EXPLANATORY NOTE

On the Working Document

for a
Commission Implementing Regulation

laying down operational details for the European Product Registry for Energy Labelling (EPREL)

Contents

INTRODUCTION

The framework Energy Labelling Regulation (EU) 2017/1369 (the Regulation hereafter), in its Article 2, sets an obligation on the Commission to establish and maintain a product database:

> 1. The Commission shall establish and maintain a product database consisting of a public part, a compliance part and an online portal giving access to those two parts.

Point 12 of the same article empowered the Commission of the possibility of specifying operational details:

> 12. The Commission shall be empowered to specify, by means of implementing acts, the operational details of the product database. After consulting the Consultation Forum provided for in Article 14, those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 18(2).

This note, after a summary on the state of play in the establishment of the product database, presents the operational aspects that need to be set in a specific Regulation, focusing on the "supplier verification".

STATE OF PLAY

A. Governance

When triggering the product database implementation project, the Commission established a Steering Group composed by members of the Consultation Forum under Article 14 of the Regulation including Member States' representatives and stakeholders concerned by the implementation of the database, such as industry, retailers, environmental protection groups and consumer organisations.

The project was named 'EPREL' (European Product Registry for Energy Labelling).

B. EPREL main user categories

The design of the EPREL system follows the needs of the main identified user categories:

- **Suppliers**, registering any model of products in the scope of delegated Regulations supplementing the Regulation (EU) 2017/1369, of delegated regulations supplementing the previous energy labelling Directive (2010/30/EU) or under Regulation 2020/740 on tyre labelling.
- **Market Surveillance Authorities** (MSA), performing the activity of compliance control and finding in EPREL the technical information associated to the products under scrutiny;
- **Customers**[1]**,** including the individuals but also public procurers, consulting the public information for an informed purchase choice or for any other need;
- **Dealers**, possibly needing to print a label or a product information sheet.

Specific features have been make available, moreover, for fulfilling the requirement that "the information shall be machine readable, sortable and searchable, respecting open standards for third party use, free of charge" -Annex I.4(c).

C. SUPPLIERS

Suppliers are defined in the Regulation as follows:

> (14) 'supplier' means a manufacturer established in the Union, the authorised representative of a manufacturer who is not established in the Union, or an importer, who places a product on the Union market;

[1] 'Customers' is the term used in the Regulation for unregistered visitors.

(10) manufacturer means a natural or legal person who manufactures the products and markets that product under its name or trademark ..)

(11) 'authorised representative' means a natural or legal person established in the Union who has received a written mandate from the manufacturer to act on its behalf in relation to specified tasks;

(12) 'importer' means a natural or legal person established in the Union who places a product from a third country on the Union market;

D. MILESTONES

The development of EPREL has followed a step by step approach to ensure the required service according to the following milestones:

- **From 1 January 2019, suppliers have been put in the condition to comply with their obligations to register product models**.
    - suppliers have been given a simple tool to register their own organisation first, recording information legally identifying the supplier such as organisation name, address, contact details, brands/trademarks to be used, etc.
    - Each supplier organisation, can then register each product model it is going to place on the market. This information is split into:
        - "public information", going to be included in the label or in the product information sheet (according to Annex I.1 of the Regulation), to be freely accessible
        - "technical information" intended as technical details for compliance control purposes, according to Annex I.3 of the Regulation.
- **From June 2019,** MSA users were given reading access to the information registered by any supplier**;**
- **From 1 March 2021,** with start of application of a number of reviewed regulations supplementing Regulation (EU) 2017/1369, the public information of registered products became available by scanning the QR code[2] on the energy label of products on display;
- **From 1 April 2022**, the public information of any registered product became public available, searchable, selectable and printable, although with some limitations, for security reasons, and disclaimers.

E. EPREL logical architecture

Principles such as minimising administrative burden for suppliers/users, ensuring data reliability and availability, avoiding redundant information, providing access rights only on the need-to-know basis, and ensuring cybersecurity protection are at the root conception of the architecture and functioning of EPREL.

