

REPARABILITY INDEX WORKSHEET OF TELEVISION

GENERAL INSTRUCTIONS

PURPOSE OF THE FILE

This Excel file calculate the reparability index of a television.

REGULATORY FRAMEWORK

Article L. 541-9-2 of the French Environmental Code states that : Manufacturers, importers, marketers and other retailers which put electrical and electronic equipment (EEE) on the French market have to inform, free of charge, downstream sellers and any person who made the request of **"the reparability index" of their products, as well as the paramaters explaining how such index was established.** This reparability index will inform consumers about the ability to repair the product category concerned. **All information entered in this file must be truthful and verifiable.**

The methods and rules of implementation for the reparabilty index are specified in the reparabilty index Decree N°2020-xxx 2020 (date) for electrical and electronic equipment (EEE), the Decision XXXX (date) on display conditions and parameters for calculating the reparability index and the Decision XXXX (date) on criteria, subcriteria, rating system and display of the reparability index of televisions.

A complementary instructions manual provides explanatory informations and additional instructions on how to apply Decree and Orders of the reparability index of electrical and electronic equipment.

FILE CONTENT

General instructions	Description of the purpose of this Excel file, description of regulatory framework of the reparability index and description of file content and how it will be completed.
Product information	Description of the product and the assessment of its repairability index.
C1_Documentation	Detailed criteria used to calculate the reparability index of the product.
C2_Disassembly	On each tab page, all 'orange boxes' must be completed by selecting the right information from the 'drop-down list' or by directly entered the right information in the box (e.g. criterion 4 : price and file to be send).
C3_Availability of spare parts	When the information is entered, the concerned box change to 'green'. No box should be left unanswered.
C4_Price	
C5_Specific	
Final score	This tab automatically calculate final score of the reparability index of the product and also scores per criteria and sub-criteria, before and after weighting.
Note finale	This tab is the French translation of the "Final score" tab. It is automatically completed. This tab is to be sent to all applicants.
Annex 1	Details about the therminology used for the reparability index.
Annex 2	Details about the list of "basic" tools and their reference standards.
Annex 3	Details and application case about the concept of disassembly step.

REINTIALISER LES CHOIX

This button resets all data entered into the file. If you want to execute this action, please enable macros and click on the button.

WARNING: this action cannot be undone.

**INFORMATIONS RELATING TO THE PRODUCT AND
THE CALCULATION OF ITS REPAIRABILITY INDEX**

Television

DATE OF CALCULATION	Please fill out
REQUESTOR OF THE ASSESSMENT	
LAST NAME	Please fill out
FIRST NAME	Please fill out
MAIL	Please fill out
PHONE NUMBER	Please fill out
RESPONSIBLE FOR EVALUATION	
LAST NAME	Please fill out
FIRST NAME	Please fill out
MAIL	Please fill out
PHONE NUMBER	Please fill out
RATED PRODUCT	
Producer's or importer's name or trademark	ExpressLUCK
Producer or importer adress	Hungary
Producer's or importer's model identifier	LE-32T2

SUB-CRITERION 1.1 : COMMITMENT ON THE AVAILABILITY OVER TIME (WITHOUT CHARGE) OF THE TECHNICAL DOCUMENTATION AND THE OTHER DOCUMENTATION RELATED TO USER AND MAINTENANCE INSTRUCTIONS

ADDITIONAL INFORMATIONS:

Documents/informations: The information can be freely distributed at the initiative of the producer in various physical or dematerialized documents. Scoring points are awarded if the information referred to is available in any document.

Language of documents: In accordance with the law of August 4, 1994 on the use of the French language, information intended for consumers must be drawn up in French ; English is tolerated for very technical aspects intended for professional repairers (example: technical bulletins).

Technical bulletins: This wording covers announcements made by the producer to professional repairers, informing them, for example, of recently discovered bugs, of the corrections to be made, of the supply disruption of parts which have been replaced by others. Points are awarded if the edition of a technical bulletin is planned on an ongoing basis (when necessary).

