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Road Map for the Accession to and Implementation of the European Agreement concerning the Work of Crews of Vehicles engaged in International Road Transport (AETR), of 1970

Note by the secretariat

The AETR Road Map was developed jointly by the secretariat and the Euromed Transport Project.

The Committee may wish to **endorse** this document and **request its publishing and printing** in three ECE official languages by the UNOG Division of Conference Management.

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I. Introduction

A. Driver fatigue kills

- 1. Buses and trucks are involved in 20 to 30 per cent of the road traffic accidents in many EuroMed countries. These are crashes which are about 50 per cent more likely to result in death or serious injury as a consequence of the large masses and volumes of the vehicles involved since a fatigued driver who has fallen asleep cannot brake or swerve to avoid or reduce the impact.
- 2. While it is not possible to calculate the exact number of fatigue related crashes, research shows that driver fatigue may be a contributory factor in up to 20 per cent of road crashes, and up to one quarter of fatal and serious ones.

Fatigue reduces reaction time (a critical element of safe driving). It also reduces vigilance, alertness and concentration so that the ability to perform attention-based activities (in this case, driving) is impaired. The speed at which information is processed is also reduced by fatigue. The quality of decision-making may also be affected.

- 3. Drivers are aware when they are feeling sleepy from fatigue and so can decide to stop for a rest. One reason that leads drivers to persist in driving when feeling sleepy out of fatigue is the underestimation of the risk of actually falling asleep while driving. Another reason is that some drivers choose to ignore the risks. However, the above applies mostly to early fatigue levels. During later stages, drivers tend to be poor judges of their own fatigue level.
- 4. Drivers under fatigue are often not aware of their condition and can lapse into a 'micro sleep' that may last only a few seconds long enough to drive off the road and crash. These crashes tend to be the most severe in terms of injury and death, as the driver under fatigue makes no attempt to avoid or prevent the crash.
- 5. Multiple global research studies show that being awake for 17 hours results in an impairment equivalent to a Blood Alcohol Concentration (BAC) of 0.05, while being awake for more than 20 hours is comparable to the impairment attributable to a BAC of 0.08.

B. The Agreement

- 6. The European Agreement concerning the Work of Crews of Vehicles engaged in international Road Transport (AETR), of 1970, is the response of the UNECE governments to fight this silent killer "Driver fatigue".
- 7. The AETR Agreement aims at preventing drivers and crews of commercial vehicles of more than 3.5 tons, or transporting more than nine people, engaged in international road transport, from driving excessive hours. As previously explained, driver fatigue is known to increase the risk of serious road crashes. Moreover, non-standardized working hours may create disparities in the working conditions of professional drivers and may impact competition between companies.
- 8. To this end, the AETR regulates the driving times and rest periods of professional drivers. The Agreement also defines the control devices that are used to control those periods, and sets up technical requirements for the construction, testing, installation and inspection of these devices. Additionally, the AETR also sets up requirements for the checking of driving hours by competent authorities.

9. By regulating the driving times and rest periods of drivers of commercial vehicles engaged in international transport, the AETR creates a level playing field in the road haulage industry that promotes "fair competition" and introduces appropriate social rules by imposing "decent working conditions" while helping prevent road crashes.

At EU level, the same subject matter is governed by Council Regulations ECE 3821/85¹ and (EC) 561/2006. As of September 2015, 51 States are Contracting Parties to the AETR Agreement and most of them apply its provisions also in domestic transport.

- 10. The AETR Agreement of 1970 came into force on 5 January 1976, following a period of negotiations that lasted more than fifteen years and the elaboration of a first AETR Agreement signed under the auspices of UNECE in 1962 that did not enter into force due to an insufficient number of ratifications.
- 11. The tool through which the compliance to the Agreement is enforced is the control device (analogue or digital). The use of the digital tachograph was introduced 2006 in the AETR Agreement.
- 12. The implementation of the digital tachograph was a considerable challenge requiring advanced technical expertise, strict rules and well-functioning systems at national and international levels. The Joint Research Centre of the European Union (JRCEU) safeguards the technical interoperability of the digital tachograph and functions as the European root certification authority for AETR countries. A number of EuroMed partner countries are considering the introduction of the digital tachograph in their home markets and benefit from the widely harmonized AETR framework.²

C. Main Provisions of the AETR Agreement

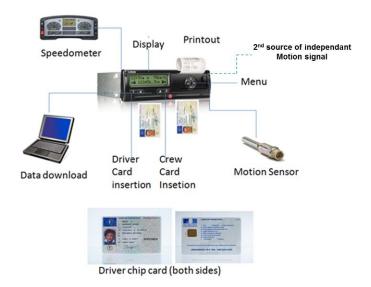
- 13. The Agreement applies in the territory of each Contracting Party on all international road transport performed by any vehicle registered in the territory of the said Contracting Party or in the territory of any other Contracting Party (Article 2). The same article indicates the exemptions of applicability.
- 14. Contracting Parties may apply higher minima or lower maxima than those laid down in its territories. However, the provisions of the Agreement will remain applicable to drivers, engaged in international road transport operations on vehicles registered in another Contracting or non-Contracting State (Article 4). Article 5 defines the minimum age for drivers engaged in the carriage of goods.
- 15. According to the Agreement, the daily driving time should not exceed nine hours and may be extended to at most 10 hours not more than twice during the week. The weekly driving time, should not exceed 56 hours, while the total accumulated driving time during any two consecutive weeks should not exceed 90 hours. After a driving period of four and a half hours, a driver should take an uninterrupted break of not less than 45 minutes, unless they begin a rest period. The Agreement also provides detailed guidelines on driving, break and rest periods respectively. Rest periods are divided into daily and weekly periods, and their exact duration is described in detail (Articles 6, 7 and 8).

