication/263242587_The_Entrepreneurial_State

# 2017 Learning & jobs

## Lifelong learning

### How to survive in the age of automation

A SPECIAL REPORT

Briefing | Manufacturing industry

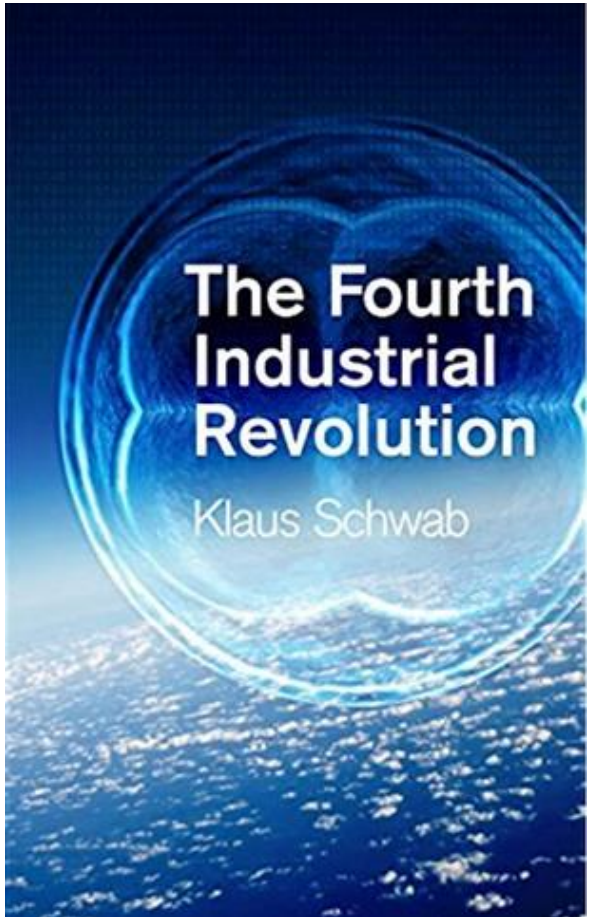
## Politicians cannot bring back old-fashioned factory jobs

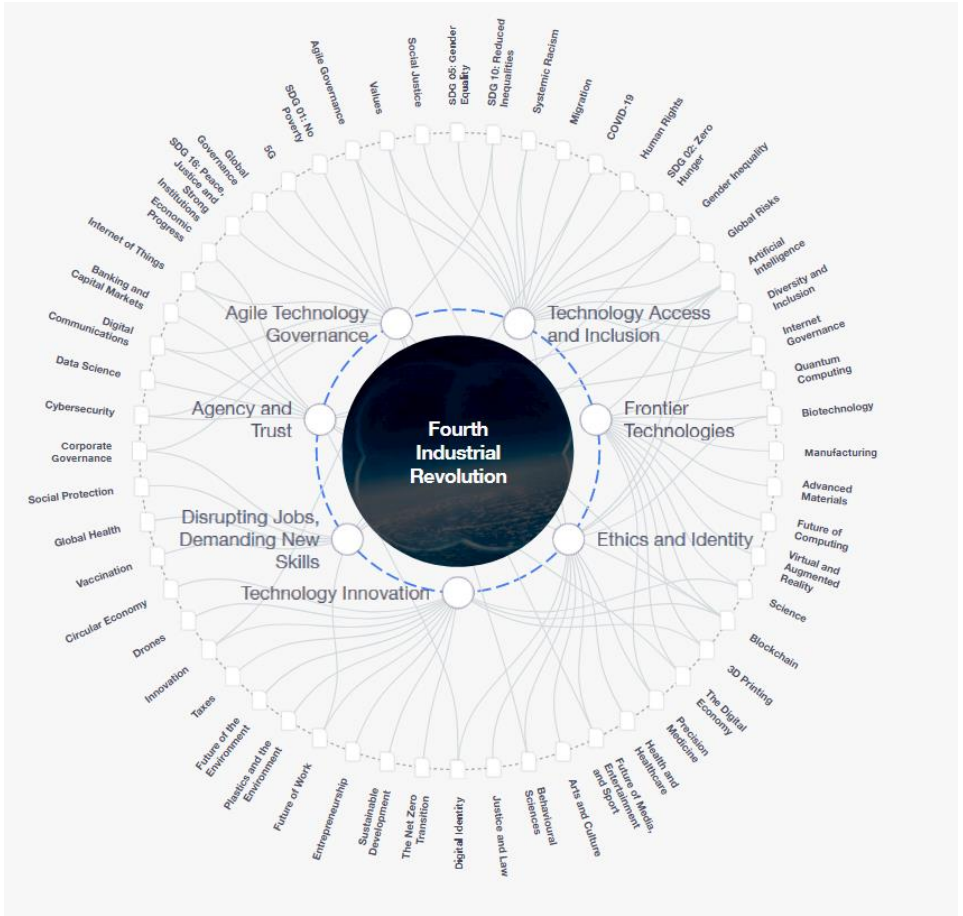
They don't make 'em like that any more


Jan 14th 2017

Save Share Give

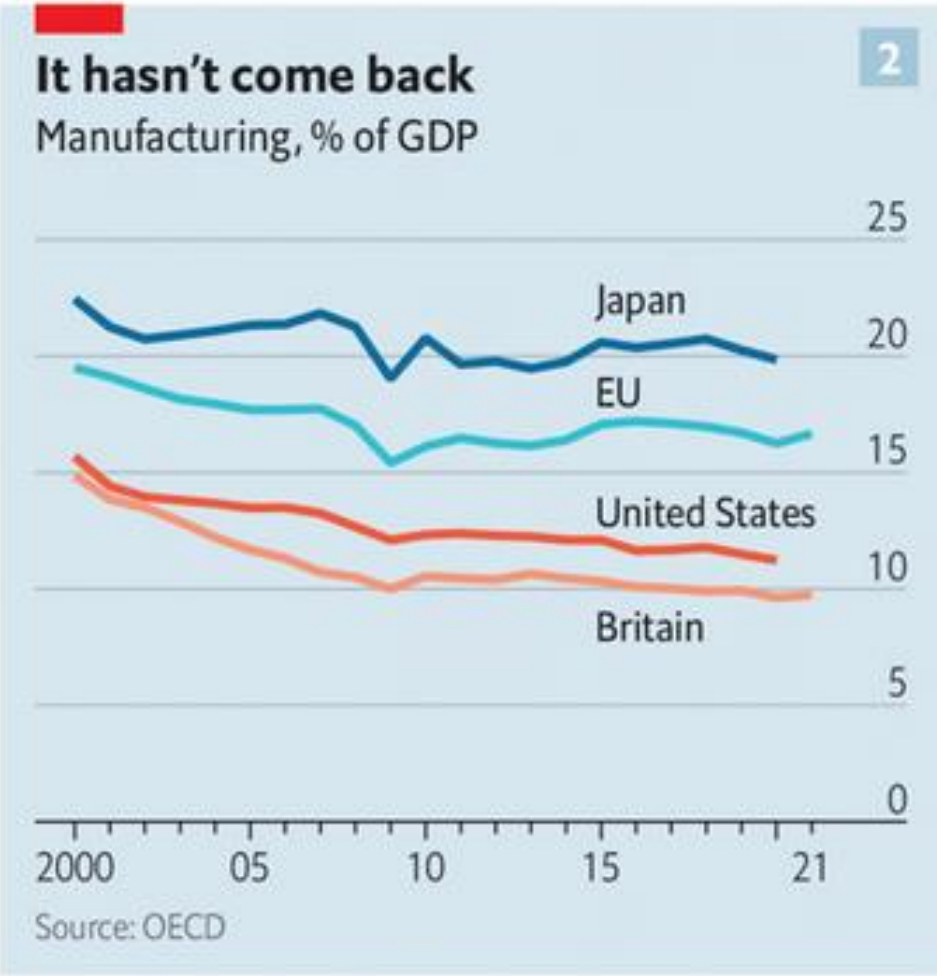
# 2017 :The 4th Industrial Revolution




https://intelligence.weforum.org/topics/a1Gb0000001RIhBEAW?tab=publications

# After covid and Chip Wars...




# Supply Chains after COVID19 Near shoring

Business | Advanced manufacturing

## Adidas's high-tech factory brings production back to Germany

Making trainers with robots and 3D printers


Jan 14th 2017

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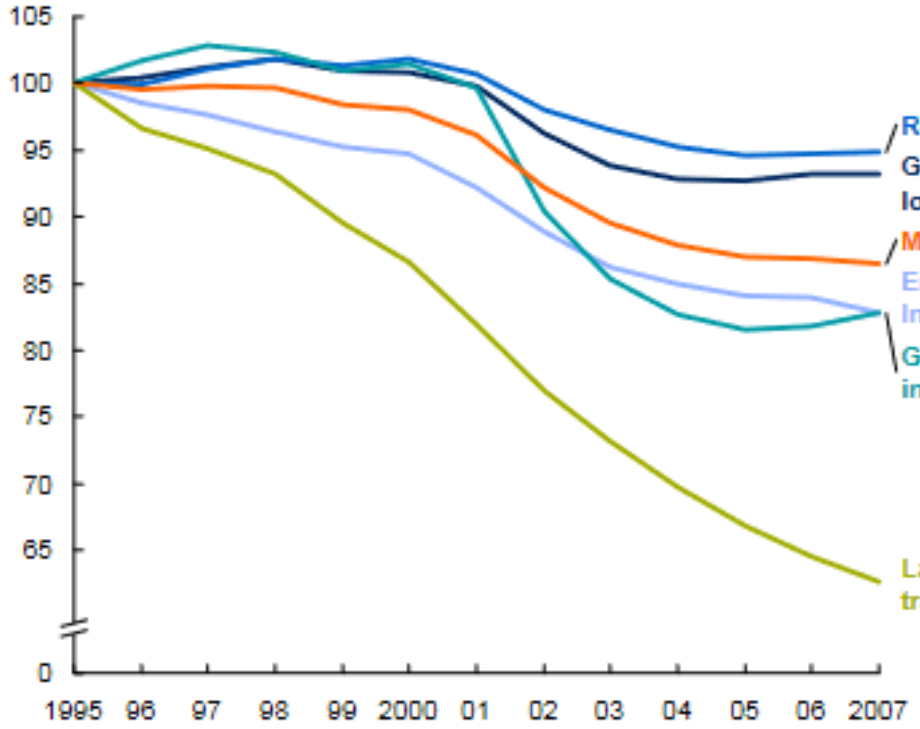
# From just Jobs to High Pay Jobs

