

April 2015

## Emissions from engines in non-road mobile machinery

*Impact Assessment (SWD (2014) 282, SWD (2014) 281 (summary)) of a Commission proposal for a Regulation of the European Parliament and of the Council on requirements relating to emission limits and type-approval for internal combustion engines for non-road mobile machinery (COM (2014) 581)*

### 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 for a Regulation, which has been referred to the European Parliament's **Committee on Environment, Public Health and Food Safety**.

Non-road mobile machinery (NRMM) is a term that encompasses a wide range of equipment. Small handheld equipment, construction and forestry machinery, generators, railcars, locomotives and inland waterway vessels (IWV) can all be classed as NRMM. These machines are commonplace within the agriculture, construction, rail, aircraft, inland waterway transport (IWT) and domestic shipping industries.

The current proposal seeks to revise Directive 97/68/EC, otherwise known as the NRMM Directive. This Directive establishes exhaust emission limits for spark-ignited (petrol) engines and compression ignited (diesel) engines, both variable speed and constant speed, which are used in a wide variety of applications. The stages specified within the original Directive put in place progressively stricter exhaust emissions limits over time, with the most recent stage coming into effect in 2014.

The current initiative should be viewed within the broader context of the on-going review of EU air quality policy. There is also a close link with the development of EU legislation concerning heavy duty motor vehicles (trucks and buses). Similar engines and after-treatment systems to those used in NRMM are often used by heavy duty motor vehicles; however, they are subject to far stricter emission limits. The entry of the Euro VI emission limits for all new trucks and buses in 2014 widens the gap between emission limits for heavy duty motor vehicles and for NRMM still further. With many Member States continuing to struggle to reach their air quality objectives, increasing emission regulations relating to NRMM is considered to provide an opportunity to assist in addressing this problem (IA, p. 11).

The issues of adverse health effects being caused through exhaust emissions are also becoming more prominent. In 2012 the World Health Organisation (WHO) provided conclusive evidence regarding the adverse health effects of diesel exhaust emissions. The WHO specifically highlights PM (Particulate Matter) (for example, diesel soot), and especially the size of the particles, as being a crucial factor in causing adverse health effects. The most ambitious levels of emission reduction, as implemented by the current stage of the existing Directive, are not sufficient to guarantee adequate protection. It is expressly highlighted that greenhouse gas (GHG) emissions are not a target of this legislative proposal. According to the IA, GHG emissions are greatly influenced by machineries' weight, design and operation and the most appropriate legislative means to combat this are still being sought.

## Problem definition

In the Commission's IA, the definition of the problem requiring action is separated into two sub-sections: air pollution and regulatory shortcomings. Within the air pollution sub-section, it is established that the engines used in NRMM are a significant contributor to air pollution which is the main problem that the proposed Regulation is seeking to address (IA, p. 11). 15 per cent of the total EU Nitrogen oxide (NOx) emissions are attributable to engines used in NRMM (which is expected to increase to around 20 per cent in 2020) and NRMM engines contribute 5 per cent of the total PM emissions in the EU (IA, p. 12).

The current NRMM Directive will provide a significant reduction in emissions from NRMM engines over the next decade. However, the Commission argues that it is necessary at this point to set the sector 'on a long-term emission reduction trajectory that is aligned to the EU's overall air quality policy and regulatory requirements in adjacent sectors' (IA, p. 13). It is established that NRMM also contributes 'roughly 100 million tons of CO<sub>2</sub> equivalent emissions in the EU-27 annually which corresponds to 2 per cent of the EU-27's total greenhouse gas [GHG] emissions' (IA, p. 11). However, the Commission makes it clear that the focus of the legislative proposal is purely placed on the reduction of toxic pollutants and not on GHG, thus, following the logic of the regulatory approach for light duty vehicles (cars and vans) that seeks to address toxic pollutants and GHGs in separate pieces of legislation. Further discussion in relation to this is not approached within the problem definition and remains vague throughout the IA.

