

## Vehicle ontology.

<b>ONTOLOGY (VEHICLE)</b>										
<b>Information need</b>	<b>Information element</b>	<b>Conditions/Attribute</b>	<b>Value metrics</b>	<b>Value (blank)</b>	<b>Value threshold</b>	<b>From whom</b>	<b>To whom</b>	<b>Profile</b>	<b>Timing</b>	
<b>2. Vehicle</b>	2.1 Tractor	2.1.1 Model	<b>Text</b>		<b>NA</b>	<b>DG vehicle</b>	<b>Infrastructure</b>	<b>“Passport”</b>	24 hours before the time of arrival	
						<b>DG vehicle</b>	<b>Emergency services</b>	<b>“Emergency”</b>	Real time; upon accident/incident occurrence	
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence	
		<b>DG vehicle</b>				<b>Infrastructure</b>	<b>“Passport”</b>	24 hours before the time of arrival		
		<b>DG vehicle</b>				<b>Emergency services</b>	<b>“Emergency”</b>	Real time; upon accident/incident occurrence		
		<b>DG vehicle</b>				<b>Police</b>	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence		
	2.1.5 Weight	<b>Kg</b>		<b>Perhaps local thresholds (per infrastructure)</b>			<b>DG vehicle</b>	<b>Infrastructure</b>	<b>“Passport”</b>	24 hours before the time of arrival
							<b>DG vehicle</b>	<b>Emergency services</b>	<b>“Emergency”</b>	Real time; upon accident/incident occurrence
							<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence
	2.2 1 <sup>st</sup> Trailer	2.2.1 Filling level	<b>%</b>		<b>• Degree of</b>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time; as	

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
		with cargo			<b>filling rule (ADR) for liquids and solids</b> • 80% ≤ % filling level ≤ 20% for vehicles more than 7.500 cm <sup>3</sup>				soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.2.2 Gross weight	<b>Kg</b>		Perhaps local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.2.3 Net weight	Kg		Perhaps local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.2.4 Type of cargo	UN Number	1.1-... <sup>1</sup>	Perhaps local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/inci

<sup>1</sup> Values from 1.1 to 1.2868 from the cargo ontology are filled in here.

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									dent/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.2.5 Model	Text		Perhaps local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
		2.2.6 Temperature	°C		Thresholds included in ADR	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.2.7 Pressure	N/m <sup>2</sup>		Thresholds included in ADR	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business	“Logistics”	Real time;

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
							<b>chain</b>		upon event (route change, accident/incident/upon request)
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time; upon accident/incident occurrence
	2.3 1 <sup>st</sup> Trailer	2.3.1 Filling level with cargo	%		<ul style="list-style-type: none"> <li>• Degree of filling rule (ADR) for liquids and solids</li> <li>• <math>80\% \leq \%</math> filling level <math>\leq 20\%</math> for vehicles more than <math>7.500 \text{ cm}^3</math></li> </ul>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time; as soon as accident/incident is detected
						<b>DG vehicle</b>	<b>Infrastructure</b>	<b>“Passport”</b>	24 hours before the time of arrival
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time; upon event (route change, accident/incident/upon request)

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.3.2 Gross weight	Kg		Perhaps local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.3.3 Net weight	Kg		Perhaps	DG vehicle	TMC	“Critical info”	Real time; as

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
					<b>local restrictions</b>				soon as accident/incident is detected
						<b>DG vehicle</b>	<b>Infrastructure</b>	<b>“Passport”</b>	24 hours before the time of arrival
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time; upon event (route change, accident/incident/upon request)
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time; upon accident/incident occurrence
		2.3.4 Type of cargo	<b>UN Number</b>	1.1-... <sup>2</sup>	<b>Perhaps local restrictions</b>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time; as soon as accident/incident is detected
						<b>DG vehicle</b>	<b>Infrastructure</b>	<b>“Passport”</b>	24 hours

<sup>2</sup> Values from 1.1 to 1.2868 from the cargo ontology are filled in here.