¹ ECE 3821/85 is being replaced by EU 165/2014 (see Annex IV).

² For more information, see the text of the AETR Agreement in annex and the "Background paper on the Implementation of Digital Tachograph and related Legislative Framework, EuroMed RRU, September 2012", in annex.

			Daily		Weekly	2-weekly
Activity	Continuous	Normal	Extended/ reduced	Normal	Reduced	(2 consecutive weeks)
DRIVING	4h30 max	9h max.	10h max (no more twice a week)	56h max		90h max
REST	45 min.		9h min. (no more 3	45h min.	24h min. (compensation of 21h to be taken «en bloc» with a minimum 9 h rest	
	15 min.+ 30 min.	11h min.	times a week)	`	before end of 3rd week)	Only one reduced rest authorized

- 16. The tachograph is the control device and its detailed technical specifications are provided in Article 10, Annexes of the Agreement and its appendices. These include: guidelines for type approval, installation and inspection of equipment; use of equipment; requirements for construction, testing installation and inspection for both analogue and digital control devices (tachograph); approval marks and certificates as well as model forms for various documents.
- 17. The liability aspect borne by transport companies the supervision of driving hours, provision of proper instructions to crew members, regular checks of driving, other work and rest periods and liabilities in case of infringements committed by drivers is described in Article 11.



Digital tachograph configuration example: DTCO 1381 © Continental and chip card © Chronoservices

18. Enforcement is a basic pillar of the Agreement and a key aspect of the implementation of the digital tachograph system in the field. The Agreement (Article 12) provides details on the road side necessary controls by the enforcement officers. A minimum of 3 per cent of the days worked by the drivers of vehicles to which this Agreement applies should be checked during each calendar year, of which not less than

30 per cent of the total number of working days checked should be checked at the roadside and not less than 50 per cent should be checked on the premises of undertakings. The elements of road side checks and premise checks are also indicated, as well as the fact that no discriminations should take place among vehicles, undertakings and drivers whether resident or not, and regardless of the origin or destination of the journey or type of tachograph. Article 12 also stipulates the basic principles of information exchange between countries in the framework of mutual assistance, as well as the framework of infringements and penalties imposition (see annex VI).

19. The final provisions of the Agreement, including eligibility for accession, dispute settlement and procedure for the amendment are provided in Articles 14 to 25. Newly acceding countries should know that the Agreement is considered to enter into force 180 days after the deposit of its instrument of accession by that country.

II. Purpose, scope and objectives of the Road Map

A. Purpose

- 20. Driver fatigue is known to increase the risk of serious road crashes. The AETR Agreement aims at preventing drivers and crews of commercial vehicles engaged in international road transport from driving excessive hours. The Agreement also defines control devices "tachographs", sets up technical requirements for the construction, testing, installation and inspection of these devices and for the checking of driving hours by competent authorities. However, this Agreement is open for accession to UNECE member countries only (Article 14).
- 21. Taking note of the vital importance of this Agreement for EuroMed countries, EuroMed RRU project conducted focused national demand driven training events in Algeria, Jordan, Morocco and Tunisia. UNECE experts contributed to these events. Following these events, Algeria, Jordan, Morocco and Tunisia expressed willingness to implement AETR and the digital tachograph in their international and domestic transport. Thus the emerging issue for EuroMed Partner countries was how to become Contracting Parties to AETR and benefit from its provisions and established widely harmonized frameworks.
- 22. Seeking UNECE support on the opening of the AETR Agreement to Jordan and other EuroMed countries, H.E. Ms. Lina Shbeeb, Minister of Transport, Jordan, attended the seventy-sixth session of the UNECE Inland Transport Committee (ITC), Geneva, 25-27 February 2014. In her address to ITC, Her Excellency argued on the importance of the implementation of the digital tachograph system in non-UNECE Mediterranean countries within the AETR Agreement and requested the Committee's support of the opening of the Agreement to non-UNECE EuroMed Partner countries. The same request was also addressed by EuroMed Partner country experts from Algeria, Jordan, Morocco and Tunisia that attended the seventh, eighth and ninth sessions of the AETR Expert Group Meeting as well as the 109th session the Working Party on Road Transport (SC.1) in Geneva, in 2014. During the discussions at ITC, at the AETR Expert Group, and SC.1 the European Union, the ITC and the SC.1 Chair supported the request.
- 23. During its ninth session, (Geneva, 27 October 2014) the UNECE Group of Experts on AETR decided to support the opening of the Agreement to Algeria, Jordan, Morocco and Tunisia by revising Article 14. The Expert Group agreed on the wording of an amendment proposal and invited an AETR Contracting Party to formally propose the amendment proposal at the earliest opportunity. At its 109th session (28–29 October 2014), SC.1 adopted the proposed modification of the Article 14 that reads as follows: Article 14:

- "1. This Agreement shall be open for signature until 31 March 1971 and thereafter for accession, by States members of the Economic Commission for Europe and States admitted to the Commission in a consultative capacity under paragraph 8 or 11 of the Commission's terms of reference. Accessions under paragraph 11 of the Commission's terms of reference shall be limited to the following States: Algeria, Jordan, Morocco and Tunisia." At the time of writing, following the official request submitted to the secretariat by Turkey and Ukraine, a "Depositary Notification" for the modification of the Article 14 of the AETR was issued by the Treaty Section of the United Nations, on 18 February 2015. Contracting Parties to the AETR Agreement are given six months to express objections and if as expected no objections are received, the Secretary-General of the United Nations will announce that the amendment enters into force in three months, i.e. on 18 November 2015.
- 24. The present document, prepared jointly by EuroMed RRU and UNECE with inputs from by EC Joint Research Centre, presents the 11 main steps and a number of substeps that countries willing to accede and implement the Agreement have to follow (the Road Map).
- 25. The first two steps deal with the preparatory work for accession, including coordination and responsibilities and highlight the strategic issues that need to be considered before accession. Step three is exclusively about the accession to the Agreement, eligibility and related procedures. The important aspects of security are explained in three main steps that follow. The issues relating to setting up the tachograph cards system and the workshops are following. The road map ends with the steps on training, enforcement and support measures. All related legislative and explanatory documents are annexed. However, due to their big volume, most of them are being made available in electronic form only.

B. Scope and objectives

- 26. Drawing upon the extensive experience of the UNECE Transport Division, that of JRC and the UNECE intergovernmental bodies administering the AETR Agreement as well as the EuroMed project experience gained through Technical Assistance provided to EuroMed Partner countries, this Road Map is aimed at providing concrete guidance for accession to and effective implementation of the AETR Agreement. One of the most important developments relating to the AETR Agreement in the course of the past 10 years is the mandatory Pan-European introduction of the Digital Tachograph to commercial vehicles of more than 3.5 tons, or transporting more than nine people, engaged in international road transport.
- 27. It should be noted that since the digital tachograph is mandatory for all newly-registered vehicles according to AETR, Contracting Parties to the Agreement should be ready to handle simultaneously technical operations and checks for conformity for previous generations of driver working time recording methods and equipment the "analogue tachographs". Moreover, in order to cover the cases of vehicles registered in the territory of a State which is not a Contacting Party to the Agreement, the Agreements offers freedom to countries that are Contracting Parties to require, in lieu of a control device daily record sheets completed manually be each crew member for the period of time from the entry into the territory of the Contracting Party.³

³ See Article 3, para 2.(a) of the AETR Agreement.

III. The UNECE-EU-Euromed RRU project road map for the accession to and implementation of the European agreement concerning the work of crews of vehicles engaged in international road transport (AETR), of 1970

- 28. The Road Map aims to provide guidance to EuroMed countries on the accession and implementation of the AETR Agreement.
- 29. The Road Map proposes implementing 11 main steps that if properly and timely pursued would result in a full application of the system in their territories.

A. Step 1: Preparing for accession

1. Coordination and responsibilities at the national level

- 30. AETR related regulations may be under the responsibility of different ministries or administrations depending on the administrative structure in place the country. The ministries, administrations and bodies concerned need to be identified and their representatives should be invited to take an active role in the pre-accession process.
- 31. A non-exhaustive list of the ministries, administrations and bodies could include: those in charge of transport, road control as well as inspection, interior, labour, justice, industry, trade, finance, education, training of drivers.
- 32. Representatives of the private sector should be consulted and be involved if possible in the process as representatives of the users of the regulations i.e., transport sector, vehicle manufacturer's workers unions, associations for the prevention of accidents in the workplace, training bodies.
- 33. A formal coordination of all the participants in the process of pre-accession should be organized.
- 34. However, each country should assess and define their own administrative structure, on the basis of culture, standard operating procedures, hierarchy schemes, staff and expertise availability. The substeps presented below are recommendations only and should not be regarded as obligatory.

2. Overall coordination and supervision

35. Although the regulations on the digital tachograph may involve a number of ministries and/or bodies, the main responsibility should be assigned to one ministry or government agency. In several AETR Contracting Parties this is the Ministry of Transport. In this case, the overall supervision and coordination of all AETR related actions should be under the competent minister.

3. Establishment of a National AETR Committee

36. The AETR Agreement is a complex project to implement and in which to secure its future seamless operation. Furthermore, although in many countries the regulations on the digital tachograph are under the responsibility of the respective Ministries of Transport, these regulations may be well affected by other ministries or administrations. As a result, the coordination and cooperation between all Ministries and other public bodies involved are critical for the success of the project. For this reason, it is strongly advised that the National AETR Committee be established, as a cross-Ministry body.

