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CHARGING AHEAD – CONTRADICTIONS IN THE EUROPEAN UNION'S STRATEGY TO PROMOTE THE EV BATTERY INDUSTRY

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Hungary’s EV battery superpower ambitions

“If we are fast enough, we can always win on technological changes. Take, for example, electric cars. We are making huge battery investments in Hungary, and ***we will soon become the world's third-largest battery manufacturer, not in percentage, but in absolute terms****.”*

(Orbán, Jul 23, 2022)

Hungary is currently nr. 4 globally;
supporting ¼ of EU production

- Samsung SDI, Göd (40 GWh)
- SK Innovations, Komárom & Iváncsa (48 GWh)

- CATL, Debrecen (100 GWh), announced in August 2022

… reception of the superpower plans

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INLAND INTERVIEW BATTERY FACTORY DORA GYŐRFFY

"Why does an energy-poor country want to become an energy-consuming battery superpower while using Hungarian taxpayers' money to create jobs for Asian guest workers?"

15.52 +0.26% • EUR/HUF 385.8 +0.58% • USD/HUF 356.13 +1% • GBP/HUF 451.26

AUTOWALLIS 125 -0.8% • WABERERS 3,720 -1.34% • BUX 63,727.77 -1.52% •

VILÁGGAZDASÁG

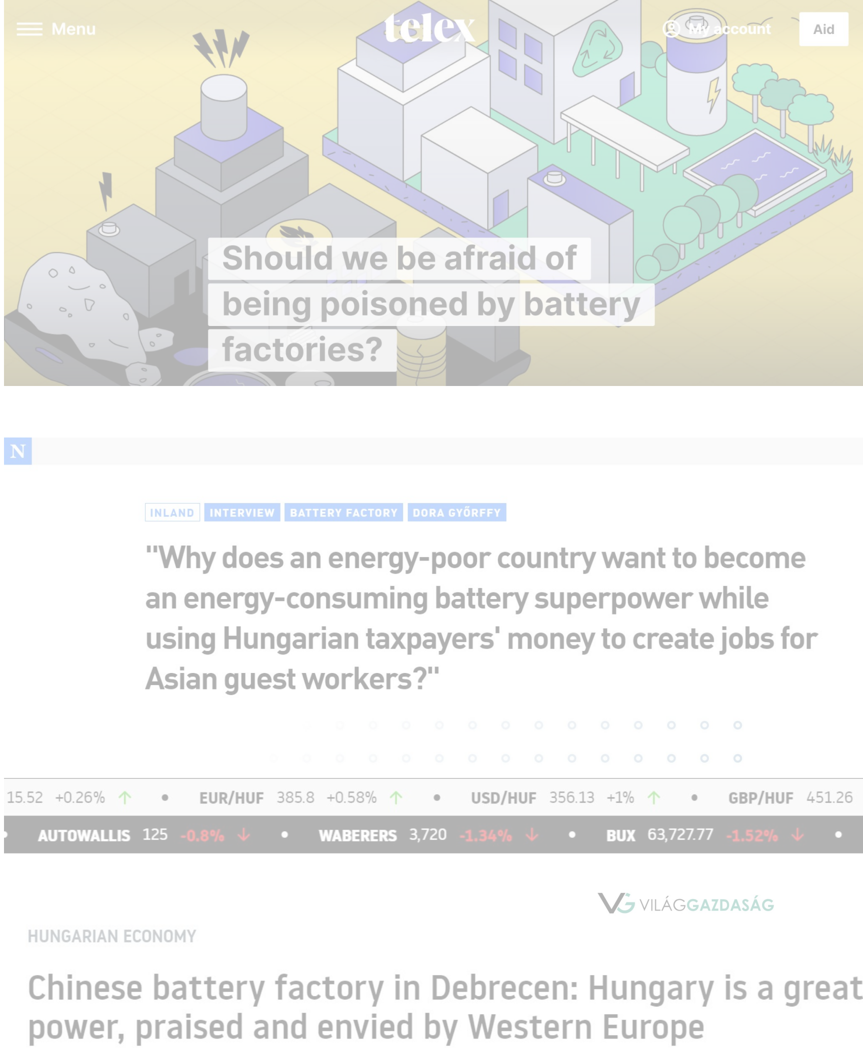
HUNGARIAN ECONOMY

Chinese battery factory in Debrecen: Hungary is a great power, praised and envied by Western Europe

