(DRAFT) LIST OF PARAMETERS USED IN THE HARMONISED RISK ESTIMATION MODEL

The following lists of parameters are currently applicable together with the other documents and tools composing the version 1.0 of the Framework on Inland TDG risk management.

The lists of parameters are categorised as following:

- General,
- Infrastructure and operations,
- Traffics,
- Transport events,
- DG releases,
- DG scenarios,
- Human vulnerabilities,
- Risk estimation,
- Decision-making.

For checking the validity of the information reported below the user of the present document is invited to upload the applicable version from this address https://www.era.europa.eu/activities/transport-dangerous-goods/inland-tdg_en under the 'Risk Management Platform' tab.

List of parameters allowing user-value setting

General parameters						
Parameter name **(Aphabetic order)**	**Short definition**	**Unit**	**Default value** **(if applicable)**			**Scope of validity of the default setting**
			RL	**RD**	**IWW**	
MODE	Transport mode which is the object of risk estimation for a given segment of infrastructure		RL	RD	IWW	RMF
GEO_SCOPE	Country / Region in/for which a case study is performed	Enum				
INF_CAT	Infrastructure category	-	**see section 4.1 of guide for risk estimations**			
OPE_CAT	Operation category	-	**see section 4.1 of guide for risk estimations**			

Infrastructure and operation parameters						
Parameter name **(Aphabetic order)**	**Short definition**	**Unit**	**Default value** **(if applicable)**			**Scope of validity of the default setting**
			RL	**RD**	**IWW**	
AZI	Orientation towards the next segment in direction 1	degree	0°	0°	0°	1D/1D+ estimations
CEMT	Conference Européenne des Ministres des Transports (acronym used for the navigability class of inland waterways)		**see section 4.1 of guide for risk estimations**			
END	End kilometric point	km				
FLU	Filling /Unfilling		**see section 4.1 of guide for risk estimations**			
GRID_TYPE / 1D	Mono-dimensional grid type					
GRID_TYPE / 1D+	Extended mono-dimensional grid type					

HLT	Handling / Loading / Transboarding		**see section 4.1 of guide for risk estimations**	
HRB	Harbor waters area (Inland waterways)		**see section 4.1 of guide for risk estimations**	
LENGTH	Length of a given segment	km		
MMP	Multimodal platform		**see section 4.1 of guide for risk estimations**	
MODE	Mode of transport	-	**see section 4.1 of guide for risk estimations**	
MYS	Marshalling yards		**see section 4.1 of guide for risk estimations**	

NET	Network		**see section 4.1 of guide for risk estimations**	
OLN	Open line		**see section 4.1 of guide for risk estimations**	
ORD	Open road		**see section 4.1 of guide for risk estimations**	
OWW	Open waterways		**see section 4.1 of guide for risk estimations**	
PRK	(car/truck) Park		**see section 4.1 of guide for risk estimations**	
RD	Roads		**see section 4.1 of guide for risk estimations**	

RL	Railways		**see section 4.1 of guide for risk estimations**			
SEG	Segment (portion of an infrastructure) where homogeneous properties of proposed parameters are described by the user of the framework to reflect at best a given risk situation					
SEG(N)	Segment number	(integer)				
SPEED_OPE_DIR1	Speed limit applicable to freight vehicles in direction 1	km/h	**see 'By default – Infrastructure parameters'**			
SPEED_OPE_DIR2	Speed limit applicable to freight vehicles in direction 2	km/h	**see 'By default – Infrastructure parameters'**			
START	Start kilometric point of a given segment	km				
STSD	Stations and sidings		**see section 4.1 of guide for risk estimations**			

TOT_LINES_N	Total number of lines/tracks/waterways lines	(integer)	**see 'By default – Infrastructure parameters'**
TOT_LINES_N_DIR1	Number of lines in direction 1	(integer)	**see 'By default – Infrastructure parameters'**
TOT_LINES_N_DIR2	Number of lines in direction 2	Nb	**see 'By default – Infrastructure parameters'**
WIDTH_INF_DIR1	Width of the infrastructure premises counted from the centerline in direction 1	m	**see 'By default – Infrastructure parameters'**
WIDTH_INF_DIR2	Width of the infrastructure premises counted from the centerline in direction 2	m	**see 'By default – Infrastructure parameters'**
WTG	waters in Watergate area (Inland waterways)		**see section 4.1 of guide for risk estimations**

