

**Investments in sustainable energy innovations.
Keeping EU at the forefront of industrial policy.**

*Financing Innovative Clean Tech conference
Diego Pavia, CEO InnoEnergy
19th January 2023*

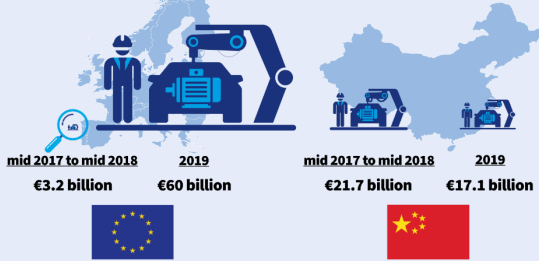
12/2019

E-mobility investments by EU carmakers and others in Europe are 3.5 times higher than in China

Europe is closing the investment gap with China compared to 2017/18

Investments in Europe

Investments in China



TRANSPORT & ENVIRONMENT

Source: Transport & Environment

03/2022

Future of energy

Northvolt announces its third gigafactory will be established in Germany's clean energy valley

15 March, 2022

Powered by the cleanest electricity grid in Germany, Northvolt Drei is positioned to produce the cleanest batteries in continental Europe with capacity up to 60 GWh.

Same picture for other hard-to-abate sectors

11/2022

Northvolt rethinks plans for German gigafactory

By Mike Hayes | 02 November 2022
1 min read

12/2022

FINANCIAL TIMES

HOME WORLD US COMPANIES TECH MARKETS CLIMATE OPINION WORK & CAREERS LIFE & ARTS HTSI

“Northvolt’s new chair urges Europe to follow US lead on battery subsidies,

High level comparative analysis with the US-IRA, Only financial, for the three value chains, on OPEX subsidies

What would you do if you were the CEO of these champions?

	ww market 2022		IRA subsidies		Example IRA "carrot" for "our" European manufacturing Champions			How many Grants have they received in Europe so far, for manufacturing <u>OPEX</u> , <u>cumulated</u> (M€)
	Unit	Production cost	OPEX (PTC)	Direct incremental Net Margin	EU Champion	Capacity per year of their planned (next) EU site	Positive Impact of IRA subsidies (M\$/year)	
GreenH2	\$/kg	6	3	50%	H2GS	240 Mkg	720	0
Batteries modules	\$/kwh	130	35	27%	NorthVolt	50 GWh	1.750	150?
PV cells	c\$/Wp	18	5	28%	Meyer Burger	7 GW	350	0

Only the **OPEX** subsidies taken into account. In some cases other subsidies are **stackable**!!

Let's put ourselves in the “board room”, where the decisions are taken

1. What does a European industry CEO need to stay in Europe for his/her next industrial investment, instead of going to the US with its IRA “oiling”?
2. What does a non-European industry CEO need to come to Europe for his/her next industrial investment, independently from the IRA?