… reception of the superpower plans

The economic logic baffles experts–

- Dóra Győrffy: "*Orbán wants to make the country a battery manufacturing superpower, yet there's a lack of raw materials, energy, water, and even labor force.*"
- Evokes memories of Soviet-era ambitions as "*the land of iron and steel*"

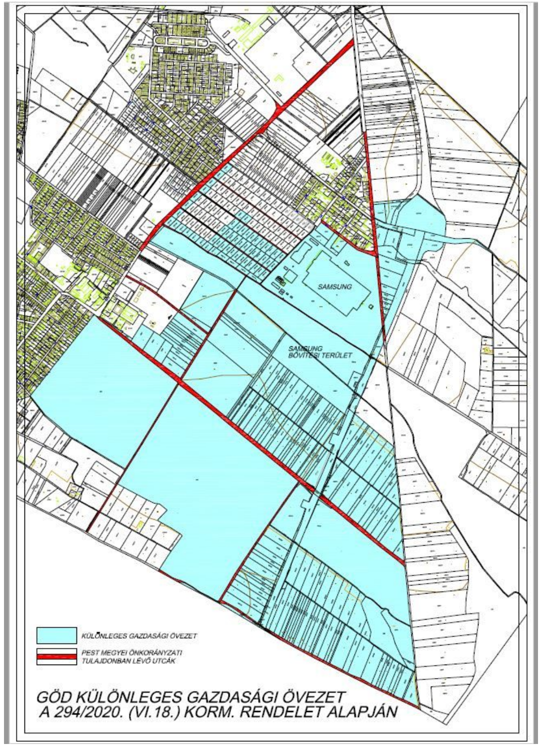


Regulatory forbearance as industrial policy (Dewey & Di Carlo 2022)

A systematic strategy of attracting investments by relaxing environmental and labor regulations

- Special Economic Zones →
  and company-specific exemptions: to circumvent mandatory environmental standards and undermine local governments (Éltető, 2023)

Regular news reports about toxic chemical spills, water shortages, deadly workplace accidents



Pushback against future investment sites

A public hearing on Chinese CATL's gigafactory project in Debrecen descends into chaos and fistfights (Jan 2023)

- Public hearings scrapped by decree
- Harassment and intimidation of protesters, activists
- Referenda initiatives blocked

Exemptions and regulatory forbearance erode public trust

Support from an unlikely source: Brussels

Europe's "geopolitical" industrial policy turn (McNamara 2023, Bauerle Danzman & Meunier 2024)

EU Court of Auditors: "*The EU must not end up in the same dependent position with batteries as it did with natural gas; its economic sovereignty is at stake*"

Commission VP Šefčovič called Hungary is a battery 'pioneer' & 'champion,' helping the EU "*achieving strategic autonomy in this critical sector*" which is "*all the more important after Russia's unjustified invasion of Ukraine.*"

Contradictions between the EU's stated objectives

What are the EU's main aims for onshoring the battery industry?

1) Climate neutrality
2) Strategic autonomy
3) Promoting industry & jobs

Questions–

Under what conditions (if at all) does the EU-based battery industry serve these stated aims?

What happens if the objectives clash? Which one gets prioritized?

Evidence from the nascent industry – comparative case studies of Hungary and Germany (vs SE)

Contributions to the literature–

- **“Decarbonizable sectors”** as frontrunners towards net-zero (Nahm 2022, Nahm & Kupzok 2024) – a case showing the trade-offs involved in industry-driven decarbonization

- **Europe's geoeconomic turn** (McNamara 2023, Seidl & Schmitz 2023, Bauerle Danzman & Meunier 2024) – when it comes to batteries, is strategic autonomy just discursive “fluff”?