In the sub-section concerning regulatory shortcomings, it is identified that some engines are not currently regulated which highlights a clear mismatch in ambition between different engine categories. Manufacturers can choose to place non-regulated engine types into their equipment in order to avoid regulatory standards. This is a particular hindrance to reducing the emissions of engines used in the inland waterways sector. There are regulatory gaps affecting the overall effectiveness in limiting the exhaust emissions of NRMM. Currently there is no legislation at the EU level regulating compression ignited (CI) engines with less than 19kW and more than 560kW and spark ignited (SI) engines above 19kW. The current legislation also fails to apply to stationary engines, engines installed in all-terrain vehicles and in snowmobiles, and engines that run on alternative fuels such as Liquefied Natural Gas (LNG). Another problem identified with the current NRMM Directive is market distortion due to an increased amount of localised legislation at the Member State, regional and municipal levels. The lack of additional intervention at the EU level is said to be contributing to a distortion of the internal market which may worsen as the problem evolves (IA, p. 16). It is also established that no provision is currently made to ensure that a properly maintained emissions control system is working sufficiently in practice when the engine is actually in service (IA, p. 15).

Finally, it is mentioned that there is a misalignment of the EU with third countries (e.g. US, Japan, Switzerland) in this sector and that therefore EU manufacturers offer substantially modified engines and machinery for some of these markets in order to comply with the applicable emission requirements there. This leads to reduced scale effects, increased costs for manufacturers and technical barriers to trade. The IA points out that if nothing is done in this sense, this misalignment could even increase.

## Objectives of the legislative proposal

The *primary* objective of the Commission proposal is to 'reduce the emission of gaseous and particulate emissions (NOx, HC [Hydrocarbons], PM, CO [Carbon Monoxide])' of engines used in NRMM (IA, p. 17). The differentiation between the general, specific and operational objectives is rather blurred and not always entirely coherent: the *general* policy objectives are to protect human health and the environment, through further reducing the emissions from NRMM, and to enable competitiveness, ensuring a good functioning of the internal market and providing a long-term, reliable regulatory framework for the relevant sectors. The *specific* policy objectives are: to protect human health and the environment through reducing air pollutants (NOx, HC, PM, CO); to reduce obstacles to internal and external trade by preventing regulatory fragmentation, promoting technical progress and aligning with regulations within the remit established outside the EU market, particularly with those in force in the United States; and to improve compliance of Member States with the requirements of EU air quality policy through a supportive regulatory environment. Finally, the two *operational* policy objectives outlined concern, firstly, the protection of human health and the environment, by reflecting the technical progress and current regulatory shortcomings in the NRMM sector, and, secondly, support for Member States' compliance, especially in regions and cities with urban hotspots where air quality problems are most difficult to combat.

## Range of options considered

The IA considers the following four policy options in detail:

### Option 1: Baseline Scenario

The current stage of the NRMM Directive, Stage IV, which came into force in 2014, would continue to apply in its current format. Thus the emissions targets set by this stage would remain unchanged and the engines currently out of its scope would remain unregulated.

### Option 2: Alignment with US standards in scope and limit values

This revision would endeavour to align the EU regulations with US Environmental Protection Agency regulations. These are generally stricter than those in use in the EU and currently have a greater scope of regulated engines. Where there are no current US provisions for certain categories, notably railcars, an appropriate level of ambition would be applied to ensure consistency across engine categories. This option targets PM limits and not PN limits.

### Option 3: Step towards road sector ambition levels, for the most relevant emission sources

The main point of orientation for this option would be the Euro VI emission standard for heavy duty vehicles, although consideration would be given to the technical and regulatory differences between heavy goods vehicles and NRMM when setting limits. Limited differentiation would be allowed in accordance with the cost-benefit analysis for different engine power classes.

Two sub-options are considered in relation to *inland waterway vessels* (IWW):

**Option 3A** aligning with forthcoming regulations on NO<sub>x</sub> and HC, but additionally introducing a PN emission limit; **Option 3B** would set in addition more ambitious emission reduction targets for NO<sub>x</sub> and HC.

These two sub-options also cover *rail applications*: **Option 3A** would introduce a PN emission limit and **Option 3B** would introduce a PN limit in accordance with more stringent NO<sub>x</sub> and HC limits.