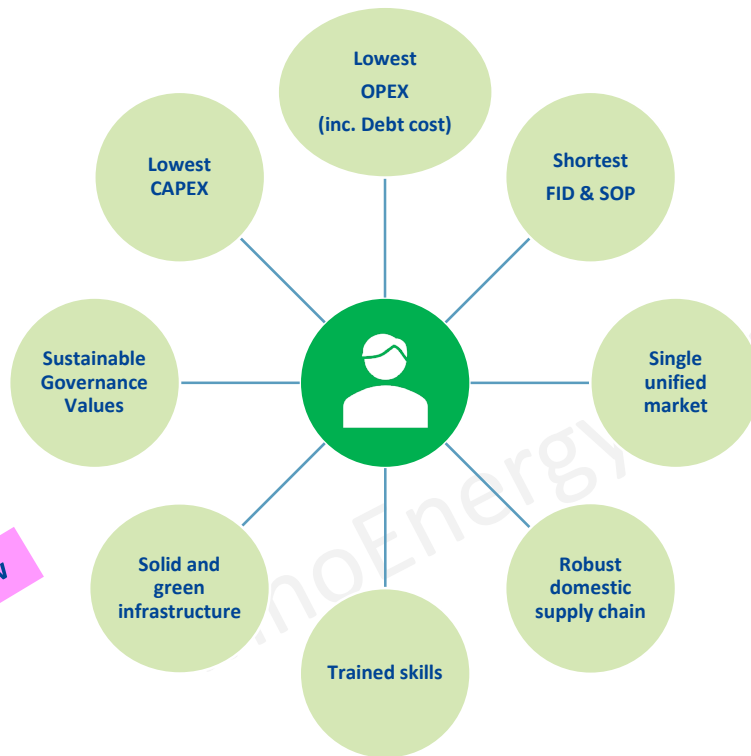
Let's talk customer's language

Question(s) to answer (2/3)

The core: What are the “industrialist” key decision criteria when deciding?

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The 8 key external enabling dimensions, not only subsidies



And how each one impacts my:

- P&L
- Balance Sheet
- Financing requirements
- Valuation
- Risk profile

- Time to market
- Size of the market (SAM)
- **My SDG/ESG profile**

At speed

Today and tomorrow

Europe cannot win in all dimensions, but the aggregation should put Europe as THE winner destination



Some reflections

The “EU business case” for clean tech manufacturing has been based on

1. a **first mover advantage**,
 2. a **formal strategy** (net zero enshrined in the **climate law** where others just pledged), and
 3. **strong and long-term fundamentals** (sizeable and mature EU demand for clean tech, driven by regulation and business rationale)
- **which have allowed, so far, to balance a structural competitive disadvantage** (investment and business environment).

The US-IRA is an **immediate risk**

1. for (new) investments to **relocate to the US**,
2. for **loosing our champions**, and
3. for the **reshoring of key clean technology value chains** in Europe.

Yet it is also an **opportunity to improve and enhance** the EU model **so we stay ahead of the others:**

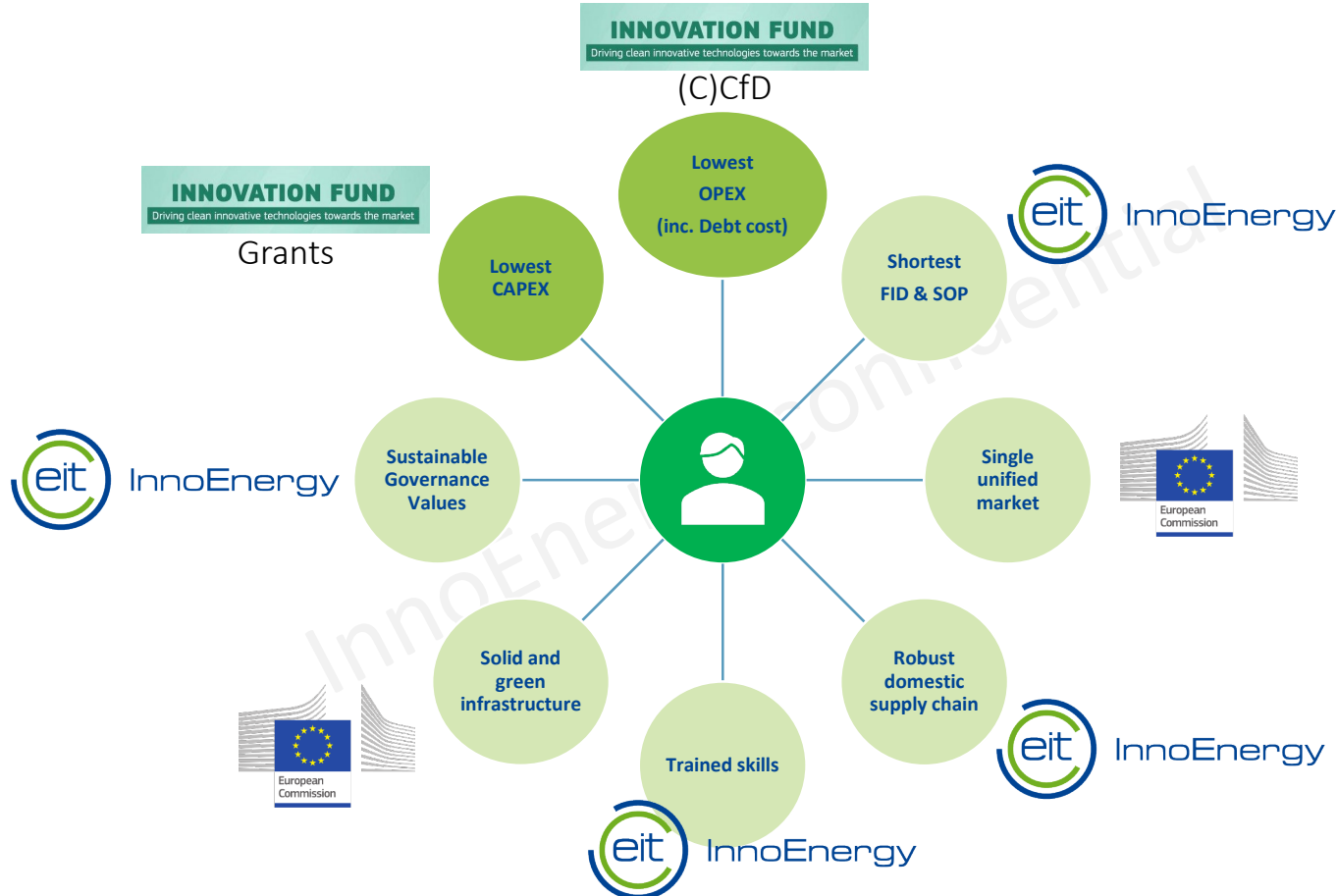
1. increasing **tremendously the speed of execution** of the existing one,
2. **complementing the existing toolbox**, and
3. **acknowledging and communicating that trade rules have changed**, and Europe should NOT remain the only orthodox one with the “old rules”.

