

### WHY STRATEGIC SECTORS?

 Targeted sectoral policy has become ubiquitous worldwide, with the recent surge in industrial policy activity primarily driven by advanced economies (Juhász et al. 2022; Evenett et al. 2024)

- Industrial policy matters in today's geo-tech world (King 2009)
- Analysing and comparing the strategic sectors can foster mutual understanding and collaboration

## OUR APPROACH

# Identifying strategic sectors in China and the EU

- Data
  - Economic blueprints and flagship initiatives active as of 2024
  - Introduced by the Chinese central government and the European Commission
- Methods
  - Categories outlined in the original policy documents
  - Over-time and cross-economy comparisons

## DATA-POLICY DOCUMENTS

#### China

Made in China 2025 (2015)

Internet Plus Program (2015)

Innovation-driven Development Strategy (2016)

11 supplementary documents (2016-2017)

The 14th Five-Year Plan (2020)

Strategic Emerging Industry program (2023)

The New Quality Productive Forces (2023)

Implementation Opinions of Seven Departments including the Ministry of Industry and Information Technology on Promoting Future Industrial Innovation and Development (2024)

#### EU

New Industrial Strategy for Europe (2020)

Updating the 2020 New Industrial Strategy (2021) + 3 staff working documents

A CHIP Act for Europe (2022)

Net-Zero Industrial Act (2023)

Critical Raw Materials Act (2024)

Advanced Materials for Industrial Leadership (2024)

Draghi's report on the future of European competitiveness (2024)

#### US

National Strategy for Advanced Manufacturing (2022)

Bipartisan Infrastructure Law (2022)

Inflation Reduction Act (2022)

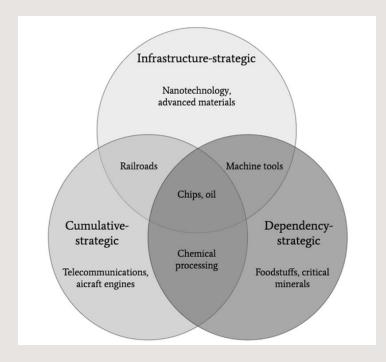
CHIPS and Science Act (2022)

NSF's guidelines for accelerating advances in emerging industries for FY 2024 – Advance Emerging Industries for National and Economic Security

## OVERTIME TREND: CHINA

1. What makes an industry strategic has evolved for the Chinese government.

#### In theory...



Source: Ding and Dafoe (2021)

China...

#### Made in China 2025 (2015)

Key sectors (重点领域)

- Sectors that China has established an advantage
- Emerging sectors

#### 14th Five-Year Plan (2020)

Core areas of competitiveness (核心竞争力领域)

Strategic emerging sectors (战略性前沿领域)

### New Quality Productive Forces (2024)

- Future-oriented sectors (未来产业)
- Innovative Iconic Products (创新标志性产品)