Information on access to professional repairers: The producer or importer is free to indicate to consumers the professional repairers of his choice, but it is advisable to mention at least the repairer directories listed by Ademe : www.annuaire-reparation.fr

Instructions for self-repair: Points corresponding to years of availability are only granted if one or more operations are specified to consumers for self-repair, with adequate safety instructions, in a specific section under the title "self-repair", for example in the technical manual or of the instructions for use and maintenance. Article L 441-5 of the Consumer Code specifies the responsibility of the producer regarding self-repair.

Commitment on the availability over time of the documentation (in years)	Column B Repairers		Column C Consumers	
	Duration of availability	Subtotal	Duration of availability	Subtotal
1.1.A The unequivocal identification of the product (type of product, trademark, trade name, model, and possibly, serial number)	if X ≥ 11 years	11	if X ≥ 11 years	11
1.1.B A disassembly map or exploded view	if X ≥ 11 years	11	if X ≥ 11 years	11
1.1.C Wiring and connection diagrams	if X ≥ 11 years	11	if X ≥ 11 years	11
1.1.D Electronic boards diagrams	if X ≥ 11 years	11	if X ≥ 11 years	11
1.1.E List of necessary repair and test equipment	if X ≥ 11 years	11	if X ≥ 11 years	11
1.1.F Technical manual of instructions for repair	if X ≥ 11 years	11	if X ≥ 11 years	11
1.1.G Diagnostic fault and error codes	if X ≥ 11 years	11	if X ≥ 11 years	11
1.1.H Component and diagnosis information	if X ≥ 11 years	11	if X ≥ 11 years	11
1.1.I Instructions for software and firmware (including reset software)	if X ≥ 11 years	11	if X ≥ 11 years	11
1.1.J Information on how to access data records of reported failure incidents stored on the product	if NA or X < 7 years	0	if NA or X < 7 years	0
1.1.K Technical bulletins	if X ≥ 11 years	11	if X ≥ 11 years	11
1.1.L Specific guidance for self-repair (recommended operations, safety and repair instructions, any implications for the guarantee)*			if X ≥ 11 years	11
1.1.M How to get access to professional repairers			if X ≥ 11 years	11
1.1.N Failures detection and required action (consumers approach)			if X ≥ 11 years	11
1.1.O User and maintenance instructions			if X ≥ 11 years	11
Total sub-criterion 1.1		110		154
				264
				9,2
				/286
				/10

*Points corresponding to years of availability are only awarded if one or more operations are specified to consumers for self-repair, with adequate safety instructions, in a specific

CRITERION 2 : DISASSEMBLY, ACCESSIBILITY, TOOLS, FASTENERS

Television

PLEASE ANSWER THE FOLLOWING QUESTIONS :		ANSWERS
1)	Does the product have any internal power supply ?	Yes
2)	Does the product have any WiFi module ?	No
3)	Does the product have any Bluetooth module ?	No

SUB-CRITERION 2.1 : EASE OF DISASSEMBLY OF SPARE PARTS - BROKEN / MALFUNCTIONING PARTS (LIST 2)

ADDITIONAL INFORMATIONS:	PARTICULAR CASE OF TELEVISION
Details of the dismantling steps can be found on the right side of this sheet and in Annex 3 grid.	External power supply and remote control do not need to be disassembled for disassembly steps. For these parts, the steps counted shall be : disconnecting the power cord and removing accumulators and battery from remote control.

Ease of disassembly		Rating	
List 2 : Broken / malfunctioning parts		Number of steps required to disassemble the spare part	Subtotal
2.1.A	Remote control*	# DDi = 1	3
2.1.B	External power supply		
2.1.C	Internal power supply	# DDi < 8	3
2.1.D	Main board	# DDi < 8	3
2.1.E	Display panel/LCD panel	# DDi < 8	3
Total sub-criterion 2.1		12	/12
		10,0	/10

* Requires only to remove accumulators and battery

SUB-CRITERION 2.2 : NECESSARY TOOLS TO REMOVE SPARE PARTS - BROKEN / MALFUNCTIONING PARTS (LIST 2)

ADDITIONAL INFORMATIONS:
- Necessary tools to unitarily disassemble a spare part include all tools used to get access and disassemble the concerned part without causing damage to the product (which might include getting access to fasteners).
- Tools used are classified according to the complexity of the operation to final users and the availability of tools.
- In case of using different types of tools in the disassembly and reassembly sequences of a spare part, the worst score shall be considered.