### Option 4: Extended level of ambition through enhanced monitoring provisions

This option seeks to combine the stringent emission limits resulting from options 2 and 3 with enhanced monitoring, i.e. monitoring the in-service conformity of NRMM engines to establish if they conform to the type approval requirements. Similar provisions have been made in the heavy duty vehicle sector. This option would also help obtain a more accurate understanding of GHG emissions and the fuel consumption of NRMM engines in practice, potentially assisting with future regulation within this area. Although presented as a stand-alone option, it is clear that option 4 would only function as part of one of the other options and does not therefore represent an alternative choice to these.

Each option is analysed in turn and in relation to the different engine sizes and categories. The preferred option is a combination of elements cutting across all four policy options examined. Option 2, alignment with the US standards, has been selected as the appropriate option for all SI engines and the smallest and largest engine sizes in the CI constant and variable speed category. A prominent argument for this alignment is that costs of complying with these regulations would be limited as the main manufacturers within the remit already have the technical abilities as they are engaged in the US market (IA, p. 25). Option 3 is considered the most appropriate option for mid strength CI constant and variable speed engines. This option choice would cause 'significant costs' (IA, p. 39), particularly in the 19-37 kW category requiring substantial re-design. However, the positive health and environmental impacts of introducing a PN limit are felt to outweigh this. Option 3B is considered the most appropriate for the IWW sector, as, despite large investment cost for the industry initially, the costs for end users are significantly lower and can have a greater effect than option 3A in reducing NO<sub>x</sub> and PM (IA, p. 44). With regard to the rail sector, option 3A is considered the most appropriate route forward to regulate CI engines for railcars. For CI engines for locomotives, the baseline remains the preferred option due to the small and decreasing market size as a result of the electrification of railway infrastructures, with the market expected to disappear by 2050 (IA, p. 47). Option 4, enhanced monitoring, is considered as a preferred option for all engine types and sizes to monitor the emissions of the engines in practice and with a view to gaining data to regulate GHG emissions from the NRMM sector in the future.

The option of taking a *non-regulatory* approach (e.g. a voluntary agreement with industry) was considered but was not retained due to previous experience of the Commission in other regulatory areas. It was considered that there would be difficulty in gaining consensus among all relevant manufacturers for more ambitious emissions limits through non-binding means (IA, p. 19). These concerns were echoed by the stakeholders consulted.

## Scope of the Impact Assessment

The IA presents an assessment of the socio-economic and the environmental and health benefits, as two sub-categories, within the analysis of each option in a given engine size and category.

### *Socio-economic*

The IA provides a thorough analysis of the economic effects of the options discussed through quantifying the potential impact of each option. Whilst there are important net benefits, there will also be the need for significant investment for certain engine categories to correspond with the more stringent regulations. Compliance costs are assessed regarding costs for manufacturers (development, re-design and production) and the operational costs for end users (additional fuel consumption and maintenance). However, no reference is made to specific monitoring costs for authorities or to the possibility of increased purchase costs for end-users. The total costs of the preferred option is considered to be in the range of 5 200 million euros to 5 800 million euros until 2040.

In relation to option 2, US alignment of regulations, it is consistently highlighted that the economic costs of compliance in this area will be limited for manufacturers. This is because the main manufacturers in the area have the technical capabilities to comply with these regulations as they are already engaged in that market. However, the economic effects of facilitated trade with the US are not discussed. With regard to the railway sector, it is suggested that the introduction of more stringent emission standards might result in increased rail fares and therefore impact on the mobility of socially disadvantaged groups the most. The IA discusses the existence of urban hotspots; however, the social demographic of the people that are most affected by the emissions emanating from urban hotspots is not approached within the IA.

### *Environmental and health*

The environmental effects of the proposal and of each option are analysed in detail. In this context, the percentage reduction in specific emissions and, most typically, the monetised environmental gains (financial savings on the basis of the mass of pollution avoided) are assessed. Despite this, there is a lack of discussion of the potential environmental effects of certain aspects of the legislation seeking alignment with the US regulations, in order to facilitate trading between the EU and the US in the NRMM sector. It is established within the problem definition that, as there is an existing export orientation of the NRMM engine and machinery manufactures based in the EU, emission standards should be developed in accordance with corresponding requirements in the main third country markets such as the US. However, the environmental implications of increased trade with non-EU markets (and the additional transportation of NRMM that this entails) are not explored.

