

# EV CERTIFICATION PROCESS TO SUPPORT INTEROPERABILITY

Grid Connection European Stakeholder  
Committee

Brussels

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acea

# WHO WE REPRESENT

 BMW GROUP	 DAF	DAIMLER TRUCK	
 Ford	HONDA	 HYUNDAI	IVECO • GROUP
JLR		 NISSAN	Renault Group
STELLANTIS	TOYOTA	VOLKSWAGEN GROUP	V O L V O

# ABOUT THE EU AUTO INDUSTRY

- 13.2 million Europeans work in the automotive sector
- 10.3% of all manufacturing jobs in the EU
- €383.7 billion in tax revenue for European governments
- €106.7 billion trade surplus for the European Union
- Over 7.5% of EU GDP generated by the auto industry
- €72.8 billion in R&D spending annually, 33% of EU total

# IMPLEMENTING ACT NEEDED TO DEFINE EV CERTIFICATION PROCESS

**Interoperability between EV and EVSE is crucial** for Mobile Distributed Energy Resources (DER)

EV charging can be implemented through:

- **DC Power Exchange:** The EVSE must meet the requirements outlined in the DCC & RfG
- **AC Power Exchange:** The **EV and EVSE**, when **combined**, **must meet the requirements** outlined in the DCC & RfG

Both scenarios require a stable communication between EV and EVSE (e.g.: ISO15118-20).

For **AC Power Exchange**, a **consistent implementation** within the EV and EVSE is needed. An implementing Act as part of the RfG and DCC could guide the following key aspects:

- **Functional Allocation** between the EV and EVSE,
- Implementation Guidance on **Communication Standards**,
- **Certification Scheme for V2G AC EV** based on harmonized & exhaustive requirements including a reference implementation.

