



# THE HISTORY OF TECHNOLOGY

IS ONE OF REINDUSTRIALIZATION.

23-25 Oct  
2024  
MADRID





# Gordon Moore

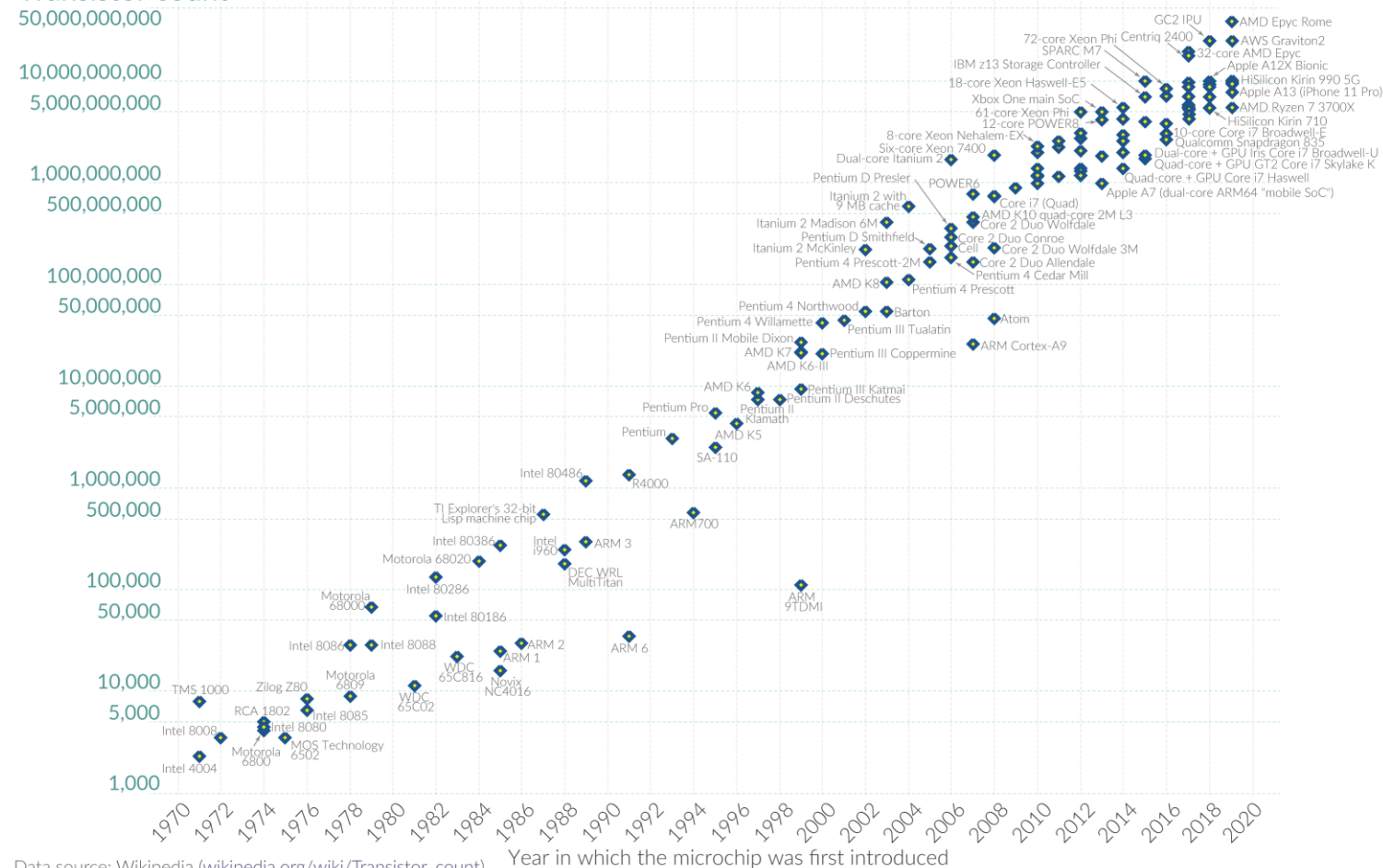
1929-2023

## Moore's Law: The number of transistors on microchips doubles every two years

Moore's law describes the empirical regularity that the number of transistors on integrated circuits doubles approximately every two years. This advancement is important for other aspects of technological progress in computing – such as processing speed or the price of computers.