Necessary tools for disassembly		Rating	
List 2 : Broken / malfunctioning parts		Type of tools used for disassembly	Subtotal
2.2.A	Remote control	D : Removable with no tool with tools supplied with the product or with basic	4
2.2.B	External power supply		
2.2.C	Internal power supply	D : Removable with no tool with tools supplied with the product or with basic	4
2.2.D	Main board	D : Removable with no tool with tools supplied with the product or with basic	4
2.2.E	Display panel/LCD panel	D : Removable with no tool with tools supplied with the product or with basic	4
Total sub-criterion 2.2		16	/16
		10,0	/10

SUB-CRITERION 2.3 : CHARACTERISTICS OF FASTENERS FOR THE ASSEMBLY OF SPARE PARTS (LISTS 1 AND 2)

ADDITIONAL INFORMATIONS:
- Fasteners : A hardware device that mechanically or magnetically connects or fixes two or more objects, parts or pieces. A fastener is generally non-permanent, i.e., it can be easily removed or disassembled without damaging the objects, parts or pieces connected or fixed together (e.g., screws or clips). Welds and some glues are in contrast to permanent fixings. Adhesives are considered non-reusable fasteners unless new ones are supplied with the spare part.
- Fasteners removed are classified according to their accessibility, reusability, amovibility and also their constraints imposed to the product reparability (e.g. fasteners causing damage or leaving welding or glue residues which preclude reusability of the removed part).
- In case of removing different types of fasteners during the disassembly step of a spare part, the worst score shall be considered.

Fasteners characteristics		Rating	
List 1 : Functional parts List 2 : Broken / malfunctioning parts		Type of fasteners	Subtotal
2.3.A	Rear cover	C : Removable and reusable	2
2.3.B	WiFi module	Select a choice	0
2.3.C	Bluetooth module	Select a choice	0
2.3.D	Infrared receiver (IR)	A : Neither removable nor reusable	0
2.3.E	Loudspeaker	C : Removable and reusable	2
2.3.F	Connectors to connect external equipment (cable, antenna, USB, DVD and Blue-Ray)	C : Removable and reusable	2
2.3.G	Remote control	C : Removable and reusable	2
2.3.H	External power supply		
2.3.I	Internal power supply	C : Removable and reusable	2
2.3.J	Main board	C : Removable and reusable	2
2.3.K	Display panel/LCD panel	C : Removable and reusable	2
Total sub-criterion 2.3		14	/16
		8,8	/10

CRITERION 4 : PRICE OF SPARE PARTS

Television

ADDITIONAL INFORMATIONS:

Deduction of delivery costs: The principle adopted is to make a calculation excluding transport or delivery costs. If the latter are included in the tariffs of the general terms and conditions of sale, it is up to the producer or importer to deduct them in order to calculate the ratio. In particular for the price of spare parts, two methods are possible for deducting transport or delivery costs: individually for each of the parts in list 2 or on a flat-rate basis (in absolute value or as a percentage). The same applies to the price of new equipment.

Spare part(s) forming part of a batch: If one or more of the parts in list 2 are part of a batch offered for sale or of any other subset of inseparable parts, the price of the part concerned is the price of this batch or subset.

Part not available: In the event that, at the time the index is calculated, a part from list 2 is not available, the number of points awarded for criterion 4 relating to the price of spare parts is 0.

Parts not managed by the producer or importer: If parts from list 2 are not managed by the producer or importer, the price of the parts to be considered is then that of the supplier's general terms and conditions of sale at the time of the index calculation.

Options for products with the same reference: If options are offered for the same reference, and do not influence the technical characteristics for the purpose of calculating the index, then the calculation of the price ratio to be achieved is based on the price of spare parts and the price of the most current version of the product concerned.