## Manufacturing employment in advanced economies has declined across all groups but has fallen most in the labor-intensive tradables group

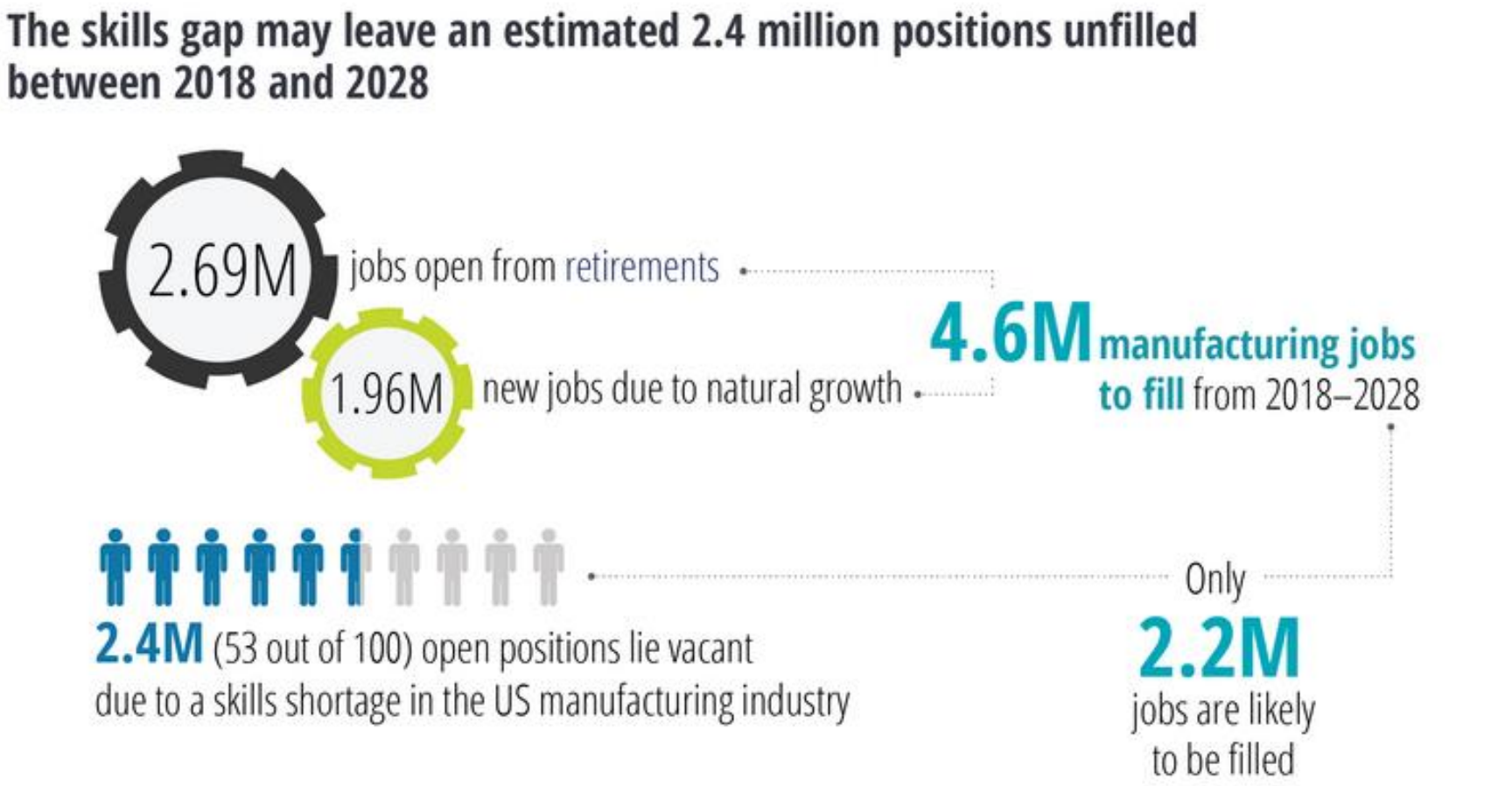
Manufacturing employment by group in selected advanced economies, 1995–2007[1]
Index: 1995 = 100




| Share of manufacturing employment % | 1995 | 2000 | 2007 |
|---|---|---|---|
| Regional processing | 33 | 35 | 37 |
| Global innovation for local markets | 28 | 29 | 30 |
| Manufacturing overall | | | |
| Energy- and resource-intensive commodities | 14 | 14 | 13 |
| Global technologies/ innovators | 8 | 9 | 8 |
| Labor-intensive tradables | 16 | 14 | 12 |

1 Sample of 17 advanced economies: EU-15, Japan, and United States.
NOTE: Numbers may not sum due to rounding.
SOURCE: EU KLEMS; OECD; McKinsey Global Institute analysis

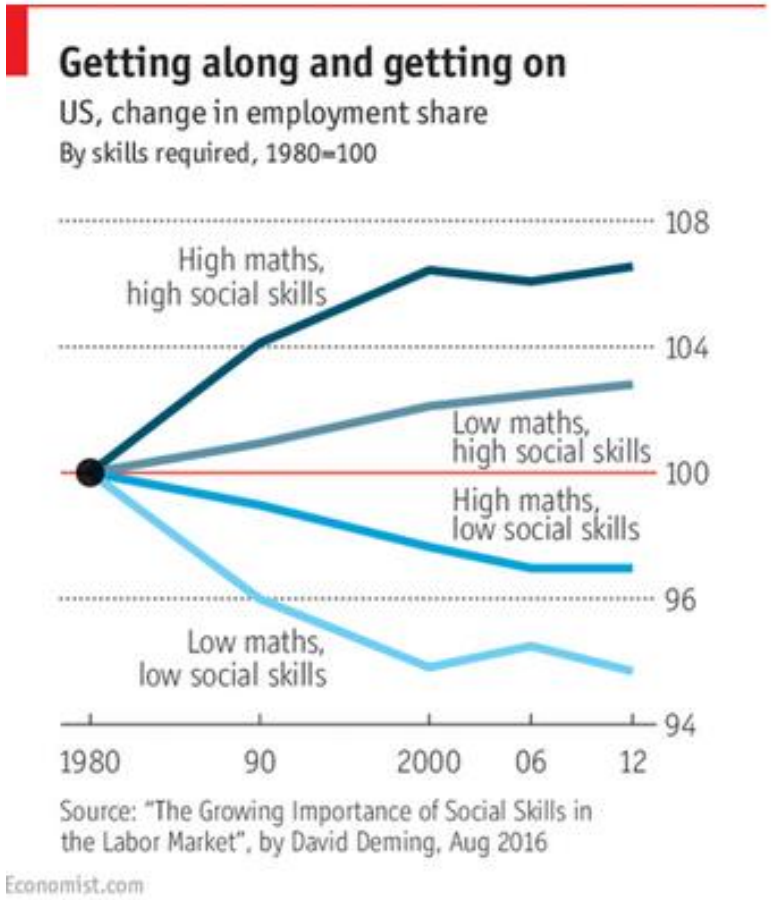
# The jobs are here, but where are the people?