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
							re		before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.3.5 Model	Text		Perhaps local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.3.6 Temperature	°C		Thresholds included in ADR	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/inci

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									dent occurrence
		2.3.7 Pressure	N/m <sup>2</sup>		Thresholds included in ADR	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
				DG vehicle		Police	“Enforcement”	Real time; upon accident/incident occurrence	
				DG vehicle		Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)	
				DG vehicle		Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence	
	2.4 3 <sup>rd</sup> Trailer	2.4.1 Filling level with cargo	%		<ul style="list-style-type: none"> <li>• Degree of filling rule (ADR) for liquids and solids</li> <li>• 80% ≤ % filling</li> </ul>	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
				DG vehicle		Infrastructure	“Passport”	24 hours before the time of arrival	

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Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing		
					level $\leq$ 20% for vehicles more than 7.500 cm <sup>3</sup>	DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence		
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)		
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence		
		2.4.2 Gross weight	Kg				Per type of vehicle, cargo and upon addition of local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
								DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
								DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
								DG vehicle	Business	“Logistics”	Real time;

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
							<b>chain</b>		upon event (route change, accident/incident/upon request)
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time; upon accident/incident occurrence
		2.4.3 Net weight	<b>Kg</b>		<b>Per type of vehicle, cargo and upon addition of local restrictions</b>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time; as soon as accident/incident is detected
						<b>DG vehicle</b>	<b>Infrastructure</b>	<b>“Passport”</b>	24 hours before the time of arrival
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time; upon event (route change, accident/incident/upon request)
						<b>DG vehicle</b>	<b>Emergency</b>	<b>“Emergency”</b>	Real time;

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
							agencies		upon accident/incident occurrence
		2.4.4 Type of cargo	UN Number	1.1-... <sup>3</sup>	Local restrictions of cargo transportation	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.4.5 Model	Text		Local	DG vehicle	TMC	“Critical info”	Real time; as

<sup>3</sup> Values from 1.1 to 1.2868 from the cargo ontology are filled in here.

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
					restrictions of vehicle transportation				soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.4.6 Temperature	°C		Thresholds included in ADR, potentially adding local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Police	“Enforcement”	Real time; upon accident/inci

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									dent occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.4.7 Pressure	N/m <sup>2</sup>		Thresholds included in ADR, potentially adding local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									accident/incident occurrence
	2.5 4 <sup>th</sup> Trailer	2.5.1 Filling level with cargo	%		<ul style="list-style-type: none"> <li>• Degree of filling rule (ADR) for liquids and solids</li> <li>• 80% ≤ % filling level ≤ 20% for vehicles more than 7.500 cm<sup>3</sup></li> </ul>	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.5.2 Gross weight		Kg		Per type of vehicle, cargo and	DG vehicle	TMC	“Critical info”

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
					upon addition of local restrictions				dent is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.5.3 Net weight	Kg		Per type of vehicle, cargo and upon addition of local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement	Real time;

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
								”	upon accident/incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.5.4 Type of cargo	UN Number	1.1-... <sup>4</sup>	Local restrictions of cargo transportation	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
						DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Business	“Logistics”	Real time;

<sup>4</sup> Values from 1.1 to 1.2868 from the cargo ontology are filled in here.

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Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
							<b>chain</b>		upon event (route change, accident/incident/upon request)
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time; upon accident/incident occurrence
		2.5.5 Model	<b>Text</b>		<b>Local restrictions on vehicle transportation</b>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time; as soon as accident/incident is detected
						<b>DG vehicle</b>	<b>Infrastructure</b>	<b>“Passport”</b>	24 hours before the time of arrival
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time; upon event (route change, accident/incident/upon request)

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.5.6 Temperature	°C		Thresholds included in ADR, potentially additional local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
				DG vehicle		Police	“Enforcement”	Real time; upon accident/incident occurrence	
				DG vehicle		Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)	
				DG vehicle		Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence	
		2.5.7 Pressure	N/m <sup>2</sup>		Thresholds included in ADR, potentially additional local	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
				DG vehicle		Police	“Enforcement”	Real time;	