Absence of a part: If the equipment does not include a part listed in list 1 or 2 of the category concerned, then the price of the absent part does not appear in the calculation of the ratio.

PRICE Criterion	RATING			
	Value (euros)	Score (%)	POINTS (/100)	FINAL SCORE (/10)
Pre-tax price of the most expensive spare part (list 2)	180	42,00%	0	0
Average pre-tax price of other spare parts (list 2)	30			
Manufacturer's price pre-tax of concerned model	250			

The number of points obtained for this criterion is determined as follows:

- if the result is greater than 0.3 then the number of points is 0;
- if the result is less than 0.1 then the number of points is 100;
- if the result is between 0.1 and 0.3 then the number of points is determined according to the following correspondence table :

Ratio	0,1	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,2	0,21	0,22	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,3
Points	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5	0

CRITERION 5 : SPECIFIC CRITERION	<i>Television</i>
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SUB-CRITERION 5.1 : ACCESSIBILITY OF USAGE-METER TO CONSUMERS

ADDITIONAL INFORMATIONS :
 - Definition of the usage meter: The usage meter is a device that cumulatively records the use of the equipment in number of units. This counter can either be visible directly by the consumer each time the device is started up or require a voluntary operation on the part of the user to become aware of the value displayed by the usage counter.
 Unit of the usage meter: The unit considered is the number of hours of screen use.

Usage-counter	Column C Consumers			
	Condition	Subtotal		
5.1.A : Accessibility of usage-counter	C : Visible or easily accessible	2		
Total sub-criterion 5.1		2	/2	
		10,0	/10	

REPAIRABILITY INDEX CALCULATION AND PRESENTATION OF THE PARAMETERS WHICH ALLOWED TO ESTABLISH IT	<i>Television</i>
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Date of calculation	Please fill out
Producer or importer adress	ExpressLUCK
Producer's or importer's model identifier	Hungary
Producer's or importer's name or trademark	LE-32T2

This "FINAL_SCORE" tab in English is purely indicative. In order to meet regulatory obligations, only the "NOTE_FINALE" tab in French (see the next tab) is to be sent. Note: The results are automatically reported in the French tab.

Criteria	Sub-criteria	Score of subcriterion /10	Weighting factor of subcriterion	Score of criterion /20	Total criteria scores /100	
CRITERION 1 : DOCUMENTATION	1.1 Availability of the technical documentation and other documentation related to user and maintenance instructions	9,2	2	18,5	75,6	
CRITERION 2 : DISASSEMBLY, ACCESSIBILITY, TOOLS, FASTENERS	2.1 Ease of disassembly parts from List 2*	10,0	1	19,4		
	2.2 Necessary tools (List 2)	10,0	0,5			
	2.3 Fasteners characteristics parts from List 1** and List 2	8,8	0,5			
CRITERION 3 : AVAILABILITY OF SPARE PARTS	3.1 Availability over time parts from List 2	8,2	1	17,7		
	3.2 Availability over time parts from List 1	9,1	0,5			
	3.3 Delivery time parts from List 2	10,0	0,3			
	3.4 Delivery time parts from List 1	10,0	0,2			
CRITERION 4 : PRICE OF SPARE PARTS	4. Ratio between price of parts from list 2 to the price of the product	0	2	0		
CRITERION 5 : SPECIFIC CRITERION	5.1 Accessibility of usage-counter to consumers	10,0	1	20,0		
	5.2 Free remote assistance	10,0	0,5			
	5.3 Possibility to reset softwares	10,0	0,5			
Reparability index on 10						7,6

* list 2: list of a maximum of 3 to 5 spare parts (depending on the category of equipment concerned) whose broken or malfunctioning parts are the most frequent;

** list 1: list of a maximum of 10 other spare parts (depending on the category of equipment concerned) whose good condition is necessary for the operation of the equipment.