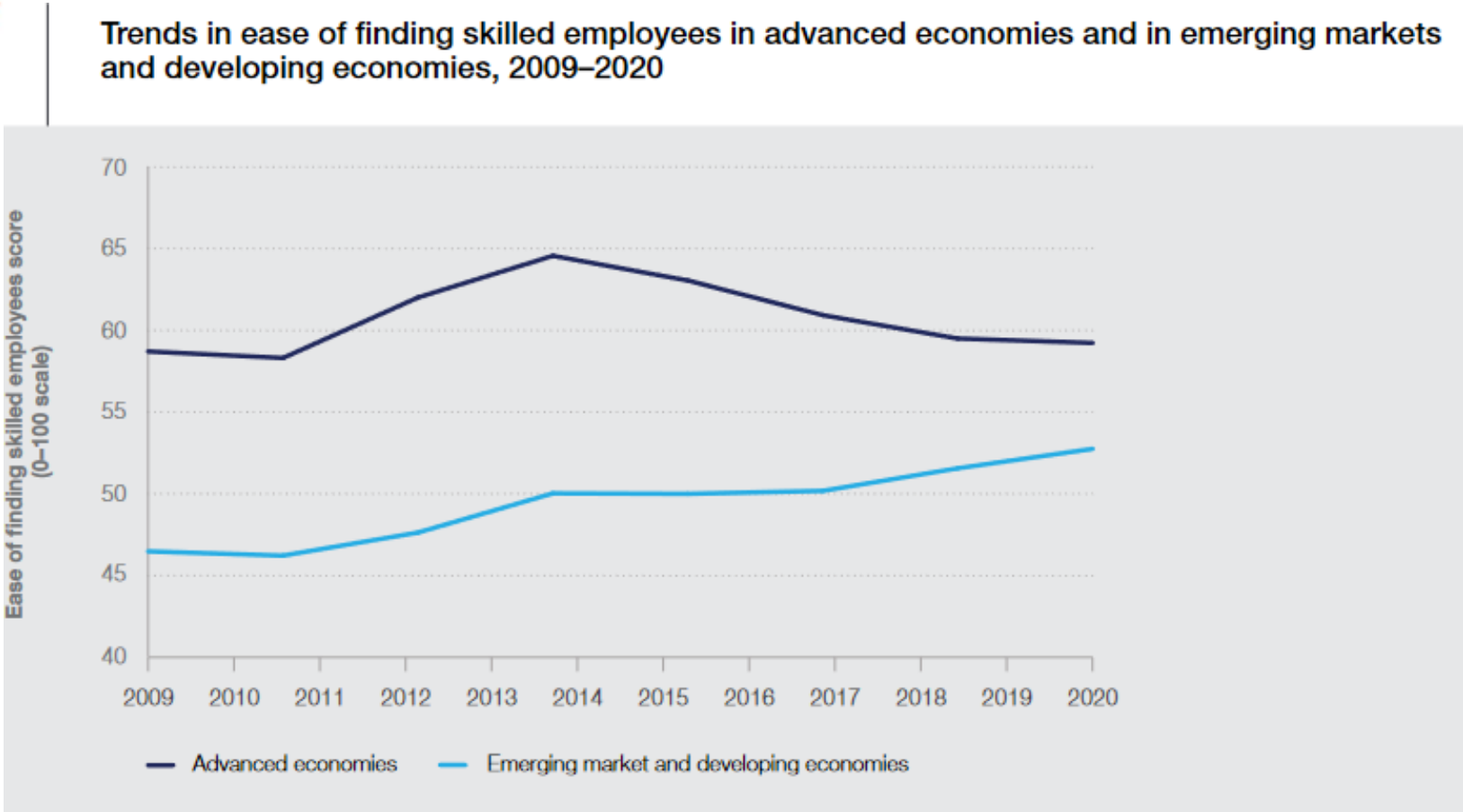



*Calculated on the basis of 52.7% of the skilled manufacturing positions that are unfilled (per the 2018 survey)
**Retirement age of 66

Source: BLS Data, OEM (Oxford Economics Model), Deloitte and Manufacturing Institute skills research initiative.

# Skilled People




https://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2020.pdf

# 2021 Where are my chips?

The Economist explains

## Why is there a shortage of semiconductors?

The shift to working from home has created a surge in demand for electronics


Feb 25th 2021

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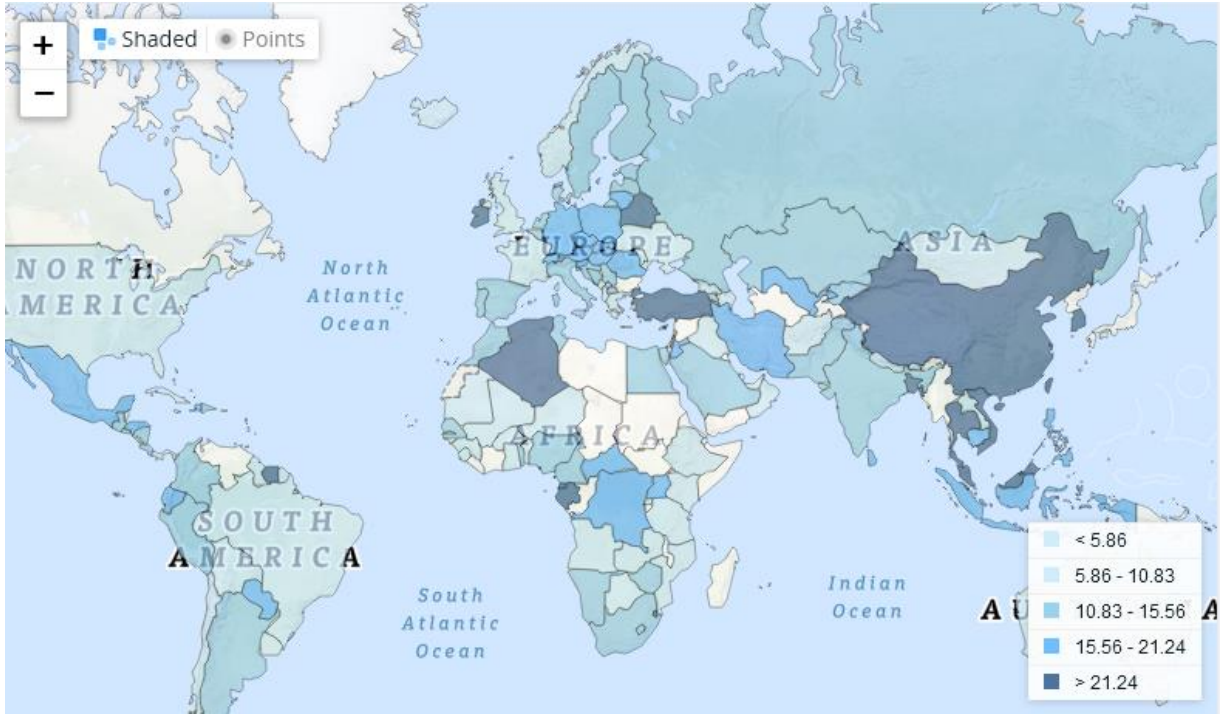
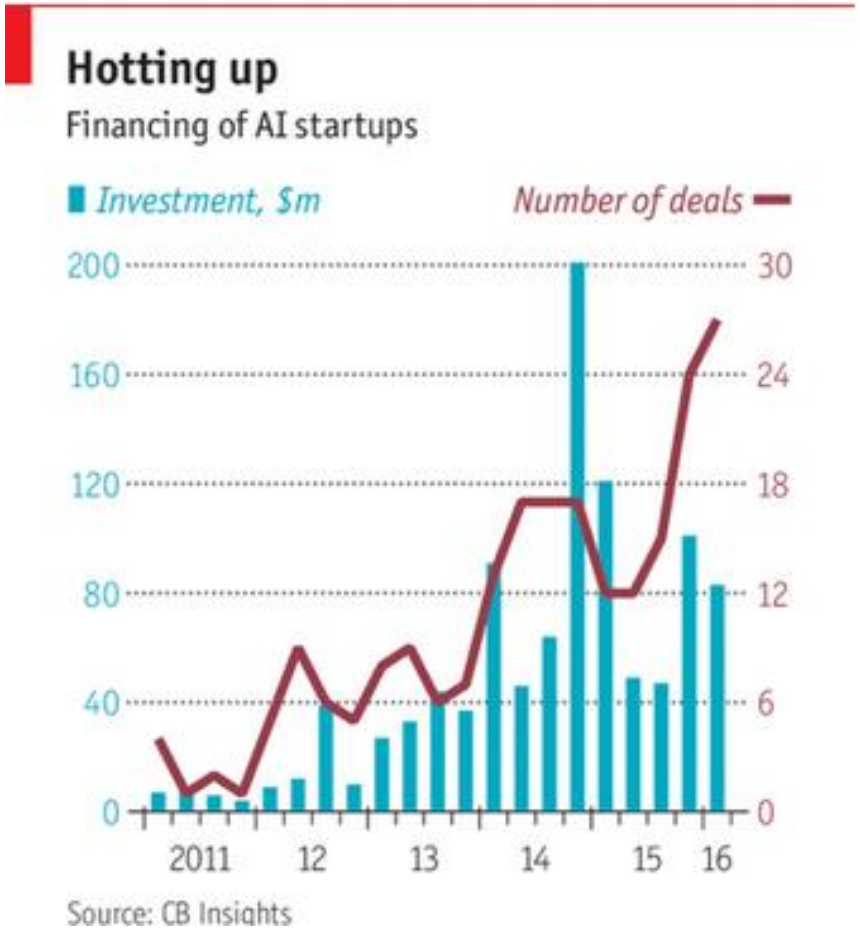
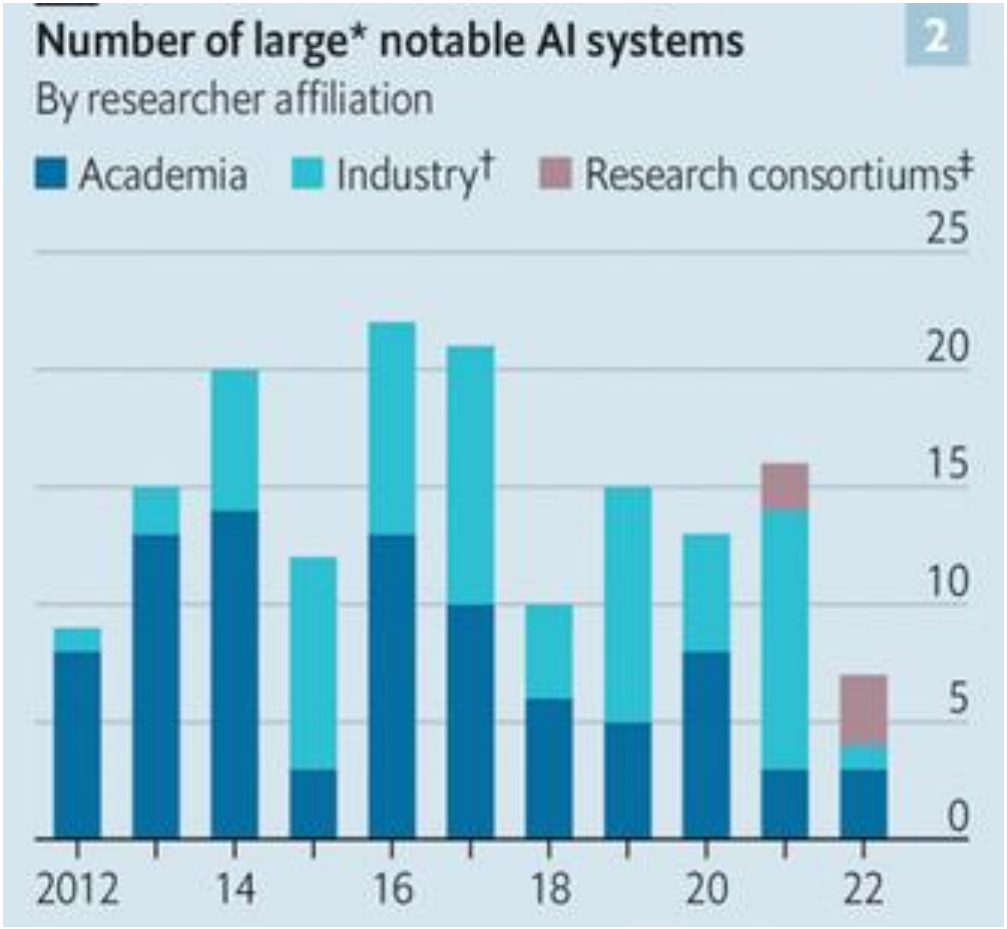
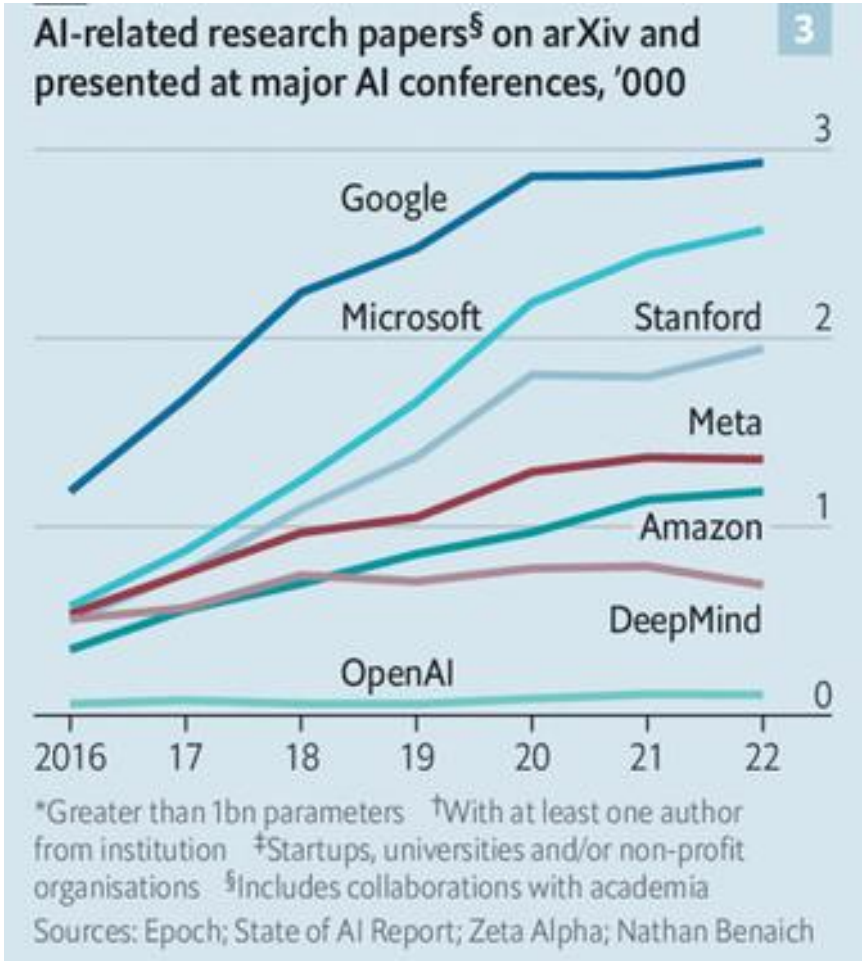