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
					<b>restrictions</b>			”	upon accident/incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time; upon event (route change, accident/incident/upon request)
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time; upon accident/incident occurrence
	2.6 1 <sup>st</sup> compartment	2.6.1 Filling level with cargo	%		<ul style="list-style-type: none"> <li>• Degree of filling rule (ADR) for liquids and solids</li> <li>• 80% ≤ % filling level ≤ 20% for vehicles more than 7.500 cm<sup>3</sup></li> </ul>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time; as soon as accident/incident is detected
						<b>DG vehicle</b>	<b>Infrastructure</b>	<b>“Passport”</b>	Just before passage.
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Upon request.
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time; upon accident/inci

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									dent occurrence
		2.6.2 Gross weight	<b>Kg</b>		<b>Per type of vehicle, cargo and upon addition of local restrictions</b>	DG vehicle	TMC	<b>“Critical info”</b>	Real time; as soon as accident/incident is detected
				DG vehicle		Infrastructure	<b>“Passport”</b>	Just before passage.	
				DG vehicle		Police	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence	
				DG vehicle		Emergency agencies	<b>“Emergency”</b>	Real time; upon accident/incident occurrence	
		2.6.3 Net weight	<b>Kg</b>		<b>Per type of vehicle, cargo and upon addition of local restrictions</b>	DG vehicle	TMC	<b>“Critical info”</b>	Real time; as soon as accident/incident is detected
				DG vehicle		Infrastructure	<b>“Passport”</b>	Just before passage.	
				DG vehicle		Police	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence	
				DG vehicle		Emergency agencies	<b>“Emergency”</b>	Real time; upon	

<b>ONTOLOGY (VEHICLE)</b>									
<b>Information need</b>	<b>Information element</b>	<b>Conditions/ Attribute</b>	<b>Value metrics</b>	<b>Value (blank)</b>	<b>Value threshold</b>	<b>From whom</b>	<b>To whom</b>	<b>Profile</b>	<b>Timing</b>
									accident/incident occurrence
		2.6.4 Type of cargo	<b>UN Number</b>	1.1-... <sup>5</sup>	<b>Local restrictions of cargo transportation</b>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time; as soon as accident/incident is detected
						<b>DG vehicle</b>	<b>Infrastructure</b>	<b>“Passport”</b>	24 hours before the time of arrival
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time; upon accident/incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Upon request.
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time; upon accident/incident occurrence
		2.6.5 Temperature	°C		<b>Thresholds included in ADR, potentially additional local restrictions</b>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time; as soon as accident/incident is detected
						<b>DG vehicle</b>	<b>Infrastructure</b>	<b>“Passport”</b>	Just before passage.

<sup>5</sup> Values from 1.1 to 1.2868 from the cargo ontology are filled in here.

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.6.6 Pressure	N/m <sup>2</sup>		Thresholds included in ADR, potentially additional local restrictions	DG vehicle	TMC	“Critical info”	Real time; as soon as accident/incident is detected
				DG vehicle		Infrastructure	“Passport”	Just before passage.	
				DG vehicle		Police	“Enforcement”	Real time; upon accident/incident occurrence	
				DG vehicle		Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence	
	2.7 2 <sup>nd</sup> compartment	2.7.1 Filling level with cargo	%						
		2.7.2 Gross weight	Kg						
		2.7.3 Net weight	Kg						
		2.7.4 Type of cargo	UN Number		<b>AS ABOVE</b>				

