Revision of the European Electronic Road Toll Service


Background

This note seeks to provide an initial analysis of the strengths and weaknesses of the European Commission's impact assessment (IA) accompanying the above proposal, submitted on 31 May 2017 and referred to Parliament's Committee on Transport and Tourism.

Digitisation and connectivity allow tolling without the user having to stop at toll barriers. Electronic tolls are levied by electronic systems that charge passing vehicles at a control point or across the infrastructure network. The vast majority require road users to install special equipment – on-board units (OBU) – for which technologies and standards may differ from one Member State to the next. For that reason, Directive 2004/52/EC on interoperability established the framework for a European Electronic Toll Service (EETS), in accordance with which road users could subscribe to a single contract and use a single OBU to pay electronic tolls throughout the EU. The detailed technical issues connected with the directive were set out in Commission Decision 2009/750/EC on the definition of the EETS and its technical elements. The EETS should have been operational for heavy goods vehicles by October 2012 and for other vehicles by October 2014, but the objectives of the legislation remain largely unattained. Some cross-border interoperability has been achieved, but in the majority of Member States it is still the case that only national OBUs can be used to pay tolls.

The European Parliament has called for the Commission to consider appropriate legislative measures in the field of interoperability on several occasions, for instance in its 20132 and 20153 resolutions. In 2015, the Commission announced an evaluation of EETS legislation, which was concluded in 2017 with the publishing of the ex-post evaluation report. The Commission included the regulatory fitness (REFIT) revision of Directive 2004/52/EC in its 2017 work programme (CWP) under the new initiatives implementing the energy union strategy and included the initiative in the European strategy for low-emission mobility. Initially, EU road-pricing initiatives, such as the EETS Interoperability Directive and 'Eurovignette' Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructure, were not focused on contributing to reducing greenhouse gas emissions, but with time, this aspect has become more important.4 The Commission presented its revision of the EETS Interoperability Directive in parallel with the proposal to revise the Eurovignette Directive.

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1 For further information, see S. Pillath, Road charges for private vehicles in the EU, EPRS, European Parliament, May 2016.
4 For further information, see G. Malmersjo, The Eurovignette and the framework to promote a European electronic toll service (EETS), EPRS, European Parliament, March 2017.
Problem definition

The problem definition provided in the IA builds on the conclusions of the ex-post evaluation of Directive 2004/52/EC and Decision 2009/750/EC (IA Table 1, pp. 3-4). Three main problems are identified (IA, pp. 6-11):

1. Barriers to entry and lack of a truly competitive market for the EETS
   Many national markets for the electronic collection of tolls are functioning in a suboptimal, often anti-competitive manner. Road users (drivers) can choose between only very few toll service providers if at all, meaning that the service providers can use their strong market position to impose sub-optimal commercial conditions on both road users and toll chargers (a public administration or a concession holder). Potential new market entrants – EETS providers (intermediaries between the users and toll chargers) – are blocked by the high levels of cost and uncertainty associated with national electronic toll collection (ETC) systems' accreditation procedures.

2. Foreign-registered vehicles can escape tolls and fines
   The authority to enforce tolls typically stops at the borders of the country. Enforcement authorities do not have the means to establish the identity of the owner of a foreign-registered vehicle. No common agreement exists to regulate the exchange of vehicle registration data between Member States, except a small number of bilateral agreements, for example between Austria and Germany.

3. Burdensome obligations on EETS providers
   Certain legislative requirements have hampered interoperability. More specifically, excessive registration requirements for EETS providers present a significant disincentive to entering new markets. This includes the requirement to cover all electronic toll domains in the EU within 24 months of registration of the EETS provider and the same requirements for EETS providers active in the heavy duty and light duty vehicle markets, even though these markets are very different and EETS providers tend to specialise in one or the other market.