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Traffic parameters							
Parameter name **(Aphabetic order)**	**Short definition**	**Unit**	**Default value** **(if applicable)**			**Scope of validity of the default setting**	
			RL	RD	IWW		
BKD_UN_NUM_YN	User setting of traffic breakdown per UN numbers						
BKD_CRGO_CC_YN	User setting of traffic breakdown per cargo capacity						
BKD_CONT_CC_YN	User setting of traffic breakdown per container capacity						
BKD_TOD_YN	User setting of traffic volume breakdown per time of the day						
CL	Class (of dangerous goods)						
CONT	Container						
CONT_CC_A_PRCT_DIR1	Ton percentage of traffic carried in large size containers in direction 1	%/ton					

CONT_CC_A_PRCT_DIR2	Ton percentage of traffic carried in large size containers in direction 2	%/ton				
CONT_CC_B_PRCT_DIR1	Ton percentage of traffic carried in medium size containers in direction 1	%/ton				
CONT_CC_B_PRCT_DIR2	Ton percentage of traffic carried in medium size containers in direction 2	%/ton				
CONT_CC_C_PRCT_DIR1	Ton percentage of traffic carried in small size containers in direction 1	%/ton				
CONT_CC_C_PRCT_DIR2	Ton percentage of traffic carried in small size containers in direction 2	%/ton				
CRGO	Cargo					
CRGO_CC_A_PRCT_DIR1	Ton percentage of traffic carried in large size cargoes in direction 1	%/ton				
CRGO_CC_A_PRCT_DIR2	Ton percentage of traffic carried in large size cargoes in direction 2	%/ton				
CRGO_CC_B_PRCT_DIR1	Ton percentage of traffic carried in medium size cargoes in direction 1	%/ton				

CRGO_CC_B_PRCT_DIR2	Ton percentage of traffic carried in medium size cargoes in direction 2	%/ton				
CRGO_CC_C_PRCT_DIR1	Ton percentage of traffic carried in small size cargoes in direction 1	%/ton				
CRGO_CC_C_PRCT_DIR2	Ton percentage of traffic carried in small size cargoes in direction 2	%/ton				
DGCL01_TY_PRCT	Ton percentage of DG traffic of Class 1	%ton				EU
DGCL21_TY_PRCT	Ton percentage of DG traffic of Class 2.1	%ton				EU
DGCL22_TY_PRCT	Ton percentage of DG traffic of Class 2.2	%ton				EU
DGCL23_TY_PRCT	Ton percentage of DG traffic of Class 2.3	%ton				EU
DGCL03_TY_PRCT	Ton percentage of DG traffic of Class 3	%ton				EU
DGCL41_TY_PRCT	Ton percentage of DG traffic of Class 4.1	%ton				EU
DGCL42_TY_PRCT	Ton percentage of DG traffic of Class 4.2	%ton				EU
DGCL43_TY_PRCT	Ton percentage of DG traffic of Class 4.3	%ton				EU

DGCL51_TY_PRCT	Ton percentage of DG traffic of Class 5.1	%ton				EU
DGCL52_TY_PRCT	Ton percentage of DG traffic of Class 5.2	%ton				EU
DGCL61_TY_PRCT	Ton percentage of DG traffic of Class 6.1	%ton				EU
DGCL62_TY_PRCT	Ton percentage of DG traffic of Class 6.2	%ton				EU
DGCL07_TY_PRCT	Ton percentage of DG traffic of Class 7	%ton				EU
DGCL08_TY_PRCT	Ton percentage of DG traffic of Class 8	%ton				EU
DGCL09_TY_PRCT	Ton percentage of DG traffic of Class 9	%ton				EU
DGFRT_NTKY	Dangerous goods freight traffic volume in number of ton.kilometer per year	ton.km/y				EU
DGCL01_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 1	%ton.km				EU
DGCL21_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 2.1	%ton.km				EU
DGCL22_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 2.2	%ton.km				EU
DGCL23_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 2.3	%ton.km				EU