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing	
		2.7.5 Temperature	°C							
		2.7.6 Pressure	N/m <sup>2</sup>							
	2.8 3rd compartment	2.8.1 Filling level with cargo	%							
		2.8.2 Gross weight	Kg							
		2.8.3 Net weight	Kg							
		2.8.4 Type of cargo	UN Number							
		2.8.5 Temperature	°C							
		2.8.6 Pressure	N/m <sup>2</sup>							
	2.9 4 <sup>th</sup> compartment	2.9.1 Filling level with cargo	%							
		2.9.2 Gross weight	Kg							
		2.9.3 Net weight	Kg							
		2.9.4 Type of cargo	UN Number							
		2.9.5 Temperature	°C							
		2.9.6 Pressure	N/m <sup>2</sup>							
	2.10 5th compartment	2.10.1 Filling level with cargo	%							
		2.10.2 Gross weight	Kg							
		2.10.3 Net weight	Kg							
		2.10.4 Type of cargo	UN Number							
		2.10.5 Temperature	°C							
		2.10.6 Pressure	N/m <sup>2</sup>							
	2.11 6th compartment	2.11.1 Filling level with cargo	%							
2.11.2 Gross weight		Kg								
2.11.3 Net weight		Kg								
2.11.4 Type of cargo		UN Number								
2.11.5 Temperature		°C								
2.11.6 Pressure		N/m <sup>2</sup>								
2.12 7th compartment	2.12.1 Filling level with cargo	%								

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
		2.12.2 Gross weight	<b>Kg</b>						
		2.12.3 Net weight	<b>Kg</b>						
		2.12.4 Type of cargo	<b>UN Number</b>						
		2.12.5 Temperature	<b>°C</b>						
		2.12.6 Pressure	<b>N/m<sup>2</sup></b>						
		2.13 8th compartment	2.13.1 Filling level with cargo	<b>%</b>					
	2.13.2 Gross weight		<b>Kg</b>						
	2.13.3 Net weight		<b>Kg</b>						
	2.13.4 Type of cargo		<b>UN Number</b>						
	2.13.5 Temperature		<b>°C</b>						
	2.13.6 Pressure		<b>N/m<sup>2</sup></b>						
	2.14 9 <sup>th</sup> compartment	2.14.1 Filling level with cargo	<b>%</b>						
		2.14.2 Gross weight	<b>Kg</b>						
		2.14.3 Net weight	<b>Kg</b>						
		2.14.4 Type of cargo	<b>UN Number</b>						
		2.14.5 Temperature	<b>°C</b>						
		2.14.6 Pressure	<b>N/m<sup>2</sup></b>						
	2.15 10 <sup>th</sup> compartment	2.15.1 Filling level with cargo	<b>%</b>						
		2.15.2 Gross weight	<b>Kg</b>						
		2.15.3 Net weight	<b>Kg</b>						
2.15.4 Type of cargo		<b>UN Number</b>							
2.15.5 Temperature		<b>°C</b>							
2.15.6 Pressure		<b>N/m<sup>2</sup></b>							
2.16 11 <sup>th</sup> compartment	2.16.1 Filling level with cargo	<b>%</b>							
	2.16.2 Gross weight	<b>Kg</b>							
	2.16.3 Net weight	<b>Kg</b>							
	2.16.4 Type of cargo	<b>UN Number</b>							
	2.16.5 Temperature	<b>°C</b>							

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing	
		2.16.6 Pressure	N/m <sup>2</sup>							
	2.17 Vehicle Weight	2.17.1. Axle 1 weight	Kg		Per type of vehicle, cargo and upon addition of local restrictions	DG vehicle	Infrastructure	“Passport”	Before passage.	
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence	
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence	
			2.17.2. Axle 2 weight	Kg		Per type of vehicle, cargo and upon addition of local restrictions	DG vehicle	Infrastructure	“Passport”	Before passage.
							DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
							DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
	2.17.3. Axle 3 weight	Kg		Per type of vehicle, cargo and upon addition of local restrictions	DG vehicle	Infrastructure	“Passport”	Before passage.		
					DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence		
					DG vehicle	Emergency	“Emergency”	Real time;		

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
							agencies		upon accident/incident occurrence
		2.17.4. Axle 4 weight	<b>Kg</b>		<b>Per type of vehicle, cargo and upon addition of local restrictions</b>	DG vehicle	Infrastructure	“Passport”	Before passage.
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
	2.18 Position/ Location	2.18.1 Vehicle latitude position	<b>WGS84 Geodecimal</b>		NA	DG vehicle	Other vehicles	“Warning”	Real time; upon accident/incident occurrence
						DG vehicle	TMC	“Critical info”	Real time; upon accident/incident occurrence
						DG vehicle	Infrastructure	“Passport”	Real time during and 5 min. before passage
						DG vehicle	Police	“Enforcement”	Real time; upon accident/inci