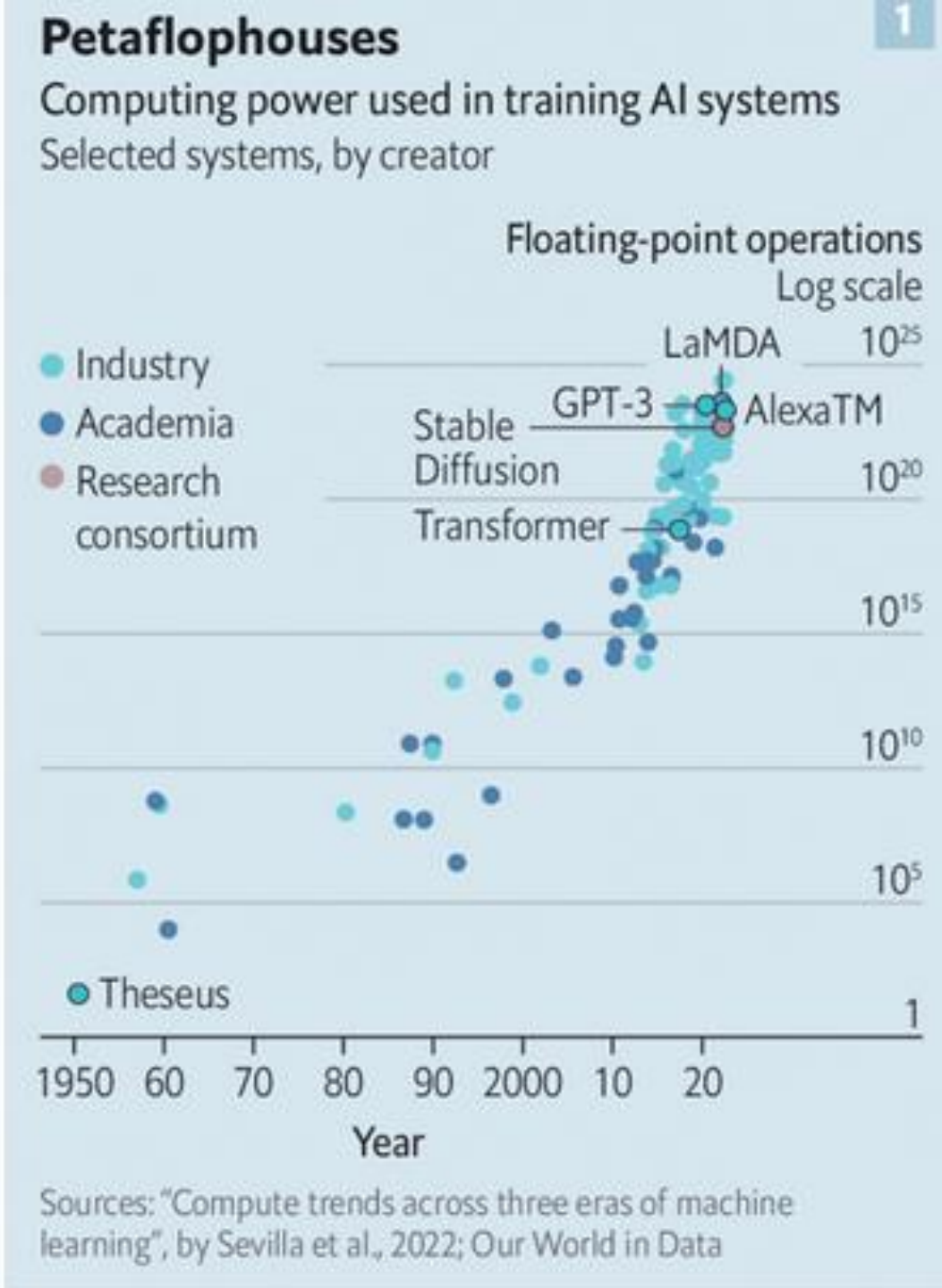
# From AI Startups to Open AI



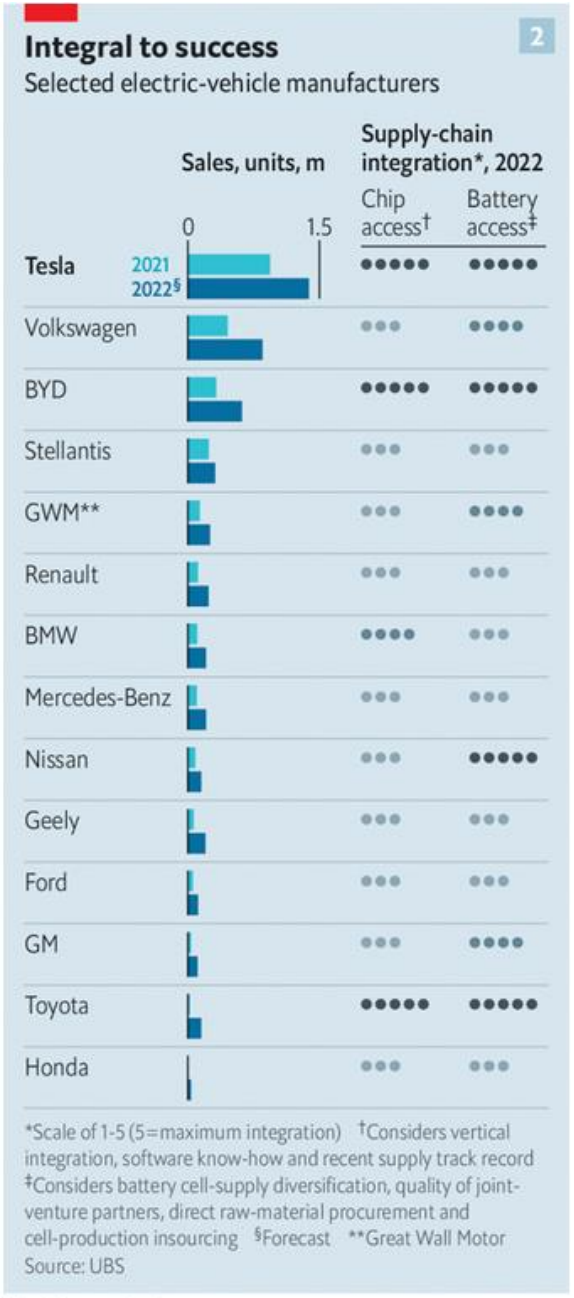



# HPC is changing everything

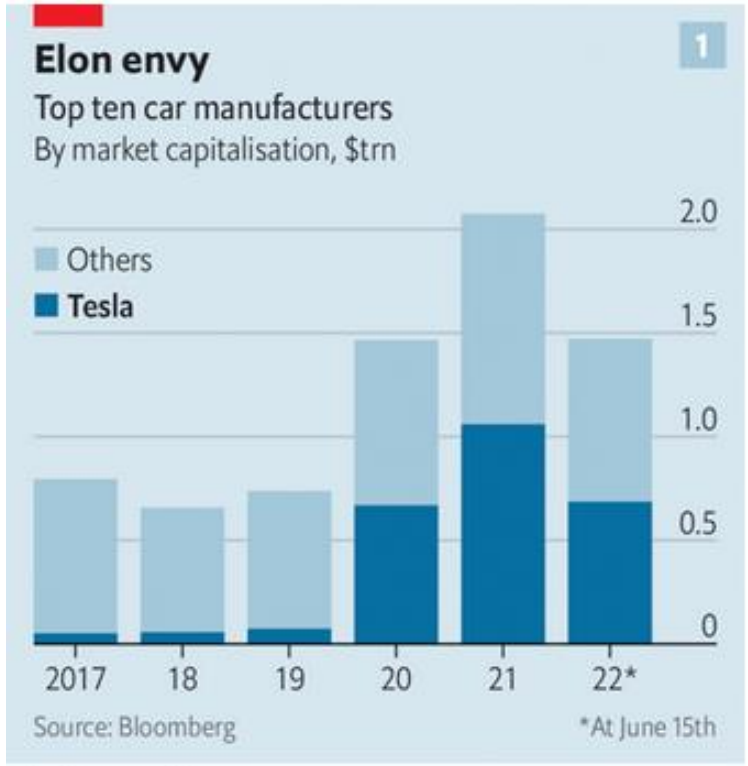


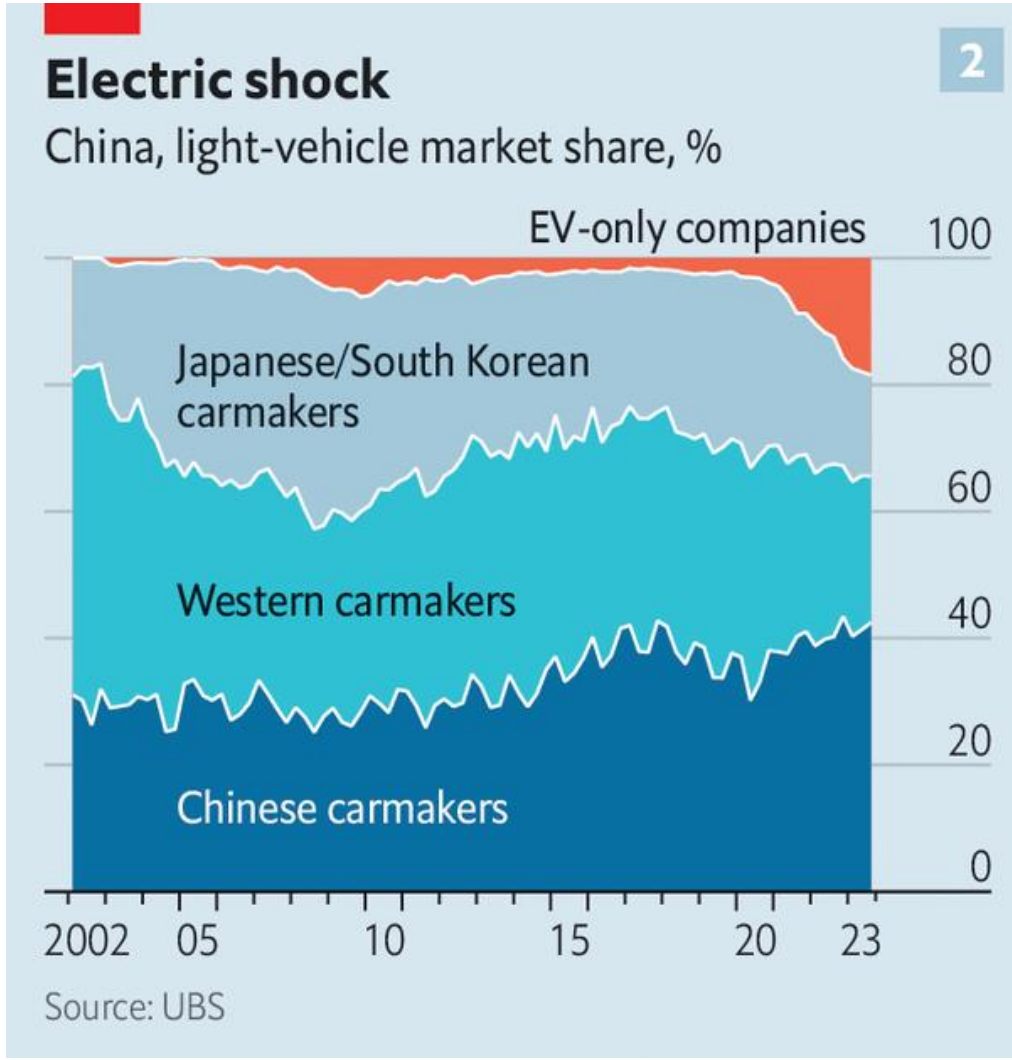
# Musk: Ultra integration and Gigafactories



