

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Directive 2008/96/EC on road infrastructure safety management

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union and in particular Article 91(1) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee¹,

Having regard to the opinion of the Committee of the Regions²,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) It is the strategic objective of the Union to halve the number of road deaths by 2020 compared to 2010 and to move close to zero fatalities by 2050 ("Vision Zero")³. However, progress towards achieving these objectives has stalled in recent years. A new interim target of halving the number of serious injuries by 2030 compared to 2020 was endorsed by Council in June 2017⁴. Greater efforts are therefore needed to attain these targets.

¹ OJ C , , p.

² OJ C , , p.

³ Communication from the Commission "Towards a European road safety area: policy orientations on road safety 2011-2020" (COM(2010) 389 final).

⁴ Council conclusions on road safety - endorsing the Valletta Declaration of March 2017 (Valletta, 28 – 29 March 2017) (ST 9994/17)

- (2) According to the Safe System approach, death and serious injury in road accidents is largely preventable. It should be a shared responsibility at all levels to ensure that road crashes do not lead to serious or fatal injuries. In particular, well-designed and properly maintained and clearly marked and signed roads should reduce the probability of road traffic accidents, whilst “forgiving” roads (roads laid out in an intelligent way to ensure that driving errors do not immediately have serious or fatal consequences) should reduce the severity of traffic accidents. The Commission should provide guidance for the provision and maintenance of “forgiving roadsides” building on the experience of all Member States.
- (3) The roads of the trans-European network defined in Regulation (EU) No 1315/2013 of the European Parliament and of the Council⁵ are of key importance in supporting European integration. A high level of safety should therefore be guaranteed on these roads.
- (4) The road infrastructure safety management procedures implemented on the trans-European network have helped reduce fatalities and serious injuries in the Union. It is clear from the evaluation of the effects of Directive 2008/96/EC of the European Parliament and of the Council⁶ that Member States which have been applying road infrastructure safety management (‘RISM’) principles on a voluntary basis to their national roads beyond the TEN-T network have achieved a much better road safety performance than Member States which do not do so. It is therefore also desirable for these principles (‘RISM’) to be applied to other parts of the European road network.
- (4a) It is important that the sections of road built on bridges and sections of road that pass through tunnels which are part of the network within the scope of this directive are also covered by this Directive as far as road safety is concerned, with the exception of tunnels covered by Directive 2004/54/EC.

⁵ Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU (OJ L 348 20.12.2013, p. 1).

⁶ Directive 2008/96/EC of the European Parliament and of the Council of 19 November 2008 on road infrastructure safety management (OJ L 319, 29.11.2008, p. 59).

- (4b) For reasons of road safety, it is important that entries and exits to parking areas along the network within the scope of this directive, in particular motorways and primary roads are also covered by this Directive.
- (4c) Seasonal conditions differ substantially between the Member States and regions. It is therefore important that those conditions are appropriately considered in the national provisions transposing this Directive.
- (5) A large proportion of road accidents occur on a small proportion of roads where traffic volumes and speeds are high and where there is a wide range of traffic travelling at different speeds. Therefore the limited extension of the scope of Directive 2008/96/EC to motorways and other primary roads beyond the TEN-T network should contribute significantly to the improvement of road infrastructure safety across the Union.
- (5a) In order to ensure that such extension of scope has the intended effect, it is logical that primary roads other than motorways include all roads belonging to the highest category of roads below the category motorway in the national roads classification. For the same reason, Member States should be encouraged to ensure that at least all roads to which Directive 2008/96/EC was applied before the entry into force of this directive, including on a voluntary basis, should remain covered by this Directive.
- (6) Further, the mandatory application of the procedures of Directive 2008/96/EC to any road infrastructure project outside urban areas which is completed using Union funding should ensure that Union funds are not used to build unsafe roads.
- (6a) Directive 2008/96/EC covers exclusively road infrastructure. Road traffic law is therefore not affected by this Directive, including the Member States competence to make decisions on their own authority with regard to road traffic law orders. The Conventions on Road Traffic of 1949 (referred to as the "Geneva Convention on Road Traffic") and 1968 (referred to as the "Vienna Convention on Road Traffic") as well as the Convention on Road Signs and Signals of 1968 should be recognised.

