South Africa's automotive value chain and the industrial transition to electric vehicles

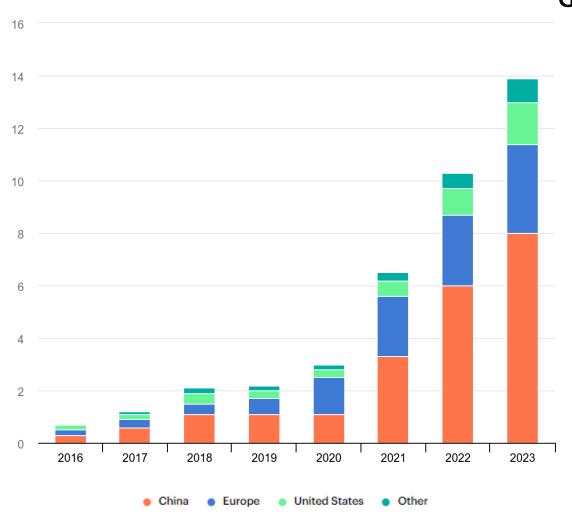
Gaylor Montmasson-Clair, Trade & Industrial Policy Strategies (TIPS)

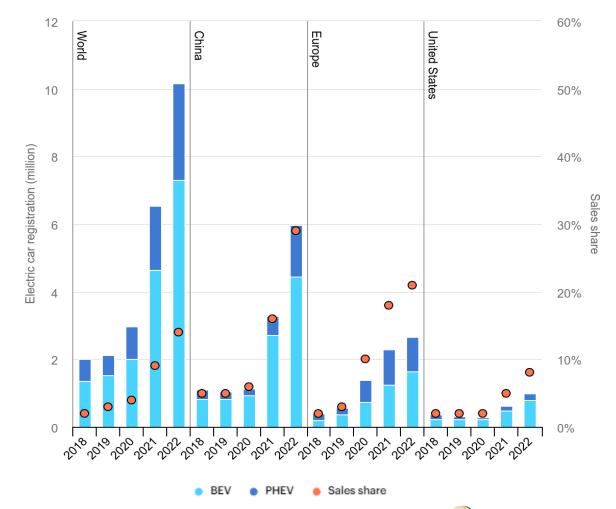




Vehicle production

Global EV sales

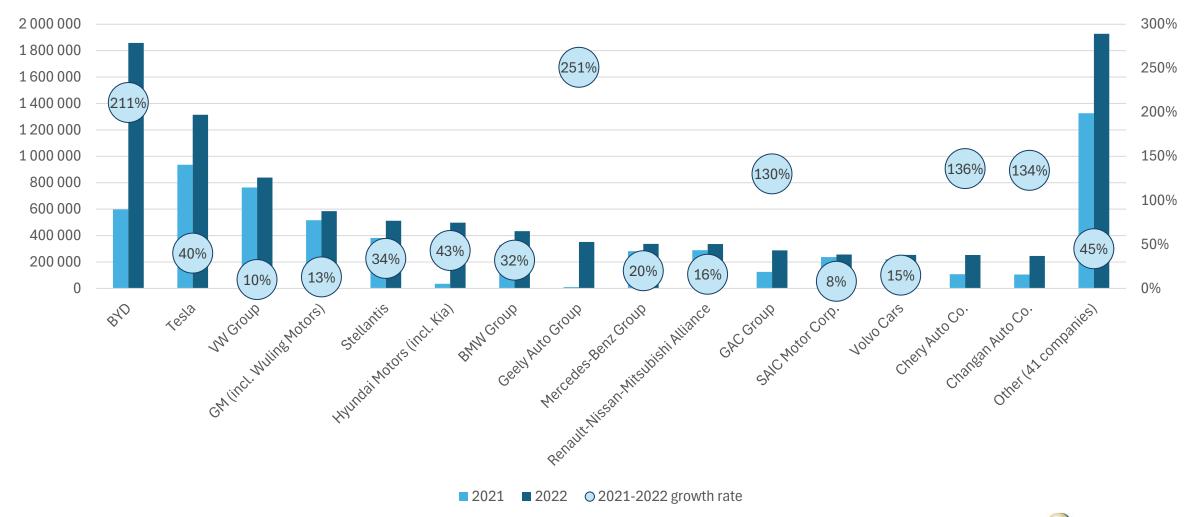






Vehicle production

Global EV production (in units)