Figure 1 provides a graphical representation of how the public part and compliance part have been implemented in the "real" system, in order to combine security aspects with the possibility of maximising performance for an expected high number of simultaneous queries expected on the public data. Once authenticated, supplier user accounts can enter both public model information and technical documentation in the EPREL "compliance" system. MSAs, as authenticated users as well, have access to the same system. The public part of newly created models information is daily replicated in a separate system, where it can be freely accessed.

[2] By scanning an EPREL QR code, a URL such as 'https://eprel.ec.europa.eu.qr.xxx' is proposed in the device browser, where 'xxx' is the EPREL registration number of the specific model.

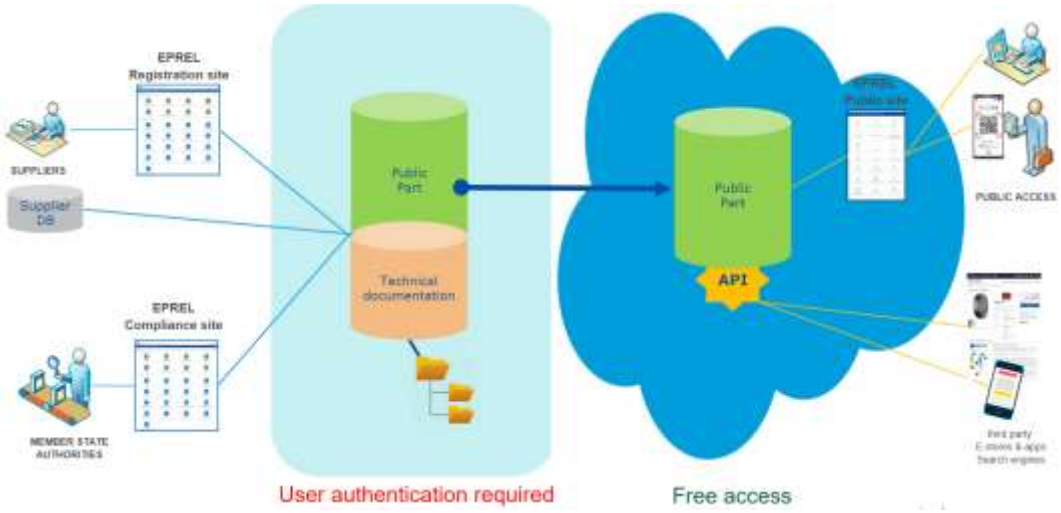

Figure 1: logical EPREL architecture

Relevant operational aspects, in particular related to the reliability and security of the overall system should be part of an ad-hoc implementing act.

The Commission has put in place a pilot voluntary mechanism aiming at improving security and legal requirements. In the light of the obligations, for suppliers, to register their models, enforcing those mechanisms needs the setting of them, and possibly of additional ones, into legislation, such as the implementing act.

F. Registration of suppliers and of their models

Before suppliers can register the first model, the "EPREL supplier organisation" must be registered, including some mandatory information such as:

- Name of the organisation, address and additional complementary data
- Contact details for public information
- Contact details for compliance information
- List of trademarks or brands to be used for models to be registered
- List of the staff authorised to access the models data (read only or read/write access possible for each)

The registration of an "EPREL supplier organisation" has to be physically performed by a staff member of that supplier that, using an "EU login" profile, accesses EPREL: the first time he or she enters the EPREL system, the creation of the "EPREL supplier organisation" is the first required step.

Only once the "EPREL supplier organisation" exists in the EPREL system, then brands/trademarks can be entered and, finally, models registration can begin.

This document illustrates the rationale for the proposed regulation that, inter alia, would set requirements on the verifications to ensure that an organisation that has been created in the EPREL system is entitled to perform registration of product models to be placed on the market.

G. Access to the compliance information by MSAs.

Access to the EPREL system is provided to a single, known MSA per Member State, as contact reference for each Member State. It is left to such a contact reference MSA the responsibility for the

management, at national level, of the additional accounts to be created under the same national authority.

