Statement on the Targeted consultation questionnaire on Reconfigurable Radio Systems (RRS)


Introduction

The VDMA is pleased to provide feedback to the Targeted consultation questionnaire on Reconfigurable Radio Systems (RRS) launched by the Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs on the Radio Equipment Directive.

Following consultation with VDMA member companies and ascertaining that the consultation does not address or consider the specific aspects of the field of mechanical engineering, the VDMA has opted to provide an open response to the consultation. The VDMA wishes to emphasize that the questionnaire format based mainly on closed-ended or multiple choice questions makes it impossible to answer taking into account specific essential aspects and the idiosyncrasies of each productive, operating or consumer sector in its interaction with radio equipment.

Furthermore, the VDMA wants to point out that some questions refer to aspects for which a lack of evidence makes it impossible to quantify and to provide a certain answer (e.g. Q11, Q12 and Q14 among others). Other questions address strategic and/or confidential company information (e.g. Q 18, Q19, Q20, Q21).

Therefore, there is a potential risk, that the biased design of the survey may lead to systematic sampling errors thus providing unrealistic results. For this reason, we ask for a critical review of the results and the option to open a second consultation regarding the aspects mentioned above.

The VDMA also wishes to highlight the exceptional nature of the current situation due to COVID-19 and the difficulties involved in carrying out the necessary consultations with the authorities and stakeholders. We call for consideration of a delay in the process that would allow it to be carried out according to the qualitative criteria that the process requires.
On Cybersecurity

Concerns on cybersecurity have to be discussed. However, the VDMA is of the opinion that Cybersecurity aspects should not fall within the scope of RED. The VDMA argues that:

An extension of the Radio Equipment Directive (RED) to include cybersecurity requirements would create unsolvable problems for machine manufacturers if there are at the same time no legal cybersecurity requirements for network communication products, in particular wired products.

If cybersecurity requirements are included in the Radio Equipment Directive RED, mechanical engineering products should be excluded. The addition of cybersecurity requirements to vertical rules on CE marking, such as the Radio Equipment Directive, inevitably leads to inconsistent cyber requirements. These inconsistencies arise through the addition of regulations at different times and by different persons and in different committees. The VDMA agrees with the objectives related of providing radio equipment or combined equipment resilience to cyber-attacks, but it considers the proven path of regulations according to the New Legislative Framework to be is the most appropriate and effective framework for ensuring that this is achieved, as addressed by the VDMA Position Paper “Cybersecurity – eine Voraussetzung für Digitalisierung” (“Cybersecurity - a prerequisite for digitalization”) of 2019.

In the case of the provisions on CE marking, which are drawn up in accordance with the principles of the New Legislative Framework, this concept has proven its worth for many years and has provided the European economy with a framework that stimulates growth and promotes innovation.

The VDMA therefore calls for a horizontal harmonisation legislation on CE marking in the form of a directive or EU regulation based on the principle of the New Legislative Framework to cover the cybersecurity aspect of connected products and software - in other words, a single market regulation.

Article 3(3)(i) of the RED

Article 3(3)(i) aims at the purposes of guaranteeing the functionality and performance of the product according to its primary compliance. The VDMA does not believe that the activation of Article 3(3)(i) of the RED would deliver additional benefits or effectively prevent future risks. We consider Article 3(3)(i) to be questionable for the following reasons:

In the area of software updates, at least three different cases must be distinguished. A delegated act under RED Article 3(3)(i) cannot oblige manufacturers to support resilience after a product was placed on the market. That article should only apply if a manufacturer provides updates, but not if he does not intend to supply any updates. In our opinion, software updates can be divided into the following cases, which must also be dealt with by different legislative measures:

1. Only software which does not change the radio compliance may be installed on radio systems.
2. If modified software is installed on the product which implements new or modified functions, the person who installs the software on the hardware, for example, must
check whether the product is substantially modified as a result and is to be regarded as a new product with CE marking obligation.

- The person who is responsible for checking the substantial modification may also be another economic actor. For this purpose, practice-oriented assistance or case differentiation should be provided.

- The VDMA proposes that the facts of the substantial modification be included in the regulations on CE marking in order to create a clear legal regulation, as the interpretation of the law according to the Blue Guide is occasionally contradicted.

3. Certain software updates serve to maintain cyber-resilience. However, there are currently no legal regulations on this. As expressed before, this obligation should be included in a horizontal regulation on cyber security. This situation must be strictly separated from those in No’s. 1 and 2.

To the technical implementation of Art. 3(3)(i), the VDMA position wants to highlight the following point. Providing a product with certain features to avoid any software load that may affect the essential requirements requires a complex technical design of the product. Some product types can technically not be provided with such design, e.g. due to limitation of computing power and energy saving needs of battery-operated sensors. But even for products which can implement complex technical designs, this does not guarantee 100% certainty in the fulfilment of its objective. Strict application of Article 3(3)(i) could not be enforced due to technical unsolvable limitations. It should be noted that there is currently and in the future no technical possibility to prevent the user from changing the software in all cases. Protection against these changes is only possible in certain cases. However, even in these cases, it cannot be excluded that users may circumvent the aforementioned protection. Therefore, the proven tool of technical documentation should be applied, with which the manufacturer must document the conformity assessment procedure and prove the delivery status of a product.