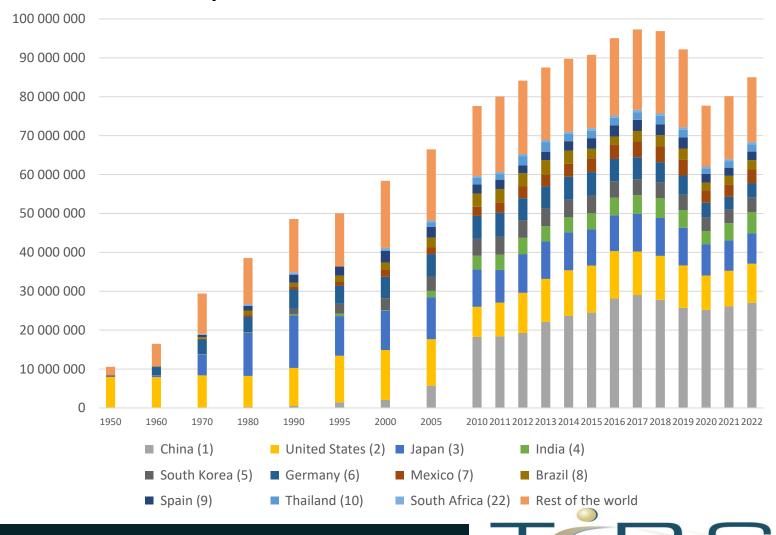


Vehicle production

SA's automotive manufacturing clusters

Ford Limpopo KwaZulu-**Free State** RICHARDS BAY DURBAN **Northern Cape** TOYOTA **Eastern Cape EAST LONDON** SALDANHA BAY® CAPE TOWN PORT ELIZABETH Mercedes-Benz ISUZU

Global production of automotive vehicle (in units)

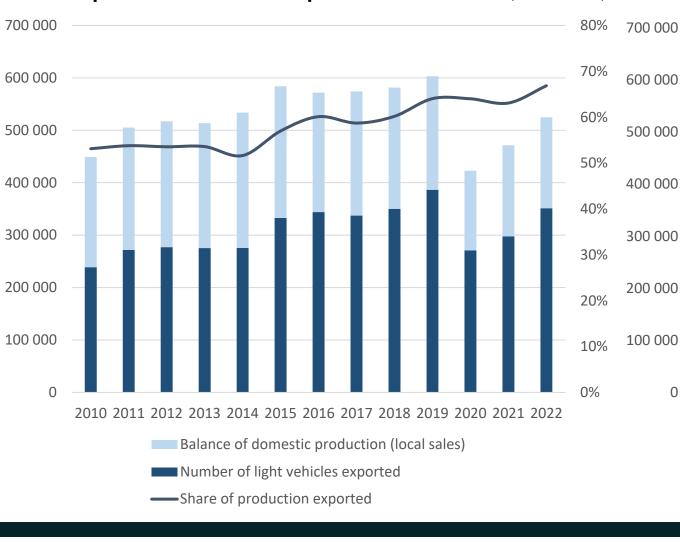


Source: TIPS, based on

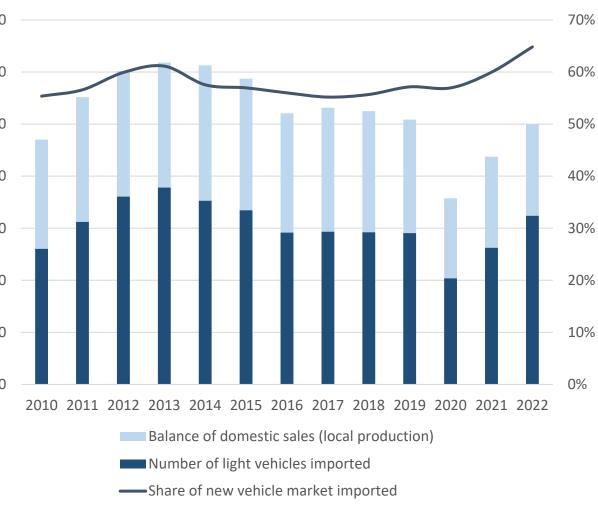
OICA data

Vehicle supply and demand

SA's production and exports of vehicles (in units)