As the MSA account is "invited" and its contact details derive from an official list, further "verification" of the identity of the MSA appears redundant[3]. **It has to be emphasised, however, that the Commission is relying on the MSA representative to manage the access, control and security for any delegated user at national level.**

Registered product models become accessible to MSAs from the day that suppliers indicate as "date of placing on the market", i.e. in principle, the date from which an MSA may start finding that specific model in a physical or on-line store or at customs control at any EU border.

H. Access to the public model information

At the date of drafting this document, over 8 thousand suppliers have been associated to an "EPREL supplier organisation", with almost 15 thousand users associated to them. Almost 1,5 million product models are registered.[4]

Public availability of registered models makes now the reliability of the registered organisations and of the models they register a critical aspect. The reliability of the data in EPREL is important also in the light of the implementation of a number of EU initiatives[5] that rely on EPREL data.

In particular, organisations not fulfilling the legal requirements to act as a suppliers (e.g. because not established in the EU/EEA) could outflank basic controls in order to generate the label and place the product on the Union market[6]: this possibility shall be prevented or compliance enforcement may become hardly possible.

To mitigate the mentioned issue and a number of possible risks of misuse of the EPREL system and to provide an acceptable level of reliability of the information, as from *bona fide* source, **the Commission has put in place a pilot system for electronic, verification:** as from February 2022 and still at the date of writing, **the verification process is limited to suppliers registered as "legal entities" (by far the vast majority).**

This electronic verification pilot (see section C forward) provides, in principle, for three security and legal requirements:

1 Proof of existence of the supplier organisation;
2 Proof that the organisation responds to the definition of "supplier" (i.e. is established[7] in the EU/EEA or Northern Ireland[8];

[3] The possibility that the account of the national authority is usable by different unknown and not authorised individuals, knowing the password is considered as negligible.

[4] Overall registrations, including models not placed anymore on the market and "complete" models ready to be placed.

[5] Real time assessment of information from products registered in EPREL in order to identify the "two highest significantly populated classes" supports the implementation of a number of policies related to public incentives, sustainable private sector investments, green public procurement, reduced VAT rates for certain energy-related products or energy saving obligations.

[6] A number of organisations that have registered real products seem to be in such a situation, a few of which having even provided as "public contact" the details of regular importers, but without agreement by them.

[7] The "establishment in a country is related to the mechanisms for enforcement of requirements and liability aspects.

[8] XI is a pseudo country code for Norther Ireland, as part of the Brexit Agreement. See https://taxation-customs.ec.europa.eu/system/files/2020-11/use_of_gb_and_xi_codes_guidance.pdf

3 Entitlement of the individual that registered the supplier organisation into the EPREL system to act on behalf of the organisation itself.

As explained further, however, this pilot requires the verification still on a voluntary basis and needs a full implementation to become fully effective. A legislative measure, moreover, is needed to make the verification a mandatory step.

I. Models visibility of public models information

The pilot verification is based on an automated processing of a "qualified electronic seal". **Suppliers are voluntarily,** but slowly, **undertaking the electronic verification process. However, in the lack of a deadline, the majority of them, mostly but not only small companies, are indefinitely delaying the operation.**

From the disclosure of public information to unregistered 'customers' (1 April 2022) the following 'visibility policy' has been put in place**:**

1) models registered by suppliers before 1 April 2022 are accessible via a web interface (i.e. via https://eprel.ec.europa.eu and via APIs), but with indication of the status of the supplier, if "unverified".
2) newly registered models (from 1 April 2022) by still unverified suppliers are not visible in a search[9].

This voluntary exercise should become mandatory via the relevant provisions of the implementing act.

VERIFICATION OF SUPPLIERS

J. eIDAS and electronic verification options

Regulation (EU) No 910/2014 (hereafter eIDAS) on electronic identification and trust services for electronic transactions in the internal market provides a regulatory environment for electronic identification of natural and legal persons and for trust services[10]. Electronic signature by individuals and electronic sealing of company official documents is becoming common: different Member States have different timing in the uptake, however electronic identification, sealing and encryption is becoming a common practice to "digitally" interact with public administrations but also between the private sector (B2B) for sensitive transactions, such as in the financial and commercial sector.