37. The work of the national AETR Committee may be complemented by small, themespecific workgroups, aimed at specific aspects of the AETR, as necessary and appropriate. These could include: security policy issues, cards, enforcement and training.

4. Designation of a national Focal Point for AETR

- 38. As from the early stage, the designated supervising and coordinating authority should appoint an AETR National Focal Point (AETR-NFP), dealing permanently with the AETR issues. Their work is of great importance for the success of AETR implementation. The AETR-NFP will work on issues of national implementation and with domestic public and private stakeholders, taking into account the availability of expertise and resources. This focal point should have both responsibility and authority and may represent the competent authority in international meetings.
- 39. The work of the AETR-NFP should be supported by a team of experts as well as by external expertise as necessary and appropriate. Parties involved should also do the same.
- 40. After accession, the AETR-NFP will work also on issues of international cooperation with the other States through the UNECE Working Party on Road Transport and the Expert Group on AETR.
- 41. Necessary resources, human and financial, should be made available.

B. Step 2: Addressing strategic issues prior to accession

1. Studying the AETR Agreement and related national legislation

42. The AETR National Focal Point and the members of the National AETR Committee study the AETR Agreement and corresponding national legislation. They also take responsibility to ensure that translation of the AETR Agreement (as appropriate) is made available.

2. Deciding the scope and applicability of the AETR

43. The AETR Agreement applies to international transport by road. However, several Contracting Parties apply the Agreement's regulations in their domestic transport systems. This is the case for the Russian Federation, Turkey and EU member States. As a result, newly acceding countries would have to answer several critical questions, during the preaccession phase. These include the scope and applicability, e.g. international only or both international and domestic transport; transition period applied in case of domestic transport; applicability with regard to already registered vehicles.

International transport only

44. If a country decides to apply the provisions of the AETR Agreement only for international transport by road, then the only step to be taken is to transpose the Agreement into the national legislation. From this point on, the provisions of the Agreement are in force. It should be noted, however, that it might be easier for acceding countries just to point to the AETR Agreement in their national laws, because attempts of re-writing the Agreement's content in their own legislation may lead to discrepancies and later conflicts.

International and domestic transport

45. If a country opts for applying the AETR Agreement in both the international and the domestic market, then some issues need to be clarified, including identification of necessary transitional period and to which vehicles it would apply. However, it is strongly

recommended that in that case, countries apply exactly the same requirements avoiding differences for both international and domestic markets, which would become source of conflicts between users and enforcers.

46. It is up to the country to decide whether to apply the AETR Agreement in its domestic transport or not.

Transition period, priorities and areas of applicability

- 47. Given the international character of the AETR Agreement, the decision of a State to apply the AETR Agreement in its domestic market, is not a matter that concerns the AETR Agreement per se. The decision could be considered as part of the pre-accession period. In this case a transitional period may be considered as a supplementary measure. The length of the transitional period should be determined according to each country's needs, national practice and availability of resources and expertise. For more information on the timing of implementation of the AETR in international transport, see Step 3: Accession to the AETR Agreement.
- 48. According to the AETR Agreement the mandatory use of the digital tachograph applies only to newly registered vehicles engaged in international transport. The application of the Agreement in the domestic transport may raise further applicability questions. These are related to a possible inclusion of some categories of vehicles that already operate in the domestic market in the mandatory use of the digital tachograph, such as school buses or trucks transporting dangerous goods.
- 49. For substantive and educational reasons during the transitional period, other systems for registering and controlling the driver's working hours could be used, such as daily record sheets completed manually by each crew member or analogue tachograph.
- 50. During the AETR national training seminars held in EuroMed countries, it was noted that climatic situations in some parts of countries (Sahara region, for instance) may pose obstacles to full implementation of the AETR Agreement. Such cases could be covered under Article 9: Exceptions of the Agreement, whereas under certain conditions the driver may depart for the provisions of the Agreement.

C. Step 3: Accession to the AETR Agreement

- 51. Article 14 of the AETR Agreement stipulates the eligibility for accession. Currently, Article 14 limits accession to AETR only to UNECE member States. At its 109th session, the Working Party on Road Transport (SC.1), 28-29 October 2014, upon the request of some EuroMed partner countries and the recommendation of its AETR Group of Experts, adopted the proposed modification of the Article 14, opening the accession to the AETR Agreement to some EuroMed countries. The proposed modification reads as follows:
- 52. "1. This Agreement shall be open for signature until 31 March 1971 and thereafter for accession, by States members of the Economic Commission for Europe and States admitted to the Commission in a consultative capacity under paragraph 8 or 11 of the Commission's terms of reference. Accessions under paragraph 11 of the Commission's terms of reference shall be limited to the following States: Algeria, Jordan, Morocco and Tunisia."
- 53. Following the formal procedures stipulated in the AETR Agreement, the official request submitted by Turkey and Ukraine and the "Depositary Notification" for the modification of the Article 14 of the AETR issued by the Treaty Section of the United Nations on 18 February 2015, if this proposal is not contested by any Contracting Party within six months, the AETR is expected to be open for accession to Algeria, Jordan,

Morocco and Tunisia on 18 November 2015. Countries willing to accede to AETR should submit to the Secretary-General of the United Nations, an official request "Instrument of Accession".