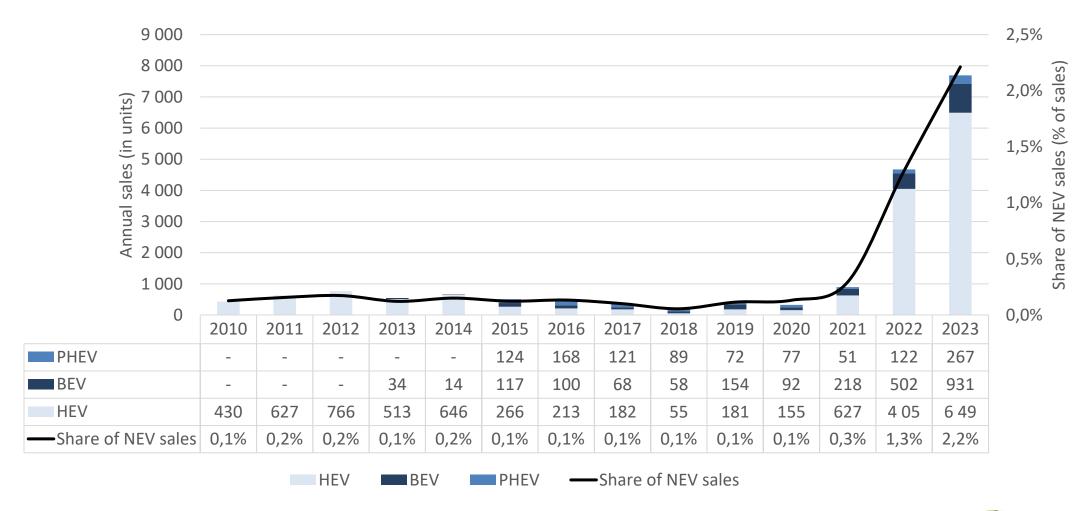
SA's market and import of vehicles (in units)





Domestic EV market

Passenger vehicles sales in South Africa (in units)





Current policy framework & the NEV transition

	Tariffs	Volume Assembly Localisation Allowance (VALA) & Production Incentive (PI)	Automotive Investment Scheme (AIS)
	Protect local production	Incentivise local value addition	Back automotive investments
Key features	 25% duty on light vehicle CBU imports, except: 18% for EU/UK sourced ICE vehicles above 1000cc & 0% for ICE and HEV below 1000cc 20% duty on CKD imports for vehicles assembled in SA for domestic market supply No CKD duty for re-exports 	 VALA: Qualifying OEMs receive an incentive equal to 35-40% of the dutiable value of their local value addition // Equates to 7-8% of their local value addition PI: Earned by final local manufacturer (component firms or OEMs). Same value adding base as VALA. Equal to 12.5% of a firm's manufacturing value added, as well any deemed supplier value addition 	 Cash grant support (paid over 3 years) for automotive investments of up to: 35% for component manufacturers and 30% for vehicle assembly operations
NEV considerations	 CBU market protection is technologically agnostic, except for BEVs and sub-1000cc ICE from EU/UK CBU duty anomalies are problematic: SA needs reciprocal access to the EMA market under the Economic Partnership Agreements; and ICE/HEVs increasingly sub-1,000cc CKD duty issue: will make local OEMs less competitive in the domestic market because of the duties incurred on expensive electrical component imports. 	Not directly impacted by the NEV transition but depends on composition of local production – batteries?	 Generous investment incentive but qualification requirements make it less likely to be successful in attracting NEV investments The NEV transition raises investment costs and increases risk, and the AIS may not be attractive, especially when considering competitor investment support levels. In turn, the AIS may face liquidity challenges if major NEV investments are secured

The APDP and the NEV transition

The APDP largely remains appropriate as government's principal support for the automotive industry

- Through the APDP, the benefits received under a NEV transition would remain constant
- Existing APDP benefits would generously support any NEV components that are localised

Problem 1: No domestic EV market

- Dichotomy between local and export markets
- Requires local market to follow export markets to some extent

Problem 2: CKD duties

- Increase in CKD duty payable on locally-assembled
 NEVs for domestic market consumption
- With the NEV transition, domestic OEMs would lose sizeable APDP benefits (8-35% excluding the AIS)
- Key issue: expected explosion in duty-bearing imported CKD content (e.g. batteries)

Problem 3: Investment support

- The AIS may be sufficient to support investment for brownfield ICE vehicle model replacements,
- But may be insufficient to cover the high cost and risks associated with NEV investment
- Competitor economies are offering OEMs increasingly generous investment support to encourage NEV investments.



The NEV White Paper in a few quotes

- The transition to EVs and clean transportation forms an important area of the broader green industrial revolution taking root in the 21st century.
- South Africa's ability to leverage its historical strengths in the automotive industry and to build towards one which is compatible with the pursuit of net zero can thus form a pillar of the country's industrial success in the years to come.
- Allowing the South African automotive industry to decline without the appropriate support is thus not an option for the South African Government.
- This White Paper thus sets out the policy goals and actions which will be taken to support the transition towards a broader new energy vehicle production and consumption in South Africa, with an immediate focus on electric vehicles.



The NEV White Paper in a few quotes

A set of six core principles:

- (i) The transition to EVs and NEVs is necessary, and the pace at which key decisions are required is urgent given the speed at which markets are developing, and the long lead-times for investment decisions;
- (ii) attracting investment requires a technology agnostic 1 approach, including embracing a range of clean energy sources to ensure an appropriate transition;
- (iii) investment support is required to boost productive capacity;
- (iv) policy actions have to reflect cost-effective and fiscally-sustainable solutions;
- (v) deepening localisation of the auto supply chain, including through beneficiation of critical minerals through the development of regional value chains is essential; and
- (vi) policy actions must reflect the need for a just transition in the automotive industry.