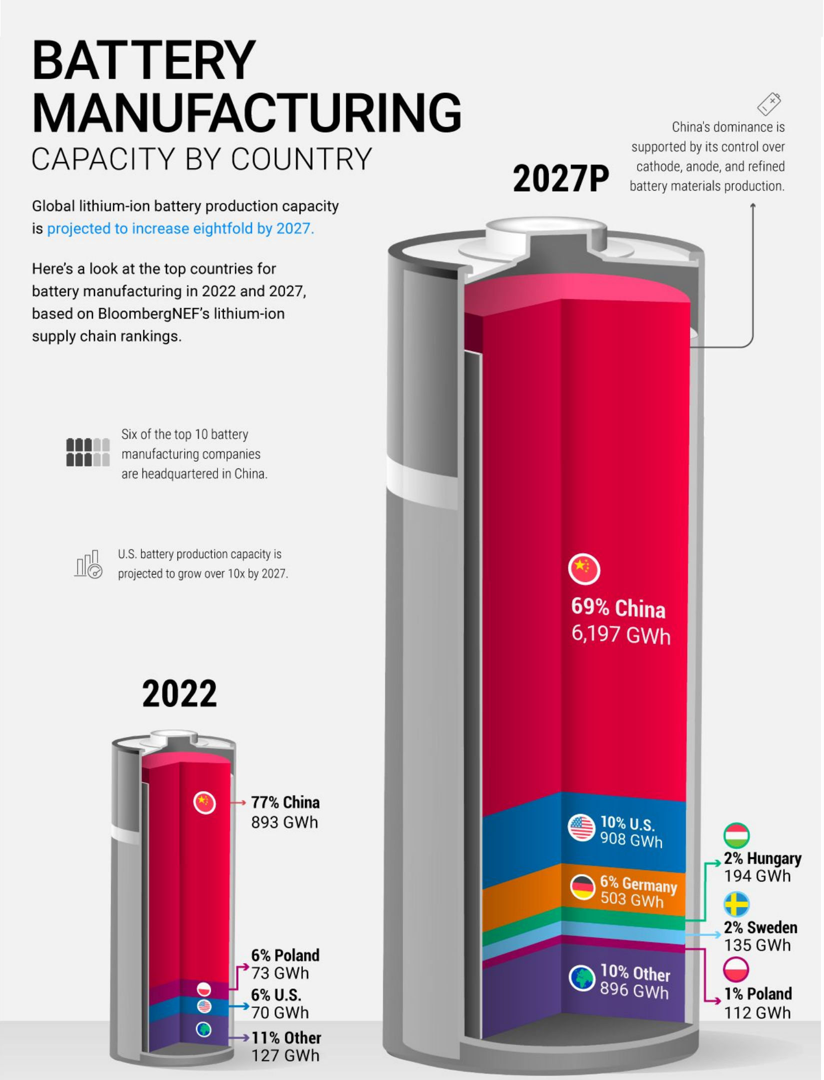
- A new layer to the study of **weaponized interdependence** (Farrell & Newman 2019) – happening within the EU polity

Context: the global battery race

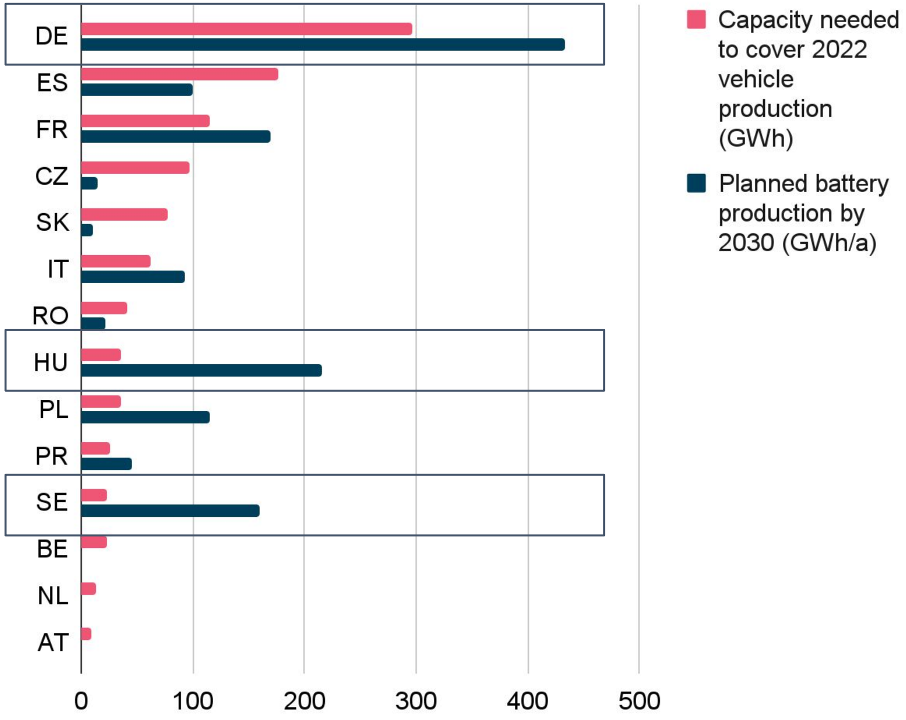
Europe's ambition– having a full, unbroken battery value chain in the EU

There isn't really a race – China has won.