DGCL03_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 3	%ton.km				EU
DGCL41_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 4.1	%ton.km				EU
DGCL42_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 4.2	%ton.km				EU
DGCL43_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 4.3	%ton.km				EU
DGCL51_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 5.1	%ton.km				EU
DGCL52_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 5.2	%ton.km				EU
DGCL61_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 6.1	%ton.km				EU
DGCL62_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 6.2	%ton.km				EU
DGCL07_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 7	%ton.km				EU
DGCL08_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 8	%ton.km				EU
DGCL09_TKY_PRCT	Ton kilometer percentage of DG traffic of Class 9	%ton.km				EU
FRT	Normal (non-DG) Freight Transport					EU

NFRT_TKY	Normal freight (non DG freight) traffic volume in ton.kilometer per year	ton.km/y				EU
NFRT_TUY	Normal freight (non DG freight) traffic volume in number of average transport unit movement per year	TU/y				
TOT_PASS_TRAF_NY	Total passenger traffic in per year	N/y				
TOT_FRT_TY	Total freight (non DG freight) traffic in a year	ton/y				EU
TOT_DGFRT_TY	Total DG freight traffic in a year	ton/y				EU
TRAF_UN_NUM_DIR1	UN number carried in direction 1	Num				
TRAF_UN_NUM_DIR2	UN number carried in direction 2	Num				
TRAF_UN_T_PRCT_DIR1	Ton percentage of the corresponding UN number traffic carried in direction 1	%ton				
TRAF_UN_T_PRCT_DIR2	Ton percentage of the corresponding UN number traffic carried in direction 2	%ton				
TRAF_DGFRT_T_PRCT_DIR1	Ton percentage of DG traffic carried in direction 1 per hour of the day	%ton				

TRAF_DGFRT_T_PRCT_DIR2	Ton percentage of DG traffic carried in direction 2 per hour of the day	%ton			
TRAF_FRT_T_PRCT_DIR1	Ton percentage of freight traffic carried in direction 1 per hour of the day	%ton			
TRAF_FRT_T_PRCT_DIR2	Ton percentage of freight traffic carried in direction 2 per hour of the day	%ton			
TRAF_PASS_N_PRCT_DIR1	Percentage of passenger traffic in direction 1 per hour of the day	%			
TRAF_PASS_N_PRCT_DIR2	Percentage of passenger traffic in direction 2 per hour of the day	%			
UN(N)	UN number allocated to a given share of dangerous good traffic volume	UN number	**see Table A of RID/ADR/ADN**		
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Transport events (see F1 tables)							
Parameter name **(Aphabetic order)**	**Short definition**	**Unit**	**Default value** **(if applicable)**			**Scope of validity of the default setting**
			RL	**RD**	**IWW**	
IWW_OWW_DC1	Collision with ship	1/y				
IWW_OWW_DC2	(reserved)	1/y				
IWW_OWW_DC3	(reserved)	1/y				
IWW_OWW_DC4	(reserved)	1/y				
IWW_OWW_DC5	(reserved)	1/y				
IWW_OWW_DC6	Accidents to persons involving vessel in motion	1/y				
IWW_OWW_DC7	Collision with objects in water	1/y				
IWW_OWW_DC8	Collision with bridge or other infrastructures	1/y				

IWW_OWW_DC9	(reserved)	1/y				
IWW_OWW_DC10	(reserved)	1/y				
IWW_OWW_DC11	Overturning	1/y				
IWW_OWW_DC12	Stranding	1/y				
IWW_OWW_DC13	Fires (on vehicle part - not of cargo)	1/y				
IWW_OWW_DC14	Submerged/Flooded/Sunk vessel(s)	1/y				
IWW_OWW_DC15	(reserved)	1/y				
IWW_OWW_DC16	Package/Cargo drop	1/y				
IWW_OWW_DC17	Spontaneous loss of containment (Substance reaction, substance fire / Explosion, not due to transport occurrence)	1/y				
IWW_OWW_DC18	Package/Cargo hit	1/y				
IWW_OWW_DC19	(reserved)	1/y				
IWW_OWW_DC20	(reserved)	1/y				

IWW_OWW_DC21	Other	1/y				
RD_ORD_DC1	Collision - At least two vehicles - no turning	1/y				
RD_ORD_DC2	Collision - At least two vehicles - turning or crossing	1/y				
RD_ORD_DC3	Collision - Accidents with parked vehicles	1/y				
RD_ORD_DC4	Accidents between train and vehicle	1/y				
RD_ORD_DC5	(reserved)	1/y				
RD_ORD_DC6	Accidents with pedestrians	1/y				
RD_ORD_DC7	Collisions with objects or infrastructure (single vehicle)	1/y				
RD_ORD_DC8	(reserved)	1/y				
RD_ORD_DC9	(reserved)	1/y				
RD_ORD_DC10	(reserved)	1/y				
RD_ORD_DC11	Single vehicle accidents (other than collisions, including overturning)	1/y				