- 54. This instrument should be signed by one of three specified authorities, i.e., the Head of State, Head of Government or Minister for Foreign Affairs. There is no specific form of the instrument, but it must include the following:
 - Title, date and place of conclusion of the treaty concerned;
 - Full name and title of the person signing the instrument, i.e., the Head of State, Head of Government or Minister for Foreign Affairs or any other person acting in such a position or with full powers for that purpose issued by one of the above authorities;
 - An unambiguous expression of the intent of the Government, on behalf of the State, to consider itself bound by the treaty and to undertake faithfully to observe and implement its provisions;
 - Date and place where the instrument was issued;
 - Signature of the Head of State, Head of Government or Minister for Foreign Affairs (the official seal only is not adequate) or any other person acting in such a position for the time being or with full powers for that purpose issued by one of the above authorities.
- 55. A model Instrument of Accession is presented on page 23.
- 56. An instrument of accession becomes effective only when it is deposited with the Secretary-General of the United Nations at United Nations Headquarters in New York City. The date of deposit is normally recorded as that on which the instrument is received at Headquarters. Countries are advised to deliver such instruments to the Treaty Section, Office of Legal Affairs of the United Nations directly to ensure that the action is promptly processed. The individual who delivers the instrument of ratification is not required to have full powers. In addition to delivery by hand, instruments may also be mailed to the Treaty Section. In accordance with the depositary practice, if a country initially faxes or sends by e-mail a signed copy of an instrument, such copy may be accepted for deposit but that State must also provide the original as soon as possible thereafter to the Treaty Section.
- 57. Furthermore, it should be noted that the AETR Agreement enters into force in each country 180 days after the deposit of its instrument of accession. By that time, each country should comply with all provisions of the Agreement. However, based in European experiences countries acceding to AETR Agreement may need more than 180 days before they are able to fully implement the Agreement. For this reason, it is highly recommended that newly acceding countries request a transition period, in order to secure the needed time for all reforms that should take place, in order to fully comply with the AETR Agreement's provisions and requirements.
- 58. Such a case was presented when Georgia deposited its instrument of accession to the AETR Agreement, in 2011 in which it was mentioned the country's request for a 2-year transitional period, which was granted.⁴ The exact wording follows: "The Government of Georgia reserves its right to use measures to be applied during the tolerance period with respect to the implementation of digital tachograph by the Contracting Parties to the

⁴ None of the other States Parties objected to this reservation by the end of six months period after the respective dates of the circulation by the Secretary-General, and as a result they are deemed to have accepted the reservation and grant Georgia the 2-year transition period requested.

European Agreement Concerning the Work of Crews of Vehicles Engaged in International Road Transport (AETR) of 1 July 1970, during the two years period after Georgia's accession to the AETR agreement." https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg no=XI-B-21&chapter=11&lang=en#EndDec

59. Relevant information and procedures for the Accession of countries to the AETR Agreement can be found in the Vienna Convention on the Law of Treaties, 1969. Handbook and other resources available at website of OLA.

⁵ The Vienna Convention on the Law of Treaties (VCLT) is a treaty on the international law on treaties between states. It was adopted on 22 May 1969 and opened for signature on 23 May 1969. The Convention entered into force on 27 January 1980. The VCLT has been ratified by 114 States as of April 2014. The Agreement expresses rules that are already part of customary international law.

ANNEX 5 - MODEL INSTRUMENT OF ACCESSION

(To be signed by the Head of State, Head of Government or Minister for Foreign Affairs)

ACCESSION

WHEREAS the [title of treaty, convention, agreement, etc.] was [concluded, adopted, opened for signature, etc.] at [place] on [date],

NOW THEREFORE I, [name and title of the Head of State, Head of Government or Minister for Foreign Affairs] declare that the Government of [name of State], having considered the above-mentioned [treaty, convention, agreement, etc.], accedes to the same and undertakes faithfully to perform and carry out the stipulations therein contained.

IN WITNESS WHEREOF, I have signed this instrument of accession at [place] on [date].

[Signature]

D. Step 4: Setting security levels

1. Check implications on compatibility with data protection law

- 60. The protection of personal data and privacy of individuals constitutes a fundamental human right. Data protection law grants the data subjects, i.e. individuals, certain rights and imposes certain responsibilities on data controllers.
- 61. The digital tachograph devices record and store personal data on tachograph cards. These data, their recording, their storage, the way they can be accessed, their transfer and their use fall under the scope of the data protection rules. As a result, all procedures regarding the collection, use, transfer and storage of these data should be compliant with or adapted to the existing national legislation on this matter.

2. Elaborate criteria to be complied with by people dealing with keys (personnel security)

62. In order to comply with the required level of security, people in charge of the management of the digital tachograph system should work according to the definition of the ERCA policy. This means that personnel are assigned to specific roles according to responsibility (officer, administrator, operator and auditor) and no single person shall be authorized to perform more than one of the trusted roles.