Our World  
in Data

### Transistor count

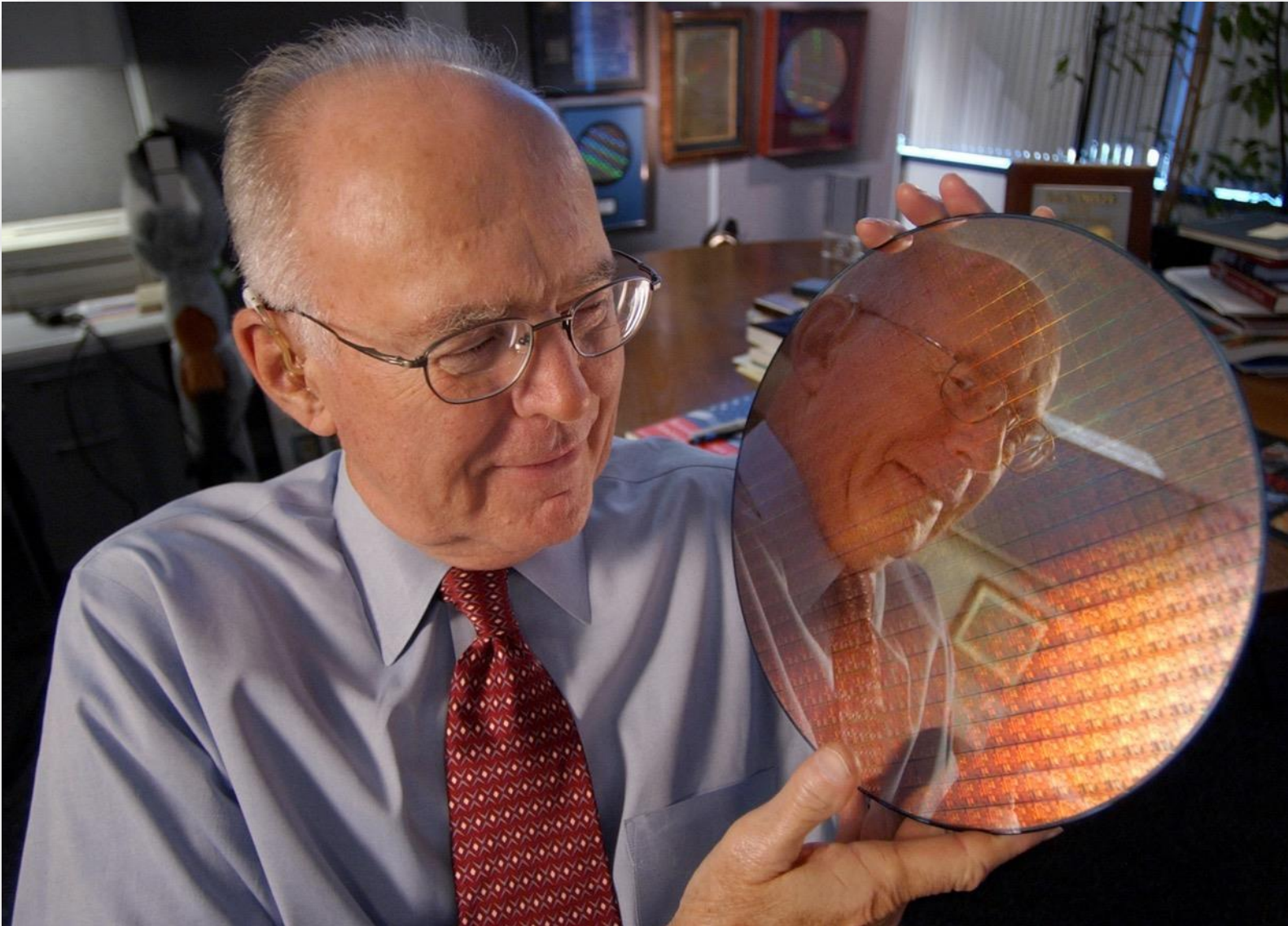


Data source: Wikipedia ([wikipedia.org/wiki/Transistor\\_count](https://wikipedia.org/wiki/Transistor_count))

OurWorldinData.org – Research and data to make progress against the world's largest problems.

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# MOORE's ~~LAW~~

It wasn't a law,  
but a vision

It was not fulfilled, it was  
applied through innovation.