RD_ORD_DC12	Fires (of vehicle part - not of cargo)	1/y				
RD_ORD_DC13	Submerged/Flooded Road vehicle	1/y				
RD_ORD_DC14	(reserved)	1/y				
RD_ORD_DC15	(reserved)	1/y				
RD_ORD_DC16	Package/Cargo drop	1/y				
RD_ORD_DC17	Spontaneous loss of containment (Substance reaction, substance fire / Explosion, not due to transport occurrence)	1/y				
RD_ORD_DC18	Package/Cargo hit	1/y				
RD_ORD_DC19	(reserved)	1/y				
RD_ORD_DC20	(reserved)	1/y				
RD_ORD_DC21	Other	1/y				
RL_MYS_DC1	Front to front collisions	1/y				
RL_MYS_DC2	Front to end collisions	1/y				

RL_MYS_DC3	Side collisions	1/y				
RL_MYS_DC4	Level crossing accidents	1/y				
RL_MYS_DC5	(reserved)	1/y				
RL_MYS_DC6	Accidents to persons involving rolling stock in motion	1/y				
RL_MYS_DC7	Collisions with objects or infrastructure	1/y				
RL_MYS_DC8	(reserved)	1/y				
RL_MYS_DC9	(reserved)	1/y				
RL_MYS_DC10	(reserved)	1/y				
RL_MYS_DC11	Derailments	1/y				
RL_MYS_DC12	Technical failure on rolling stock	1/y				
RL_MYS_DC13	Fires (on vehicle part - not of cargo)	1/y				
RL_MYS_DC14	Submerged/Flooded railway vehicle(s)	1/y				

RL_MYS_DC15	(reserved)	1/y				
RL_MYS_DC16	Package/Cargo drops	1/y				
RL_MYS_DC17	Spontaneous losses of containment (Substance reaction, substance fire / Explosion, not due to transport occurrence)	1/y				
RL_MYS_DC18	Package/Cargo hit	1/y				
RL_MYS_DC19	(reserved)	1/y				
RL_MYS_DC20	(reserved)	1/y				
RL_MYS_DC21	Other	1/y				
RL_OLN_DC1	Collisions	1/y				
RL_OLN_DC2	(reserved)	1/y				
RL_OLN_DC3	(reserved)	1/y				
RL_OLN_DC4	Level crossing accidents	1/y				
RL_OLN_DC5	(reserved)	1/y				

RL_OLN_DC6	Accidents to persons involving rolling stock in motion	1/y				
RL_OLN_DC7	Collisions with objects or infrastructure	1/y				
RL_OLN_DC8	(reserved)	1/y				
RL_OLN_DC9	(reserved)	1/y				
RL_OLN_DC10	(reserved)	1/y				
RL_OLN_DC11	Derailments	1/y				
RL_OLN_DC12	Fires (on vehicle part - not of cargo)	1/y				
RL_OLN_DC13	Submerged/Flooded railway vehicle(s)	1/y				
RL_OLN_DC14	(reserved)	1/y				
RL_OLN_DC15	(reserved)	1/y				
RL_OLN_DC16	Package/Cargo drops	1/y				

RL_OLN_DC17	Spontaneous losses of containment (Substance reaction, substance fire / Explosion, not due to transport occurrence)	1/y				
RL_OLN_DC18	Package/Cargo hit	1/y				
RL_OLN_DC19	(reserved)	1/y				
RL_OLN_DC20	(reserved)	1/y				
RL_OLN_DC21	Other	1/y				

DG Releases (See also list of reference DG scenarios and pre-calculated tables)						
Parameter name **(Aphabetic order)**	**Short definition**	**Unit**	**Default value** **(if applicable)**			**Scope of validity of the default setting**
			RL	RD	IWW	
DGR	Dangerous goods release		[Y/N]	[Y/N]	[Y/N]	
DGSC	Dangerous goods scenario		**See list of reference DG scenarios**			
P(RELEASE)=NO_RELEASE	Percentage of transport events where there is no release (see definition of release categories in section 7.3 of guide for risk estimation)	%	30	17 ; 32		OLN ; MYS
P(RELEASE)=SMALL_RELEASE	Percentage of transport events where there is a small release. (see definition of release categories in section 7.3 of guide for risk estimation)	%	30	70 ; 58		OLN ; MYS