E. Step 5: Establishing Security Policy

1. Develop national security policy, based on ERCA Policy and the national security policy template

- 63. Each country has to fulfil its obligation and develop a national security policy. This policy should be compliant with the standards and follow the template of ERCA. A national security policy is needed to ensure that the keys, certificates and equipment (cards, vehicle units and motion sensors) are managed in a safe and trustworthy manner by all parties involved.
- 64. The National Security Policy should cover the following processes, where applicable:
 - · issuing of tachograph cards, including keys and certificates;
 - · issuing of vehicle unit keys and certificates;
 - issuing of motion sensor keys;
 - management of the Contracting Parties keys.

2. Send policy to JRC and UNECE and have the policy approved by JRC

- 65. After completing the National Security Policy according to the prerequisites and instructions of ERCA, each country has to formally submit their policy to ERCA and have it approved. The objective of the approval process is to assure comparable levels of security in each country that has acceded to AETR Agreement. It should be noted that the ERCA shall provide key certification services to a country only if the outcome of the policy review provides sufficient grounds to judge that the requirements set have been met.
- 66. The national security policy ERCA's model document "European Root Policy V2.1" is included in Annex IV.

3. Periodical policy audit and maintenance

67. Each country has the obligation to periodically audit its security policy to confirm that the requirements of ERCA policy are maintained. Each country is obliged to perform the first audit within 12 months of the start of the operations covered by the approved policy. When an audit finds no evidence of non-conformity, the next audit may be performed within 24 months. When an audit finds evidence of non-conformity, the next audit shall be performed within 12 months. Each country shall report the results of the audit and provide the audit report to the ERCA. The audit report shall define any corrective actions, including an implementation schedule, required to fulfil the country's obligations.

4. Test key certification requests before live session at ERCA

68. This is a critical procedure that each country has to undertake in order to ensure that they have all prerequisites in place in order to complete successfully the official key certification procedure with ERCA. Test keys are used for preliminary checks but mainly for type approval certification. There is no obligation to pass test keys "request for certificates" to benefit from real keys ERCA services. Whatever use of equipment with real keys will be allowed after completion of the three steps type approval. It should be mentioned that test key products will be necessary for training to follow.

F. Step 6: Put in place and maintain a national risk management policy

- 69. Security of the tachograph system is one of the basic pillars of its function. Thus, security needs to be maintained at all stages and be adaptable to respond to any possible threat(s) as they may appear. A risk management policy needs to be developed and implemented at the national and international levels so as to allow the various stakeholders to anticipate risks and define counter-measures when applicable.
- 70. Consequently, management of such risks is, in practice, a major task involving a series of consecutive steps. The risk management process can also be described as comprising a six-step process, ranging from identification of the problem to evaluation of control actions. The process is an iterative one and not a linear sequence of actions. The six steps can be considered as an important cyclical process to follow so that governments can make informed decisions on the digital tachograph system. These steps include:
 - Conducting a situation analysis/needs assessment;
 - Developing the risk reduction goal, sub-goals and indicators;
 - Identifying and evaluating possible risk reduction options;
 - Selecting and developing the risk reduction strategy;
 - Obtaining commitment from decision-makers and taking action;
 - Evaluating Impact.



Risk Management Process

- 71. The risk management decision-making process should ideally be orchestrated by a small, theme-specific workgroup under the National AETR Committee (see Activity 1.3) who can draw on the expertise of, and promote communication among the various concerned ministries as well as other stakeholder groups. Such a workgroup should typically include, as a minimum, representatives of type approval authorities, enforcement authorities, card issuing authorities, authorities approving and auditing workshops, authorities in charge of defining, implementing and auditing security policies at the national and the international level.
- 72. Each country will have to find the organizational arrangement that best meets its needs and that will be most likely to lead to cooperation. The process through which risk management decision-making is carried out and the degree to which concerned parties feel appropriately involved often is a key determinant of success. It should be carefully considered and clearly communicated from the outset. While each problem may require a different approach, formulating a decision-making process can help to increase transparency and ensure that the various parties know what to expect and understand how they can effectively contribute to the process.
- 73. A non-exhaustive list of risks that may be faced during the use of the digital tachograph system and the subsequent indicative plan of action can be found in Annex VIII.

G. Step 7: Setting up the digital tachograph cards system

74. One of the core aspects and key functions of the digital tachograph is the issuance of cards to all related parties: there are separate and distinct cards for professional drivers, transport companies, workshop staff and law enforcers. Each country has to make crucial decisions and undertake specific steps towards this direction.

1. Decide if to develop and issue own card or use those cards that are already type approved

- 75. Each country would have to make a decision both to develop and issue its own cards, or use those cards that are already type approved.
- 76. In the first case, full type approval is needed. The successful acquisition of three certificates (functional, security and interoperability) lead to the type approval certificate. It is evident that this procedure may take a long time to accomplish.
- 77. In the second case, the procedure is simplified, as only the adaptation and type approval of a card already type approved by another Contracting Party to AETR Agreement would be necessary. It should be noted, however, that even in this case an interoperability check is required by JRC, ensuring that the cards of the country which are set up with the country's encryption keys are fully compatible with all approved vehicle units.