The enforcement of article 3(3)(i) would entail greater adverse technological and economic consequences for the mechanical engineering industry. RED definition of radio equipment does not allow for the option of treating a radio module or component separately from the main equipment. In this sense Article 3(3)(i) is formulated in a general and undifferentiated manner. It does not differentiate between the “real” embedded radio components and the rest of the system in a combined equipment. As a consequence, Article 3.3(i) requires such devices to verify the conformity of all software to be downloaded, including software not related to the provision of any radio electric function, feature or upgrade to the products and equipment.

Thus the impact of activating Article 3(3)(i) of the EU Radio Directive 2014/53/EU would dramatically affect the machinery engineering and automation industries in the EU causing considerably disadvantage in their global position in the competition for the digital economy, by endangering further development of radios systems.

In our opinion, the isolated consideration of software and software errors, which may, for example, lead to non-compliance with the Radio Equipment Directive, is not appropriate. Software and hardware are systematically examined during the conformity assessment procedure to ensure conformity with the requirements of the Radio Equipment Directive. If the manufacturer prepares software updates, these changes or additions are the subject of a check whether the radio equipment with the changed software complies with the legal requirements. Considering liability implications and other factors we do not believe that the manufacturer has an interest in a radio system no longer complying with the legal requirements.
after the update. For the case of software provided by someone else than the original equipment manufacturer, if a software update affects the conformity of the radio equipment with the requirements of the Radio Equipment Directive, the person who markets this modified software in the form of the update must check whether he has to fulfil manufacturer obligations. This also applies to persons who wish to install separately marketed software on radio equipment that affects the conformity of the radio equipment with the Radio Equipment Directive. According to common legal interpretation, manufacturer’s obligations must always be fulfilled if a product, such as radio equipment, is substantially modified. The legal interpretation has been anchored in the Blue Guide since 2000 and has been successfully applied in practice since then. Due to this interpretation of the law, there is basically no need for new legal regulations for software that affect the conformity of a product with the applicable regulations. Instead, consideration should be given to whether provisions on substantial modification and the resulting manufacturer’s obligations should be included in the Radio Equipment Directive.

In case there is solid evidence that above mentioned mechanisms fail to be effective for specific class of products and that this failure present significant real (not theoretical) risks in the Union market, then legal measures should be limited to these very specific class of products.

However, the VDMA and the companies it represents are of the opinion that the categorization of radio equipment classes and the policy options, the so called “recommendation of the Expert Group RRS” is too generic, overlooking essential criteria of the radio equipment such as function, scope of application, consumer or industrial operating field, embedded or standalone equipment or component, among others, that must be addressed when considering any regulatory approach. Especially in industrial applications there are products which fulfil a specialised task in a well-defined environment.

A one-size-fits-all approach or an undifferentiated classification of radio equipment will endanger innovation and competitiveness with the risks of lockdown of many radio-enabled products operating in the industrial sector.

The VDMA calls for a targeted and differentiated approach to Article 3(3)(i) based on:

1. A recategorization of the policy options “recommendation of the Expert Group RRS” considering non-general, but specific proven risks of non-compliance of software and hardware combinations.
2. a differentiated selection of classes of radio equipment based on the nature and operating field of the radio equipment.
3. the differentiation of software related to radio and non-radio functionalities in combined systems or machines (software which does not affect any radio functionality).
4. the technical impracticality to preclude with 100% certainty the download of non-compliant software.
5. the application of the existing legal interpretation on the substantial modification of products with the legal consequence of manufacturer responsibility for the substantially modified product and, where appropriate, the inclusion of provisions on this in the Radio Equipment Directive.
Conclusions

Due to the fore mentioned reasons, the VDMA strongly recommends the European Commission not to activate Article 3(3)(i) of the EU Radio Directive 2014/53/EU in order avoid damage to European industry.

The VDMA position is critical of the delegated legal acts in relation to the (cyber) security of (connected) products and software (incl. reconfigurable radio systems - RRS). The VDMA calls for a horizontal legislative approach. This demand rests on the longstanding legislative principles of the New Legislative Framework (NFL).

As only feasible option, the VDMA would consider the activation of a delegated act limited to those classes of radio equipment for which there is already broad evidence that software uploads may lead to a serious risk of non-compliance. In this regard and if applying to the mechanical engineering sector, the VDMA would welcome the reception of information on the risks identified in relations to such radio equipment in order to address the impact and targeted solutions with the involved stakeholders.

About VDMA

With around 3,300 members, the Mechanical Engineering Industry Association (VDMA) is the largest network organization for mechanical engineering in Europe. The association represents the common economic, technological and scientific interests of this diverse industry.

The mechanical and plant engineering sector is a driver for innovation and thus a guarantor for growth and prosperity. Mechanical engineering is one of the most research-intensive industrial sectors in Germany and accounts for approximately 10 percent of the whole expenditure on research and development. The mechanical and plant engineering sector is developing solutions to meet today’s major challenges – day after day. With approximately 6,400 companies, the mechanical and plant engineering sector is Germany’s largest employer with 1.3 million employees.

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