P(RELEASE)=LIMITED_RELEASE	Percentage of transport events where there is a limited release. (see definition of release categories in section 7.3 of guide for risk estimation)	%	33	9 ; 8.5	OLN ; MYS
P(RELEASE)=CONTINUOUS_RELEASE	Percentage of transport events where there is a continuous release. (see definition of release categories in section 7.3 of guide for risk estimation)	%	6	3.9 ; 1.5	OLN ; MYS
P(RELEASE)=FULL_RELEASE	Percentage of transport events where there is a full release. (see definition of release categories in section 7.3 of guide for risk estimation)		1	0.1 ; 0	OLN ; MYS

DG scenarios (see table of allocation of DG scenarios)						
Parameter name **(Aphabetic order)**	**Short definition**	**Unit**	**Default value** **(if applicable)**			**Scope of validity of the default setting**
			RL	**RD**	**IWW**	
P(FIRE_IGNITION)	Probability of ignition after a transport event					CL1
P(IGNITION)	Probability of ignition of a DG Class 2 flammable gas when a release occur		0.9			CL2 flammable gases
P(VCE)	Probability of Vapor Cloud Explosion after ignition of a DG Class 2 flammable gas		0.25			(if ignited) CL2 flammable gases
P(Flash fire)	Probability of flash fire after ignition of a DG Class 2 flammable gas		0..25			(if ignited) CL2 flammable gases

P(Jet fire)	Probability of jet fire after ignition of a DG Class 2 flammable gas		0.5	(if ignited) CL2 flammable gases
P(FIRE)	Probability of fire ignition DG Class 2 flammable gas after VCE, Flash fire or Jet fire phase.		1.0	CL2 flammable gases
P(IGNITION)	Probability of fire ignition of a DG Class 3 release		0.65	CL3
P(POOL_FIRE)	Probability of pool fire a DG Class 3 release		See table of allocation	(if ignited) CL3
P(VCE)	Probability of Vapor Cloud Explosion of a DG Class 3 release		See table of allocation	(if ignited) CL3
P(Toxic cloud)	Probability of forming a toxic could when a release occur		1.0	Relevant DG classes
P(BLEVE)	Probability of forming a BLEVE consecutively to a transport event		See guide for risk estimation	

Human Vulnerabilities						
Parameter name **(Aphabetic order)**	**Short definition**	**Unit**	**Default value** **(if applicable)**			**Scope of validity of the default setting**
			RL	**RD**	**IWW**	
IN_BUILDINGS_VH_DENS	Density of person located inside buildings	N/m²				
IN_BUILDINGS_VH_N	Number of person located inside buildings	N				
IN_BUILDINGS_VH_PROT_PRCT	Percentage of protection against DG hazards offered to persons located inside buildings	%	0	0	0	
IN_SUR_PFAC_VH_N	Number of users of public facilities in the surrounding of the described infrastructure	N				
IN_SUR_PFAC_VH_PROT_PRCT	Percentage of users of public facilities in the surrounding of the described infrastructure that are considered protected from hazards	%	0	0	0	
IN_SUR_POP_DENS	Population density in the surrounding of the described infrastructure	N/km²				

IN_SUR_POP_PROT_PRCT	Percentage of the population in the surrounding of the described infrastructure that are considered protected from hazards	%	0	0	0	
IN_SUR_SPEC_VH_N	Number of people in the surrounding of the infrastructure that are located in specific locations	N				
IN_SUR_SPEC_VH_PRCT_BAND1	Percentage of people located in the considered bandwidth	%				
IN_SUR_SPEC_VH_PRCT_BAND2	Percentage of people located in the considered bandwidth	%				
IN_SUR_SPEC_VH_PRCT_BAND3	Percentage of people located in the considered bandwidth	%				
IN_SUR_SPEC_VH_PRCT_BAND4	Percentage of people located in the considered bandwidth	%				
IN_SUR_SPEC_VH_PRCT_BAND5	Percentage of people located in the considered bandwidth	%				
IN_SUR_SPEC_VH_PRCT_BAND6	Percentage of people located in the considered bandwidth	%				