- (7) Risk-based network-wide road safety assessment has emerged as an efficient and effective tool to identify sections of the network that should be targeted by more detailed road safety inspections and to prioritise investment according to its potential to deliver network-wide safety improvements. The entire road network covered by this Directive should therefore be systematically assessed, also through data gathered by electronic and digital means, to increase road safety across the Union.
- (8) Integrating the best performing elements from the previous "safety ranking and management of the road network in operation procedure" into the new network-wide road safety assessment procedure should allow better identification of road sections where the opportunities to improve safety are the greatest and where targeted interventions should deliver the biggest improvements.
- (8a) In order to improve quality, objectivity as well as efficiency of the road safety management procedures, it is beneficial to allow Member States to take advantage, where appropriate, of the continuously developing technologies for inspecting road sections, document road safety conditions and collecting other data related to the safety of the road network.
- (9) Systematic follow-up of the findings of RISM procedures is crucial to achieve the road infrastructure safety improvements necessary for meeting the Union's road safety objectives. To this end, prioritised action plans should ensure that the necessary interventions are implemented as soon as possible. In particular, the findings of the network-wide road safety assessment procedure should be followed up either by targeted road safety inspections or, if possible and cost-efficient, by direct remedial action aimed at eliminating or reducing the road safety risks without creating undue administrative burden.
- (10) The safety performance of existing roads should be improved by targeting investment to the road sections with the highest accident concentration and the highest accident reduction potential.

- (10a) Funding and financial incentives at EU level may, in accordance with the applicable conditions, be used to provide support for such investment, complementing corresponding national investment and incentives.
- (11) Sections of the road network adjoining road tunnels of the trans-European road network covered by Directive 2004/54/EC of the European Parliament and of the Council⁷ have a particularly high accident risk. Joint road safety inspections of these road sections involving representatives of both the competent road and tunnel authorities should therefore be introduced in order to improve the safety of the road network covered by this Directive.
- (12) Vulnerable road users accounted for 46% of road fatalities in the Union in 2016. Ensuring that the interests of these users are taken into account in all RISM procedures and the development of quality requirements for infrastructure for vulnerable road users should therefore improve their safety on the road.
- (13) In order to enable Member States to enhance their procedures aiming at ensuring the operational use of their road markings and signs, common specifications should be established in order to foster the effective readability and detectability of road signs and marking for human drivers and automated driver assistance systems.
- (13a) Improving safety is a priority also for rail-road crossings (i.e. signalling, infrastructure improvement). According to the ERA 2018 report, in 2016, there were 433 significant accidents on the 108 000 level crossings in the Union, resulting in 255 fatalities and 217 people being seriously injured. Consequently, level crossings which pose a high safety risk should be identified a view of improving them.

⁷ Directive 2004/54/EC of the European Parliament and of the Council of 29 April 2004 on minimum safety requirements for tunnels in the Trans-European Road Network (OJ L 167, 30.4.2004, p. 39).

- (13b) High quality road signs and markings are crucial to support drivers as well as connected and automated vehicles. Common specifications for road markings and signs should form the basis to pave the way towards the roll out of advanced connected and automated mobility systems. A joint European approach in accordance with the Vienna Convention on Road Signs and Signals of 1968 would be preferable.
- (13c) To reinforce the results expected from the application of this Directive and to ensure adequate level of safety in emergency situations, Member States could liaise civil protection, emergency response and traffic police services, wherever appropriate and especially in crossborder road sections. Where cooperation between Member States is needed in these activities, the Union Civil Protection Mechanism pursuant to Decision No 1313/2013⁸ offers a framework to this end.
- (13d) Without prejudice to legislation on public procurement, notably Directive 2014/25/EU⁹, the technical specifications relating to safety should be made publicly accessible where public procurements are made in the sector of road infrastructure.
- (14) In order to achieve transparency and improve accountability, road safety ratings should be reported so that road users can be informed about the state of the infrastructure and their awareness generally raised.
- (14a) Facilitating the exchange of experience on Safe System methodologies between practitioner and the information exchange for road safety auditors should be encouraged.
- (15) Publication of the results of network-wide road safety assessments should allow the level of infrastructure safety to be compared across the Union.