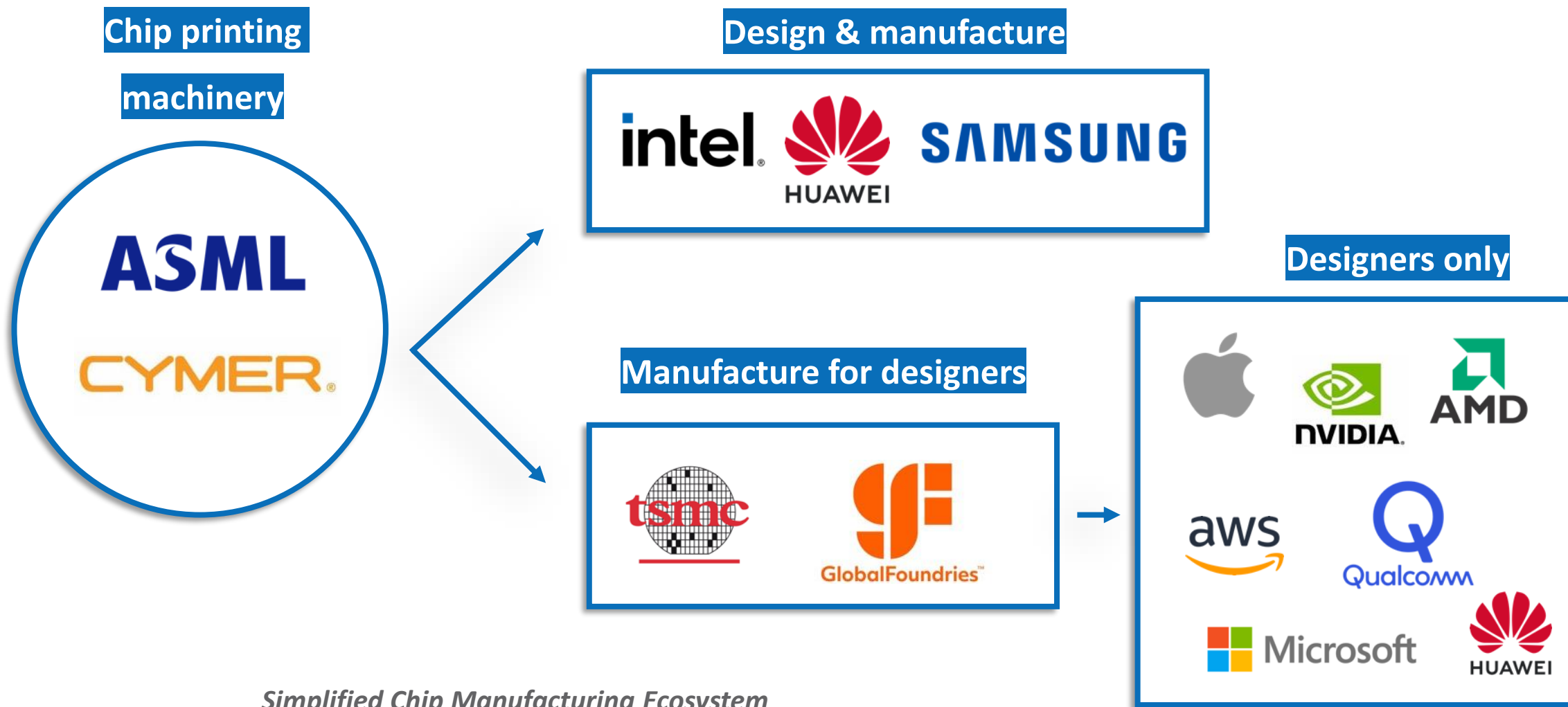
# MOORE's ~~LAW~~ STRATEGY



Andrew Grove; Robert Noyce; Gordon Moore

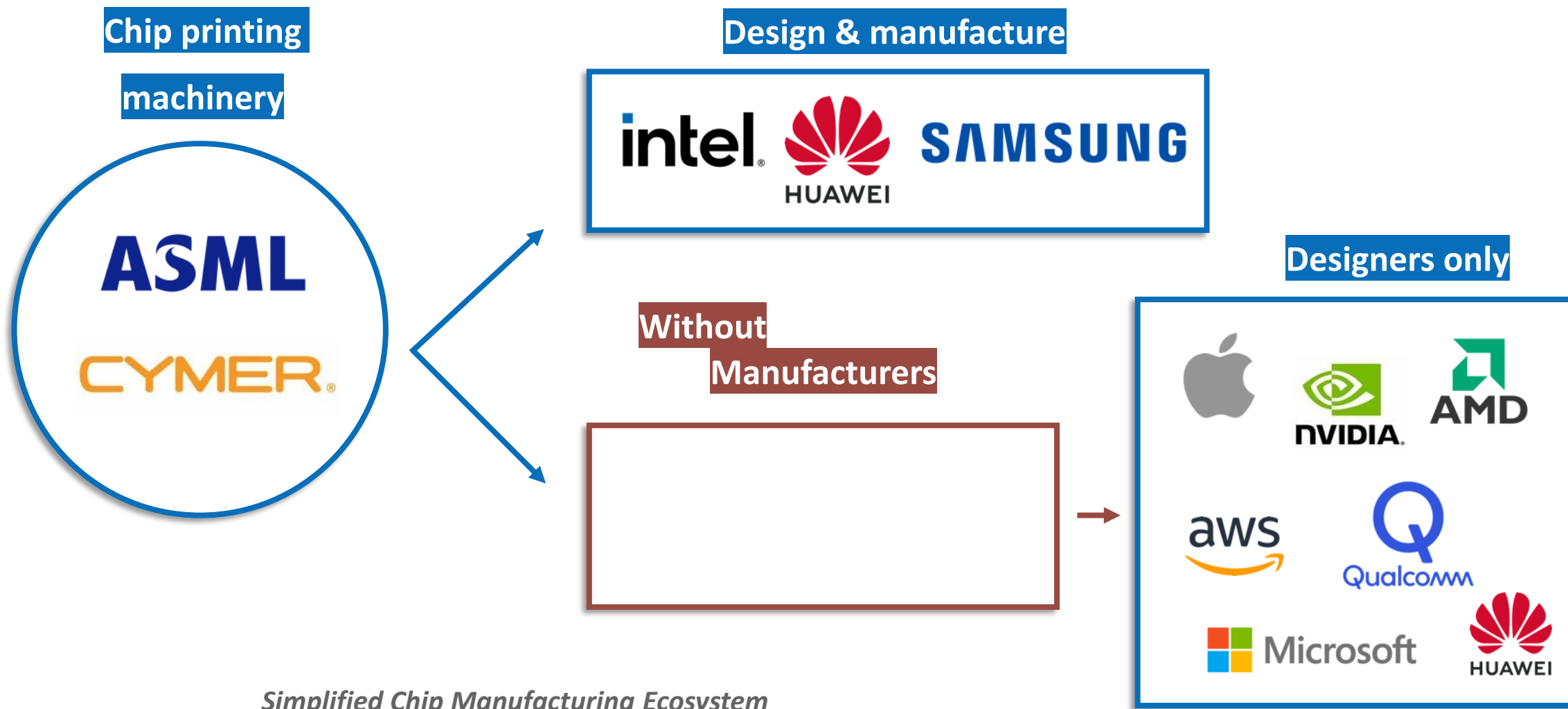


## MOORE's ECOSYSTEM



*Simplified Chip Manufacturing Ecosystem*

## MOORE's ECOSYSTEM



# MOORE's ECOSYSTEM

Without Chip printing machinery

