



Data elements and formats

IWG EDR/DSSAD

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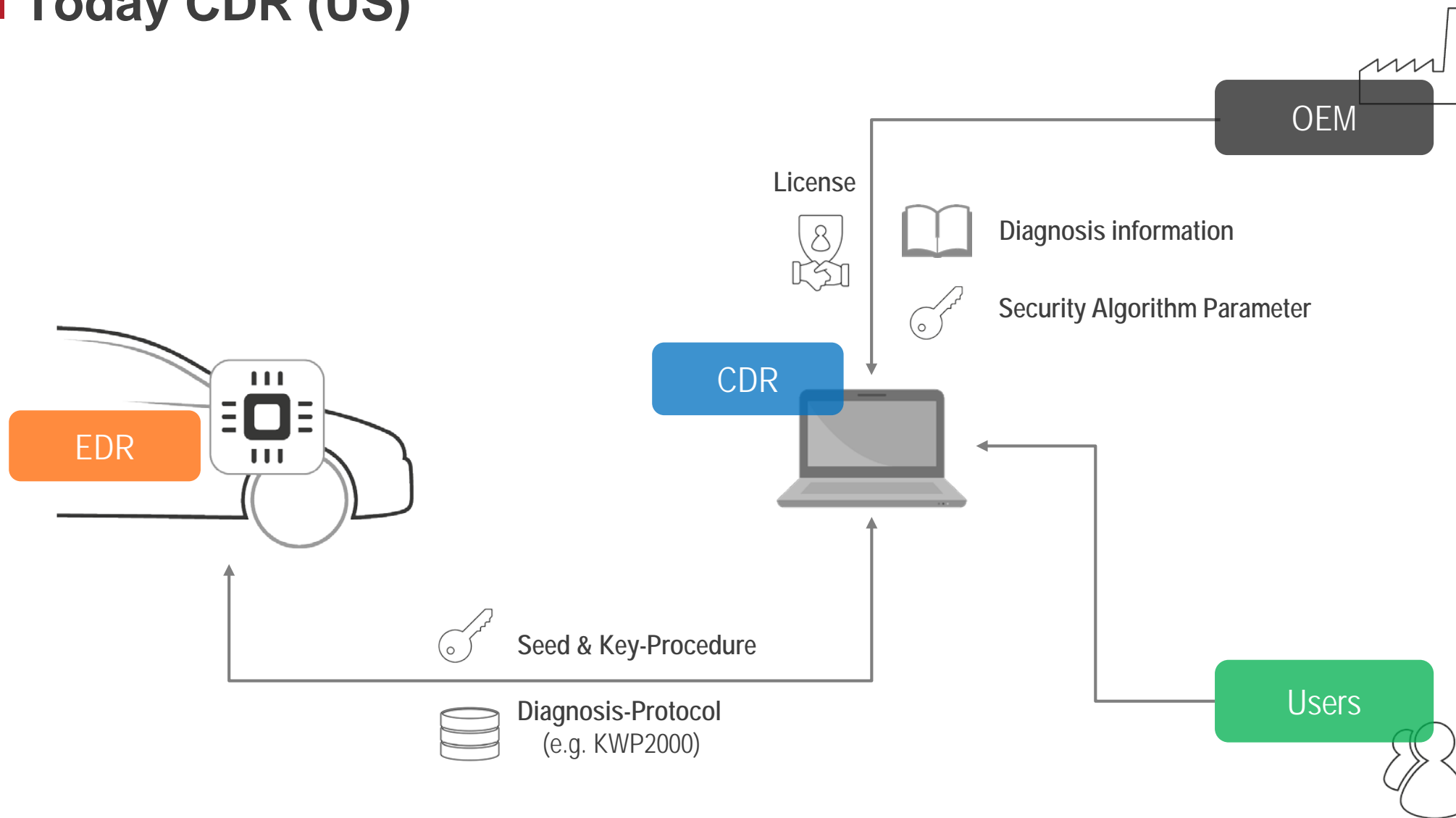
What is **standardized** by regulation?

<i>Data Element</i>	<i>Data Format</i>				
	Recording interval/ time	Data sample rate	Minimum range	Accuracy	Resolution
Speed, vehicle indicated	-5.0 to 0 sec	2	0 km/h to 200 km/h	±1 km/h	1 km/h.
...	...				