In relation to the health effects currently resulting from the emission of NRMM engines, the Commission makes a generalised assessment that the health of the EU population is affected by poor air quality in the short and long term. The health benefits of the preferred options are quantified in detail within the analysis in terms of monetary health benefits per unit as a result of the reduction in pollution.

### *Regional dimension*

There is a noteworthy regional dimension in relation to the European inland waterways sector which 'is concentrated in the Netherlands, France, Belgium and Germany [with] 95% of the total fleet [...] registered in one of these countries with the Dutch fleet making up for the biggest share' (IA, p. 32). Thus, the largest socio-economic and environmental impacts resulting from increased regulation in the IWT sector will presumably be felt in these countries. Some more specific analysis of the impacts in this respect would therefore have strengthened the Commission's analysis.

## **Subsidiarity / Proportionality**

The legal basis of the NRMM Directive is Article 114 (functioning of the internal market) of the Treaty on the Functioning of the European Union. The IA argues that the principle of subsidiarity is respected as this proposal seeks to amend existing EU regulations and that this can only be effectively achieved at the EU level. Two issues particularly relate to the principle of subsidiarity within this context. These are the emergence of barriers from domestic legislation affecting the functioning of the internal market and the cross-border nature of air pollution. It is advocated that the most effective way to combat this is through a harmonised EU wide approach (IA, pp. 16-17).

In the explanatory memorandum of the legislative proposal, the Commission stresses that the legislative proposal complies with the proportionality principle in that it does not go beyond what is necessary in order to achieve the defined objectives. It also explains its choice of replacing the existing Directive by a Regulation on the grounds that its provisions will be directly applicable to manufacturers, approval authorities and technical services, and that they can be updated faster in the light of technical progress. However, the relative merits of this approach are not analysed in any further detail within the IA.

## **Budgetary or public finance implications**

The explanatory memorandum of the proposal states that the cost associated with setting up an electronic database for the exchange of type-approval information was already assessed in a feasibility study commissioned by the UNECE in June 2006. The study predicted one off start-up costs in the € 50 000 to € 150 000 range and operating costs of € 5 000 to € 15 000 per month, depending on the length of the contract with the service provider. A similar monthly range is provided for operating a help desk service, if required. Although the study was undertaken nearly nine years ago, the Commission claims that 'it can still be assumed that the cost assessment provides a valid indication of the costs involved'.

## **SME test / Competitiveness**

SMEs are consistently referred to within the assessment of the impacts of the options considered. The information is supplemented by a specific study<sup>1</sup> looking at the potential impacts on SMEs. Particular attention is given to 'the potential effect on the SMEs amongst the manufacturers, component suppliers and operators' (IA p. 16). There are no SME engine manufacturers in the CI category of engines of 19-37 kW and more than 560kW. However, there are many SMEs which are original equipment manufacturers using CI engines of 19-37 kW size in their equipment. More stringent emission requirements would therefore be strongly felt by SMEs in this area, as increased development costs would be spread over fewer machines. Despite this admission, there is no discussion with regard to SMEs in relation to option 3, concerning mid-size CI engines, which is the preferred option in this context. There is, however, valuable analysis about a considerable number of end-user SMEs in the IWT sector. This enables a strong comparison to be made between the US regulations in this area and options 3A and 3B. It is ultimately decided that option 3B is the most viable as the costs to the end user (typically SMEs) are significantly lower.

## **Simplification and other regulatory implications**

The explanatory memorandum of the proposal points out that the extremely complex NRMM directive, which has 15 annexes and has been amended eight times without recasting, would be repealed as a result of the proposed Regulation. It also explains that the proposal would simplify the existing type-approval legislation, improve transparency and alleviate administrative burden, thus reducing administrative costs for national authorities and industry. A number of specific policies and objectives which tie in with the proposal are referred to, although some of these have since been updated or are themselves currently the subject of revision.