For each problem summarised above, the IA provides a comprehensive discussion of the reasons behind the corresponding problems and includes a 'problem tree' diagram (IA, p.6), which makes the overall problem definition coherent and clear. The effects of the problem on the various stakeholders are also included in the discussion (IA, pp. 12-17). One of the effects is the lack of a good business case for the provision of the EETS: the costs of initial accreditation of EETS providers to the different toll domains correspond to more than seven years of their net operational profits under the baseline scenario. The IA does not refer to the reduction of greenhouse gas emissions, climate change or the energy union strategy this proposal is part of according to the 2017 CWP. The proposal’s explanatory memorandum, on the other hand, states that 'making electronic tolls easier to deploy and apply will facilitate the wider application of the "user pays" and "polluter pays" principles and thus contribute to achieving the goals of the energy union. In particular, it will enhance the effectiveness and efficiency of the proposal to revise the "Eurovignette" Directive ..., which is presented in parallel to this initiative' (explanatory memorandum, p. 4).

Objectives of the legislative proposal

The general objective of the Commission proposal is to contribute to the correct functioning of the internal market by ensuring more access to interoperability in tolling services in line with and appropriate to road users’ needs. The objective implies that both users engaged in regional transport, and those in need of EU-wide interoperability, will find a service that meets their requirements.

The specific objectives of the initiative are as follows (IA, p. 20):

1. to remove market entry barriers and foster the development of a competitive market for electronic toll collection services; this specific objective goes beyond technical, procedural and contractual
interoperability, as it also sets the aim of achieving a competitive structure for the toll collection market – an objective currently not spelled out in the legislation;

2. to improve the level of enforcement of tolls from foreign-registered vehicles; and

3. to remove the excessive obligations on EETS providers.

The specific objectives reflect the problems identified. According to the IA, all objectives are consistent with the EU policies of completing the internal market and creating a digital single market, while specific objectives 1 and 3 have a clear link to the objective of reducing the regulatory burden on companies (REFIT). The IA includes operational objectives for specific objectives 1 and 2 that seem to be in line with the SMART criteria (specific, measurable, achievable, realistic and time-bound). The achievement of specific objective 3, according to the IA, is quite straightforward, as it relates to the adoption of specific legislation. The IA contains a list of indicators to monitor the achievement of the specific objectives and sets specific targets for 2025 (IA, pp. 60-62).

Range of options considered

The IA starts with a long-list of possible approaches and measures, which it pre-screens against the opinions of stakeholders, experts and other considerations such as political acceptability and proportionality. The long-list includes proposals made by the stakeholders spontaneously ('less crucial policy measures') and is structured along the specific objectives of the initiative. Based on this screening, 13 measures are discarded and 24 are retained for more detailed analysis. Building on the measures retained for further analysis, the IA concludes that only part of specific objective 1 can be addressed in several alternative ways and no real alternative approaches could be devised for specific objectives 2 and 3. Therefore, the policy options proposed in the IA are built mainly around the approach taken to address specific objective 1.

The IA does not set out the content of the options in a clear manner, since options are introduced very briefly and refer the reader back to a three-page Table 9 that lists the measures retained for further analysis. In turn, the list of measures retained for further analysis refers back to the long-list of possible approaches and measures. The reader has therefore to deduce the content of the options by going back and forth between the lists. This was done for the summary of the policy options presented below.

Policy option 0: baseline

The EU would not undertake any new action. It is assumed that no actions other those already initiated by the Member States and stakeholders would take place. For example, Italy is in the process of opening up to EETS providers, hence it is assumed that the negotiations between EETS providers and toll chargers on the Italian market would be concluded. Markets in many other Member States, i.e. Germany, Poland, Czech Republic, Slovakia, Slovenia, Greece and Croatia, would remain (partially) foreclosed (IA, pp.18 and 36).

Policy option 1: self-regulation to achieve specific objective 1 and legislative measures to achieve specific objectives 2 and 3

In this policy option, problem 1 would be addressed through self-regulation, i.e. the industry would organise itself to achieve the removal of barriers to the deployment of the EETS in a competitive market environment. The Commission would legally recognise the industry’s representative body – the EETS Facilitation Platform (EFP) – as an official partner in the achievement of specific objective 1. The Commission would present the EFP with a list of indicators to check the level of achievement of the operational objectives in the form of a communication and an agreement sought in a memorandum of understanding signed by the Commission and the EFP’s members. The Commission would agree with the EFP on a mechanism for regular monitoring and on a number of soft measures to facilitate cooperation, such as hosting meetings, disseminating the achievements, financial support, etc. Specific problems 2 and 3 would be addressed with the following essential regulatory measures:

a) a mechanism for the mandatory exchange of information between Member States on the identity of vehicle owners who are proven or suspected of fraud in the toll system, largely based on the provisions of Directive 2015/413/EU on the cross-border enforcement of road safety-related offences;

b) the removal of mandatory coverage for EETS providers of all electronic toll domains in the EU within 24 months of registration of the EETS provider;
c) making it possible for EETS providers to offer an EETS for heavy duty vehicles only or for light vehicles only.