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									dent occurrence
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.18.2 Vehicle longitude position	WGS84 Geodecimal		NA	DG vehicle	Other vehicles	“Warning”	Real time; upon accident/incident occurrence
						DG vehicle	TMC	“Critical info”	Real time; upon accident/incident occurrence
						DG vehicle	Infrastructure	“Passport”	Real time during and 5 min. before passage
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
						DG vehicle	Business chain	“Logistics”	Real time; upon event (route change, accident/incident/upon request)
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
	2.19 Travel/itinerary	2.19.1 Travel origin latitude position	WGS84 Geodecimal		NA	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
DG vehicle						Business Chain	“Logistics”	Upon request	
DG vehicle		Infrastructure	“Passport”	24 hours before the time of arrival	2.19.2 Travel destination latitude position	WGS84 Geodecimal		NA	
									Business Chain
DG vehicle		Infrastructure	“Passport”	24 hours before the time of arrival	2.19.3 Type of destination	Text (Supply Depot, Gas station, etc.)		NA	
									Business Chain

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
		2.19.4 Type of itinerary	Text (international trip, feeding itinerary, distribution itinerary, etc.).		NA	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Business Chain	“Logistics”	Upon request
		2.19.5 Time of trip initialisation	GPS		NA	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Business Chain	“Logistics”	Upon request
		2.19.6 Date of trip initialisation	GPS		NA	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Business Chain	“Logistics”	Upon request
		2.19.7 Wished/estimated date of destination reached	GPS		NA	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Business Chain	“Logistics”	Upon request
		2.19.8 Wished/estimated time of destination reached	GPS		NA	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Business Chain	“Logistics”	Upon request
		2.19.9 Priority of	Integral		NA	DG vehicle	Infrastructure	“Passport”	24 hours

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics (1,2,3,4,5, ...)	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
		itinerary	(1,2,3,4,5, ...)				re		before the time of arrival
						DG vehicle	Business Chain	“Logistics”	Upon request
						DG vehicle	Infrastructure	“Passport”	Upon passage request
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
		2.19.10 Starting address	Text: Street name House Number Post Code City District Country		NA	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Business Chain	“Logistics”	Upon request
						DG vehicle	Infrastructure	“Passport”	Upon passage request
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
		2.19.11 Via address 1	Text: Street name House Number Post Code City		NA	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Business Chain	“Logistics”	Upon request

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
			District Country			DG vehicle	Infrastructure	“Passport”	Upon passage request
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
		2.19.12 Destination address	Text: Street name House Number Post Code City District Country		NA	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Business Chain	“Logistics”	Upon request
						DG vehicle	Infrastructure	“Passport”	Upon passage request
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
	2.20 Contact person	2.20.1 Contact person name	Text		NA	DG vehicle	Other vehicles	“Warning”	Real time
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									occurrence
	2.20.2 Contact person communication language		Country ISO code		NA	DG vehicle	Other vehicles	“Warning”	Real time
DG vehicle						Police	“Enforcement”	Real time; upon accident/incident occurrence	
DG vehicle						Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence	
	2.20.3 Contact person telephone		Numeric value		NA	DG vehicle	Other vehicles	“Warning”	Real time
DG vehicle						Police	“Enforcement”	Real time; upon accident/incident occurrence	
DG vehicle						Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence	
	2.20.4 Contact person fax		Numeric value		NA	DG vehicle	Other vehicles	“Warning”	Real time
DG vehicle						Police	“Enforcement”	Real time; upon accident/incident occurrence	