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<sup>1</sup> ARCADIS, 2010: SME Test Study and IA on possible options for reviewing the Directive 97/68/EC relating to NRMM. [http://ec.europa.eu/enterprise/sectors/mechanical/files/nrmm/final\\_report\\_sme\\_test\\_nrmm\\_2010\\_03\\_29\\_en.pdf](http://ec.europa.eu/enterprise/sectors/mechanical/files/nrmm/final_report_sme_test_nrmm_2010_03_29_en.pdf)

## Relations with third countries

The relationship between the EU NRMM market and the NRMM market in the US takes up a vast section of the analysis within the IA and is central to option 2. It is even suggested that the analysis of the relationship between the two markets should be considered in the wider context of the Transatlantic Trade and Investment Partnership (TTIP) negotiations (IA, p. 19). The Japanese market is also consistently mentioned as being a major market in this sector and one in which European manufacturers are engaged. Swiss legislation is referred to within the IA as the only legislation that currently sets a PN limit. The analysis of the options that seek to introduce a PN limit uses measurement data from certified engines in line with Swiss federal legislation. The analysis nevertheless concentrates predominantly on the US market as it is the largest in the NRMM sector, with trade in the NRMM sector making up a significant part of transatlantic trade. The analysis remains generalised in this regard and does not analyse in specific detail the global NRMM market, the type of trading between the EU and the US and what proportion amounts to imports or exports, nor of how facilitated trade with the US would affect the market within the EU. There is also a lack of quantified evidence relating to the number of US manufacturers and end users engaged in the EU market. In addition, the IA does not provide a comparison of US with other third country standards for the different types of engines included in the scope of the proposed Regulation.

## Quality of data, research and analysis

The IA uses a wide variety of external studies in its analysis, as well as a technical review of the current Directive provided by the Commission Joint Research Centre<sup>2</sup>. A study performed by ARCADIS<sup>3</sup> assesses the impacts of the options developed in the technical review and in a complementary study focused on the effects on SMEs. These studies are used interchangeably within the analysis. A study<sup>4</sup> analysing the contribution of the NRMM sector to GHG emissions, and extending exhaust emission limits to US values, is also referred to. Finally, a PANTEIA<sup>5</sup> study is utilised, which assesses the specific case of reducing emissions for IWVs. The IA stresses that certain limitations have affected the overall analysis. The main limitation is that relevant studies only relate to EU-15 data and that further information therefore had to be obtained from stakeholders in order to fill in the gaps. In relation to recourse to outside experts, the IA highlights that 'the Group of Experts on Machinery Emissions (GEME), which brings together industry, NGO, Member State and Commission representatives, was regularly informed on the state of the impact assessment work and actively supported the process' (IA, p. 9).

As discussed, there is a thorough attempt to quantify the potential costs in relation to the proposed legislative action, with specific reference to costs of investment for manufacturers and cost of ownership within the NRMM sector. Yet, despite this, there are certain areas that are lacking full quantification based on evidence. There is no cost data supplied relating to option 2 and its effect on compliance costs for CI constant speed engines and development and production, as well as operational costs for SI engines under 19kW and greater than 19kW and for SI engines for All Terrain and Side-by-Side vehicles. This is explained as being due to the relevant studies or consulted stakeholders providing insufficient information in these areas. Furthermore, many assumptions are made when calculating the costs of the options. The IA acknowledges the issue of equipment manufacturers choosing to place non-regulated engines in their machines; however the extent of this problem is not quantified.

Overall, the analysis of options 3A and 3B in relation to CI engines used in IWV is particularly thorough, with consistent reference made to the exhaustive study in the area. This analysis makes it possible to draw the conclusion that,

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<sup>2</sup> European Commission Joint Research Centre, 2008; 2007 Technical Review of the NRMM Directive 1997/68/EC as amended by Directives 2002/88/EC and 2004/26/EC.