2. Establish a Card Issuing Authority (CIA)

78. The country's Card Issuing Authority (CIA) should be established. The CIA can either be centralized (in charge with database, application processing system, card personalization and issue) or de-centralized, only in charge with administrative desks for application processing with centralized database, while the cards can be personalized either from central office or at administrative desks.

79. The CIA should:

- Designate the manufacturer of the raw tachograph cards. In general, this step is subject to a tendering procedure;
- Appoint a Card personalizer (CP) and a Country Certification Authority (CCA), again with a tendering procedure;
- Implement the card issuing structure in CIA (set up of a front desk and a card distributing system, implement working procedures, connect to national driving permits database and create tachograph card database, connect to the tachograph card databases of the participating countries TachoNET or another equivalent system which shares information with all other CPs)⁶ is however worth noting that TachoNET is not directly available to non-EU countries. For the time being access to it can be made only through EU States.
- 80. The CIA should also be responsible for:
 - Application validation of each applicant;
 - Identification of the card holder;
 - Ensuring uniqueness of every driver card;
 - · Producing card certificate;
 - Producing and personalizing cards (through appointed raw Card Manufacturer and Card Personalizer);
 - Distributing and handing over cards to their respective legal holders;

⁶ It is important to underline that sharing information through TachoNET or any equivalent system is not a way to share all national information with the whole AETR community, but instead a way of ensuring that a single person does not apply to several Contracting Parties for a driver card.

- Revoking a card's certificate, in case a card has been lost, stolen, malfunctioning or confiscated;
- 81. The European Commission recommendation on TachoNET dated 13 January 2010 in Annex V.

3. Elaborate and approve procedures for all card application types: First issue, replacement, exchange, renewal

- 82. The CIA should elaborate and approve all appropriate procedures that refer to first issue, replacement, exchange and renewal of all types of cards. This step also includes the procedures to be followed between the CIA, the raw card manufacturer, the card personalizer and every other authority and legal entity involved in the system.
- 83. It should be noted that the CIA should bear the responsibility for delivering/replacing cards within a short period of time (days), because driving without a card is forbidden, unless the driver has made an official declaration of lost or stolen card.

4. Create a reliable database accessible by all parties

84. All parties involved should have sufficient knowledge of the status of the implementation and use of the digital tachograph system in the country. This can be achieved by the establishment of a reliable electronic system, which will collect and store data, accessible by all parties involved in the digital tachograph system. This database could then be used for statistical, security and reference reasons, under the provision that it would comply with applicable personal data protection laws.

5. Cards' additional features to be checked by UNECE

85. The cards' standard and additional features, as they have been designed and implemented during their construction phase, should be communicated to UNECE, be checked and approved, ensuring that the cards are fully compliant with AETR.

H. Step 8: Setting up the workshops network

86. All digital tachographs need to be, at some point, activated, calibrated, inspected, and, ultimately, decommissioned from service. Workshops are expected to provide this front-line support and expertise.

Parallel operation of analogue tachographs

Although the digital tachograph is mandatory for all newly-registered vehicles according to AETR Agreement, a country should be ready in respect to legislation, technical capacity and control methods and equipment to handle the previously mentioned activities (activation, calibration, inspection, decommission) for analogue tachographs also. This is because analogue tachographs continue to exist and will be operational until the vehicles they are fitted in are put out of operation.

1. Introduce or amend national laws on the approval of workshops

- 87. Some countries that are not Contracting Parties to AETR Agreement have national legislation on working and rest times for professional drivers and the use of the analogue tachograph is part of that legislation. In such cases the relevant laws should be amended, to reflect the provisions of the AETR Agreement on both analogue and digital tachographs.
- 88. Special attention should be paid when no system for registering and controlling professional drivers' working hours exists in a country. In this case it is imperative that

national legislation on the approval of workshops for all technical operations for the digital as well as analogue Tachograph equipment fitted on vehicles should be created, according to the provisions of the AETR Agreement.

2. Set criteria for workshops

- 89. Two sets of criteria are recommended for the approval of workshops: their technical competence and facilities and the suitability of the applicants (workshops and fitters). The assessment of technical competence can be best achieved by ensuring that workshops have available appropriate and/or approved equipment to allow them to carry out the required tachograph-related tasks and by ensuring that all technicians who carry out the work have successfully completed appropriate training. The nominated technicians must be of good repute, provide a signed declaration of suitability, prove their appropriate skills and technical background and have a tachograph training certificate (analogue and digital).
- 90. The workshops and their staff have to be of good repute as they are in charge of sealing and calibrating systems, which are used as evidence of driver's hours infringements. This level of trust/repute can be dealt with in the Approval stage. (see Annex X: Guideline for the agreement of workshops).