**CALCUL DE L'INDICE DE RÉPARABILITÉ ET
PRÉSENTATION DES PARAMÈTRES AYANT PERMIS DE L'ÉTABLIR**

Téléviseur

FICHE D'INFORMATION À TRANSMETTRE AUX DEMANDEURS
(cf. Article L. 541-9-2 du Code de l'environnement)

Date de calcul	Please fill out
Nom ou marque commerciale du producteur ou de l'importateur	ExpressLUCK
Adresse du producteur ou de l'importateur	Hungary
Reference du modèle donnée par le	LE-32T2

Critère	Sous-critère	Note du sous-critère sur 10	Coefficient du sous-critère	Note du critère sur 20	Total des notes des critères sur 100
CRITÈRE 1 : DOCUMENTATION	1.1 Durée de disponibilité de la documentation technique et relative aux conseils d'utilisation et d'entretien	9,2	2	18,5	75,6
CRITÈRE 2 : DÉMONTABILITÉ, ACCÈS, OUTILS, FIXATIONS	2.1 Facilité de démontage des pièces de la liste 2*	10,0	1	19,4	
	2.2 Outils nécessaires (liste 2)	10,0	0,5		
	2.3 Caractéristiques des fixations entre les pièces de la liste 1** et de la liste 2	8,8	0,5		
CRITÈRE 3 : DISPONIBILITÉ DES PIÈCES DÉTACHÉES	3.1 Durée de disponibilité des pièces de la liste 2	8,2	1	17,7	
	3.2 Durée de disponibilité des pièces de la liste 1	9,1	0,5		
	3.3 Délais de livraison des pièces de la liste 2	10,0	0,3		
	3.4 Délais de livraison des pièces de la liste 1	10,0	0,2		
CRITÈRE 4 : PRIX DES PIÈCES DÉTACHÉES	4. Rapport prix des pièces de la liste 2 sur prix de l'équipement neuf	0	2	0	
CRITÈRE 5 : CRITÈRE SPÉCIFIQUE	5.1 Accessibilité du compteur d'usage	10,0	1	20,0	
	5.2 Assistance à distance sans frais	10,0	0,5		
	5.3 Possibilité de réinitialisation logicielle	10,0	0,5		
Note de l'indice sur 10					7,6

*liste 2 : liste des 3 à 5 pièces détachées au maximum (selon la catégorie d'équipements concernée) dont la casse ou les pannes sont les plus fréquentes ;

**liste 1 : liste de 10 autres pièces détachées au maximum (selon la catégorie d'équipements concernée) dont le bon état est nécessaire au fonctionnement de l'équipement.

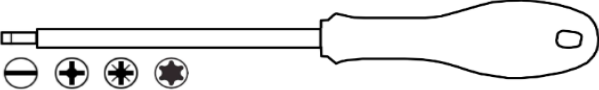
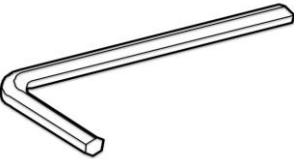
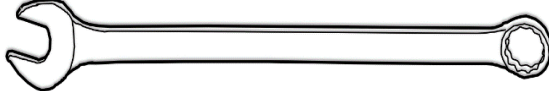
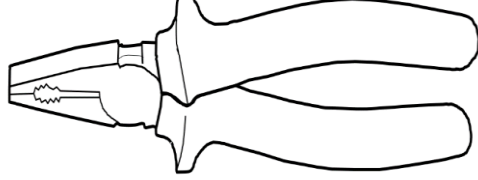
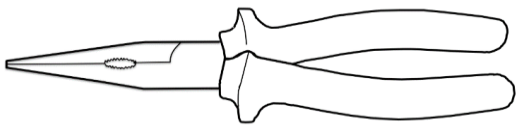
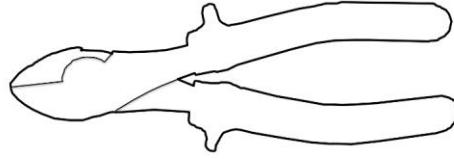
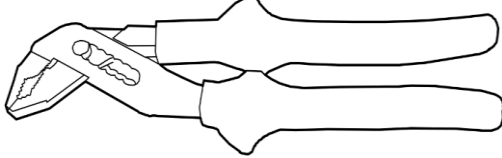
ANNEX 1 : TERMINOLOGY USED FOR THE REPARABILITY INDEX