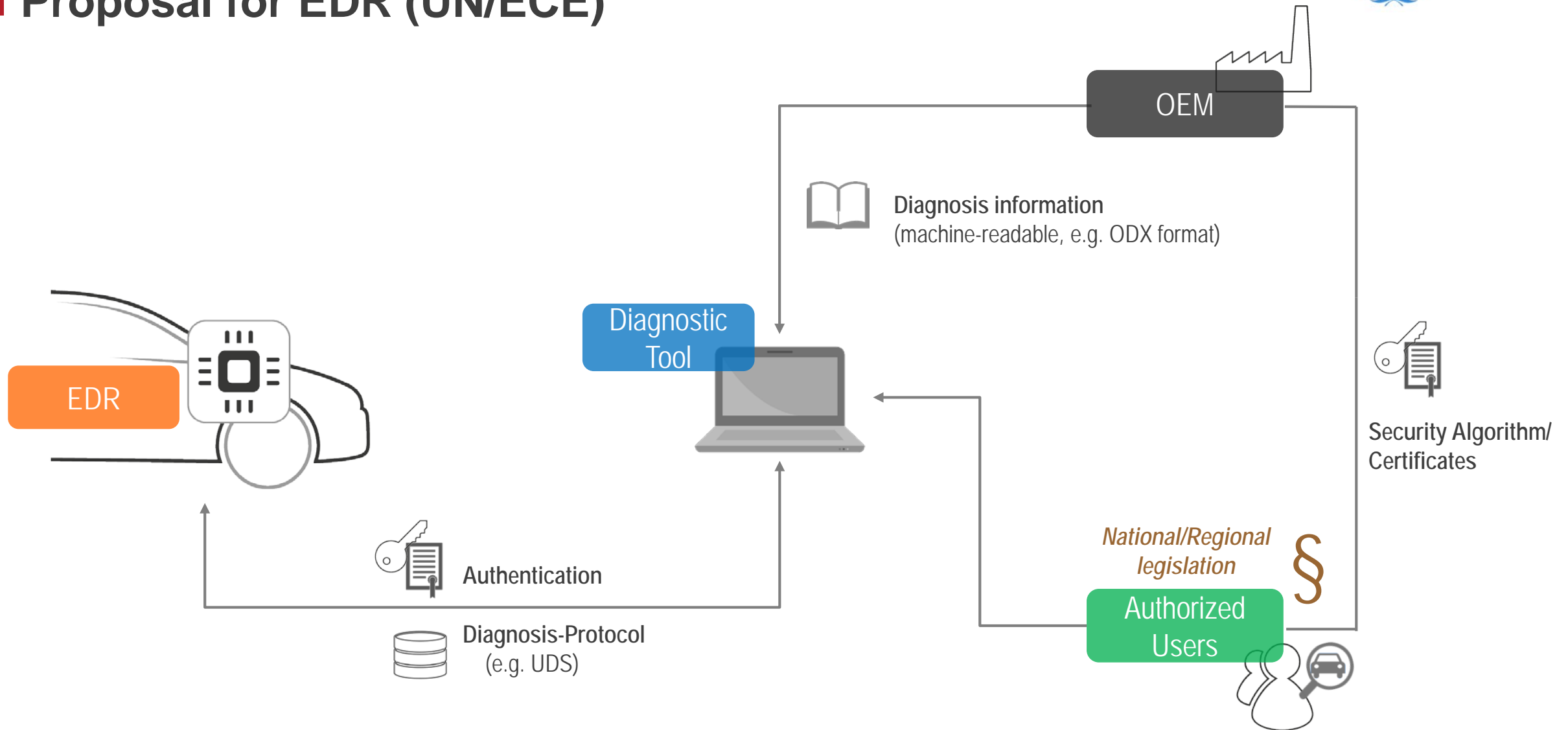
What is **not standardized** by regulation?

- **diagnostic request and response behaviour** to retrieve the data elements via electronic interface (e.g. SIDs, DIDs)
- **authentication procedure** for authorization (e.g. using ISO 14229 Service 0x29 Authentication)
- **process for delivery of diagnosis information** from VM to authorities / parties (e.g. download, web-access)
- **data format for diagnosis information** delivery (recommended: ODX)

Today CDR (US)



Proposal for EDR (UN/ECE)



Benefit

- **no changes** in the OEM hardware- and software- architecture is necessary
- **all existing diagnostic tools can be updated** with a CDR-function
- **only one single tool** is needed to read out the data elements from **all different vehicle types and models**
- in case EDR is protected by a security algorithm (e. g. certificates), **only authorized authorities and parties have access** to the stored data elements
- to grant **authorization is defined by national / regional legislation**

Text Proposal for EDR

- *The data shall be retrievable after an impact [test procedures to be named] by the electronic communication interface. If the main-on-board vehicle power supply is not available, it shall be possible to retrieve stored data from the EDR by a vehicle manufacturer-specific method.*
- *The manufacturer shall provide an information package to any interested manufacturer or repairer of components, diagnostic tools or test equipment in machine-readable format (e.g. ISO 22901) which includes the information about how the data elements can be retrieved and interpreted via the use of the electronic communication interface.*
- *If the access to data elements is protected by a security algorithm, the manufacturer shall ensure authorities and parties authorized by national or regional legislation the authorization to access the data elements in an easy manner.*