A tool that appears particularly fit for purpose in the case of **'legal entities'** is the '**qualified electronic seal'** [11]. Electronic seals serve as evidence that an electronic document was issued by a legal person, ensuring certainty of the document's origin and integrity[12].

Certificates are issued by qualified trust service providers (QSTPs[13]) that provide third party verification[14] before issuing the seal. Trust service providers issuing qualified certificates for

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[9] There is an intrinsic increase of risk of fake information from 1 April 2022, as the model data was not previously publicly visible.

[10] Regulation (EU) 2015/1501 on the interoperability framework on electronic identification and trust services for electronic transactions in the internal market. It defines the interoperability framework on electronic identification and trust services for electronic transactions in the internal market, including the mandatory context of the information that needs to be contained in an electronic signature or in an electronic seal, but does not define in detail its structure to allow interoperability of systems to verify the validity of signatures or seals

[11] As per eIDAS Regulation, qualified electronic seals means an advanced electronic seal, which is created by a qualified electronic seal creation device, and that is based on a qualified certificates for electronic seals

[12] Electronic seals are encrypted data, attached to a document in electronic form (e.g. a PDF document). The seed for the algorithm that creates the seal includes the text of the document, so that any modification to it invalidates the seal.

13 Trust qualified service providers (QSTP) companies provide the verification services and can provide qualified electronic seals to supplier organisations. A few QSTP providers exist almost in any Member Country, however, in this open services market, any QSTP, in principle, may provide verification services for a supplier organisation in any other country, making the electronic verification by the means of a qualified electronic seal suitable to be used for the purposes of the product

electronic seals implement the necessary measures in order to establish the identity of the natural person representing the legal person to whom the qualified certificate for the electronic seal is provided. Their activity is monitored by national supervisor authorities. FESA (Forum of European Supervisory Authorities) coordinates activities[15].

In short, qualified electronic seals are the equivalent for legal entities of the far better known electronic signatures for natural persons, but include some desired specificities. The eIDAS legislation, "allows" the inclusion of information relevant for EPREL needs such as the **"National business or trade register number" (NTR),** which can serve as a mean to provide the desired **proof of establishment in the EU/EEA.**

A tiny minority of suppliers[16] are currently registered **as 'natural persons'** and would need to be treated differently in order to determine whether they are entitled to register models in EPREL and whether they are "established" in a EU/EEA Member State or Northern Ireland.

For suppliers registering an organisation in EPREL as **'natural persons'**, a **qualified digital signature** may constitute the equivalent mean used for an automated verification.

The implementation of digital signatures, however has still non harmonised implementations in different Member States. In particular, the electronic signature has no information relevant to proof the "country of establishment"[17] .

Although an optional field would allow a content such, e.g. number of registration in a professional register, the QSTP, contrary to a seal, would have not to verify the information that, consequently, would be just a personal claim. If the same information included and "verified" in a seal has to be included in a signature, then additional documentation should prove this.

ETSI[18] is the European Standardisation Organisation that has defined, inter alia, the standard for the format, syntax and semantics of electronic signatures and electronic seals. The standard ETSI EN 319 412-1 V.1.4.4[19] , is widely respected by providers[20] of qualified digital signatures and qualified electronic seals and includes the option of inclusion of 5 different types of "identity type reference", such as the TVA, number or the NTR reference,
Although the primary scope of electronic seals is to guarantee the origin of documents from a specific organisation, the seal can also constitute proof of existence of a legal person**.**

Legal persons within the meaning of the TFEU, means entities constituted under, or governed by, the law of a Member State. Therefore a document confirming that the suppliers organisation is registered in the EU/EEA/NI under a public sector body register (such as a **trade or business**

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database. Not all QSTP, however, currently provide a qualified electronic seal including the NTR "identity type reference", thus setting a potential obstacle for some supplier organisations in some countries in obtaining a qualified electronic seal providing evidence not only of existence of the organisation, but also of its establishment in a specific EU/EEA country.