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									dent occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.20.5 Contact person address	Number		NA	DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
			Text		NA	DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
			Country ZIP Code		NA	DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
	2.21 Tyres condition	2.21.1 Maximum tyres temperature	°C		Depending upon tyres	DG vehicle	Infrastructure	“Passport”	? Real time?
						DG vehicle	Emergency agencies	“Emergency”	When exceeding threshold/
		2.21.2 Most recent date of replacement/installation	GPS		Depending upon operation	DG vehicle	Infrastructure	“Passport”	5min before passage
						DG vehicle	Emergency agencies	“Emergency”	When exceeding threshold/
		2.21.3 Type of tyre	Text		NA	DG vehicle	Infrastructure	“Passport”	5min before

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
		(model)					re		passage
						DG vehicle	Emergency agencies	“Emergency”	When exceeding threshold/
	2.22 Vehicle failure (other than spill)	2.22.1 Vehicle position latitude	WGS84 Geodecimal		NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence
DG vehicle						Police	“Enforcement”	Real time upon incident occurrence	
DG vehicle						Business chain	“Logistics”	Real time upon incident occurrence	
DG vehicle						Emergency agencies	“Emergency”	Real time upon incident occurrence	
		2.22.2 Vehicle position longitude	WGS84 Geodecimal		NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence
DG vehicle						Police	“Enforcement”	Real time upon incident occurrence	
DG vehicle						Business chain	“Logistics”	Real time upon incident occurrence	
DG vehicle						Emergency	“Emergency”	Real time	

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
							agencies		upon incident occurrence
		2.22.3 Time of failure	GPS		NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence
						DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon incident occurrence
		2.22.4 Date of failure	GPS		NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence
						DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									incident occurrence
		2.22.5 Injuries	<b>Yes/No (boolean)</b>		NA	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time upon incident occurrence
		2.22.6 Type of failure	<b>Text</b>		NA	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time upon incident

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									occurrence
	2.23 Spill	2.23.1 1 <sup>st</sup> Trailer spill	<b>Yes/No (Boolean)</b>		<b>NA</b>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time upon incident occurrence
	2.23.2 3 <sup>rd</sup> Trailer spill	<b>Yes/No (Boolean)</b>		<b>NA</b>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time upon incident occurrence	
					<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time upon incident occurrence	
					<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time upon incident occurrence	
					<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time upon incident occurrence	

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
		2.24.3 4 <sup>th</sup> Trailer spill	Yes/No (Boolean)		NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence
						DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon incident occurrence
		2.25.4 First Compartment spill	Yes/No (Boolean)		NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence
						DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon incident occurrence
		2.26.5 Second	Yes/No		NA	DG vehicle	TMC	“Critical info”	Real time

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
		Compartment spill	<b>(Boolean)</b>						upon incident occurrence
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time upon incident occurrence
		2.26.6 Third Compartment spill	<b>Yes/No (Boolean)</b>		<b>NA</b>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Police</b>	<b>“Enforcement”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Business chain</b>	<b>“Logistics”</b>	Real time upon incident occurrence
						<b>DG vehicle</b>	<b>Emergency agencies</b>	<b>“Emergency”</b>	Real time upon incident occurrence
		2.26.7 Fourth compartment spill	<b>Yes/No (Boolean)</b>		<b>NA</b>	<b>DG vehicle</b>	<b>TMC</b>	<b>“Critical info”</b>	Real time upon

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									incident occurrence
						DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon incident occurrence
		2.26.8 Fifth compartment spill	Yes/No (Boolean)		NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence
						DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon incident occurrence
		2.29.9 Vehicle position latitude	WGS84 Geodecimal		NA	DG vehicle	TMC	“Critical info”	Real time upon incident

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									occurrence
						DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon incident occurrence
		2.29.10 Vehicle position longitude	WGS84 Geodecimal		NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence
						DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon incident occurrence
		2.29.11 Time of spill initialization	GPS		NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
						DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon incident occurrence
		2.29.12 Date of spill initialisation	GPS		NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence
						DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon incident occurrence
		2.29.13 Cargo type	UN Number	1.1-...	NA	DG vehicle	TMC	“Critical info”	Real time upon incident occurrence
						DG vehicle	Police	“Enforcement”	Real time