⁸ Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism, OJ L 347 20.12.2013, p. 924.

⁹ Directive 2014/25/EU of the European Parliament Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 094 28.3.2014, p. 243.

- (16) Since the objective of this Directive, namely the establishment of procedures to ensure a consistently high level of road safety throughout the trans-European network and the network of motorways and primary roads across the Union cannot be sufficiently achieved by the Member States, but can rather, as improvement is necessary throughout the Union in order to ensure convergence towards higher standards of road infrastructure safety, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective. As a result of action at Union level, travel throughout the Union should become safer which in turn should improve the functioning of the internal market and support the objective of economic, social and territorial cohesion.
- (17) In order to ensure that the content of RISM procedures continues to reflect the best available technical knowledge, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission for the purpose of adapting the Annexes to the Directive to technical progress. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016¹⁰. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

¹⁰ OJ L 123, 12.5.2016, p. 1.

(18) Specific measures are necessary for the continuous improvement of safety management practices and to facilitate the recognition of road markings and road signs by vehicles equipped with driver assistance systems or higher levels of automation. In order to ensure uniform conditions for the implementation of the relevant provisions of this Directive, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and the Council¹¹.

(19) Directive 2008/96/EC should therefore be amended accordingly,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Directive 2008/96/EC is amended as follows:

(1) in Article 1, paragraphs 1 to 3 are replaced by the following and paragraph 2a is added:

"1. This Directive requires the establishment and implementation of procedures relating to road safety impact assessments, road safety audits, road safety inspections and network-wide road safety assessments by the Member States.

2. This Directive shall apply to roads which are part of the trans-European network, to motorways and to other primary roads, whether they are at the design stage, under construction or in operation.

2a. Member States may exempt from the scope of this directive primary roads which have a low risk for safety, based on duly justified grounds connected to traffic volumes and accident statistics.

¹¹ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

Member States may include in the scope of this directive roads not referred to in paragraphs 2 and 2a.

Each Member State shall notify to the Commission at the latest 24 months following the entry into force of this directive the list of motorways and primary roads on its territory and thereafter any subsequent changes thereto, as well as roads exempted from or included in the scope of this directive according to this paragraph, and thereafter any subsequent changes thereto.

The Commission shall publish the list of roads notified in accordance with this Article.

3. This Directive shall also apply to roads and to road infrastructure projects not covered by paragraph 2 which are situated outside urban areas, which do not serve properties bordering on them and which are completed using Union funding with the exception of roads that are not open to general motor vehicle traffic (e.g. bicycle paths) or roads that are not designed for general traffic (e.g. access roads to industrial, agricultural or forestry sites)."

(2) Article 2 is amended as follows:

(a) point 1 is replaced by the following:

"1. 'trans-European road network' means the road network defined in Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network (OJ L 348 20.12.2013, p. 1).;"

(b) the following points 2a and 2b are inserted:

"2a. 'motorway' means a road specially designed and built for motor traffic, which does not serve properties bordering on it, and which meets the following criteria:

- (a) it is provided, except at special points or temporarily, with separate carriageways for the two directions of traffic, separated from each other either by a dividing strip not intended for traffic or, exceptionally, by other means;

(b) it does not cross at level with any road, railway or tramway track, bicycle path or footpath;

(c) it is specifically designated as a motorway;

2b. 'primary road' means a road outside urban areas that connects major cities or regions, or both, belonging to the highest category of road below the category 'motorway' in the national road classification that is in place at the time of [please insert the date of publication of this directive in the OJ]."

(c) point 5 is deleted;

(d) points 6 and 7 are replaced by the following and point 7a is added:

"6. 'safety rating' means the classification of parts of the existing road network in categories according to their objectively measured in-built safety;

7. 'targeted road safety inspection' means a targeted investigation to identify hazardous conditions, defects and problems that increase the risk of accidents and injuries, based on a site visit of an existing road or section of road;

7a. 'periodic road safety inspection' means an ordinary periodical verification of the characteristics and defects that require maintenance work for reasons of safety;"

(e) the following point 10 is added:

"10. 'vulnerable road user' means non-motorised road users, including, in particular, cyclists and pedestrians, as well as users of powered two-wheelers.";

(2a) In Article 4 the following paragraph 6a is added:

"6a. The Commission shall provide guidance for the design of "forgiving roadsides" and "self-explaining and self-enforcing roads" in the initial audit of the design phase as well as on quality requirements regarding vulnerable road-users. That guidance shall be developed in close cooperation with Member State experts."