14 A list of the trusted qualified providers of digital sealing/signing services in the EU27/EEA countries (QSTP) can be found here: https://esignature.ec.europa.eu/efda/tl-browser/#/screen/search/type/2

15 FESA (http://www.fesa.eu) is the Forum of European Supervisory Authorities for trust service providers and is open to national bodies responsible for supervision and/or trusted lists in accordance with the eIDAS Regulation. The scope of FESA is to support the cooperation, information and assistance among the members and to facilitate the exchange of views and agreement on good practices.

16 Currently less than 1% of organisation appear as natural persons.

17 More in general, the legislation appears unclear about the notion of "country of establishment" applied to a "natural person".

18 European Telecommunications Standards Institute, https://www.etsi.org/standards

19 With CEN and CENelec, ETSI is the 3rd EU standardisation organisation (ESO).

20 A list is available from https://esignature.ec.europa.eu/efda/tl-browser/#/screen/search/type/2

register)[21] and governed by that county law, can be considered both as a "proof or identity" and as a "proof of establishment in the EU/EEA/NI.

Also given that trust service providers issuing qualified certificates for electronic seals implement the necessary measures in order to establish the identity of the individual entitled to bind the legal person and to whom the qualified certificate for the electronic seal is provided, it seems logical to conclude that the person having access to the seal is trusted and entitled to represent the organisation[22].

In summary**, the electronic and automated verification process by the means of a seal can ensure** (as mentioned under section B):

- **existence of the supplier organisation** (when a legal entity)
- **proof of establishment in the EU/EEA/NI[23] (thus that it can act as a supplier)**
- implicit **entitlement of the user** that has registered the organisation in EPREL **to act on behalf of the supplier.**

Although registering a product model prior to placing it on the market is an obligation set by the Regulation, no specific requirement is set on how to ensure that the information is entered by "*bona fide sources*".

Suppliers may see implementation of security measures as an additional burden and a cost to bear. Going public, however, could enhance the risks that fake (supplier EPREL) organisations could register models with unrealistic data with the aim of damaging the reputation of a competitor and/or the EU institutions.

Similar databases, that have been examined, are intrinsically safe from the risk of false registrations because either requiring a fee for the product registration[24] or because involving preliminary testing of the product by third party recognised laboratories[25] that, later, enter themselves the data.

K. Electronic verification pilot implementation

From March 2022, the Commission has put in place a pilot system to automate the electronic verification of suppliers. The pilot is limited to legal entities, so far, that anyhow represent over 95% of suppliers.

To trigger the verification process as implemented in the pilot, suppliers that are legal entities are required to enter in EPREL the following core information:

- **Organisation Name**,
- **Public sector body Register Number** (such as business or trade register number[26]),
- **Public sector body ID (i.e. Business Register ID)**[27] as an alphanumeric field identifying the national/local body that generated the register number**.**

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[21] For companies under MS commercial law, the "public sector body register" number is the equivalent to the value understood under ETSI as 'National Trade Register" (NTR)

22 The EU-Login user that uploads the sealed PDF declaration has to request it to internal (to his/her company) services/managers that would only return to him/her the sealed document knowing the intended use. Consequently, we can infer that the user profile is entitled to register models on behalf of the supplier organisation.

23 XI is a pseudo country code for Norther Ireland, as part of the Brexit Agreement.
See https://taxation-customs.ec.europa.eu/system/files/202011/use_of_gb_and_xi_codes_guidance.pdf

[24] as in the Australian 'Energy Rating' product database (https://www.energyrating.gov.au/)

[25] as in the ENERGYSTAR product database (https://www.energystar.gov/).

[26] It is our understanding that a large majority of the organisation legal entitie registering in EPREL are companies constituted under commercial law having (e.g. as limited responsibility companies or other type of companies However given that legal entities constituted under civil / administrative law can also be suppliers organisations under EPREL so a broader reference to **"Public sector body register**" shall be the used in EPREL legal act.

- **Country of Registration.**

The information under the latter 3 parameters is intended to ensure that the organisation is univocally identified at EU, EEA or Northern Ireland level.