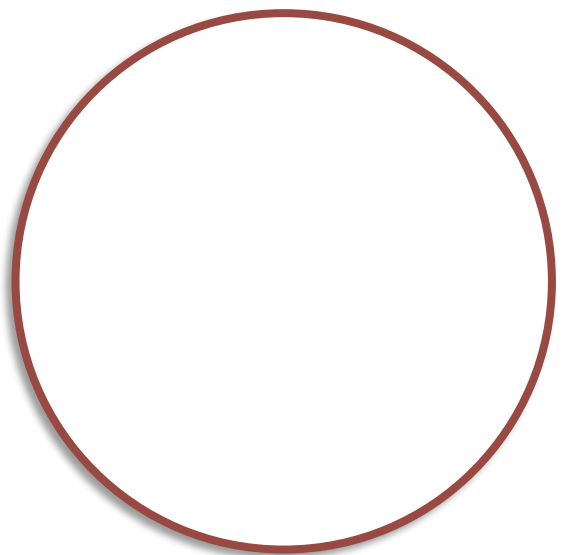
Design & manufacture



Designers only



Without Manufacturers



*Simplified Chip Manufacturing Ecosystem*



## MOORE's ECOSYSTEM

Without Chip printing  
machinery



Can't manufacture



Without  
Manufacturers

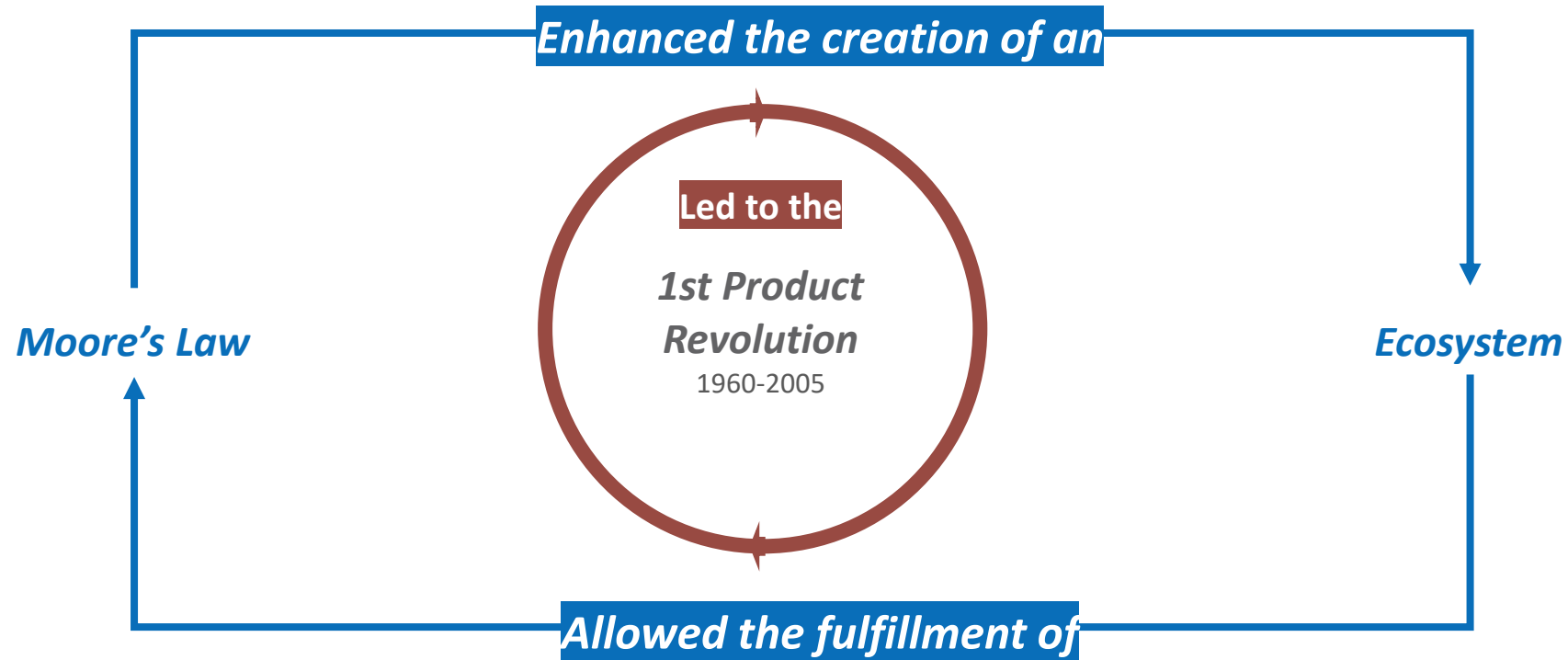


Can't  
Design



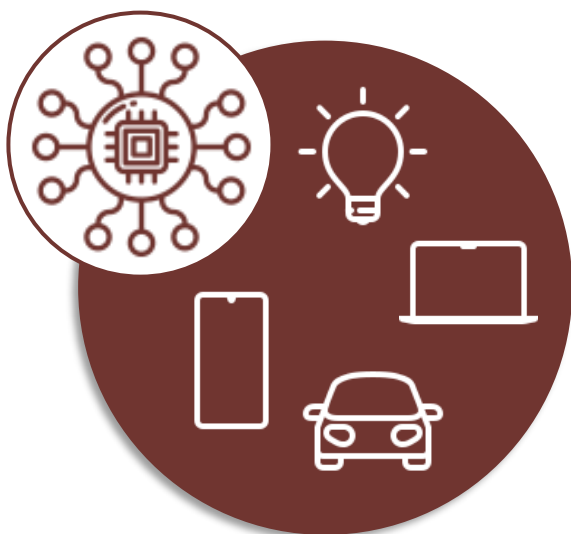
*Simplified Chip Manufacturing Ecosystem*

*Moore's Law led to the creation of an ecosystem, and the ecosystem allowed the law to be fulfilled.*