(3) Article 5 is replaced by the following:

“Article 5

Network-wide road safety assessment

1. Member States shall ensure that a network-wide road safety assessment is carried out on the entire road network in operation covered by this Directive.
 - 1a. Network-wide road safety assessments shall evaluate accident and impact severity risk, based on:
 - primarily, a visual examination, either on site or by electronic means, of the design characteristics of the road (in-built safety), and
 - an analysis of sections of the road network which have been in operation for more than three years and upon which a large number of serious accidents in proportion to the traffic flow have occurred;
 - 1b. Member States shall ensure that the first assessment is carried out by 2024 at the latest. Subsequent network-wide road safety assessments shall be sufficiently frequent in order to ensure adequate safety levels, but in any case shall be carried out at least every five years.
2. In carrying out the network-wide road safety assessment, Member States may take into account the indicative elements laid down in Annex III.
 - 2a. The Commission shall provide guidance on the methodology for carrying out systematic network-wide road assessments and safety ratings.
3. On the basis of the results of the assessment referred to in paragraph 1, and for the purpose of prioritisation of needs for further action, Member States shall classify all sections of the road network in no fewer than three categories according to their level of safety.”

(4) Article 6 is amended as follows:

- (a) the title is replaced by the following:

“Article 6

Periodic road safety inspections”;

- (b) paragraph 1 is replaced by the following:

“1. Member States shall ensure that periodic road safety inspections are undertaken with sufficient frequency to safeguard adequate safety levels for the road infrastructure in question.”;

- (c) paragraphs 2 is deleted and paragraph 3 is replaced by the following:

“3. Member States shall ensure the safety of sections of the road network adjoining road tunnels covered by Directive 2004/54/EC through joint road safety inspections involving the competent entities involved in the implementation of this Directive and Directive 2004/54/EC. The joint road safety inspections shall be sufficiently frequent to safeguard adequate safety levels, but in any case shall be carried out at least every six years.”;

- (5) the following Articles 6a, 6b, 6c, 6d and 6e are inserted:

“Article 6a

Follow-up of procedures for roads in operation

1. Member States shall ensure that the findings of network-wide road safety assessments carried out pursuant to Article 5 are followed up either by targeted road safety inspections or by direct remedial action.
 - 1a. When carrying out targeted road safety inspections Member States may take into account the indicative elements set out in Annex IIa.
 - 1b. Targeted road safety inspections shall be carried out by expert teams. At least one member of the expert team shall meet the requirements set out in Article 9(4)(a).

2. Member States shall ensure that the findings of targeted road safety inspections are followed up by reasoned decisions determining if remedial action is necessary. In particular, Member States shall identify road sections where road infrastructure safety improvements are necessary and define actions to be prioritised for improving the safety of those road sections.
3. Member States shall ensure that remedial action is targeted primarily at road sections with low safety levels and which offer the opportunity for the implementation of measures with high potential for safety development and accident cost savings.
4. Member States shall prepare and regularly update a risk-based prioritised action plan to track the implementation of identified remedial action.

Article 6b

Protection of vulnerable road users

Member States shall ensure that the needs of vulnerable road users are taken into account in the implementation of the procedures set out in Articles 3 to 6.

Article 6c

Road markings and road signs

1. Member States shall pay specific attention, in their existing and future procedures for road markings and road signs, to readability and detectability for human drivers and automated driver assistance systems. Such procedures shall take into account common specifications, where such have been established in accordance with paragraph 3.
2. A group of experts established by the Commission shall, at the latest by June 2021, assess the opportunity to establish common specifications including different elements aiming at ensuring the operational use of their road markings and signs in order to foster the effective readability and detectability of road signs and marking for human drivers and automated driver assistance systems. This group shall be formed by experts designated by the Member State. The assessment shall include a consultation of the UNECE.