In addition to the three essential measures, option 1 contains three complementary measures.

**Policy option 2: legislative approach (preferred option)**

In this policy option, all regulatory and market failures would be addressed by changes to EETS legislation. This option contains some standardisation measures, concentrating on harmonisation of an interface between the back-office of a toll charger and the EETS provider, as the respondents in the public consultation indicated this as a priority area. More specifically, option 2 proposes to legally impose the use of the ISO 12855 standard in its 2015 version and the profiled standard CEN TS 16986 by toll chargers. This mandatory harmonisation is thus limited to a single, important aspect, according to the IA. Besides the harmonisation of interfaces, policy option 2 would include measures a) to c) envisaged under policy option 1 and the following essential legislative measures aimed at facilitating interoperability and ensuring competitive functioning of the market:

- d) a requirement that Member States/toll chargers should not make specific demands going beyond established standards regarding the way the technologies listed in the EETS Directive are applied;
- e) accreditation procedures for EETS providers (the same for all applicants) aimed at preventing a monopoly when a tolling system is created or substantially changed;
- f) the reseller model for a contractual relationship with the EETS provider;
- g) a transition period between different versions of the same ETC service standard (e.g. regarding OBUs);
- h) separation of accounts between a toll charger and toll service provider (when performed by the same company);
- i) remuneration of the EETS provider by the road manager at market value.

In addition to the above-listed essential measures, option 2 contains a number of complementary measures.

**Policy option 3: a single EU ETC standard to facilitate technical and procedural interoperability and legislative measures to promote competition on the market and to achieve specific objectives 2 and 3**

This option goes further than policy option 2 and includes harmonisation of both the interfaces between market players and the internal procedures of each market player. The Commission would require the European standardisation bodies to prepare an exhaustive list of very detailed standards for all the ‘interoperability constituents’ (OBUs, roadside infrastructure, enforcement and back office) and processes linked to the electronic toll collection and the EETS. It would then render standards mandatory by legislation. In addition to this, policy option 3 would contain the measures a) to c) and f) to i) mentioned above.

According to the IA, Option 2 is the preferred option. The IA explains, as follows, why no intermediate solutions between Options 2 and 3 were considered:

- no meaningful standardisation options between total harmonisation and harmonisation of interfaces could be identified (IA, p.36);
- there appears to be little agreement among stakeholders on intermediary solutions between 24-months-full EU coverage and total freedom for EETS providers to choose the markets on which they operate, and this was also confirmed in the public consultation (IA, pp.28-29).

**Scope of the impact assessment**

For each policy option, the IA provides a quantitative estimation of economic impacts for the following groups of stakeholders over the 2016-2025 period: road users, toll chargers, EETS providers and OBU manufacturers (IA, pp. 38-45). The impacts on innovation, competitiveness, SMEs, peripheral Member States and regions, third countries and on regulatory burden reduction are also discussed among the economic impacts, some of them quantified. Social impacts (on jobs, fundamental rights, the protection of personal data and the right to privacy) and environmental impacts are discussed in a qualitative way. Environmental impacts are mentioned rather briefly and in very general terms, no negative environmental effects are mentioned. According to the IA, the positive environmental impacts are impossible to quantify with a reasonable degree of precision (IA, p.52). The
IA compares the policy options in terms of their effectiveness and efficiency in quite a detailed way, and provides a less detailed discussion on coherence and proportionality. The analysis shows that all options would contribute to increasing the compliance costs for toll chargers. Policy option 3 is the most effective, closely followed by policy option 2. Policy option 2 ranks highest in terms of efficiency, as it is the only option with positive net impacts for road users, toll chargers and EETS providers (€254 million cumulated from 2016 to 2025, IA, pp.49 and 58), whereas high compliance costs for toll chargers in Options 1 and 3 outweigh their positive impacts (IA, p.50). The risk attached to policy option 2 is that no EETS provider decides to cover all or the majority of toll domains in the EU. However, according to the IA (p.53), the aggressive expansion policy currently practiced by the two most advanced EETS providers gives a clear indication of the willingness of the biggest players to offer interoperable tolling services on as many markets as possible. Annex 4 of the IA (pp.83-88) contains the key assumptions used to model the baseline and the impacts of the various policy options. The modelling was out-sourced by the Commission (see the IA accompanying study available online).5 The assumptions were based on consultation with economic actors and Eurostat data, among other sources. Cost estimates are set out in Annexes 7, 8 and 9 of the IA (pp. 93-99).