Once recorded in EPREL this information is integrated into a PDF produced by EPREL and sealed by the Commission. Such a sealed PDF has to be downloaded, sealed by the supplier and then uploaded. EPREL checks the validity of the seal and, only if containing the NTR identifier, compares its value to what had been entered in EPREL, before confirming that the verification process is successfully completed.

Only in a transitional period, as further clarified, **if the NTR is not included in the seal** itself, the **sealed PDF is deemed acceptable** and constitutes a self-declaration to successfully pass the verification.

QSTP providers widely use the existing standard (ETSI EN 319 412-1 V.1.4.4) as implementation of the eIDAS legislation[28]. Neither the eIDAS legislation nor the relevant ETSI standard, however, set the organisation national trade register number as mandatory field. The ETSI standard, in particular, allows to choose among 5 different identifier types[29], only one of which is intended for business/trade registration number. Even worse, neither eIDAS nor the ETSI standard has set explicit requirements to indicate such number according to a syntax that provides clear indication of which body has emitted such a number: the ETSI standard simply refers to a **national trade number (NTR)**, without details for cross-national use of national business registrations. Moreover, although in most of the Member States a single body is responsible for the registration of any business or commercial activity, a few of them have a different bodies at local level[30].

Regulation (EU) 2021/1042[31], however, is of help, as it has established a relevant specification for univocal identification of a legal entity at EU level: it defines an "EUID", compliant with ISO 6523, as a concatenation of 3 fields:

- 2-characters country code
- Register Identifier
- A dot "." as separator character
- Registration number (according to the notational convention in place).