The assessment shall take into consideration in particular the following elements:

- the interaction between various driver assistance technologies and infrastructure;
 - the effect of the weather and atmospheric phenomena as well as traffic on road markings and road signs present on the Union territory;
 - the type and frequency of maintenance efforts necessary for various technologies, including an estimate of costs.
3. Taking into account this assessment, the Commission may establish by means of implementing acts common specifications, relating to Member States' procedures mentioned in paragraph 1 aiming at ensuring the operational use of their road markings and signs, with regard to the effective readability and detectability of road signs and marking for human drivers and automated driver assistance systems.

Those implementing acts shall be adopted in accordance with the procedure referred to in Art 13(2).

The implementing acts shall be without prejudice to the competence of the CEN regarding standards to road markings and road signs.

Article 6d

Information and transparency

1. The Commission shall publish a European map of the road network within the scope of this Directive, accessible on-line, highlighting different categories as referred to in Article 5(3);

Article 6e

Voluntary reporting

1. Member States shall endeavour to establish a national system for the purpose of voluntary reporting accessible on-line to all road users, to facilitate the collection of details of occurrences transmitted by road users and vehicles, and of any other safety-related information which is perceived by the reporter as an actual or potential hazard to road infrastructure safety.";

(5a) In Article 7, the following paragraph 1a is inserted:

"1a. The Commission may provide, by means of implementing acts, guidance according to which accident severity, including number of fatalities and injured persons, is to be reported. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 13(2).";

(5b) In Article 9, the following paragraph 1a is inserted:

"1a. For road safety auditors taking their training from [*OJ: add date of transposition + 3 years*], Member States shall ensure that the training curricula for road safety auditors includes aspects related to vulnerable road users and the infrastructure for such users.";

(6) Article 10 is replaced by the following:

"Article 10

Exchange of best practices

In order to improve the safety of Union roads, the Commission shall establish a system for the exchange of information and best practices between the Member States, covering, inter alia, training curricula for road safety, existing road infrastructure safety projects and proven road safety technology.";

(7) in Article 11, paragraph 2 is deleted;

(8) the following Article 11a is inserted:

“Article 11a

Reporting

1. Member States shall provide a report to the Commission by 31st October 2025 on the safety classification of the entire network assessed according to article 5. Where possible, the report shall be based on a common methodology. If applicable, the report shall also cover the list of provisions of national updated guidelines, including in particular the improvements in terms of technological progress and of protection of vulnerable users. From 31st October 2025 such reports shall be provided every five years.
- 1a. On the basis of an analysis of the national reports, in the first instance by [xx/xx/xxx - 24 months after the MS report submission deadline] and every five years thereafter, the Commission shall draw up and submit a report to the European Parliament and to the Council on the implementation of the Directive, in particular with regard to the elements as referred to in paragraph 1, and on possible further measures, including a revision of this Directive and possible adaptations to technical progress.”

(9) Article 12 is replaced by the following:

“Article 12

Amendment of Annexes

The Commission is empowered to adopt delegated acts in accordance with Article 12a amending the Annexes in order to adapt them to technical progress.”;

(10) the following Article 12a is inserted:

“Article 12a

Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

2. The power to adopt delegated acts referred to in Article 12 shall be conferred on the Commission for a period of five years from [OJ: add date entry into force]. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.
3. The delegation of power referred to in Article 12 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.
4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making¹².
5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.
6. A delegated act adopted pursuant to Article 12 shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.";

¹² OJ L 123, 12.5.2016, p. 1

(11) Article 13 is replaced by the following:

"Article 13

Committee procedure

1. The Commission shall be assisted by a committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.";

(12) the Annexes are amended as set out in the Annex to this Directive.