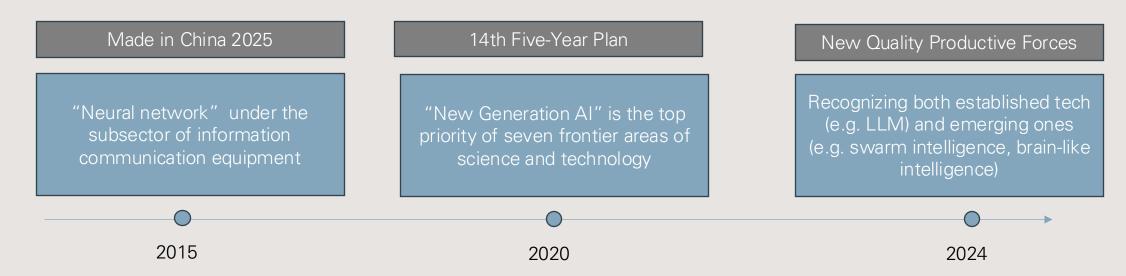




### OVERTIME TREND: CHINA

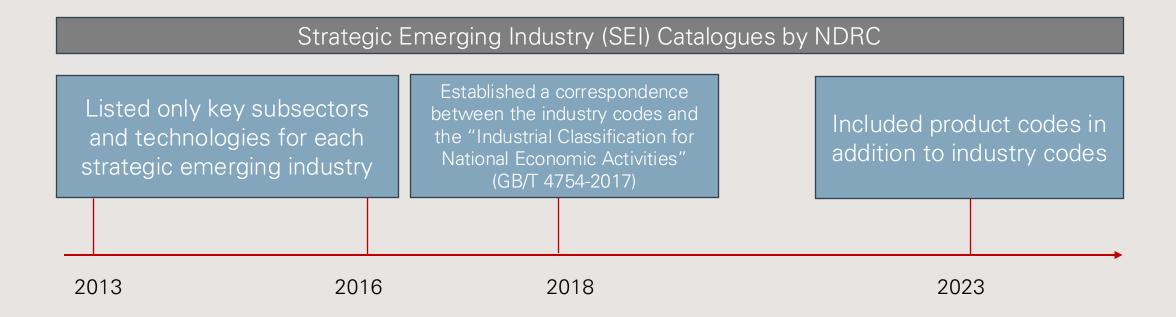
2. China's policymakers have monitored the development of cutting-edge technologies more closely.

Using the AI sector as an example.



## OVERTIME TREND: CHINA

3. Strategic sectors have become increasingly targeted.



## OVERTIME TREND: EUROPE

What is considered as strategic has been more clearly defined and measured in Europe since the wake of the COVID-19 pandemic.

Council of the European Union

#### **European Commission**

European Commission
Staff Working Document

### **Objective**

"Achieving strategic autonomy while preserving an open economy" (2019)



#### <u>Implementation</u>

"identify strategic dependencies"

Updating the 2020 New Industrial Strategy (2021):

"Strategic dependencies refer to the dependencies that are considered of critical importance to the EU and its Member States' *strategic interests*:

- 1) Security and safety
- 2) Health
- 3) Green and digital transformation

#### Measurement

- By trade dependency
The EU has strategic dependency in raw
and processed materials and chemicals,
active pharmaceutical ingredients, other
medicines and COVID-19 related goods,
and products related to renewable energy
production.



- By competitiveness
The EU maintains sound technological leadership in advanced manufacturing, IoT, mobility, while encountering challenges in big data, micro- and nanoelectronics (esp. semi-conductors), AI, and robotics.

### OVERTIME TREND: EUROPE

- The EU prioritizes the concept of "strategic dependence" over "strategic sectors."
- The rise of targeted sectoral policy is the outcome of a historic shift of industrial policy from market creation to market direction in Europe (McNamara 2024).
- This "geo-dirigiste" turn is driven by Europe's renewed fears of falling behind due to changes in technological and geopolitical global context (Seidl and Schmitz 2024).

## CROSS-ECONOMY COMPARISON

	Digitalization and advanced technologies	Advanced wireless
Next generation IT*		Artificial intelligence
		Microelectronics and
		semiconductors
		Quantum information science
Biotech, pharma, and high- performance medical devices*	harma	Biotechnology
Energy equipment*	nergy	Energy infrastructure
	lean technologies	Clean energy
Energy saving and new energy vehicles	utomotive	Clean vehicles
Advanced rail transportation equipment	Transport	Transportation
Aviation equipment*		
High-tech ships		
High-end CNC machines and robots*	obots (in automotive industry)	Advanced manufacturing (including robotics and automation)
Aerospace equipment* Sp	pace	Space
New materials*	dvanced materials	Innovative materials and processing technologies
Agricultural machinery and equipment		
Off shore engineering equipment*		
Cr	ritical raw materials	Critical minerals
Er	nergy-intensive industries (steel)	
De	efence	

- Different words but common priorities
  - Digital
  - Green
  - Other sectors crucial to national & economic security

#### Digital

- Rationale: vital for economic future and national security
- Competition is particularly intense in semiconductors, AI, high-speed/capacity broadband networks (5G/6G)

#### Green

- Rationale: economic growth vs economic stability
- Both China and the EU have strong interests in renewable energy sources such as bioenergy, low-carbon hydrogen, energy storage, and grid infrastructure, with a shared focus on electric vehicles

Note: In the China column, the sectors with asterisk are the strategic emerging sectors according to the industrial policy associated with the latest idea of the New Quality Productive Forces.

## IMPLICATIONS

## for selective engagement...

- At the firm level, it is critical for companies in both China and the EU to understand how to align their business interests with the strategic priorities of their home and target markets.
- At the policy level, the collaboration is most likely to occur when China and the EU,
  - Focus on emerging sectors
  - Work with locals
  - Leverage complementary strengths
- Case studies (ongoing projects)
  - Flying car (eVTOL)
  - Green hydrogen