An EUID, thus, may have the following structure (the two leading letters are the country code):

```
ATBRA.012345-000
BEKBOBCE.0123.456.789
CZVROR.12345678
DED3310V.HRB12345
ES01234.123456789
FR3102.123456789
HUOCCSZ.01-02-123456
ITRI.01234567890
LURCSL.B12345
NLNHR.01234567
ROONRC.J40/01234/5678
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[27] It shall be noted that, as in some countries multiple registration bodies sections are entitled to register organisations so more than one legal entity can have the same country code and the same Register number ; to univocally identify a supplier, a supplementary field, the Business register ID, is necessary.

[28] More in detail, the eIDAS current legislation refers to a generic "national trade register number", without reference to cross-country exchange formats.

[29] Standard ETSI EN319 412-1 includes in paragraph 5.1.5 (see Annex 1) the semantics for indication of legal persons. More in particular, the standard includes five different "organisation identifier attributes", one of which, known as "NTR" "identity type reference" is specific "for identification based on an identifier from a national trade register". The other attributes are VAT, PSD, LEI or two characters according to local country definition, followed by the character ":"

[30] E.g. Germany and Spain.

[31] Regulation (EU) 2021/1042 laying down rules as regards technical specifications and procedures for the system of interconnection of registers.

From a computational perspective, although the syntax of some national registers includes punctuation and other special symbols, the register identifier does not, thus only the leftmost is relevant and it indicates the separation between the register identifier and the registration number.

The EUID structure, thus, can be easily combined with the current version of the ETSI standard to get via the seal, the crucial and desired information for verifying also **the establishment of a legal person in a Member State**: the qualified electronic seal shall include the NTR indicator and the content shall follow the syntax, as indicated above for the EUID, instead of just the simple register number.

The possible result is:

`NTRAT-ATBRA.012345-000`

or

`NTRAT-BRA.012345-000` (avoiding the redundant country code).

L. The market of QSTPs

Information on the EPREL verification pilot phase was provided to qualified trust service providers[32] via a note explaining the context of the initiative and the desired information to be included in the seals for the customers (when EPREL suppliers).

Market operators acting as QSTPs operate in the free and open EU market so they can deliver services across different Member States. Suppliers established in any EU/EEA country, consequently may get, in principle, the verification service via any of these QSTPs in a competitive market. Some of them have explicitly communicated to the Commission their availability to support the EPREL initiative[33] and a few members of ETSI, have also informally anticipated their full support for a possible mandate to ETSI to make the EUID explicitly listed as "attribute" type in the next ETSI standard review. It is important to note, anyhow, that currently only a minority of the over 120 trust service providers can offer a seal containing the NTR[34]: if the specific format including the national trade register number is selected to become the only format accepted, **some reasonable time shall be left to trust service providers to adapt their internal procedures and the software.**

For this reason, in the pilot verification project, any of the 5 content types is temporarily accepted. Concluded the pilot and possibly, still for an additional period may be left to providers, before the only format allowed could be the one including the NTR identity type reference.

The implementing act will allow swift introduction of mandatory verification, to avoid pollution in the compliance data and to avoid that labels with a QR code from organisations not responding to the definition of "supplier" appear in stores.

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[32] Our understanding is given that an extremely large majority 95 % of companies in Europe, are limited responsibility companies for which this information Business Register number and Business Register ID is publicly available under BRIS. Verifiying this information should be at no cost for QSTP providers and is part of the information included in the Pdf sealed by the Commission. However the notion of "legal entity" under Art 2 of the fLER encompasses not only limited responsibility companies but other legal entities constituted under Member States' commercial law (under other societal forms) and also under social or administrative law (such as cooperatives), or under civil law (such as associations) wich are not part of the BRIS project so other sources of information should be allowed.

[33] A list is available at the following link: https://webgate.ec.europa.eu/fpfis/wikis/pages/viewpage.action?pageId=1201701811

[34] Some QSTPs claim the need of writing specific software and reorganising verification procedures, that requires a return on investments.

OTHER OPERATIONAL ASPECTS

M. Complementary parameters

Delegated acts on specific product groups may have neglected the inclusion, in the Product Sheet or Product Information Fiche, of parameters to be indicated for a full and correct distinction of models intended for different uses. Generally, the customer needs to search a product for a specific intended use. Moreover, comparison of efficiency class among different products may result inappropriate or misleading. This information, on the contrary, may facilitate, among other matters, consumers choice or the assessment of the products population per class on energy labels (e.g. in view of public procurement, accuracy and correctness of this information is very important)..

For example,

- Truck/bus tyres of the same identical size have a different tread and possibly even casing if intended for the traction axle or the front axle or for the trailer. The performance in terms of rolling resistance, wet grip or noise may be different in relation to that. Thus a consumer, such as an administration going to procure tens or hundreds of tyres for a fleet would miss a crucial information to find the relevant products or even to correctly determine the highest sufficiently populated class
- Refrigerating products: the regulation does not include the declaration of which type of product a registered model is, i.e. between freezer, professional chest freezers, minibars, wine storage, etc.

Suppliers generally have an interest in entering in EPREL the missing parameter values, however, on one side this should not increase the burden on market surveillance for having to verify such parameters and on the other side suppliers should be not deemed not compliant for a mistake in the indication of those non mandatory parameters.