IN_SUR_SPEC_VH_PRCT_BAND7	Percentage of people located in the considered bandwidth	%			
IN_SUR_SPEC_VH_PRCT_BAND8	Percentage of people located in the considered bandwidth	%			
IN_SUR_SPEC_VH_PRCT_BAND9	Percentage of people located in the considered bandwidth	%			
IN_SUR_SPEC_VH_PRCT_BAND10	Percentage of people located in the considered bandwidth	%			
IN_SUR_SPEC_VH_PROT_PRCT	Percentage of people in the surrounding of the infrastructure that are located in specific locations that are considered protected from hazards	%	0	0	0
IN_VEHICLES_DENS	Density of persons that are in vehicles on the infrastructure network	N/km			
IN_VEHICLES_VH_N	Number of persons that are in vehicles on the infrastructure network	N			
IN_VEHICLES_VH_PROT_PRCT	Percentage of protection against DG hazards offered to persons located in vehicles	%	0	0	0

ON_NET_VHSTAFF_N_PKM	Density of the staff operating on the infrastructure network	N/km				
ON_NET_VHSTAFF_PROT_PRCT	Percentage of staff operating on the infrastructure network that are considered protected from hazards	%	0	0	0	
ON_NET_VHUSR_N_PKM	Density of the users of the infrastructure network	N/km				
ON_NET_VHUSR_PROT_PRCT	Percentage of the users of the infrastructure network that are considered protected from hazards	%	0	0	0	
ON_NETWORK	Percentage of person located on the network premises	%				
ON_NETWORK_N	Number of person located on the network premises	N				
POP_DENS	Population density	N/km2				
POP_DENS_PRCTV_DIR1 (H)	Variation in percentage of the population density per hour of the day in direction 1 (right hand side)	%				
POP_DENS_PRCTV_DIR2 (H)	Variation in percentage of the population density per hour of the day in direction 2 (right hand side)	%				
POP_PUBF_PRCTV_DIR1 (H)	Variation in percentage of the people present in public facilities in direction 1 (right hand side)	%				

POP_PUBF_PRCTV_DIR2 (H)	Variation in percentage of the people present in public facilities in direction 2 (right hand side)	%			
POP_INFUSR_PRCTV_DIR1 (H)	Variation in percentage of the people present within the infrastructure premises (not in vehicles) per hour of the day in direction 1 (right hand side)	%			
POP_INFUSR_PRCTV_DIR2 (H)	Variation in percentage of the people present within the infrastructure premises (not in vehicles) per hour of the day in direction 2 (right hand side)	%			
POP_STAFF_PRCTV_DIR1 (H)	Variation in percentage of staff present within the infrastructure premises (not in vehicles) per hour of the day in direction 1 (right hand side)	%			
POP_STAFF_PRCTV_DIR2 (H)	Variation in percentage of the staff present within the infrastructure premises (not in vehicles) per hour of the day in direction 2 (right hand side)	%			
POP_SPECL_PRCTV_DIR1 (H)	Variation in percentage of people present at specific locations in the surrounding of the infrastructure premises per hour of the day in direction 1 (right hand side)	%			
POP_SPECL_PRCTV_DIR2 (H)	Variation in percentage of people present at specific locations in the surrounding of the infrastructure	%			

	premises per hour of the day in direction 2 (right hand side)					
SPECLOC_VH_N_CELL	Number of human located in a specific grid cell	N				
SPECLOC_VH_N_SEG	Number of human located in specific cells of a given segment	N				
TOT_ON_NET_VH_N	Total number of people within the infrastructure premises allocated to a given segment	(integer)				
TOT_ON_NET_VH_PROT_PRCT	Percentage of people within the infrastructure premises allocated to a given segment that are considered protected from hazards	%	0	0	0	
TOT_VH_N	Total number of people allocated to a given segment	(integer)				
TOT_VH_PROT_PRCT	Percentage of people allocated to a given segment that are considered protected from hazards	%	0	0	0	

Risk estimation model						
Parameter name **(Aphabetic order)**	**Short definition**	**Unit**	**Default value** **(if applicable)**			**Ref.** **scope of** **the value** **setting**
			RL	**RD**	**IWW**	
AV_IN_VEHICLES	Average number of persons per vehicle	N				
F	Frequency	1/y				
P	Probability or conditional probability					
S	Severity					
BANDWIDTH_1	Distance from the infrastructure border at which ends the bandwidth 1	m				
BANDWIDTH_2	Distance from the infrastructure border at which ends the bandwidth 2	m				
BANDWIDTH_3	Distance from the infrastructure border at which ends the bandwidth 3	m				