Subsidiarity / proportionality

According to the IA (pp. 18-19), ensuring interoperability for ETC systems across the EU (a stated aim of the existing legislation) requires action that involves all EU Member States. Nearly all of the problems identified in the IA are within the scope of application of Directive 2004/52/EC. The EU’s right to act seems to be effectively justified by the existence of this directive. Currently, cross-border enforcement of tolls is not explicitly covered by the EETS legislation, while cross-border cooperation in the enforcement of road-safety-related traffic offences is provided for in Directive 2015/413/EU (non-payment of tolls is outside the scope of this directive). According to the IA, Directive 2015/413/EU gives precedence to measures that are aimed at facilitating the cross-border enforcement of other road traffic related offences, such as non-payment of tolls. The IA briefly checks the regulatory options in the light of the principle of proportionality (IA, p.59). It concludes that policy options 1 and 2 are proportionate to the scale of the problem they intend to address, whereas policy option 3 seems to be excessive, because it is not required by the market under the current circumstances. No reasoned opinions were submitted concerning the proposal, but two national Parliaments communicated their positions within the framework of political dialogue and information for exchange.6 The Dutch House of Representatives posed questions regarding the coherence between the Eurovignette and EETS Directives, as well as the implementation of information exchange between the Member States. The Italian Senate commented, among other things, on the adoption of delegated acts by the Commission. The subsidiarity deadline for this proposal was 7 September 2017.

Budgetary or public finance implications

According to the IA, the cost to toll chargers of adapting tolling systems to new requirements and setting up a national level test environment are €174 million for the preferred option (net present value until 2025).7 An additional expense for the toll chargers of €700 million a year for the preferred option is the cost of remuneration for the EETS providers (cumulated value, all road managers, all EETS providers). According to the IA (p.49), €700 million has a zero net social impact, as it constitutes a benefit for one category of actors and a corresponding loss to another category of actors. The IA states that Member States often act as toll chargers and that the proposal has implications for the Member States independently of their role as toll chargers (IA, p.81). This seems to suggest that budgetary implications may be different for different Member States, but the IA only quantifies the costs of the preferred option for toll chargers and does not specify any impacts or costs for the different Member States. According to the proposal’s explanatory memorandum, there are no budgetary implications for the Union.

6 See the Platform for EU Interparliamentary Exchange (IPEX).
7 The value of an expected income stream determined as of the date of valuation.
SME test / Competitiveness

Annex 11 of the IA contains the results of the SME test as defined in Toolbox 19 of the Better Regulation Guidelines. It identifies SMEs as commercial road users – road hauliers, bus and coach operators. According to Eurostat, 97% of these are SMEs. Among the EETS and toll service providers, a few companies can also be considered SMEs, but these are exceptional. According to the IA, many consultation questions were designed to inquire in first place about the impact of the initiative on the costs and burden to road hauliers. The consultants preparing the IA support study interviewed several hauliers and involved the organisations representing road transport companies at EU level in all public consultation activities. According to the IA, the impact on SMEs is positive in all policy options, highest in option 3 and lowest in option 1. The net positive cumulative economic impact on hauliers under the preferred option is €300.9 million (IA, pp. 47, 106). The preferred option is likely to slightly increase the competitiveness of SMEs compared with larger companies (IA, p.106).