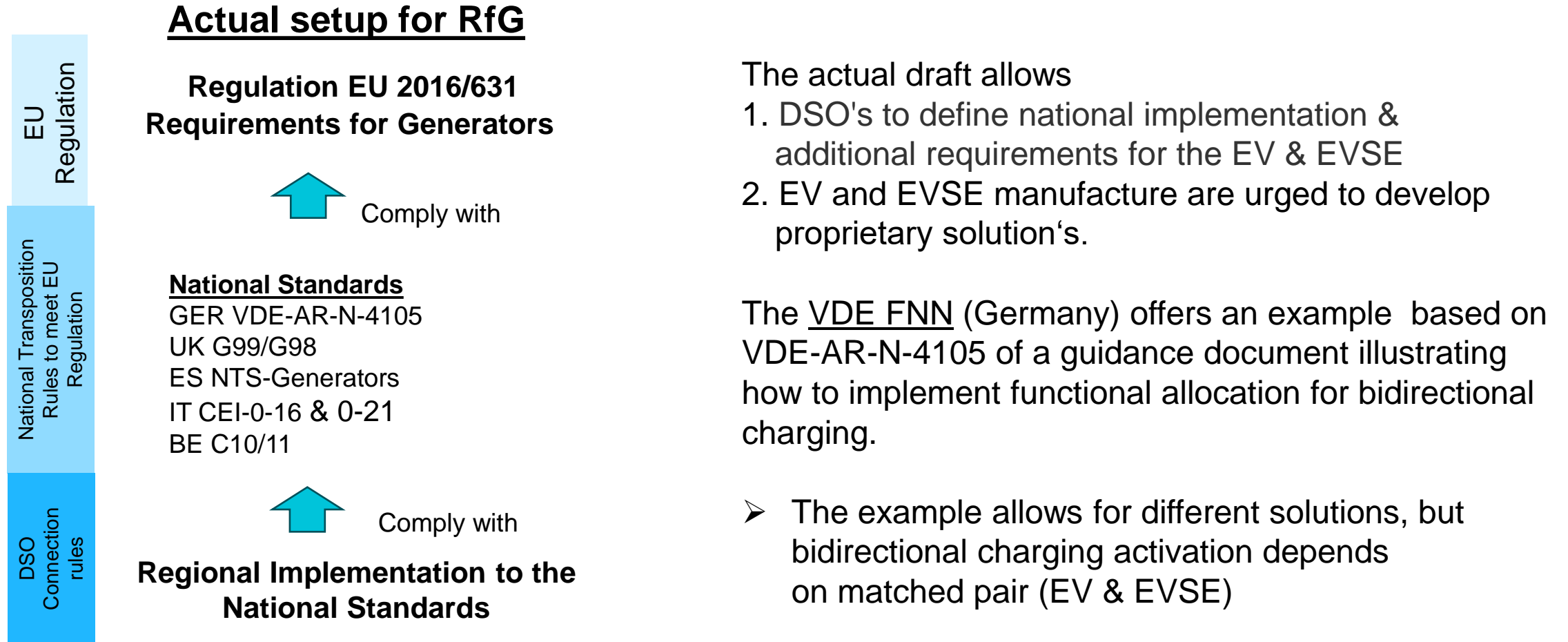
**All aspects must be:**

- **verifiable** through testing,
- **certifiable** by an accredited body,
- and **meet** the necessary **homologation requirements for market approval**.

(A cross-reference in Annex 2 of (EU) 2018/858 towards 2016/631 is needed)

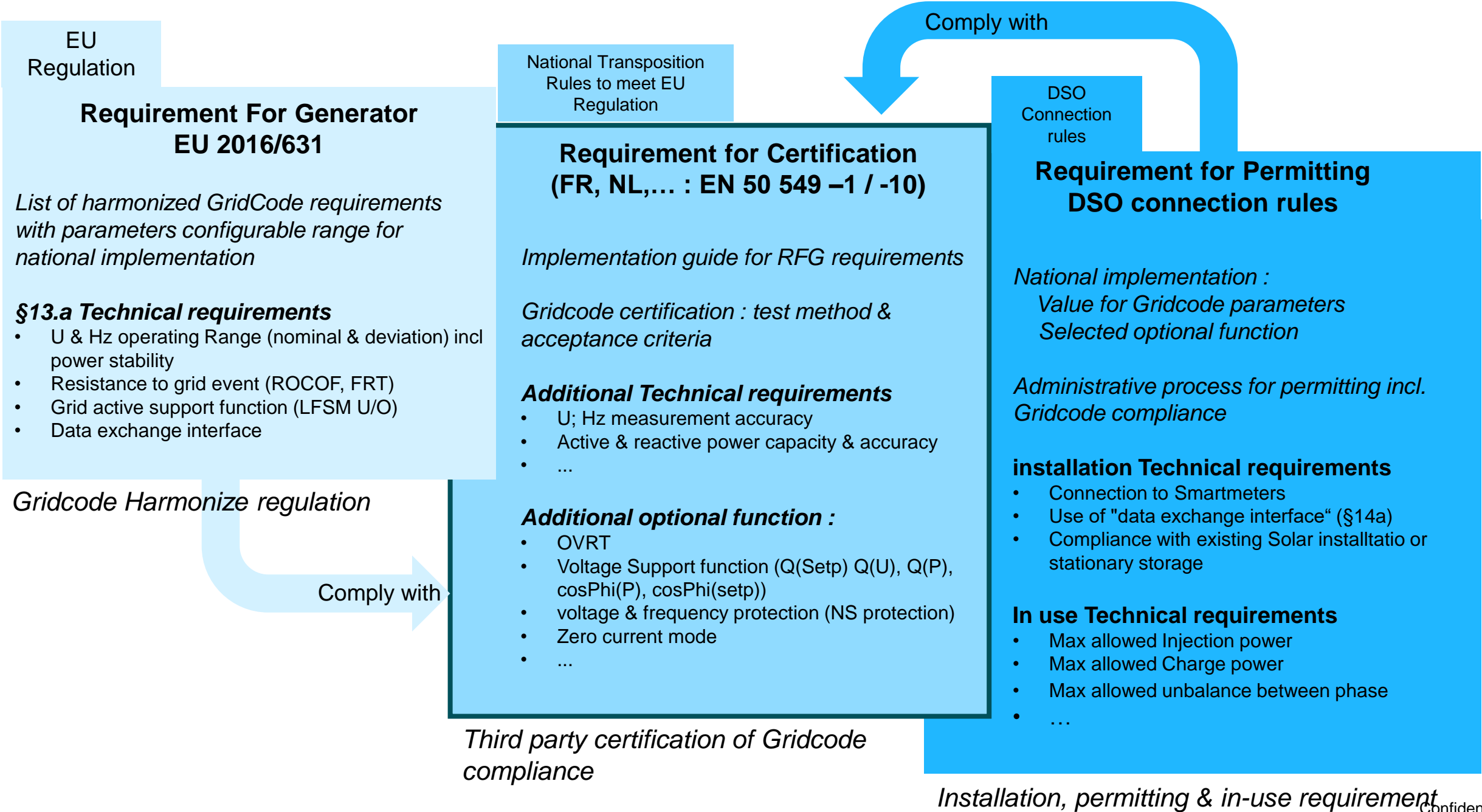
National guidance documents on Requirements for Generators (RfG) allows Distribution System Operators (DSOs) to define regional requirements fostering proprietary non interoperable solutions.