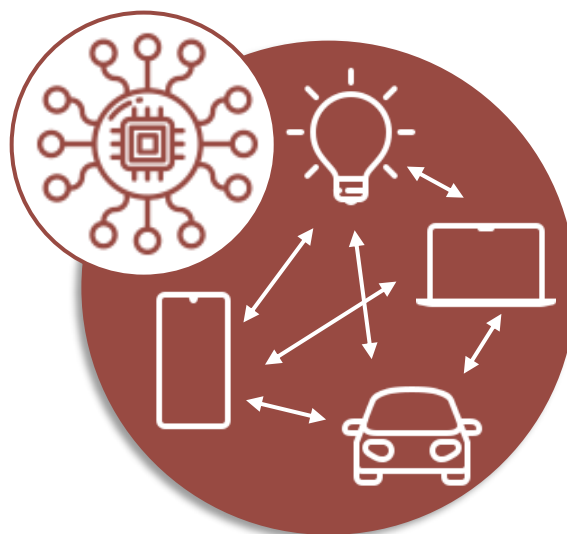
## Product's digital revolutions

*All 'things' will talk to each other (IoT)*

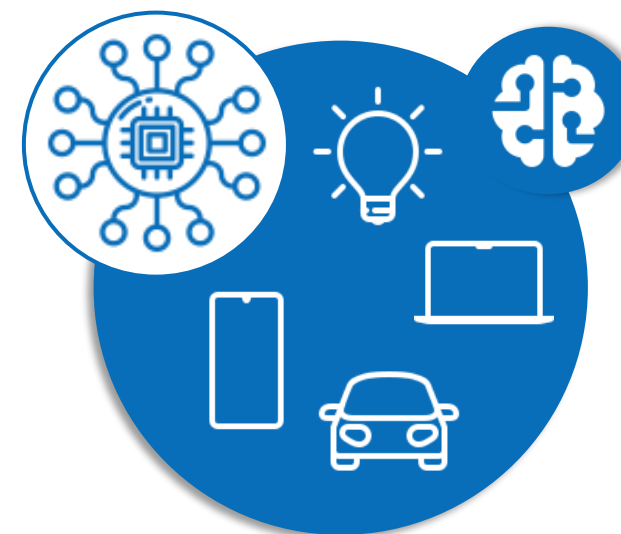


1st revolution 1960  
- 2005

*All 'things' will have electronics*



2nd revolution  
2010 - 2020



3rd revolution  
2020 - ...

*All 'things' will have AI, autonomy, and self-  
diagnosis*

## A-Innovation Law

**Our industry must develop products that leverage twice as much AI each year at half the cost, to remain competitive and drive the reindustrialization in Europe.**



# A-Innovation Law

Each year, the capabilities of artificial intelligence will multiply—expanding the number and variety of tasks it can perform—while the costs to train and operate it decrease.

In the future, any machine (or electromechanical system) will incorporate an AI **that will make its use more efficient.**



**Because it will be automatically operated**



**Because it will auto-diagnose in real time**



**Crane #ZX900**

Chat

Archivos



4/3 7:45

Hi, a yellow warning light just came on next to the hydraulic pressure gauge on the crane. What does it mean?

Crane #ZX900 4/3 7:46



Hi, the light indicates low hydraulic pressure. Check the fluid level and refill if needed. Also, inspect the hydraulic filter for any blockages. If the issue persists, contact maintenance.