Both the US and the EU have explicit ambitions to increase their production capacities, and decrease reliance on China.



EU: estimated industry needs & planned battery capacities



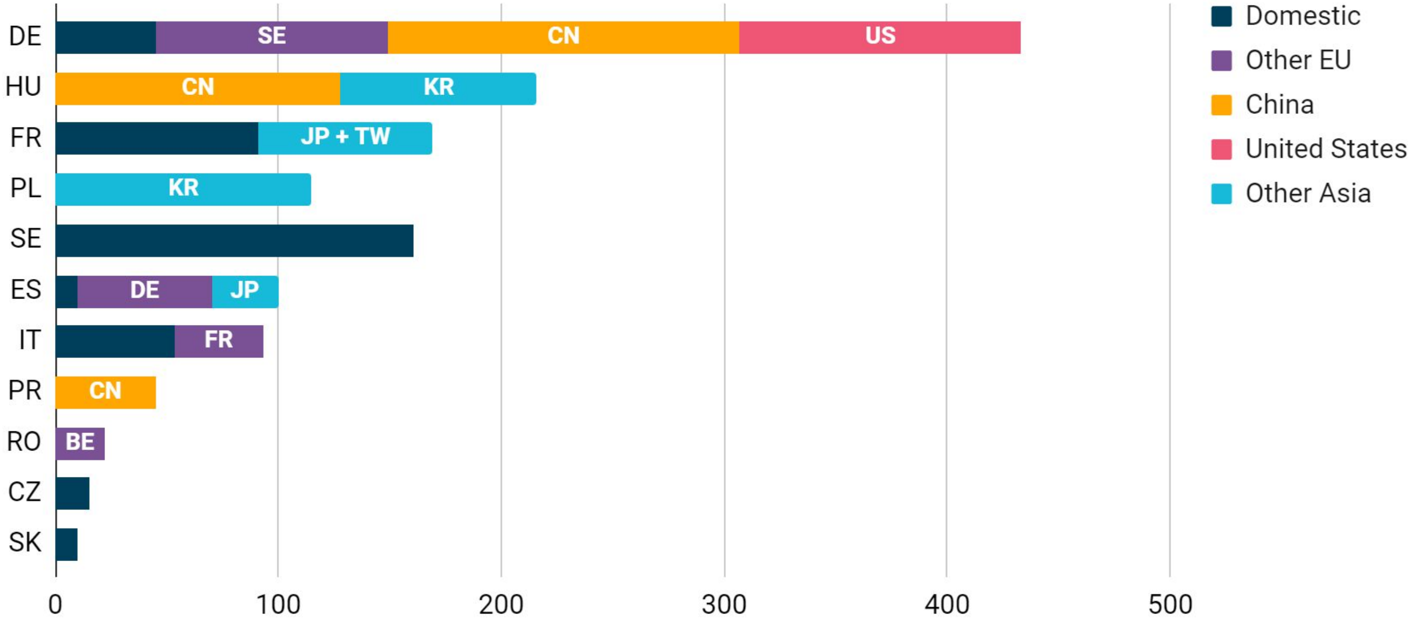
Varying strategies across the EU–

- *Two cases with 'battery superpower' ambitions–*

  Hungary (600%) and Sweden (700%)

- *Germany with the largest capacity in absolute terms (150%)*

EU: planned battery capacities – company ownership



(!) Implications for growth effects and strategic autonomy aims

Contradictions between the EU's stated objectives

1) **Climate neutrality**
2) Strategic autonomy
3) Promoting industry & jobs

Battery manufacturing is extremely energy- and water-intensive

- Where will the energy come from? (HU: Russian dependence)
- Fears of ecological damage in rapidly desertifying areas (both DE, HU)

Regulatory forbearance (Dewey & Di Carlo 2022) as industrial policy – conditionality & enforcement is crucial (Bulfone et al. 2023, Kelemen & Pavone 2023)

Contradictions between the EU's stated objectives

1) Climate neutrality
2) **Strategic autonomy**
3) Promoting industry & jobs

Over half of HU capacities & one third of DE capacities are to be provided by China's CATL.