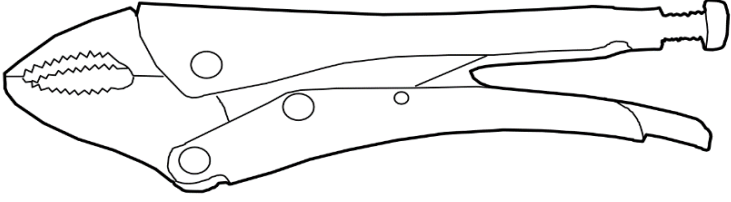
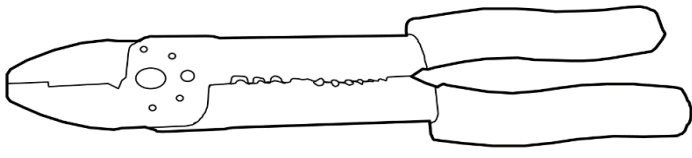


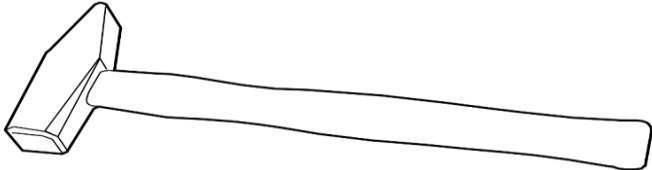
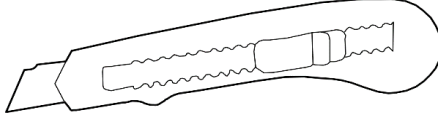

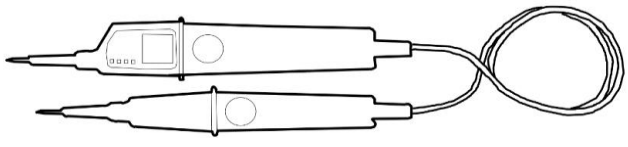
The definitions of the following terms are specified in the decree relating to the reparability index for electrical and electronic equipment:
 "Making available on the market", "Placing on the market", "producer", "importer", "distributor", "seller", "distance selling", "model".

