The development of the IZERA project in Poland

An overview of Poland's first electric vehicle (EV) project

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Inception and Background

- Objective: to create a national brand for EVs in Poland, aligning with EU green energy goals.
- ElectroMobility Poland S.A. (EMP): Established in **2016** to advance electromobility in Poland.
 - The main shareholders include the State Treasury and four Polish energy companies: PGE, Energa, Enea, and Tauron
 - Demand survey conducted by EMP / Kantar on a sample of 24 (!) drivers in 2017 indicated key assumptions for vehicles production: **low price** (c.a. 60K PLN), 4 seats, range>150km
- In July 2020, EMP revealed two prototypes, a hatchback and an SUV, under the *Izera* brand

Izera prototypes: T-100 and Z-100



Factory Construction in Jaworzno

- Location: the factory was to be built in the Jaworzno Economic Zone (JOG) in Silesia, Southern Poland. The <u>site</u> is part of a revitalized industrial and mining area
- Key Facts:
 - Plot surface: 117 ha
 - Plot price: 128 M PLN
 - Construction (public tender): Mirbud S.A. (well established company on the industrial property market)
 - Contract value: 227 M PLN
 - Construction permit: obtained (May 2024)
- Estimated manufacturing capacity: 150 200k cars / year
- Estimated employment: 2400
- Estimated cooperations: c.a. 250 suppliers

The site



Strategic Partnership



- Key Partnership with Geely (signed in 2022)
- Key facts about Geely:
 - China's largest private automaker, to use its Sustainable Experience Architecture (SEA platform), one of the most advanced EV platforms.
 - Brands: Geely Auto, Lynk & Co, ZEEKR, Geometry, Volvo Cars, Polestar, Lotus, London Electric Vehicle Company, Farizon Auto i Cao Cao Mobility
 - Sales: c.a. 1,7 M vehicles / year (15th)
 - Employment: c.a. 120 000

Other partners

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- Pininfarina (Italy): for vehicle design
- EDAG Engineering (Germany): for production integration designing and engineering entire vehicles, covering everything from the concept phase to production-ready solutions
 - body design,
 - chassis,
 - electronics,
 - interior development
 - planning and optimizing manufacturing processes, development of production facilities

etc.



Drawbacks

- High competition in the electromobility industry, all the global players have <u>EVs</u> in their offer
- Geely does business in Russia, and has been lately incorporated into *Manufacturers Blacklist* by Ukraine
- Insufficient <u>charging</u> stations capacity:
 - EU: 632 432 public charging points (c.a. 60% in FR, DE, NL)
 - Poland: 7962 public charging points (Sep 2024)

Top Selling Electric Vehicles in Europe

June 2024



CHARGING POINTS PER COUNTRY, PLUS PERCENTAGE OF EU TOTAL 202						
Country	Chargers	% of EU total	Country	Chargers	% of EU total	
Austria	18,637	2.9 %	Italy	41,114	6.5 %	
Belgium	44,363	7.0%	Latvia	535	0.1 %	
Bulgaria	1,624	0.3%	Lithuania	1,313	0.2 %	
Croatia	1,074	0.2%	Luxembourg	2,323	0.4 %	
Cyprus	329	0.1 %	Malta	101	0.0 %	
Czechia	4,664	0.7%	Netherlands	144,453	22.8 %	
Denmark	23,072	3.6%	Poland	6,102	1.0 %	
Estonia	683	0.1 %	Portugal	7,306	1.2 %	
Finland	11,247	1.8%	Romania	2,754	0.4%	
France	119,255	18.9%	Slovakia	2,380	0.4%	
Germany	120,625	19.1 %	Slovenia	1,608	0.3 %	
Greece	3,166	0.5 %	Spain	30,385	4.8 %	
Hungary	3,319	0.5 %	Sweden	37,166	5.9%	
Ireland	2,825	0.4 %	EU	632,423	100 %	

SOURCE: EAFO

Drawbacks – ctd.

- Necessity to create dealership and service network from scratch – Poland lacks deleloped EV supply chain
- EVs not so <u>popular</u> in PL: as of 2024 there was c.a. 74K Evs in PL (Izera est. sales was 150 – 200k yearly)
- High financial risk (private investors are not willing to participate in the project)
- What actually makes this brand Polish?



Share of battery-only electric cars in all passenger cars, 2023

EU aggregate, Bulgaria, Cyprus, Greece, France, the Netherlands, Poland and Slovakia: Eurostat estimate. Portugal: provisional data.

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The European countries with the highest percentage of electric vehicles

Rank	Country	Total registered vehicles 2022	Total registered electric vehicles 2022	Percentage of electric vehicles
1	Norway	3,018,728	607,516	20.12%
2	Denmark	2,801,076	112,674	4.02%
3	Sweden	4,979,761	197,709	3.97%
4	Netherlands	8,917,107	330,113	3.70%
5	Luxembourg	444,818	13,909	3.13%
6	Liechtenstein	30,659	950	3.10%
7	Switzerland	4,812,896	110,788	2.30%
8	Austria	5,150,890	110,225	2.14%
9	Germany	48,763,036	1,013,009	2.08%
10	United Kingdom	32,169,932	620,632	1.93%

What next?

- The initial production deadline was pushed back from 2023 to late 2025, and financing remains a challenge
- By the end of 2023, the EMP total expenditures equalled c.a. 300 m PLN (the initial budget allocation was 500 m PLN)
- Five changes of CEOs until now
- No clear vision nor solid strategy
 - According to the latest media releases the Polish Government is looking for the way out of this investment
 - Alternatives: production site for Geely / Joint venture with Geely; electric scooters assemble point

Conclusions

- EMP was launched by the Polish government as a symbol of technological advancement and national pride. Similar to other state-backed ventures, e.g.:
 - PEJ/EJ1 (founded 2009): Limited progress despite high investment outlays (800M PLN in 2014-2017).
 - CPK (founded 2018): Spent 1.2 B PLN
 - Both projects consume c.a. 200 M PLN / year
- Lack of Serious Market Research
 - No comprehensive market analysis or consultation with independent automotive experts.
 - Risks underestimated in an already saturated and competitive EV market
- Estimated cost to launch (as of 2024): 2 3 B EUR
- Production gradually delayed from 2023 to (now) 2027, HOWEVER significant delays, financial challenges, and unresolved technical issues raise concerns about whether the project will launch at all...

Thank you for your attention!

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