[http://ec.europa.eu/enterprise/sectors/mechanical/files/nrmm/final\\_report\\_nrmm\\_review\\_part\\_i\\_en.pdf](http://ec.europa.eu/enterprise/sectors/mechanical/files/nrmm/final_report_nrmm_review_part_i_en.pdf)

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<sup>3</sup> ARCADIS, 2009; IMPACT ASSESSMENT STUDY – Reviewing Directive 97/68/EC Emissions from non-road mobile machinery.

[http://ec.europa.eu/enterprise/sectors/mechanical/files/nrmm/ia\\_study\\_on\\_nrmm- final\\_report - arcadis\\_en.pdf](http://ec.europa.eu/enterprise/sectors/mechanical/files/nrmm/ia_study_on_nrmm- final_report - arcadis_en.pdf)

<sup>4</sup> Risk & Policy Analysis and Arcadis, 2010; Study in View of the Revision of Directive 97/68/EC on Non-Road Mobile Machinery (NRMM) (An Emissions Inventory and Impact Assessment). [http://ec.europa.eu/enterprise/sectors/mechanical/files/nrmm/finrep-mod1\\_en.pdf](http://ec.europa.eu/enterprise/sectors/mechanical/files/nrmm/finrep-mod1_en.pdf)

<sup>5</sup> PANTEIA, 2013: Contribution to impact assessment of measures for reducing emissions of inland navigation.

<http://ec.europa.eu/transport/modes/inland/studies/doc/2013-06-03-contribution-to-impact-assessmentof-measures-for-reducing-emissions-of-inland-navigation.pdf>

despite option 3B resulting in significant overall investment costs due to the need for a technological shift, the operational costs are significantly lower in comparison with option 3A as a result of lower fuel costs.

The analysis focuses on NO<sub>x</sub> and PM reduction and incorporates HC reduction when this particular pollutant reaches high levels in a certain engine type. However, the analysis does not attempt to quantify the potential reductions in CO, despite highlighting it as one of the toxic pollutants that this legislative action is targeting. The reduction of the pollutants is calculated to 2040 for option 2 and 2050 in option 3. This is a longer time horizon than is used by the studies that are referred to within the IA. It would seem logical to assume that further regulations adopted in the future will have an additional impact on the overall emissions trend of the pollutants concerned, but this is not discussed within the IA. The IA highlights a need to promote technical progress, which is in relation to adapting NRMM equipment and engines to comply with the more stringent ambition under option 3. Yet the IA also consistently points out the benefit of the main EU engine manufacturers already having developed the capabilities to comply with the US regulations which will limit development costs to comply with option 2. The analysis lacks a thorough explanation of why there is a desire to promote technical progress in certain engine types beyond that of the US regulations, through adopting option 3 as the preferred option, and not to promote further technical progress beyond the current US regulations, in other engine types and sizes, where option 2 is preferred. With alignment to US standards the most commonly chosen option, the IA fails to clearly indicate the number and economic importance of third country actors (specifically from the US) already engaged in the EU NRMM market and vice versa.

The analysis endeavours to quantify the impacts of the options through a cost-benefit analysis in relation to each engine category. However, the comparison between options has limitations. For example, no alternative (other than the baseline) is provided to the option of aligning EU regulation of SI engines to US standards. This is also the case for CI constant and variable speed engines under 19kW and CI engines greater than 560kW. It would have been useful to have been provided with alternative options for comparison within these engine categories and sizes for the benefit of the overall analysis. On the only two occasions that option 2, alignment with the US standards, is compared with an alternative, for CI engines 19-37 kW and concerning IWV, option 3 and option 3B are chosen instead.

## **Stakeholder consultation**

It is established early on in the IA that the population of the EU, engine and machinery manufacturers, including composite suppliers, operators of NRMM and national authorities, all have a particular stake in relation to changes to the current rules. Stakeholders are referred to in a general sense within the main analysis, typically as industry stakeholders. However, some more specific examples are occasionally provided such as consultation with after-treatment manufacturers regarding the technical feasibility of after-treatment systems being used in the largest diesel engines utilised by IWV. The Commission ran an internet public consultation for 12 weeks from 15 January until 8 April 2013 that sought responses from stakeholders and experts in the NRMM sector. Annex II of the IA is dedicated to summarising the open public consultation. The consultation was supplemented by a stakeholder hearing in February 2013 in Brussels which was attended by around 70 participants. There were 69 responses received to the public consultation and the IA points out that, in general, there is a consensus among industry stakeholders for alignment with US standards. However, public authorities and NGOs advocate a more stringent approach. There is a consensus 'between nearly all respondents that the issue of particulate numbers, an aspect which is not addressed in current US legislation, needs to be addressed in forthcoming legislation' (IA, p. 70). As mentioned earlier, this would seem to limit the desirability of option 2 to a certain extent.