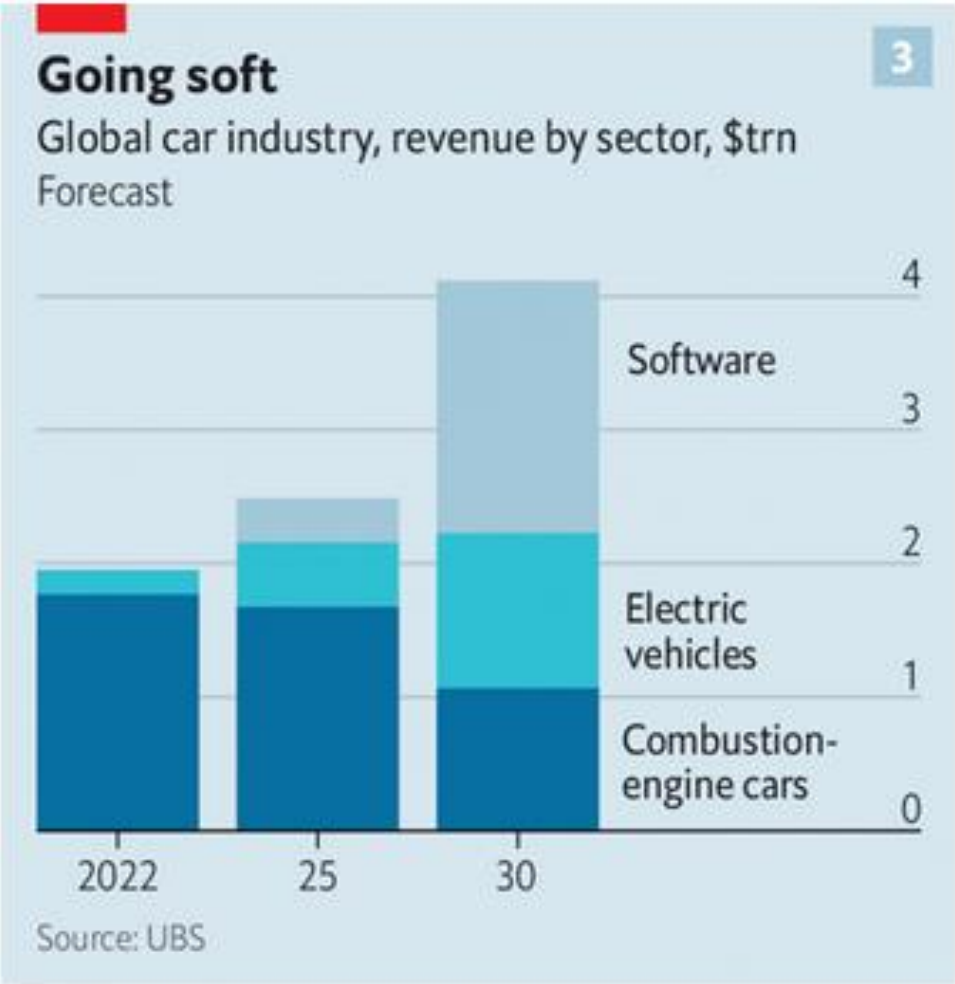

The Economist

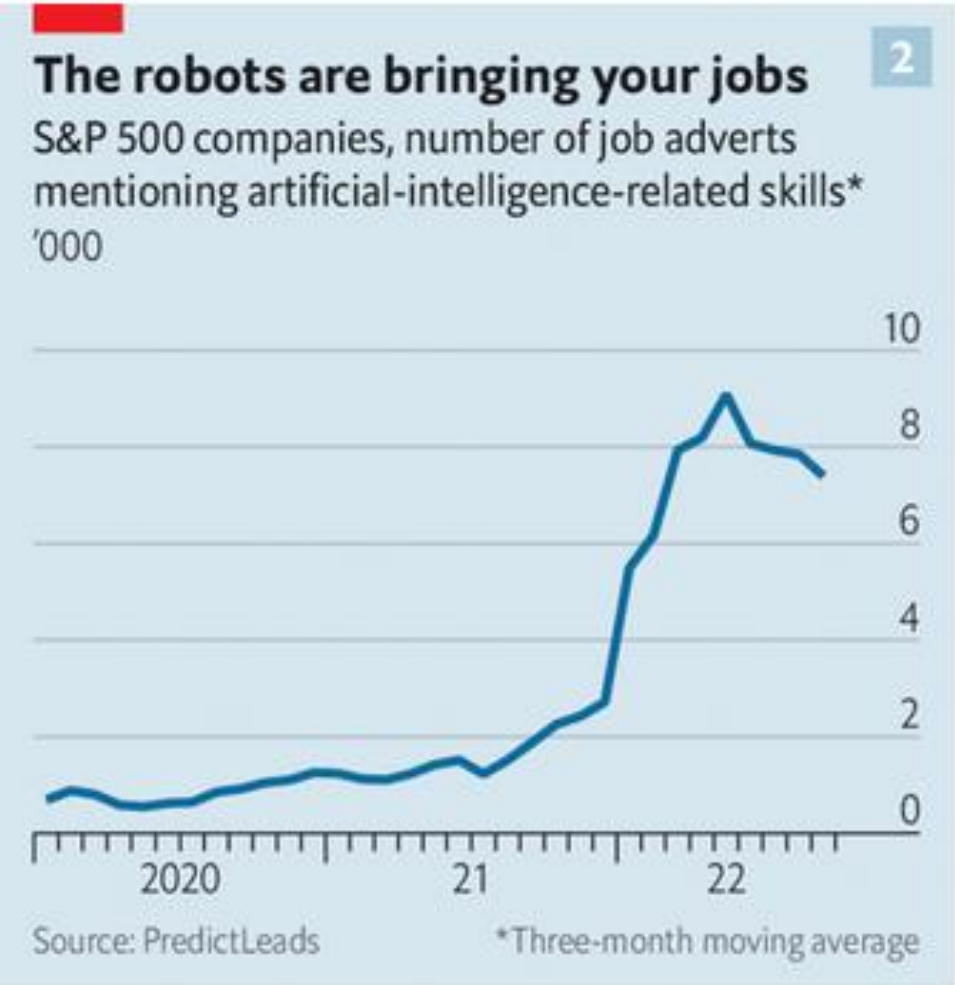



The Economist



# Sofware is King.



# Atenas vs Esparta

ITIF | INFORMATION TECHNOLOGY & INNOVATION FOUNDATION

## Computer Chips vs. Potato Chips: The Case for a U.S. Strategic-Industry Policy

ROBERT D. ATKINSON | JANUARY 2022

With the rise of China, the United States needs more than a competitiveness strategy, it needs a policy specifically tailored to boost production and innovation capacity in strategically important industries—especially technologically sophisticated ones with dual-use capabilities.

# China rise wakes-up Industry Policy Advocates.

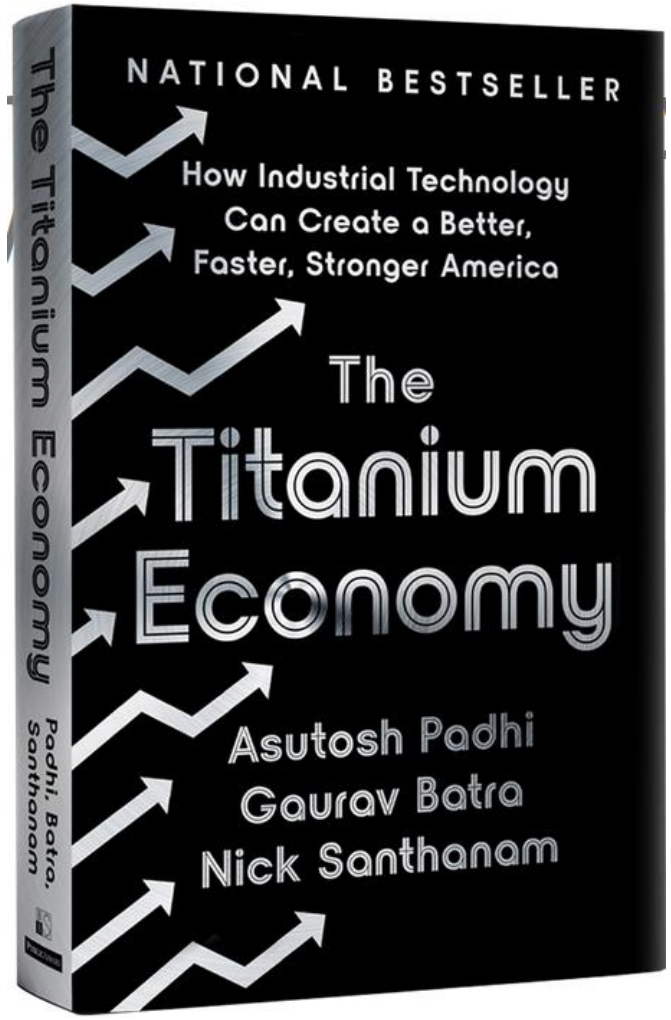
**Table 2: Policy framework for America's new dual economy**