BANDWIDTH_4	Distance from the infrastructure border at which ends the bandwidth 4	m				
BANDWIDTH_5	Distance from the infrastructure border at which ends the bandwidth 5	m				
BANDWIDTH_6	Distance from the infrastructure border at which ends the bandwidth 6	m				
BANDWIDTH_7	Distance from the infrastructure border at which ends the bandwidth 7	m				
BANDWIDTH_8	Distance from the infrastructure border at which ends the bandwidth 8	m				
BANDWIDTH_9	Distance from the infrastructure border at which ends the bandwidth 9	m				
BANDWIDTH_10	Distance from the infrastructure border at which ends the bandwidth 10	m				
CF	Correction factor (1 = no correction)					
EV	Expected value	N/y				

F/N	Frequency / Number of fatalities				
F_DGSC	Frequency of damages by the considered Dangerous Goods Scenario	1/y			
F_Release	Frequency of DG release	1/y			
F0	Frequency of a DG event	1/y			
F1	Frequency of a transport event	1/y	**see F1 tables**		
GRID_TYPE	Dimensional grid type for risk estimations				
IR	Individual risk				
N_DGSC	Number of vulnerabilities damaged by the considered Dangerous Goods Scenario				
N_HRS	Number of hours				
N_FAT	Number of fatalities				
N_INJ	Number of injuries				
N_ITEMS	Number of quantified individual items				

N_SQM	Number of square meters					
P1	Conditional probability to involve a DG transport unit in a transport event					
R(DGR, N FAT)	Indicator of the risk posed by the dangerous goods releases (DGR) with a number N of fatalities (N FAT)					
ToD	Time of day	h				
VEHICLES_DENS	Number of vehicles per km located on the network	N/km				
VEHICLES_N	Number of vehicles located on the network	N				
VEHICLES_N_SEG	Number of vehicles located on one segment of the network	N				

Decision-making						
Parameter name **(Aphabetic order)**	**Short definition**	**Unit**	**Default value** **(if applicable)**			**Ref. scope of the value setting**
			RL	**RD**	**IWW**	
DMP	Decision-making principle					
DMP1	The consideration that any change made to technical, human and operation systems shall not introduce new uncontrolled safety risks which may lead to a regression of the safety of the system under assessment	[- - - to +++]				
DMP2	The continuous improvement principle is reflecting the constant effort, over time, to reduce the risks posed by the Transport of Dangerous Goods as far as reasonably practicable	[- - - to +++]				
DMP3	The consideration of the utility for the society to perform a certain level of transport of dangerous goods operations posing risks.	[- - - to +++]				

DMP4	This principle is devoted to the assessment of admissible variations of risk levels posed to different groups of persons	[- - - to +++]				
DMP5	Consideration of new situation(s) resulting from a risk management decision where the risk is unexpectedly transferred to another party in an uncontrolled manner and/or is increased instead of being reduced.	[- - - to +++]				
DMI	Decision-making indicator					
RMO	Risk management objective					
RMO1	Compliance with legal requirements	[- - - to +++]				
RMO2	Manage risks in accordance with best practice	[- - - to +++]				
RMO3	Inform and involve all concerned parties about the risk situation as required	[- - - to +++]				
RMO4	Reduce the risk level if economically practicable and proportionate to the issue to be solved	[- - - to +++]				
RMO5	Identify if the risk situation can be addressed appropriately by the primary risk owner alone	[- - - to +++]				

RMO6	Avoid solutions involving uncontrolled risk shifting	[- - - to +++]				
RMO7	Ensure risks are monitored on a regular basis at all levels	[- - - to +++]				
RMO8	Evaluate whether implemented solutions deal sufficiently with the identified risk situation	[- - - to +++]				
RMO9	Separation of risk management duties	[- - - to +++]				
RMS	Risk management strategy (Acceptance, Reduction, Transfer, Elimination)	[A, R, T, E]				

List of parameters with fixed values

Parameter name (Aphabetic order)	Short definition	Unit	Default set value (Y/N)			Reference scope of the value setting
			RL	RD	WW	