Simplification and other regulatory implications

The IA refers to the objectives of the REFIT initiative aimed at regulatory simplification and burden reduction. It argues that the cumulative net economic impacts of policy options correspond to the reduction of the regulatory burden. Therefore, the preferred option has a significant net positive impact on the regulatory burden: the regulatory burden for all companies would be reduced by €254 million collectively over 2016-2025 (IA, pp.55-56). According to the IA (p.59), the initiative is coherent with the other actions that are part of the energy union strategy, in particular with the review of 'Eurovignette' Directive 1999/62/EC. Annex 10 provides a 'bigger picture' of EU road initiatives that are part of the energy union and the internal market strategy. Aside from one specific example of a synergy between the 'Eurovignette' and the EETS Directives, the IA does not discuss the coherence between the two proposals, nor does it explain how coherence will be ensured.

Quality of data, research and analysis

The IA was founded on the results of the ex-post evaluation, which built on the following two studies out-sourced by the Commission:

1. **State of the art of electronic tolling**, prepared upon request of the European Parliament and assessed available tolling technologies and suggested solutions to identified problems;
2. **Expert review of the EETS legislative acts**, which indicated the regulatory failures that contributed to the lack of success of the EETS.

The IA accompanying study was out-sourced by the Commission and is available online. The methodology used in the impact assessment is detailed in Annex 4 (IA, pp. 83-88) and includes the modelling method and its key assumptions, reliability and appropriateness. Since the interoperability of electronic tolls is a relatively narrow area of transport policy and general transport models would be inappropriate to analyse the impacts of changes to this policy, a simpler model was developed ad hoc by the contractors and fed with data from the general model. The IA recognises the simplicity of the model and the fact that the outputs must be seen as approximate, but argues that, thanks to this simplicity, the results show the trends in the baseline and in the policy options correctly. Therefore, the results can be used as reliable evidence to compare the baseline and options between themselves (IA, p.88). The overall analysis seems to be reasonable and based on sound research and recent data. Finally, the EFP and its predecessor REETS were a source of information.

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11 Regional European Electronic Toll Service (REETS): project co-financed by the European Commission aiming at deploying EETS compliant services in a cross-border regional project. The project covered the electronic toll network of seven Member States (Austria, Denmark, Germany, Spain, France, Italy and Poland) and Switzerland.
Stakeholder consultation

The IA identifies the stakeholders affected by the problem as road users, toll chargers and EETS providers, and explains how exactly they are affected (IA, pp. 12-17). The stakeholders affected by the proposed initiative, according to the IA, are toll chargers, Member States' administrations (which often act as toll chargers), EETS providers and the notified bodies. For road users, there are no specific implications in terms of new obligations or costs (IA, Annex 3, pp. 81-81). The Commission conducted five main consultation activities in the context of the ex-post evaluation and the impact assessment:

1. an open public consultation to test the broad policy choices of the proposed initiative (12 weeks, 73 responses, considered by the Commission to be a relatively low response rate);
2. spontaneous written contributions (no deadline, 22 responses);
3. a targeted stakeholder consultation on the ex-post evaluation (10 weeks, 22 responses, considered by the Commission to be very representative);
4. a targeted stakeholder consultation on the proposed initiative (6 weeks, 35 responses);
5. reactions to the evaluation roadmap and the inception impact assessment (no contributions received).

Contributions to the consultation activities were received from all groups of stakeholders affected by the proposed initiative and additionally from industry associations and consultancies. According to the IA (p.80), many of the policy measures included for analysis as part of the policy options reflect the suggestions made by stakeholders in the consultation on the proposed initiative and in the position papers sent spontaneously to the Commission. The IA indeed seems to have made a genuine attempt to take into account many of the stakeholders' suggestions, although this was somewhat at the expense of the clarity of the options' content. For instance, the following measures, nearly universally supported by the stakeholder community, were included in the preferred option: a mechanism for exchange of information on the identity of toll offenders, the harmonisation of accreditation procedures and the separation of accounts between toll chargers and toll service providers. Finally, according to the IA, the results of the open public consultation overwhelmingly confirmed the Commission's initial views and approach to the ex-post analysis and the IA. A synopsis of the stakeholder consultations is included in the IA (Annex 2, pp. 67-80) in line with the Better Regulation guidelines.