N. Markets

Indication of which markets a model is directly placed by the supplier is necessary to avoid th frustration of consumers that would select efficient models in EPREL but then cannot find any retailer selling them.

O. GTIN

The Global Trade Item Number (GTIN), better known as EAN, is a unique and internationally recognized identifier for a product, managed by GS1[35]. When a GTIN is available, it appears next to the barcode on product's packaging. The GTIN was not chosen as single key to univocally indicate models in EPREL for at least two reasons:

- Not all product groups are placed on the market with an associated GTIN
- A modification in a registered model that is relevant for the label or the PIS should require a new model registration, but the GTIN would not necessarily change.

The GTIN attribute, however, helps classification and matching of products with the relevant registration in EPREL.

P. Redundant registrations

“Automatic avoidance of redundant registration” is a requirement set in Article 12.7.(c) of the Regulation.

[35] https://www.gs1.de

Any supplier placing products on the market, however, is liable for non compliance for the models placed on the market, but even for incorrect declaration in EPREL.

It is necessary to avoid, however, that the same model, when placed on the market by multiple suppliers and registered by all of them, results in multiple identical entries in a search in the public EPREL website. Moreover, redundant registrations, not properly managed, result in incorrect statistics, such as for the model population in each efficiency class.

A mechanism should implemented to correctly manage these situations.

Q. QR code readability and validity

Mandatory communication of the EPREL registration number by the supplier to the on-line dealer or distributor would permit to the latter correctly manage the automatic retrieval of the label and of the product information sheet to be displayed close to the price, as required by the Energy Labelling Regulation.

For traditional stores no such obligation on the supplier is necessary as the products must be sold with the label in the box or printed on the packaging. Unreadable of false QR codes have been found in stores, thus dealers, when putting the label on a product in display, should verify that the link in the QR of the label supplied in the box leads to a registration in the database.

R. Software updates

Suppliers generally have automated system to automatically upload many models registrations at once, by exporting the data from company information systems. A change in the data exchange format or semantics involves a software development and testing activity for which a reasonable notice should be provided, to let the IT department schedule the necessary software adaptations. In addition, in the case of a new Regulation, a reasonable time should be accorded to review the massively registered data before the start of application and consequent publication.

S. EPREL system availability

Legal certainty should be provided in case of EPREL registration system unavailability that would hinder the registration of product models in due time.

ANNEX 1

ETSI semantics identifiers

excerpt from version ETSI EN 319 412-1 V1.4.4 (2021-05)

5.1.3 Natural person semantics identifier

The semantics of `id-etsi-qcs-SemanticsId-Natural` shall be as follows.

When the natural person semantics identifier is included, any present `serialNumber` attribute in the subject field shall contain information using the following structure in the presented order:

- 3 character natural person identity type reference;
- 2 character ISO 3166 [2] country code;
- hyphen-minus "-" (0x2D (ASCII), U+002D (UTF-8)); and
- identifier (according to country and identity type reference).

The three initial characters shall have one of the following defined values:

1) "PAS" for identification based on passport number.
2) "IDC" for identification based on national identity card number.
3) "TAX" for identification based on a personal tax reference number issued by a national tax authority. This value is **deprecated.** The value "TIN" should be used instead.
4) "TIN" Tax Identification Number according to the European Commission – Tax and Customs Union (https://ec.europa.eu/taxation_customs/tin/tinByCountry.html).
5) Two characters according to local definition within the specified country and name registration authority, identifying a national scheme that is considered appropriate for national and European level, followed by the character ":" (colon).

Other initial character sequences are reserved for future amendments of the present document.

EXAMPLES: "PASSK-P3000180", "IDCBE-590082394654" and "EI:SE-200007292386".

When a locally defined identity type reference is provided (two characters followed by ":"), the `nameRegistrationAuthorities` element of `SemanticsInformation` (IETF RFC 3739 [1]) shall be present and shall contain at least a `uniformResourceIdentifier generalName`. The two letter identity type reference preceding the ":" character shall be unique within the context of the specified `uniformResourceIdentifier`.

5.1.4 Legal person semantics identifier

The semantics of `id-etsi-qcs-SemanticsId-Legal` shall be as follows.

When the legal person semantics identifier is included, any present `organizationIdentifier` attribute in the subject field shall contain information using the following structure in the presented order:

- 3 character legal person identity type reference;
- 2 character ISO 3166 [2] country code;
- hyphen-minus "-" (0x2D (ASCII), U+002D (UTF-8)); and
- identifier (according to country and identity type reference).

The three initial characters shall have one of the following defined values:

1) "VAT" for identification based on a national value added tax identification number.

2) **"NTR" for identification based on an identifier from a national trade register.**

3) "PSD" for identification based on national authorization number of a payment service provider under Payments Services Directive (EU) 2015/2366 [i.13]. This shall use the extended structure as defined in ETSI TS 119 495 [3], clause 5.2.1.

4) "LEI" for a global Legal Entity Identifier as specified in ISO 17442 [4]. The 2 character ISO 3166 [2] country code shall be set to 'XG'.

5) Two characters according to local definition within the specified country and name registration authority, identifying a national scheme that is considered appropriate for national and European level, followed by the character ":" (colon).

Other initial character sequences are reserved for future amendments of the present document. In case "VAT" legal person identity type reference is used in combination with the "EU" transnational country code, the identifier value should comply with Council Directive 2006/112/EC [i.12], article 215.

EXAMPLES: "VATBE-0876866142" and "EI:SE-5567971433".

[…]