Article 2

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [OP: please insert the DATE calculated 24 months following the entry into force] at the latest. They shall forthwith communicate to the Commission the text of those provisions.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 3

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Article 4

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President

The Annexes to Directive 2008/96/EC are amended as follows:

in Annex I, the title is replaced by the following:

"ANNEX I

INDICATIVE ELEMENTS OF ROAD SAFETY IMPACT ASSESSMENTS";

(1-a) in section 2, the point (e) is amended as follows:

"(e) traffic (e.g. traffic volume, traffic categorisation by type), including estimated pedestrian and bicycle flows determined from adjacent land use attributes;"

(1) Annex II is amended as follows:

(a) the title is replaced by the following:

"ANNEX II

INDICATIVE ELEMENTS OF ROAD SAFETY AUDITS",

(b) in section 1, the following point (n) is added:

"(n) provisions for vulnerable road users:

i) provisions for pedestrians,

ii) provisions for cyclists, including the existence of alternative routes or separations from high speed motor traffic

iii) provisions for powered two-wheelers,

iii a) density and location of crossings for pedestrians and cyclists,

iii b) provisions for pedestrians and cyclists on affected roads in the area,

iii c) separation of pedestrians and cyclists from high speed motor traffic or the existence of direct alternative routes on lower class roads;"

(c) in section 2, point (h) is replaced by the following:

"(h) provisions for vulnerable road users:

i) provisions for pedestrians,

ii) provisions for cyclists,

iii) provisions for powered two-wheelers;"

(2) the following Annex IIa is inserted :

"ANNEX IIa

INDICATIVE ELEMENTS OF TARGETED ROAD SAFETY INSPECTIONS

1. Road alignment and cross-section:
 - (a) visibility and sight distances;
 - (b) speed limit and speed zoning;
 - (c) self-explaining alignment (i.e. "readability" of the alignment by road users);
 - (d) access to adjacent property and developments;
 - (e) access of emergency and service vehicles;
 - (f) treatments at bridges and culverts;
 - (g) roadside layout (shoulders, pavement drop-off, cut and fill slopes).

2. Intersections and interchanges:
 - (a) appropriateness of intersection/ interchange type;
 - (b) geometry of intersection/ interchange layout;
 - (c) visibility and readability (perception) of intersections;
 - (d) visibility at the intersection;
 - (e) layout of auxiliary lanes at intersections;
 - (f) intersection traffic control (e.g. stop controlled, traffic signals etc.);
 - (g) existence of pedestrian and cycling crossings.

3. Provisions for vulnerable road users:
 - (a) provisions for pedestrians;
 - (b) provisions for cyclists;
 - (c) provisions for powered-two-wheelers;
 - (d) public transport and infrastructures;
 - (e) road/ rail level crossings (noting particularly type of crossing and if they are manned, unmanned, manual, or automated).

4. Lighting, signs and markings:
 - (a) coherent road signs, not obscuring visibility;
 - (b) readability of road signs (position, size, colour);
 - (c) sign posts;
 - (d) coherent road markings and delineation;
 - (e) readability of road markings (position, dimensions and retroreflectivity under dry and wet conditions)
 - (f) appropriate contrast of road markings;
 - (g) lighting of lit roads and intersections;
 - (h) appropriate roadside equipment.

5. Traffic signals:
 - (a) operation;
 - (b) visibility.

6. Objects, clear zones and road restraint systems:
 - (a) roadside environment including vegetation;
 - (b) roadside hazards and distance from carriageway or cycle path edge;
 - (c) user-friendly adaptation of road restraint systems (central reservations and crash barriers to prevent hazards to vulnerable users);
 - (d) end treatments of crash barriers;
 - (e) appropriate road restraint systems at bridges and culverts.
 - (f) fences (in roads with restricted access).

7. Pavement:
 - (a) pavement defects;
 - (b) skid resistance;
 - (c) loose material/ gravel/ stones;
 - (d) ponding, water drainage.

- 7a. Bridges and tunnels:
- (a) presence and number of bridges;
 - (b) presence and number of tunnels;
 - (c) visual elements representing hazards for the safety of the infrastructure.