The NEV White Paper in a few quotes

- The White Paper has thus identified a two-pronged approach, with two focus areas. A first focus on developing South African EV productive capacity through early action; and a second focus on developing a local market for EVs.
- The White Paper recognises the major industrialisation opportunity for South Africa and the region to develop regional 'critical minerals to batteries' value chains.
- The White Paper thus seeks to establish a framework under which African countries work with partner countries to develop the industrial capacity necessary to make the continent a key industrial player, rather than just a source of critical minerals, in the transition to EVs.
- To be successful, the 16 actions will require all stakeholders to contribute to their implementation.
- elements of the architecture of measures to support EV production and sales in his Medium-Term Budget Policy Statement in November 2023. Further details will follow in the 2024 Budget Speech. The Minister of Trade, Industry and Competition will also announce changes to the APDP 2 framework to support the EV transition



NEV White Paper's supply-side interventions

A	ACTION	Responsible Parties				703 203 203 203 703 703 703	
1.	. Increase levels of investment and investment funding	Government & Industry	Potential Impact		V X/ X	% % %	<i>*</i> <i>*</i> <i>*</i>
1.	.1 Publish AIS guidelines	DTIC	Increase EV & EV component investments				
1.	.2 Manage cost-effectiveness and affordability of incentives	DTIC & NT					
1.	.3 Investments in assembly and component manufacturing	Industry					
2	.Facilitate the development of the electric battery value chain	Industry & Government					
	.1 Enable raw material refining and battery active materials and components roduction	DTIC, DMRE,NT, ITAC & IDC	Localise/regionalise EV	,			
2	.2 Jointly develop SADC regional battery value chain	DTIC,DMRE& DIRCO	value addition				
2	.3 Develop a value proposition for production of battery cells in South Africa.	Industry, DTIC, IDC& DMRE					
2	.4 Commit demand for EV batteries	Industry & Government	Local market development				
- 1	. Introduce a temporary reduction import duties for batteries in vehicles produced nd sold in the domestic	DTIC,ITAC & SARS	Decrease cost of				
3.	.1 Amend and publish APDP legislative framework	DTIC,ITAC & SARS	producing EVs for SA market.				
- 1	. Market Access: Secure duty free export market access for EVs and EV omponents	DTIC	Improving export competitiveness				
5	Leverage Research and development Tax Incentives to deepen value addition	Industry	Improving international competitiveness				
6	. Commercialise green hydrogen	Industry, Presidency, DTIC, IDC, DBSA, NT, DSI, DMRE,	Production of green synthetic fuels &				
7.	. Refurbish rail line between Gauteng and Ngqurha	Transnet, DTIC, IDC, Industry	Improving cost competitiveness				
8	. Implement the energy and freight rail and port reforms	Eskom, DMRE,Transnet Presidency, NT, Industry	Improving cost competitiveness				
9.	. Execute interim solutions for energy in partnership with industry	Presidency, DTIC, municipalities, Industry	Improving cost competitiveness				
10	Develop an EV certificate programme in collaboration with the industry	merSETA, DEL, the DHE, Industr	Chille development for				

Legend

Development Phase
Implementation Phase
Subject to negotiation/Technical Review
discontinuation of intervention



NEV White Paper's demand-side interventions

	ACTION	Responsible Parties	Potential Impact	 • , ,	, - , ,	nentation	2033 2034 2035
	11. Scale up investment for charging infrastructure and deepen localisation	Eskom, SANRAL, DTIC, DoT,	Increased domestic				
ent		IDC, and DBSA, Industry.	demand of EVs				
1 E	12. Industry together with the DTIC, and IDC to explore opportunities for localising	NAAMSA,NAACAM, DTIC	Efficiencies in				
elop	charging components, to support employment creation along the value chain.	INAAIVISA,INAACAIVI, DTIC	infrastructure rollout				
>	13. Develop & implement a framework for government fleets to transition to SA	DoT, DCGT, DTIC	Accelerating the EV				
de	produced NEVs	Doi, DCG1, DTIC	transition				
rket	14. Support Increased grid capacity to facilitate uptake of EVs	Eskom, NECOM	Increased domestic				
Local mark			demand of EVs				
	15. Consider consumer incentives for adoption of EV vehicles	NT	Accelerating the EV				
			transition				
	16. Evaluate the need for regulation of EV charging.	DTIC, DMRE, DOT, NERSA					





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