# ACTUAL IMPLEMENTATION OF THE RfG & DCC CAUSES EV TO FOLLOW REGIONAL RULES



Customers face a significant challenge determining, which EVSE and EV combinations are compatible for bidirectional charging.

# GRIDCODE FULL PICTURE FROM REGULATION TO PERMITTING



# COMPARISON TO THE ACTUAL VEHICLE REGULATION

## Vehicle Emission Regulation

Unified EU Process for Vehicles

**Unified EU Process for  
Vehicles**



Reference

**Implementing Act  
2017/1151**

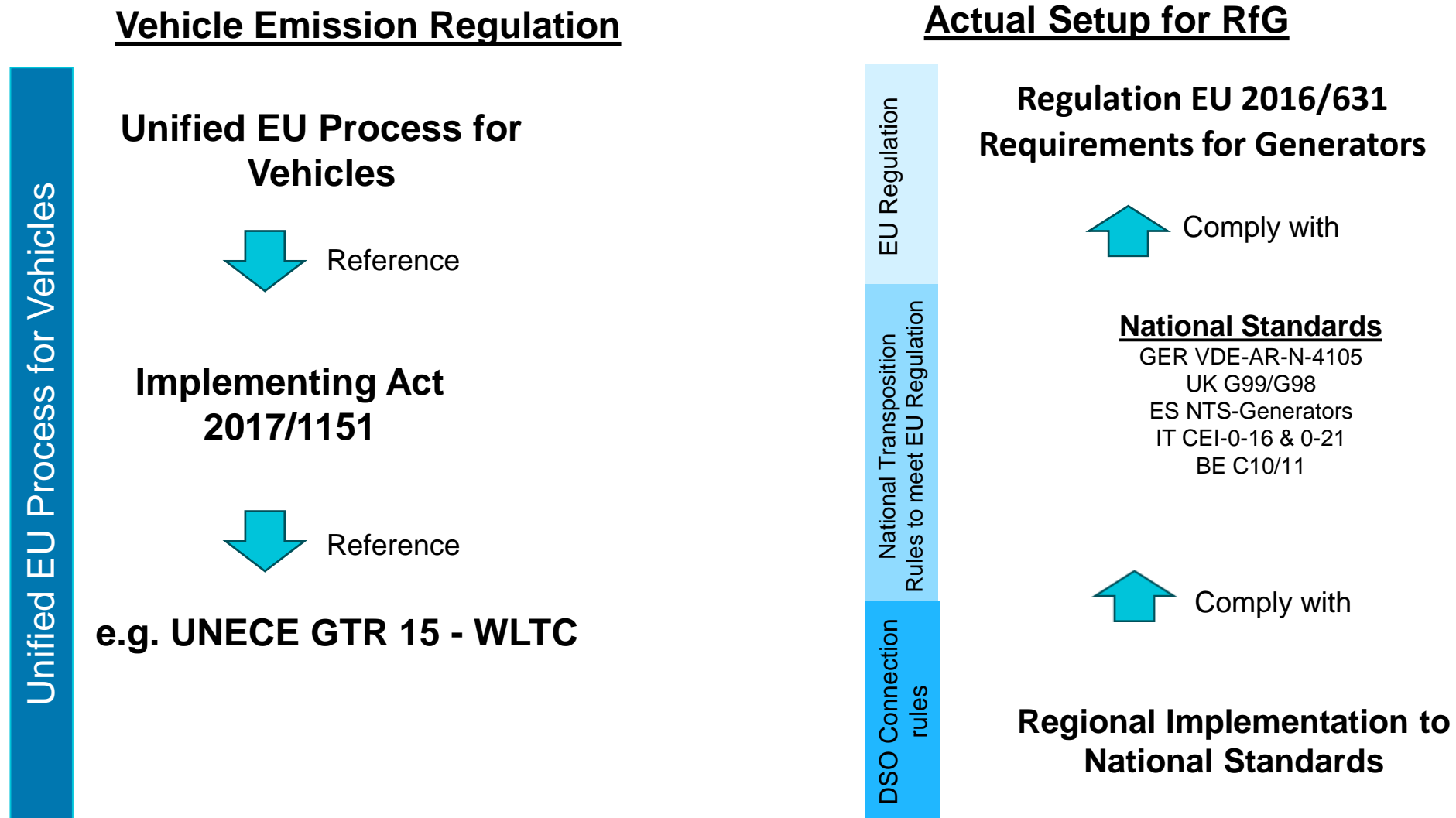


Reference

**e.g. UNECE GTR 15 - WLTC**

The certification to EV homologation standards ensures market approval in all EU member states and more.