**Because it will simplify the use for those who operate them**





**Crane #ZX900**

Chat

Archivos



4/3 9:35

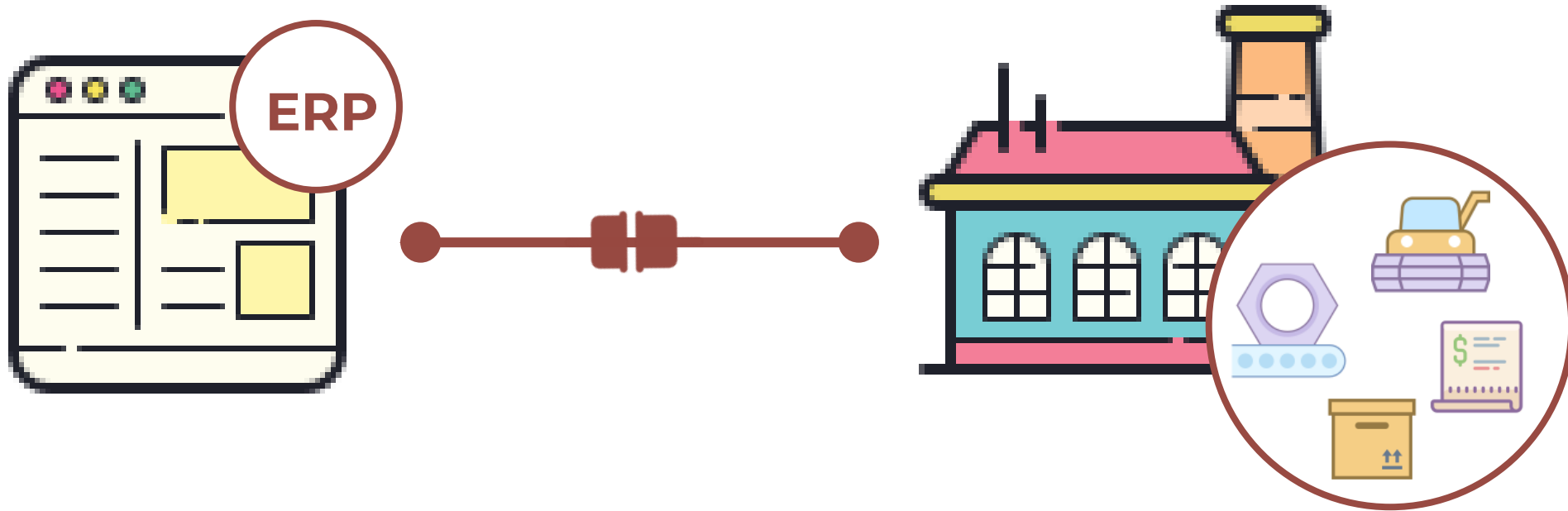
Cranes, I need to lift this 5-ton concrete block and move it about 30 meters away. What settings should I adjust to do this safely?

Crane #ZX900 4/3 9:36

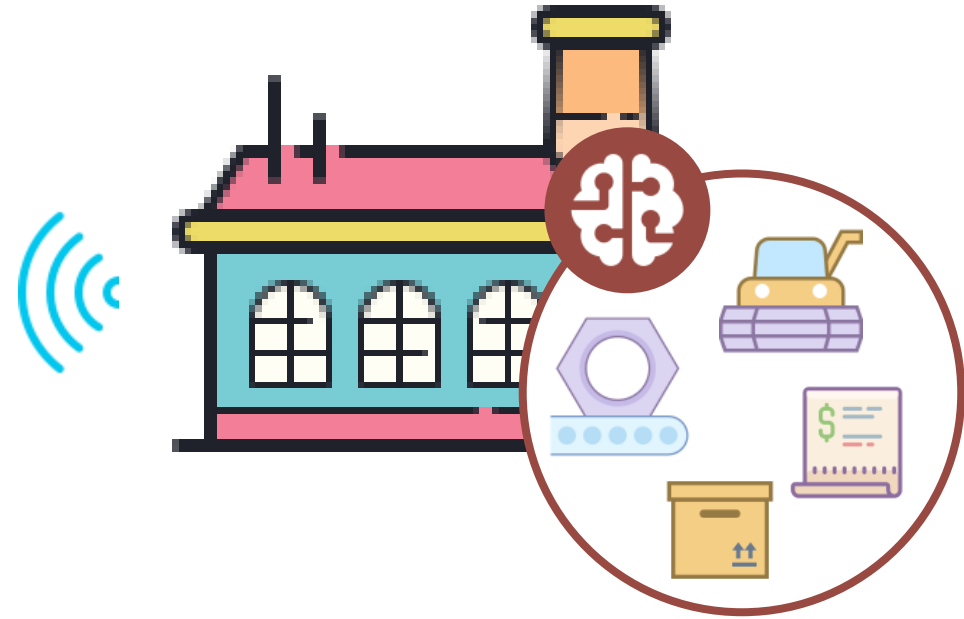


To lift 5 tons at a distance of 30 meters, set my boom to a 45-degree angle to maintain stability. Ensure that my counterweights are in the maximum position. Also, check that the load cable is properly tensioned and free of wear before proceeding. Once everything is ready, use the slow speed to lift the load and move it in a controlled manner. If you feel any abnormal vibrations, stop the operation and check the attachment points.