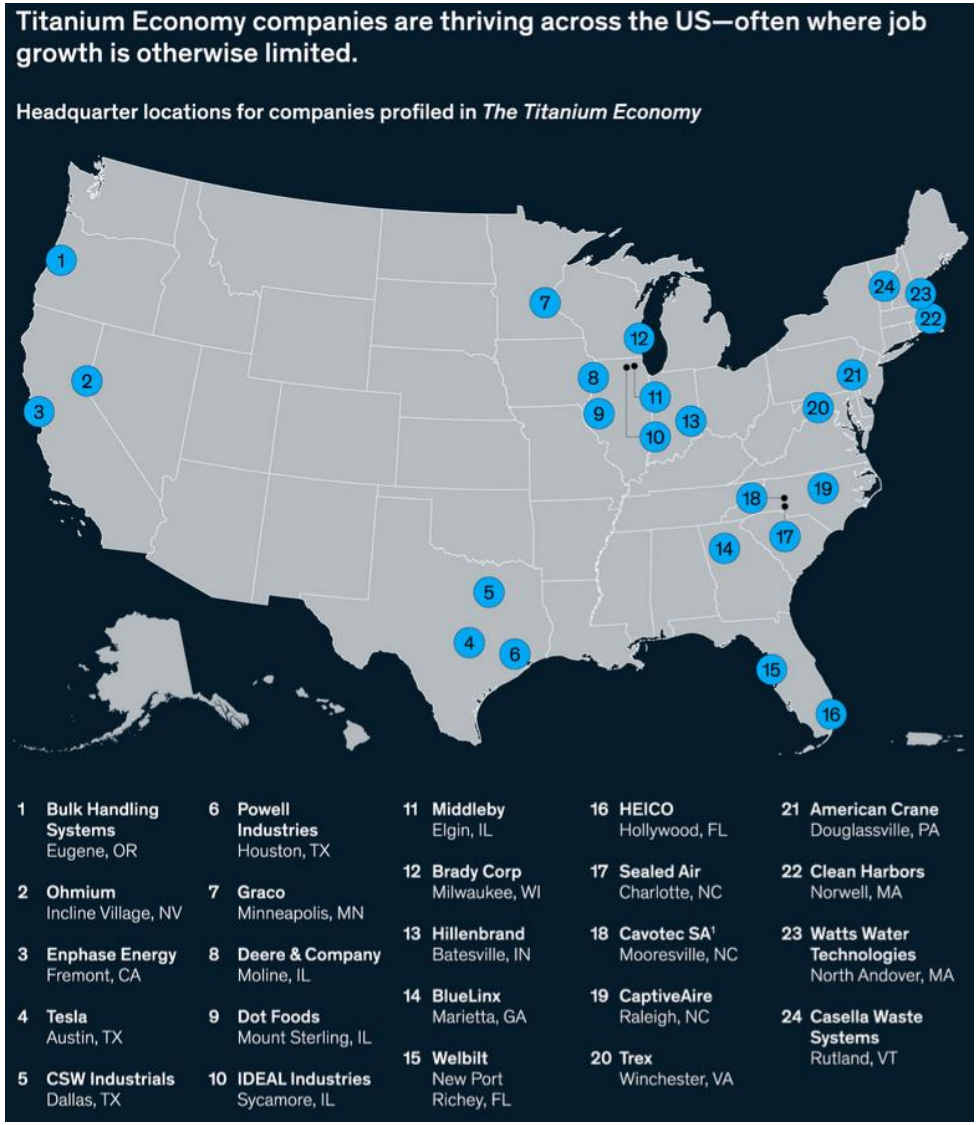
| | Non-Strategic Sectors | Strategic Sectors |
|---|---|---|
| **Industry examples** | Banks, retail, utilities, agriculture | Aerospace, semiconductors, biopharmaceuticals, quantum computing |
| **Overarching policy approach** | Free-market economics | Industry and Innovation Policy |
| **Types of policies** | Supporting effective business climate and generic factor inputs (e.g., science, education, etc.) | Sector-specific and targeted policies, including tax incentives, direct industry funding, trade provisions, regulatory provisions (including antitrust) and others |
| **Guiding profession** | Economists | Technology policy analysts, business scholars, industry analysts |
| **Lead agencies** | Treasury, the Fed, and CEA | Commerce and NSC |
| **Lead committees** | Ways & Means, Finance and Commerce | New Joint Strategic Industry Committee |

https://itif.org/publications/2022/01/03/computer-chips-vs-potato-chips-case-us-strategic-industry-policy/