8. Other issues:

- (a) provision of safe parking areas and rest areas;
- (b) provision for heavy vehicles;
- (c) headlight glare;
- (d) roadworks
- (e) unsafe roadside activities;
- (f) appropriate information in ITS equipment (e.g. variable message signs)
- (g) wildlife and animals;
- (h) school zone warnings (if applicable).";

- (3) Annex III is replaced by the following:

"Annex III

INDICATIVE ELEMENTS OF NETWORK-WIDE ROAD SAFETY ASSESSMENTS

1. General:

- (a) type of road in relation to the type and size of regions/ cities it connects;
- (b) length of road section;
- (c) area type (rural, urban);
- (d) land use (educational, commercial, industrial & manufacturing, residential, farming & agricultural, undeveloped areas);
- (e) property access points density.
- (f) presence of service road (e.g. for shops);
- (g) presence of road works;
- (h) presence of parking.

2. Traffic volumes:
 - (a) traffic volumes;
 - (b) observed motorcycle volumes;
 - (c) observed pedestrian volumes on both sides, noting “along” or “crossing”;
 - (d) observed bicycle volumes on both sides, noting “along” or “crossing”;
 - (e) observed heavy vehicle volumes;
 - (f) estimated pedestrian flows determined from adjacent land use attributes;
 - (g) estimated bicycle flows determined from adjacent land use attributes.

3. Accident data:
 - (a) Number, location and cause of fatalities by road user group;
 - (b) Number and location of serious injuries by road user group.

4. Operational characteristics:
 - (a) speed limit (general, for motorcycles; for trucks);
 - (b) operating speed (85th percentile);
 - (c) speed management and/or traffic calming;
 - (d) presence of ITS devices: queue alerts, variable message signs;
 - (e) school zone warning;
 - (f) presence of school crossing supervisor at prescribed periods.

5. Geometric characteristics:
 - (a) cross section characteristics (number, type and width of lanes, central median shoulders layout and material, cycle tracks, foot paths etc.), including their variability;
 - (b) horizontal curvature;
 - (c) grade and vertical alignment;
 - (d) visibility and sight distances.

6. Objects, clear zones and road restraint systems:
 - (a) roadside environment and clear zones;
 - (b) fixed obstacles at the roadside (e.g. lighting poles, trees, etc.);
 - (c) distance of obstacles from roadside;
 - (d) density of obstacles;
 - (e) rumble strips;
 - (f) road restraint systems.

- 6a. Bridges and tunnels:
 - (a) presence and number of bridges, including their relevant information;
 - (b) presence and number of tunnels, including their relevant information;
 - (c) visual elements representing hazards for the safety of the infrastructure.

7. Intersections:
 - (a) intersection type and number of arms (noting particularly type of control and presence of protected turns);
 - (b) presence of channelisation;
 - (c) intersection quality;
 - (d) intersecting road volume;
 - (e) presence of road-rail crossings (noting particularly type of crossing and if they are manned, unmanned, manual, or automated).

8. Maintenance:
 - (a) pavement defects;
 - (b) pavement skid resistance;
 - (c) shoulder condition (including vegetation);
 - (d) condition of signs, markings and delineation;
 - (e) condition of road restraint systems.

9. Vulnerable road users' facilities:
- (a) pedestrian and cycling crossings (surface crossings and grade separation);
 - (aa) cycling crossings (surface crossings and grade separation);
 - (b) pedestrian fencing;
 - (c) existence of sidewalk or separated facility;
 - (d) bicycle facilities and their type (cycle paths, cycle lanes, other);
 - (e) quality of pedestrian crossing related to conspicuity and signing of the facility;
 - (f) pedestrian and cycling crossing facilities on entry arm of minor road joining network;
 - (fa) existence of alternative routes for pedestrians and cyclists in case of no separated facilities.
- 9a. Pre/post-crash systems for traffic injury and gravity mitigation elements:
- (a) Network operational centres and other patrolling facilities;
 - (b) Mechanisms to communicate to the road users of the driving conditions to prevent accidents or incidents;
 - (c) AID Automatic Incident Detection systems: sensors and cameras;
 - (d) Incident Managements systems;
 - (e) Systems to communicate with emergency bodies.";
- (4) Annex IV is amended as follows:
- (a) point 1 is replaced by the following:
 - "1. precise as possible location of the accident, including GNSS co-ordinates;"
 - (b) point 5 is replaced by the following:
 - "5. accident severity."
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