**Because it will simplify the use for those who operate them**



**Because it will allow interoperability with any other system that has an AI.**



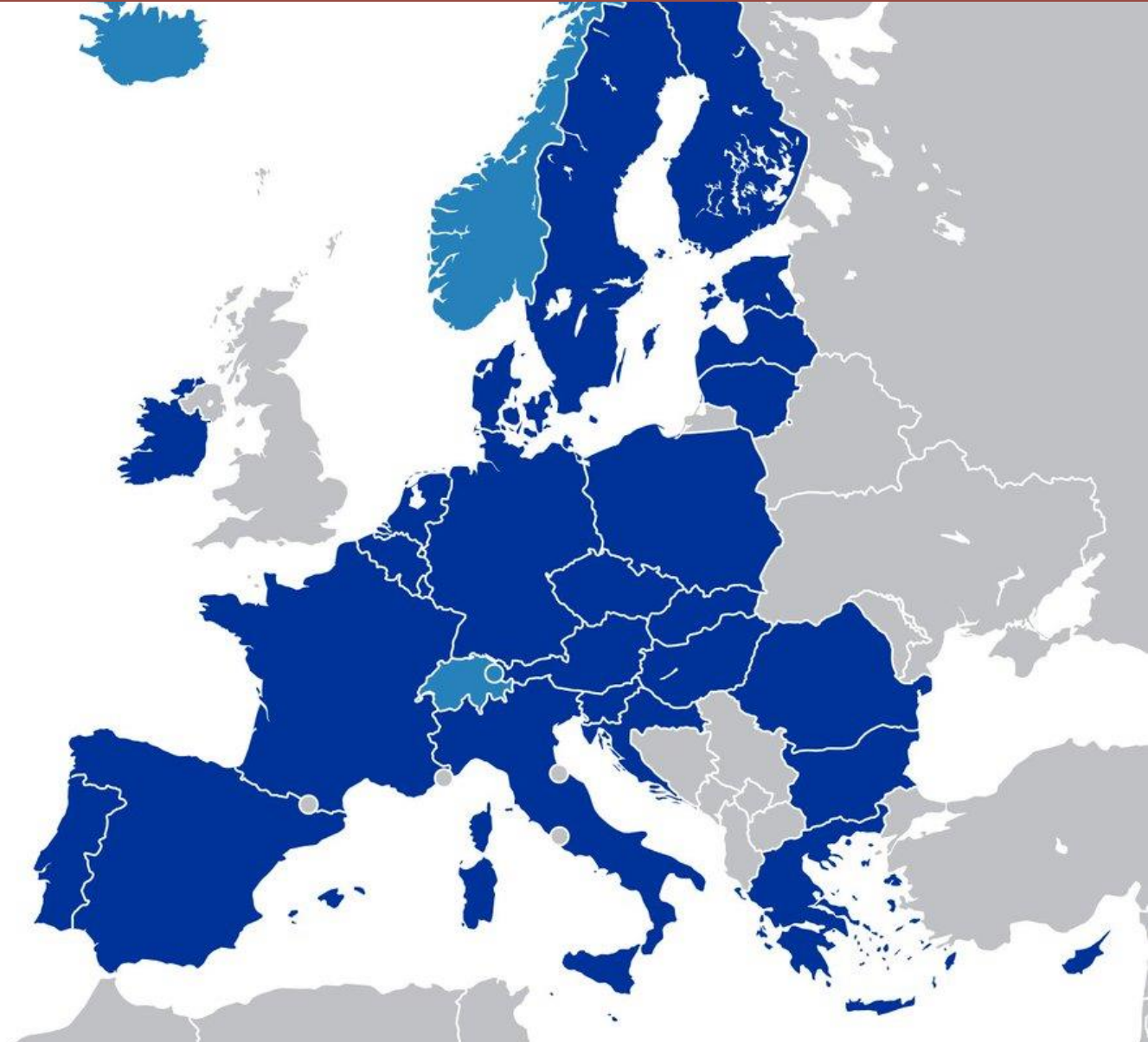
**Because it will allow interoperability with any other system that has an AI.**

## FINAL THOUGHTS

### European ecosystem

In Europe we have 27 markets, 27 cultures, 27 administrations and 24 official languages.

To reindustrialize, we need to **innovate**.





## FINAL THOUGHTS

### The future of European competitiveness

*Draghi's report*

“

70% of the new value created in the world economy in the next ten years will be **digitally enabled**.

Advanced technologies needed to autonomously develop and scale up digital services.

”

# The future of European competitiveness

Part B | In-depth analysis and recommendations

We're not aiming to create the next Apple or Google, but we can create a powerful ecosystem through collaboration.

Let's boost our ecosystem.





Thank you very much