# The winner is...

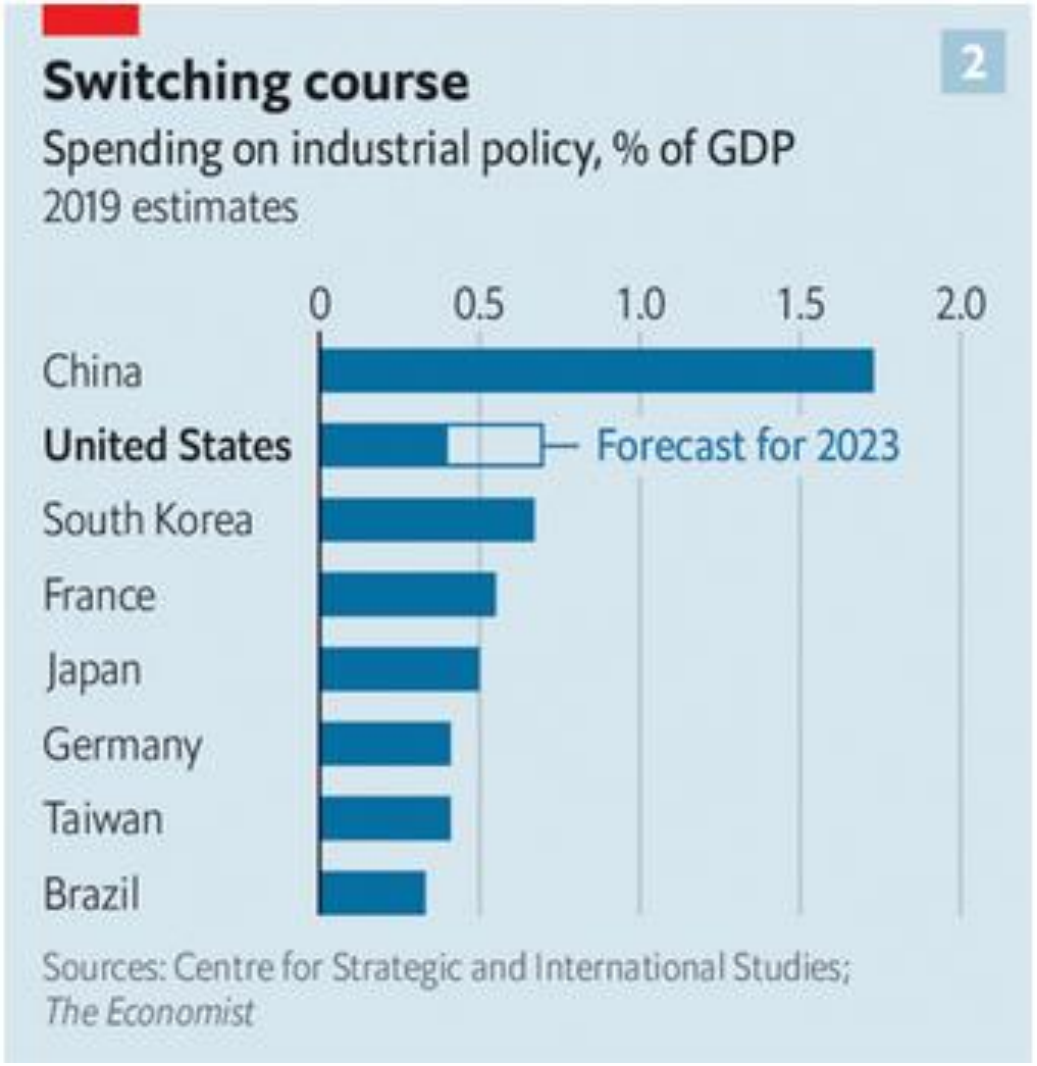

# 2022 The Titanium Economy

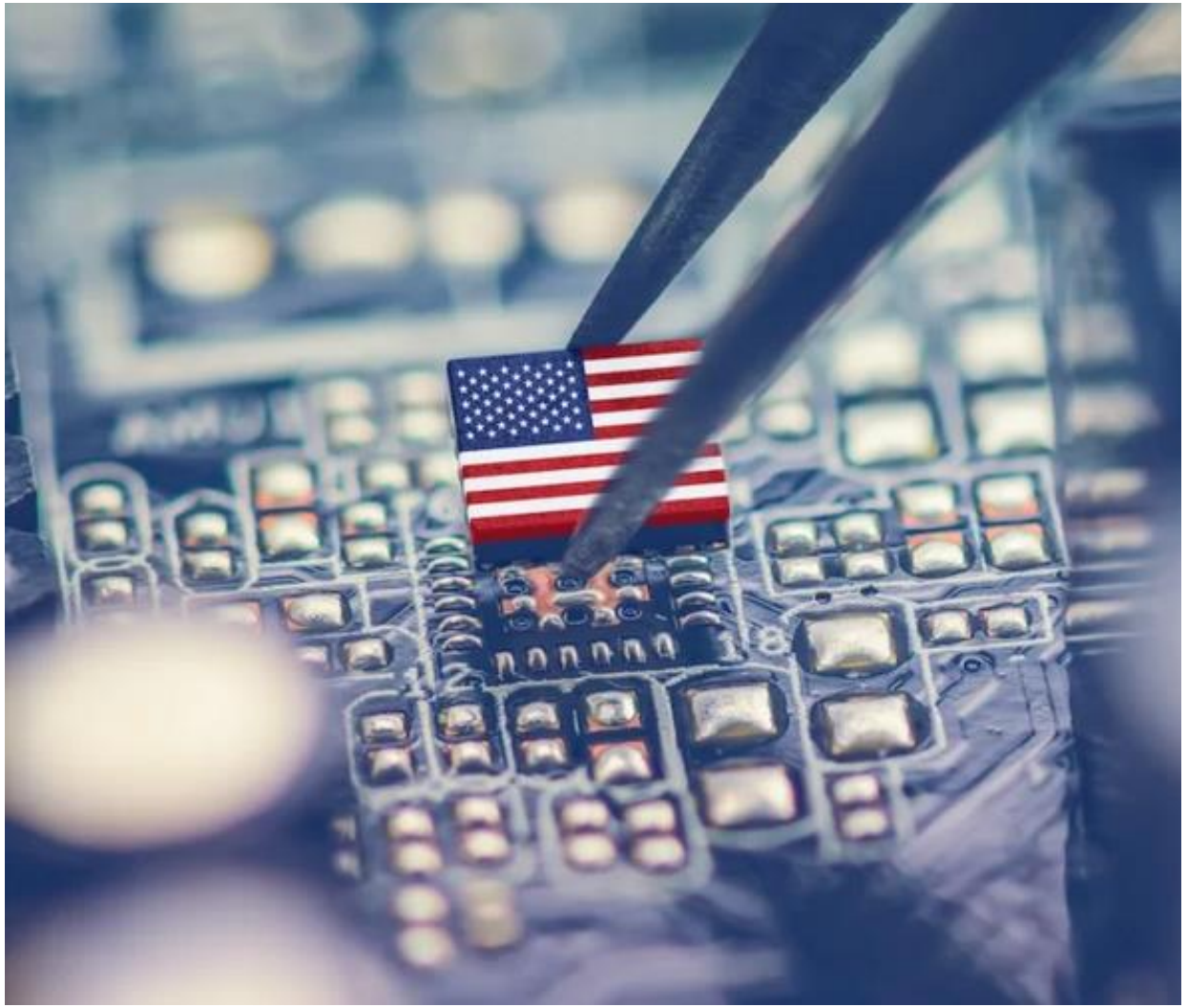



https://www.mckinsey.com/featured-insights/mckinsey-on-books/the-titanium-

# The race for strategic industries



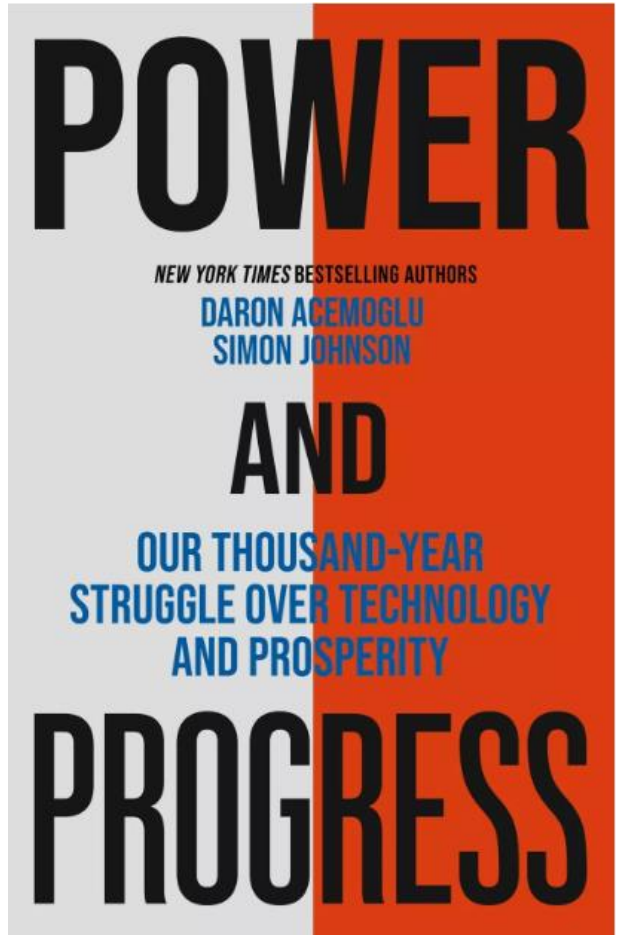



# October 2024

- IA race
- Nvidia most valuable company
- The climate Backslash
- German Industry struggling
- The Draghi Report
- The world in war
  - Middle East
  - Ukraine
  - Taiwan tensions

## MIT economists Daron Acemoglu and Simon Johnson share Nobel Prize

Along with James Robinson, the professors are honored for work on the relationship between economic growth and political institutions.



# The Draghi Report

- **The Innovation Gap.**

There are many challenges for innovators looking to move from R&D to commercialization. New ventures also struggle to scale across a fragmented single market with cumbersome regulation and inadequate funding. According to the report, **no EU company with a market capitalization of €100+ billion has been set up from scratch in the last 50 years.** In comparison, all six companies with a valuation of about one trillion euros in the US have been created during this period.


- **The Tradeoff Between Competitiveness and Decarbonization.**

The report details how the decarbonization agenda **needs to be further balanced with the competitiveness** of the European industrial backbone, supporting green growth at scale and decarbonizing energy-intensive and hard-to-abate industries, but in a way that allows them to remain competitive on the international stage.

- **The Financial Gap.**

The report calls for investments of $750-800 billion a year, equivalent to about 4.5% of EU GDP, a higher proportion than the Marshall Plan in the aftermath of World War II. There is already active debate within and between member states about whether raising this amount is feasible, or even desirable. With pressure on the public purse, the balancing act between ambition and feasibility will be crucial to the success of the report's recommendations.

- **The Need for Less Regulatory Complexity.**

The report puts policy coordination and simplification at the center of regulatory priorities, highlighting lack of coordination between member states, financing instruments, and policies. It proposes building a consolidated industrial strategy to balance coordination with competition priorities through a new EU-wide framework.

# What's Next?

- With this acceleration already happening, **what is next?**

- What are the new promises and forecasts that the Enlighted Prophets and Guru's will tell us with their sophisticated marketing?

**-No one knows**. But don't worry we, with our skills, flexibility, curiosity, adaptability, dynamism. Will catch them hopefully faster than competitors.

So, **stay foolish, stay hungry, still works.**

# Soft Skills


- **Soft skills**

  Gurus, call soft skills what we just call skills and culture and claim that now they are necessary but in competitive companies we always looked for them, encourage the team to have them for career development and to hire, promote and develop a team with:

  -**Passion for Innovation**
  -Infinite **Curiosity**
  -**Motivation for learning** and solving complex problems.
  -**Teamwork**
  -**Generosity to teach** others
  -**Multicultural** approach.
  -**Flexible**
  -**Transparent and accountable**
  -**Customer centric**

https://www.mckinsey.com/featured-insights/future-of-work/five-fifty-soft-skills-for-a-hard-world#

# Lessons Learnt

## The winning trends to stay

- Local presence of local teams
- Hybrid work
- Digital Marketing
- Growth Hacking
- Webinars and Digital Trainings