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
								”	upon incident occurrence
						DG vehicle	Business chain	“Logistics”	Real time upon incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time upon incident occurrence
	2.30 Speed violation	2.30.1 Speed	m/sec		Local speed limits	DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
		2.30.2 Time of speed violation initialization	GPS		NA	DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
		2.30.3 Date of speed violation initialisation	GPS		NA	DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
		2.30.4 Vehicle latitude position when speed violation started	WGS84 Geodecimal		NA	DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
		2.30.5 Vehicle longitude position when speed violation started	WGS84 Geodecimal		NA	DG vehicle	Police	“Enforcement”	Real time upon incident occurrence
		2.30.6 Duration of speed violation	Sec		30 seconds	DG vehicle	Police	“Enforcement”	After 30 seconds

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
									duration
	2.31 Type of vehicle <i>(to check for compatibility with cargo)</i>	2.31.1 "EX/II vehicle"	<b>Yes/No (Boolean)</b>		<b>Provided in ADR; CHAPTER 9.1 SCOPE, DEFINITIONS AND REQUIREMENTS FOR THE APPROVAL OF VEHICLES</b>	DG vehicle	Infrastructure	"Passport"	24 hours before the time of arrival
						DG vehicle	Police	"Enforcement"	Real time; upon accident/incident occurrence
						DG vehicle	Emergency agencies	"Emergency"	Real time; upon accident/incident occurrence
		2.31.2 "EX/II vehicle"	<b>Yes/No (Boolean)</b>			DG vehicle	Infrastructure	"Passport"	24 hours before the time of arrival
		DG vehicle				Police	"Enforcement"	Real time; upon accident/incident occurrence	
		DG vehicle				Emergency agencies	"Emergency"	Real time; upon accident/incident occurrence	
		2.31.3 "FL vehicle"	<b>Yes/No (Boolean)</b>			DG vehicle	Infrastructure	"Passport"	24 hours before the time of arrival

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.31.4 "OX vehicle"	Yes/No (Boolean)			DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.31.5 "AT vehicle"	Yes/No (Boolean)			DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.31.6 "Complete vehicle"	Yes/No (Boolean)			DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
		2.31.7 "Incomplete vehicle"	Yes/No (Boolean)			DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
						DG vehicle	Police	“Enforcement”	Real time; upon accident/incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing	
		2.31.8 "Completed vehicle"	Yes/No (Boolean)			DG vehicle	Infrastructure	"Passport"	24 hours before the time of arrival	
						DG vehicle	Police	"Enforcement"	Real time; upon accident/incident occurrence	
						DG vehicle	Emergency agencies	"Emergency"	Real time; upon accident/incident occurrence	
		2.31.9 "Type-approved vehicle"	Yes/No (Boolean)				DG vehicle	Infrastructure	"Passport"	24 hours before the time of arrival
							DG vehicle	Police	"Enforcement"	Real time; upon accident/incident occurrence
							DG vehicle	Emergency agencies	"Emergency"	Real time; upon accident/incident occurrence
		2.31.10 "ADR approval"	Yes/No (Boolean)				DG vehicle	Infrastructure	"Passport"	24 hours before the time of arrival
							DG vehicle	Police	"Enforcement"	Real time;

## ONTOLOGY (VEHICLE)

Information need	Information element	Conditions/ Attribute	Value metrics	Value (blank)	Value threshold	From whom	To whom	Profile	Timing
								”	upon accident/incident occurrence
						DG vehicle	Emergency agencies	“Emergency”	Real time; upon accident/incident occurrence
	2.32 Maximum dimensions	2.32.1. Maximum height	<b>M</b>		Local restrictions (per infrastructure)	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
		2.32.2. Maximum width	<b>M</b>		Local restrictions (per infrastructure)	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival
		2.32.3 Maximum length	<b>M</b>		Local restrictions (per infrastructure)	DG vehicle	Infrastructure	“Passport”	24 hours before the time of arrival