## **Monitoring and evaluation**

'A technical review of the NRMM legislation was carried out in 2008, which triggered the development of the current initiative. [...] This could be the case 5 years after the entry into force of new emission requirements' (IA, p. 55). The IA suggests that such a review could be repeated a number of years after the entry into force of the revised NRMM legislation, once sufficient evidence for the effects of the current initiative can be expected. In addition, the IA does not elaborate further as to how information obtained through enhanced monitoring, as advocated under Option 4, and also the monitoring of GHG emissions for future legislative action, will be undertaken and evaluated, although it is part of the proposal

## Commission Impact Assessment Board

The IA Board delivered a positive opinion on a draft version of the Commission IA on 22 November 2013, but called for improvements in a number of areas, notably:

- Better present an overview of the NRMM sector and clarify the extent of the problems, including for the internal market;
- Improve the clarity of the policy options and better explain coherence with other on-going air quality initiatives;
- Better assess and compare the impacts of the options proposed, notably with regard to when benefits might be expected to be seen;
- Better present the views of stakeholders, including SMEs.

As explained above, these recommendations seem to have only partially been followed as improvements could still have been made in some respects, particularly in relation to clarifying the misalignment with third countries, clarifying the options chosen and comparing the impacts of each option.

## Coherence between the Commission's legislative proposal and IA

The way in which the proposal is presented (particularly in relation to exhaust emission limit values and the introduction of sub-categories of engines), makes it difficult to determine the coherence between the preferred options identified in the IA and the content of the proposal. On a general level, however, the proposal and the IA do not completely align. For example, the proposal dedicates an entire Article (Article 11) to certain obligations for importers but does not relate this specifically to imports from the US. The IA, on the other hand, discusses the need for closer ties between the EU and the US regulations, but does not specifically discuss importers. The proposal also consistently refers to the Commission's power to adopt Implementing and Delegated Acts in reference to issues of type approval and the influence of technical developments. This aspect is not discussed in the IA. Other issues relevant for and present in the proposal, but not approached in the IA, concern the deadlines for the application of the proposed regulation in respect of EU type-approvals and placing on the market, the certificate of conformity and markings, and technical services.

## Conclusions

Overall, the impression is that the IA has made a genuine attempt to present and quantify the potential costs and benefits of the options considered, drawing upon a wide range of research from varying sources. In addition, it provides a coherent assessment of the proposed regulation in relation to the wider context of other air quality related initiatives. The impact on SMEs is generally well presented throughout the IA.

Nevertheless, the IA has some shortcomings. The problem definition does not clearly identify the issue of alignment with the US market, which is introduced only briefly under the evolution of the problem section. In addition, this is inadequately presented within the objectives and the option of alignment with the US standards could have been better described. Furthermore, a more substantial comparison between the options (i.e. with other third country standards other than the US) would have benefited the overall analysis, as the only two times it is compared with alternative options, the latter are chosen. Finally, on a more general level, the choice of legislative instrument (i.e. a Regulation rather than a Directive) might have merited more detailed explanation within the IA.

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*This note, prepared by the Ex-Ante Impact Assessment Unit for the Committee on the Environment, Public Health and Food Safety (ENVI) of the European Parliament, analyses whether the principal criteria laid down in the Commission's own Impact Assessment Guidelines, as well as additional factors identified by the Parliament in its Impact Assessment Handbook, appear to be met by the IA. It does not attempt to deal with the substance of the proposal. It is drafted for informational and background purposes to assist the relevant parliamentary committee(s) and Members more widely in their work.*

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