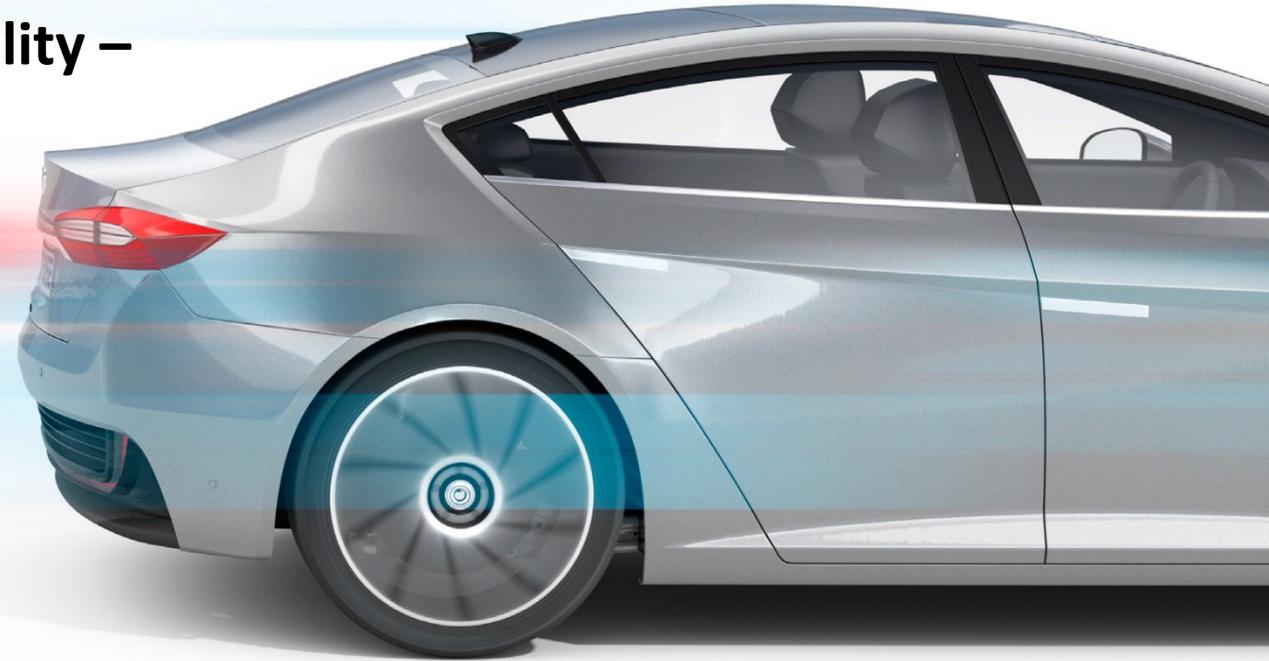


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From energy to eMotion.

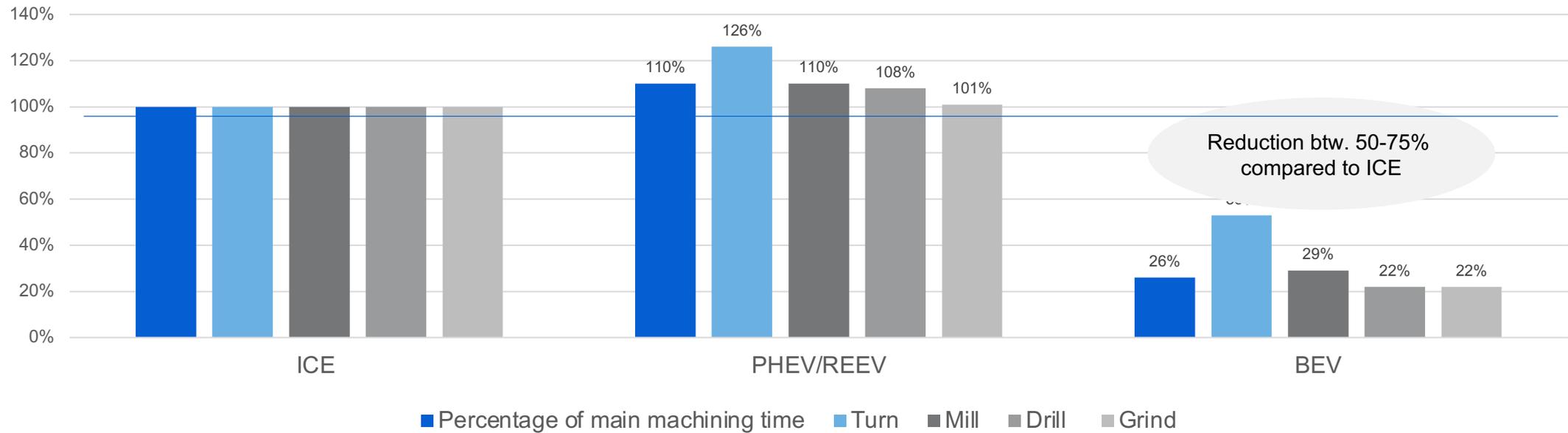
Challenges and opportunities in electromobility –
NEV // Car Body // Battery Pack