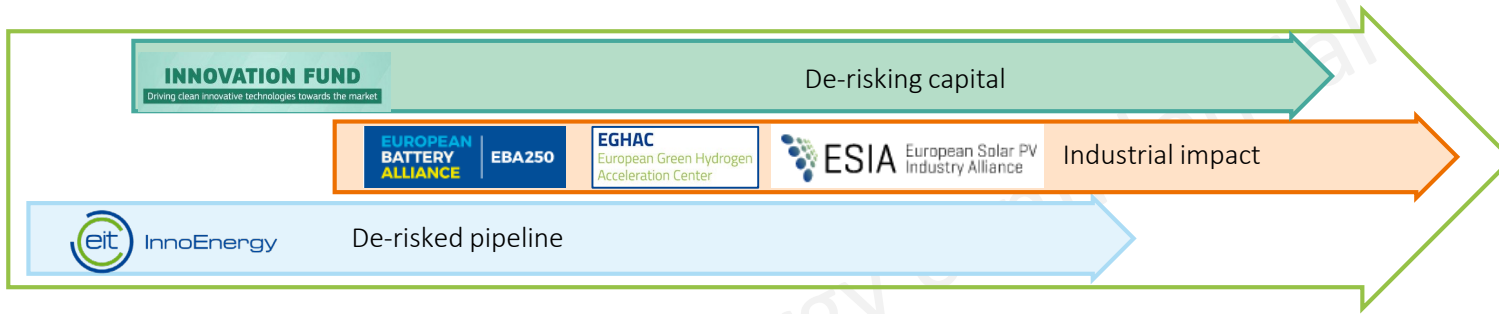
Innovation Fund

A major piece of the picture



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H₂green steel

"European" endeavour Impact we seek	
CO2 -55%	Climate change (lower than 0°C)
Renewable 45%*	From 13.000 TWh/year (2018) to 9.000TWh/year (2050) Carbon Neutral
Energy Efficiency (32,5%)	
Jobs, Growth, Competitiveness	X.XXX B€



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