3. Designate workshop approval authority

- 91. The designation of a workshop approval authority is vital for the functioning of the digital tachograph system. It is this authority that will be responsible for putting into force the selection criteria set for workshop approval. This authority could be one of the themespecific workgroups proposed in paragraph 1.5 of Activity 1 of the present document and its service should be not only limited to the initial selection and approval of workshops, but their constant evaluation and certification. Therefore, the authority should also need to:
 - Decide the period of validity of workshop approvals;⁷
 - Decide the fees for approval and/or renewal;
 - Undertake (or delegate responsibility for) conducting periodic inspections of workshops, individual technicians, records, equipment and security aspects;⁸
 - Ensure that approval criteria are reviewed periodically to reflect changes and experience;
 - Ensure that applications for workshop cards are screened and validated and that cards are not issued inappropriately.
- 92. This authority should also be able to regularly audit workshops once approved and adopt disciplinary sanctions, being allowed to withdraw, whenever necessary, approvals granted to workshops.
- 93. It should be noted that each country should be able to define their own procedure to approve workshops.
- Finally, the designated workshop approval authority should be communicated to the UNECE.

⁷ Preferably limited to one year and not renewed automatically, but after an in-depth audit.

Civil servants shall monitor workshops' technical operations and processes during calibration, repair, sealing and/or other phases of digital tachograph equipment maintenance, but not assist at these operations, since vehicles should reach conformity within the shortest time period possible.

4. Establishment of a sufficient network of authorized workshops

- 95. A sufficient number of workshops in the territory of the Contracting Party should be approved by the respective national authority, in order to facilitate in the most effective and efficient manner all technical operations (installation, activation, calibration, periodic inspections, downloading and decommissioning) on tachograph equipment fitted on vehicles in the country.
- 96. As mentioned above, the competent authority should not attempt to intervene in the commercial setting up of workshops other than to ensure their sufficient number and that they adhere to all legal requirements.

5. Communicate to UNECE a list of authorized workshops in order to maintain a database and inform all the Contracting Parties

- 97. The initial list of approved workshops should be sent to the UNECE, so that it can keep a record and inform accordingly all other Contracting Parties to the Agreement.
- 98. This list should periodically be updated and communicated to UNECE, as a result of the checks and conformity controls conducted by the competent national authority.
- 99. This step is very important, in order to inform foreign drivers where they can maintain their tachograph in case of failure.

I. Step 9: Training

1. Development of cards and devices for training

- 100. To properly train of all parties involved in the digital tachograph system, it is evident that equipment, including cards and digital tachograph devices should be developed. This training equipment should comply with all standards valid for actual commercially used devices.
- 101. It should be noted, however, that for safety measure, the devices, vehicle units and cards used for training purposes are working with test keys and not "real keys", preventing the use of training material (cards) for driving as second or additional card.

2. Training of drivers, companies, fitters, workshop technicians, control officers

- 102. The implementation of the digital tachograph entails new obligations for transport companies and professional drivers. It also introduces more stringent requirements for the workshops to ensure a proper calibration and repair of this recording equipment. Moreover, the implementation of the digital tachograph introduces new procedures for the law enforcers to follow during the checks of compliance with the applicable laws. It is, therefore, evident that training of all those involved in AETR, during all stages (design, implementation and use of the digital tachograph) is crucial for its success. This includes training of competent authorities' officials, enforcement bodies, managers and office staff of transport companies, drivers, workshops, fitters, technicians and safety advisors.
- 103. A non-exhaustive list of training actions that this workgroup could design, implement (or delegate for implementation) and supervise would be:
 - Awareness raising events;
 - Separate training courses for transport companies, professional drivers, workshops and law enforcers;
 - Field demonstrations;

· Theoretical courses.

104. However, usually training courses for workshops are usually provided by tachograph manufacturers, who have a full knowledge of workshop activities. Manufacturers can train the drivers and company's trainers, as well as law enforcement trainers.

J. Step 10: Enforcement

105. The tachograph remains the main control device used by enforcement officers to ensure the respect of road safety rules by professional drivers. Therefore, enforcement was, is and will remain the key aspect of the implementation of the digital tachograph system and should be one of the most important pillars of the risk management procedures.

1. Introduce or amend laws to empower control officers for the enforcement activities

106. The Contracting Parties implementing the AETR Agreement are expected through their nominated coordination body to take into consideration the enforcement aspects at their respective national level and define an enforcement strategy. This can be achieved by the work done by a relevant workgroup, as indicated previously under Step 1 (1.5 Enforcement workgroup) under the National AETR Committee and/or under the responsibility of the competent authority for law enforcement in each country.

2. Equip control officers appropriately

107. Law enforcers should be equipped with the necessary devices and instruments to be able to perform their duties during checks. A non-exhaustive list of these devices and equipment would include:

- Electronic cards for assessing and printing the data stored in a digital tachograph;
- Download keys for data downloading from the digital tachograph machines;
- · Computers and printers.
- The European Directive 2009/5/CE (classification of infringements to the digital tachograph system) is in Annex VI. As a useful reference document for non-EU countries.

K. Step 11: Setting up an operational help desk

- An operational helpdesk for AETR issues would provide all parties involved in AETR and digital tachograph procedures with information and support. It would provide guidance about legislation, procedures and other AETR-related issues, as well as answers to frequently asked questions. The helpdesk support could be provided through channels such as toll-free numbers, websites, instant messaging or electronic mail.
- National transport associations for passengers and freight transport may also contribute in the creation and functioning of this help desk or similar by replying to related questions raised by the road transport professionals.