Electrification effects on production / machining technology: NEV will lead to a lower dependency on Machining Technology



Machine time needed to produce vehicles based on the powertrain concept



Introduction of PHEV/REEV will increase the needed machining technology

Producing electric vehicle (BEV) will significantly reduce the requirements on the needed machining technology

Source: https://www.werkzeug-neu.de/downloads/Maschinenbau_Metallbearbeitung_PTW_Eric_von_Wihl.pdf (2009)

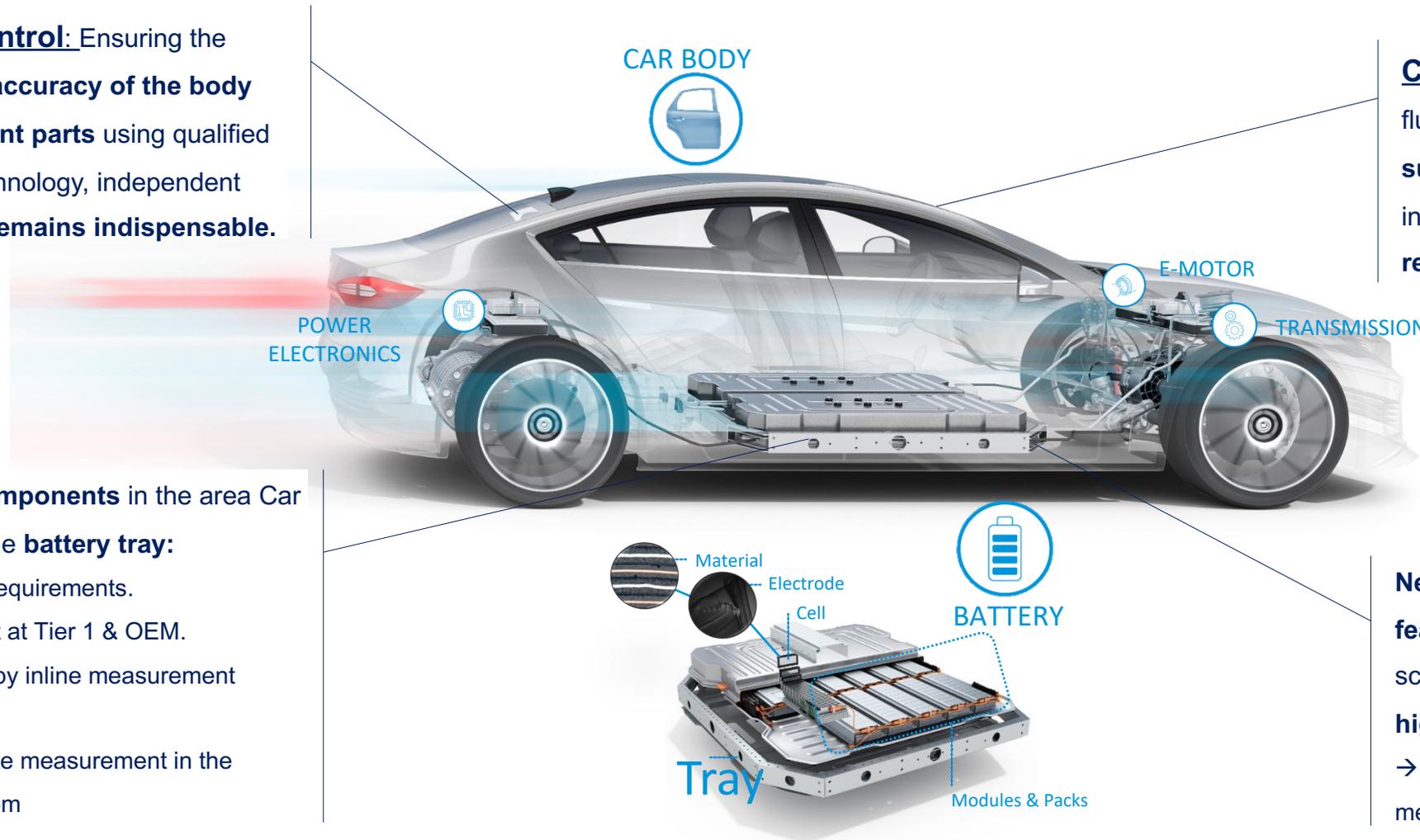
Metrological transformation ICE to NEV in the field of car body.

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Process Control: Ensuring the dimensional accuracy of the body and component parts using qualified measuring technology, independent type of drive, remains indispensable.

Customer perception: Gap and flush along the process chain using suitable measurement technology, independent of the type of drive, is very relevant in automotive engineering.



Use of new components in the area Car body such as the **battery tray:**

- High quality requirements.
- Measurement at Tier 1 & OEM.
- 100% testing by inline measurement technology.
- Highly accurate measurement in the measuring room

New product and process-relevant features on the body, such as the screwing points of the battery tray, are **highly relevant:**

- 100% measurement by inline measurement technology