- *Does a Chinese factory physically based in Europe reduce dependencies from China?*

Contradictions between the EU's stated objectives

1) Climate neutrality

2) **Strategic autonomy**

3) Promoting industry & jobs

The EU is blind to the leverage risk (Farrell & Newman 2019) posed by an autocratic *member state.*

- *Building choke point control in a key value chain seems to be a key motivation for Orbán.*

Contradictions between the EU's stated objectives

1) Climate neutrality

2) Strategic autonomy

3) **Promoting industry & jobs**

The battery industry is seen as a growth engine – but *domestic value added* matters.

- How (if at all) can upgrading happen?
- Hope of innovation spillovers– these firms are known for tightly guarding R&D
- Higher chances in DE

Contradictions between the EU’s stated objectives

1) Climate neutrality

2) Strategic autonomy

3) **Promoting industry & jobs**

The overriding EU objective seems to be job creation (fears of deindustrialization)

- But– considering the large fiscal costs, is this the best way to propel (high-quality) job-creation?

Swedish comparison

Győrffy (2023) analyzes the Nordic Battery Belt

- Domestic ownership (R&D, development also happen locally)
- Local access to raw materials & renewables
- Cold climate reduces the need for extensive cooling → lower water use

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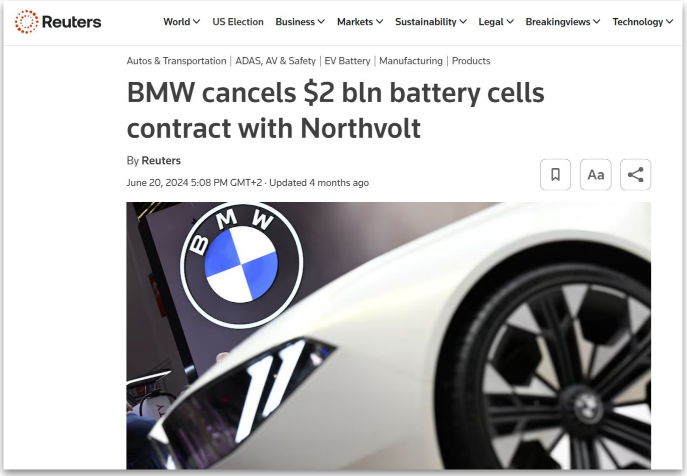
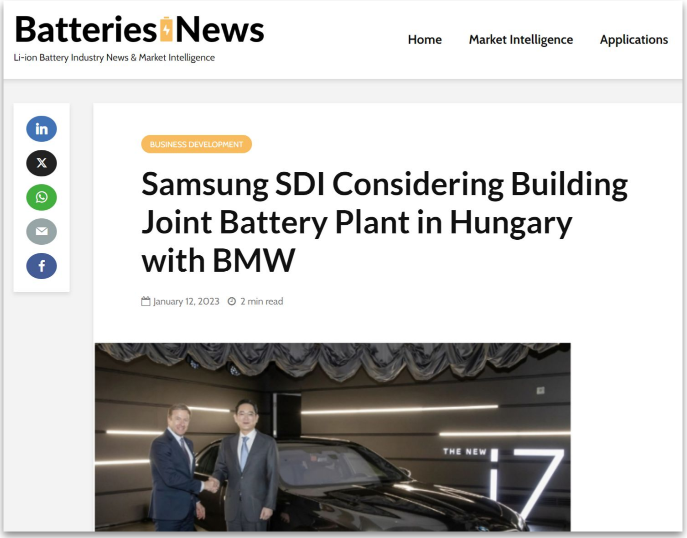
BUT–

Northvolt recently lost a $ 2 bn contract due to production delays and quality concerns; Samsung SDI will produce the batteries (presumably in Hungary)

→ balancing the different aims of green industrial policy is really difficult





Conclusion

There are severe trade-offs between climate neutrality, strategic autonomy & industry promotion – and industry (especially jobs) tends to be prioritized

EU battery production will only be green if EU pledges are matched with strong enforcement

The EU's new 'geopolitical' industrial policy seems blind to the leverage risks posed by an autocratic member state

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Thank you for the attention!