Monitoring and evaluation

The monitoring of specific objective 3 will amount to checking if the legislation was adopted or not and whether it was properly implemented. The IA considers it appropriate that the Commission evaluate ex post the effects of legislation in around 2025 (depending on the time it takes for the legislation to enter into force). The IA provides a list of 11 indicators and sets targets for each operational objective of specific objectives 1 and 2. Article 7 of the proposed legislation contains provisions on the reporting obligations for the Member States to the Commission and Article 9 specifies that the Commission shall submit a report on the application of the directive within five years of its entry into force.

Commission Regulatory Scrutiny Board

The Regulatory Scrutiny Board (RSB) issued a negative opinion on the first draft of the IA on 31 March 2017. The major critical comments of the RSB were that the report did not explicitly set an objective of full interoperability of the EETS, the options did not provide a set of alternatives and the report did not reflect the views of the stakeholders and in particular the Member States. In its second opinion, the RSB acknowledged the improvements made to the revised report and issued a positive opinion with reservations on 25 April 2017. The following shortcomings still had to be addressed according to the RSB: identification of core measures, which are essential for the envisaged results, the risk attached to the preferred option and the intermediate solutions between the most efficient and the most cost effective. Annex 1 of the IA explains the modifications made to the report following the RSB recommendations in both opinions. Overall, the IA seems to have taken the RSB

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12 According to Article 17 of Decision 2009/750/EC, Member States shall notify to the Commission and the other Member States of any bodies entitled to carry out or supervise the procedure for the assessment of conformity to specifications or suitability for use of interoperability constituents. According to the IA (p. 9), the number of notified bodies is low (currently four).
recommendations seriously in both rounds of revisions and to have responded to a great extent to the comments expressed in the RSB opinions.

**Coherence between the Commission’s legislative proposal and the IA**

The Commission’s legislative proposal is a recast of Directive 2004/52/EC and contains new provisions alongside the removed and amended ones. The main substantive amendments include the explicit objective of facilitating cross-border exchange of information on the failure to pay road fees in the Union (Article 1) and the provisions related to that (Articles 5 to 7), new provisions on data protection (Article 8), delegated acts (Article 10) and the exercise of delegation (Article 11). According to recital 8, the EETS is provided by EETS providers as specified in Commission Decision 2009/750/EC, and according to the proposals’ explanatory memorandum, the ‘market-based’ approach taken in Decision 2009/750/EC continues to apply. The legislative proposal appears to follow the recommendations of the IA insofar as several essential regulatory measures of the preferred option are concerned, but does not contain all of these measures. This seems to suggest that the Commission may set out the remaining specific measures envisaged in the IA’s preferred option in a delegated act.

**Conclusions**

The IA presents the problem of EETS interoperability in a coherent and clear manner and backs it up with the ex-post evaluation results. The following strong points of the IA were prepared in line with the Better Regulation Guidelines: a set of specific and operational objectives, a list of indicators to monitor the achievement until 2025, the comparison of options, and the SME test. The report’s overall analysis seems to be reasonable, and based on sound research and recent data. Furthermore, the IA seems to have made a genuine attempt to take into account many of the stakeholders’ suggestions and the majority of RSB recommendations. However, the report contains a number of weak points. Firstly, the IA offers a rather limited choice of options and hardly any intermediate solutions, although it does clarify the reasons behind this. It presents the content of these options in a rather confusing manner, since the specific measures for each option have to be extracted from a three-page table and collated by the reader. The overall clarity of the IA’s options could have benefitted from spelling out the measures each option contains. In addition to this, the IA seems to suggest that the budgetary implications may be different for different Member States, depending on their role in EETS provision. However, the IA only quantifies the costs of the preferred option for toll chargers and does not specify any impacts or costs for the different Member States. Finally, the proposal is part of the energy union strategy and it is argued will enhance the effectiveness and efficiency of the proposal to revise the ‘Eurovignette’ Directive, but the environmental component is practically missing from the objectives and the impact analysis, as is coherence of the proposal with the revision of the ‘Eurovignette’ Directive.