- Analytics
- Teamwork
- Digital trainings
- Improved communications and transparency
- Social Networks
- **Robotics, ML, AI, GenAI and automation**
- Better Telecom Networks and secure VPNs
- Shorter and more frequent digital meetings
- Closer multidisciplinary teamwork with customers.
- Local sourcing
- Local Partnerships
- CRM
- SRM
- Shorter supply chains
- Culture, values and Soft skills developments.
- Flexibility
- Triple Bottom Line: Profit, People, Planet

## The losing trends to drop

- Travelling so much
- Long haul unnecessary travelling
- China Sourcing monopoly
- Single or unique suppliers
- Short term focus

# Our challenges and goals

Only 2 very challenging and ambitious:

1.-Grow output 2 fold with same staff in 3 years.

2.- 0 emissions by 2030

# For the people and the planet


We are committed to preserving and enhancing the environment, safety and health of employees, customers, and neighbours

# Author Bio

Ezequiel is the President of the Ricardo Valle Innovation Institute .
His executive career, which extended until June 2024, was developed at Premo, where he joined as a Research Fellow in the Electrical Engineering Department of the University of Málaga in 1995. Over the years, he has held various leadership roles in R&D, Engineering, Export, Marketing, Sales, General Management, and since 2006, he has served as CEO. During his tenure, he led the shareholder transition and spearheaded the company's international expansion beyond China and Morocco, extending into France, Japan, India, South Korea, Vietnam, California, and more recently, Germany.
A highly active member of business organizations such as Ametic, Pimec, and CIAC, and initiatives like Fundación Cre100do and Fundación Ciedes, where he serves as a trustee, Ezequiel is also an active participant in the venture capital community through his involvement in various venture capital funds and initiatives.

At the age of 50, Ezequiel is the author of over two dozen patents and is a trained engineer, having studied at the Polytechnic School of Málaga, the UNED, and the Polytechnic University of Madrid. He has completed postgraduate studies in Marketing, Foreign Trade, Environmental Auditing, Innovation, Financial Management, an MBA, General Management, and Corporate Finance at several business schools, including EADA and IESE.
He has delivered lectures and presentations at various universities and business schools in Málaga, Madrid, Maastricht, Singapore, Barcelona, UIMP, and Da Nang, including the Barcelona School of Management, ESCI, EADA, and UPF. Until 2018, he represented business leaders on the Social Council of Pompeu Fabra University in Barcelona and is currently a member of the Social Council of the University of Málaga.
Awarded by the Automotive Industry Cluster for his exceptional innovation strategy, having been granted over 50 patents. Highly engaged in innovation strategies with clients such as Tesla, Amazon,  BYD, Hyundai, and others, focusing on growth strategies that leverage digital tools, innovation, and ecosystems.
He is the founder of MálagaTechPak Execs, an association that brings together the 50 largest companies in the Andalusian Technology Park. He also chairs the Ricardo Valle Innovation Institute Foundation (Innova IRV), which is supported by the regional government, the Málaga City Council, the University of Málaga, the Andalusian Technology Park, and private companies like Sando, Myramar, and Mayoral, as well as more than 20 tech companies, including Simón, Dekra, Aertec, Trops, Ericson, and Google.

Since September, Ezequiel has been advising the City of Málaga on advancing Industry 4.0.
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