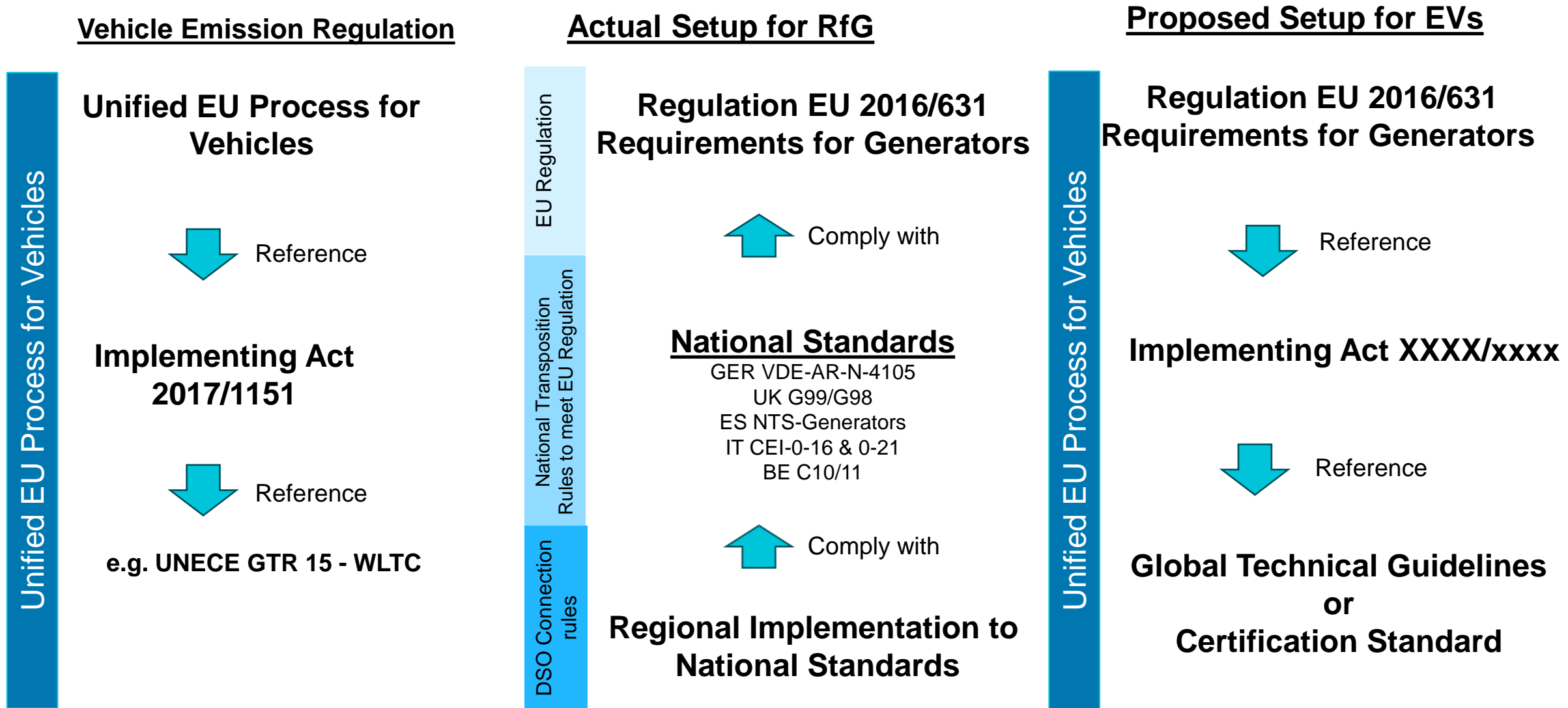
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EV homologation addresses mobile device requirements, while RfG establishes a framework for regional compliance.



# COMPARISON TO THE ACTUAL VEHICLE REGULATION



The actual proposal follows the Vehicle Emission regulation scheme.  
The scheme is a proposal to support customers to buy an interoperable system in an open market.



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