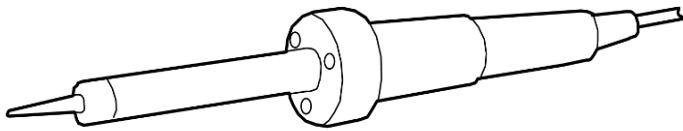
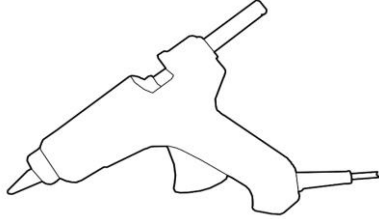
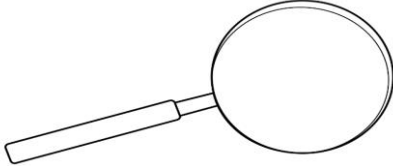
Authorized repairer	The authorized repairer is often referred to as a technical station or authorized service center. It is a professional repairer for whom one or more contracts precisely define the relationship between the authorized repairer and the producer(s).	Based on the technical expertise of the reparability index working groups
Independent repairer	Independent repairers are repairers in the sense of "professional craftsmen repairers" designating repair companies listed in the trade directory with an APE or NAFA code. They are professional repairers who do not fall into the category of authorized repairers. For example, 95.11 Z-2: Repair of computers and peripheral equipment; 95.21 Z-2: Repair of televisions, radio receivers, VCRs, CD and DVD players, camcorders for domestic use; 95.22 Z-2: Repair of household appliances and home and garden equipment.	
Professional repairer	Authorized repairer or independent repairer.	
Distributor of spare parts	Any moral or physical person in the supply chain, other than the producer or importer, who offers a spare part for sale. They are commonly referred to as "spare parts wholesalers".	According to Standard NF EN 45554 "General methods for the evaluation of the repair, reuse and improvement capacity of energy-related products", 2020.
Disassembly	The process by which a product, spare part or fastener is disassembled so that it can then be reassembled and made operational.	
Reassembly	The process by which a product, a spare part or a fastener is reassembled so as to fulfill its functional role and be made operational.	
Reuse / Reusable	The process by which a product, spare part or fastener, having reached the end of its first use, is used for the same purpose for which it was designed. Reuse after a second or subsequent use(s) is also considered to be reuse.	
Factory Restoration	A specific functionality or setting to be activated by the customer, if the product allows it, to restore the default value of a specific functionality of the device as set at the factory and available when the customer first uses the product.	Inspired by the Commission regulation (EU) 2019/2021
Update / Upgrade	The process of improving the functionality, performance, capacity or aesthetics of a product. This process may involve changes to the software, firmware and/or a hardware component of the product.	According to Standard NF EN 45554 "General methods for the evaluation of the repair, reuse and improvement capacity of energy-related products", 2020.
Corrective update	An update performed after a failure has been detected and intended to restore an asset or software to a state in which it can perform a required function. This type of update corrects hardware or software malfunctions or non-conformity but does not add new functionality.	Inspired by the AFNOR NF EN 13306 X 60-319 standard of June 2011 "All the technical, administrative and management actions during the life cycle of an asset, intended to maintain or restore it to a state in which it can perform the required function "
Evolutionary update	Upgrading, which consists of gradually modifying the software application by adding new features or additional modules, or by replacing an existing function with another, or even by proposing a different approach.	
Fastener	A hardware device that mechanically or magnetically connects or fixes two or more objects, parts or pieces. A fastener is generally non-permanent, i.e., it can be easily removed or disassembled without damaging the objects, parts or pieces connected or fixed together (e.g., screws or clips). Welds and some glues are in contrast to permanent fixings. Adhesives are considered non-reusable fasteners unless new ones are supplied with the spare part.	Inspired by, "Fasteners - Their Needs and Types", Bright Hub Engineering, 2020.
Reusable fastener	See the definition of "reusable".	According to Standard NF EN 45554 "General methods for the evaluation of the repair, reuse and improvement capacity of energy-related products", 2020.
Removable fastener	An original fastener system that can be completely removed (without causing damage or leaving residue).	
Proprietary tool	A tool that is not commercially available and is owned exclusively by one party or company, and under which its use by another party (an end user or customer) involves copyright, license and/or cost.	Inspired by Will Kenton, "Proprietary Technology", 2019.
Part / Spare parts	A unitary element in the composition of the equipment.	

ANNEX 2 : BASIC TOOLS AND THEIR REFERENCE STANDARDS

According to the European Standard NF EN 45554 "General methods for the assessment of the ability to repair, reuse and upgrade energy-related products", 2020.

Tool type	Illustration (informative example)	Reference
Screwdriver for slotted heads, cross recess or for hexalobular recess heads		ISO 2380, ISO 8764, ISO 10664
Hexagon socket key		ISO 2936
Combination wrench		ISO 7738
Combination pliers		ISO 5746
Half round nose pliers		ISO 5745
Diagonal cutters		ISO 5749
Multigrip pliers (multiple slip joint pliers)		ISO 8976

<p>Locking pliers</p>		
<p>Combination pliers for wire stripping and terminal crimping</p>		
<p>Prying lever</p>		
<p>Tweezers</p>		
<p>Hammer, steel head</p>		<p>ISO 15601</p>
<p>Utility knife (cutter) with snap-off blades</p>		
<p>Multimeter</p>		
<p>Voltage tester</p>		

Soldering iron		
Hot glue gun		
Magnifying glass		

ANNEX 3 : DETAILS ABOUT THE CONCEPT OF DISASSEMBLY STEP ANI

D APPLICATION CASE