

Association for Indoor Climate, Process Cooling, and Food Cold Chain Technologies



Building Bridges





Building Bridges





Meeting of the Eurovent Product Group 'Commercial Refrigeration Equipment' (PG-RDC)

Thursday, 27 October 2022, 13:45-16:45, Akasya





What can you expect today?



Thursday, 27 October 2022



WHEN?	WHAT?	WHERE?
11:00-11:30h 15:30-16:00h	Coffee Break	Foyer (Floor 1)
12:45-13:45h	Lunch Break (<u>Powered by ABB</u>)	Meeting room Ladin + Foyer (Floor 1)
09:30-12:45h	Fireside Chat: Future of industry exhibitions in the post-pandemic world (Powered by ISK-SODEX)	Side Ballroom (Floor 1)
19:00h	Gathering for Legends of Eurovent (Powered by Baltimore Aircoil Company) PLEASE BE ON TIME	Hotel lobby



Thursday, 27 October 2022



Fireside Chat: Future of industry exhibitions in the post-pandemic world (Powered by ISK-SODEX)

- Time: 13:45-16:45h
- Location: Side ballroom (floor +1)
- Exhibition organisers, associations, manufacturers and external service providers sit around one table and discuss the future of our exhibitions. What will it be? Online? Offline? Hybrid?
- Find out more in this interactive fireside chat led by our own Markus Lattner, a true exhibition veteran and expert on cross-industry relations.



Thursday, 27 October 2022



Legends of Eurovent (Powered by Baltimore Aircoil Company)

- Starts at 19:45h
- Gathering at 19:00h in the hotel lobby, bus transport to the venue.
- In the spirit of the ongoing generation change in the Eurovent community and the entire industry, join us in honouring several industry legends for their invaluable contributions and presenting them with life-long recognition.
- Thursday night will see the true Hall of Fame of Eurovent and will be accompanied by interesting anecdotes from the history of the association.





Thank you to our sponsors and partners

Who made the 2022 Eurovent Summit possible?



Co-organiser





 ISKID is the Turkish Air Conditioning and Refrigeration Manufacturers' Association. ISKID was established in 1992 with the contributions of prominent companies in the air conditioning and refrigeration sector, to conduct work towards making the HVACR Industry development healthier and faster. Over 100 member companies are gathering under ISKID's roof to conduct activities for the development of the sector and to stay in high-quality standards. As this edition of the Eurovent Summit takes place in Turkey, the association has become co-organiser of the event, as well as organiser of a Turkish-English seminar programme.



BridgeBuilding Partner





- <u>UL Solutions</u> is a global leader in applied safety science.
- UL Solutions transforms safety, security and sustainability challenges into opportunities for customers in more than 100 countries.



BridgeBuilding Supporter





 Baltimore Aircoil Company develops, manufactures and distributes evaporative cooling products, offering innovative and sustainable cooling solutions for saving water and energy in air conditioning, refrigeration and industrial process applications.



BridgeBuilding Supporter





 CEIS is a Spanish testing, innovation and service centre offering well-recognised testing programmes for air conditioning and heat pump appliances. This year, CEIS has become a proud supporter of the Eurovent Summit for the third time in a row.



BridgeBuilding Supporter



J2INNOWTIONS

A Siemens Company

- J2 Innovations, a subsidiary of Siemens, is a provider of control and management software for HVAC and refrigeration equipment.
- J2 Innovations created FIN Framework; the next generation software platform for building automation and IoT applications in buildings.



BridgeBuilding Contributor





 ABB is a leading manufacturer of drives, motors and controls for HVACR applications with a global footprint, supporting the industry across the world with products and services.



BridgeBuilding Contributor





 Turkish HVACR Exporters Association (ISIB) is the only coordinator and exporter association in Turkish HVACR sector. Established in 2012, ISIB works towards bringing together all the exporter companies active in the Turkish HVACR sector under one roof and increasing the export potential of the sector.







• Boreas Technology engages in manufacturing and sales of DC Master Adia Mechanic Cooler and CRAC/CRAH models which are specially designed for data centres as well DC Pro units, air conditioning units distinguished for their authentic design, and central air- conditioning equipment. With its know-how of more than 20 years, it offers state-of-the-art solutions for critical buildings such as hospitals, malls and hotels as well as industrial buildings and data centres in various countries in the world. As the choice of leading global brands, the company is dedicated to offering technology solutions for a sustainable world with high efficiency, customised products thanks to its R&D investments and engineering know-how.







• FRITERM is one of Europe's leading manufacturers of heat exchangers, providing solutions for industrial applications throughout the EMEA region.

Thursday, 27 October 2022 Meeting of PG-RDC







 Systemair is a leading ventilation company with operations in 50 countries globally, manufacturing and market high-quality ventilation products.







 WIKA is a global market leader in pressure, temperature and level measurement technology. Working together with our customers, we develop comprehensive solutions based on our highquality measurement technology components, with the solutions ultimately being integrated in their business processes. We deliver 50 million quality products to over 100 countries every year. Worldwide, approximately 600 million WIKA measuring instruments are in use. WIKA employs around 10.000 people and owns over 40 subsidiaries worldwide. For the third time in a row, WIKA is proud to support the Eurovent Summit.



Exhibition Partner





 ISK-SODEX Istanbul is an International HVAC, Refrigeration, Insulation, Pump, Valve, Fitting, Water Treatment, Fire Prevention, Pool and Solar Energy Systems Exhibition.



Exhibition Partner





 Climatización y Refrigeración (C&R), an international exhibition in Spain in HVAC and Refrigeration, is one of the most important events which showcases the technological innovation and commitment to sustainability and energy efficiency of this industry.



Thank you to our partners Meet them in the foyer









Meeting of the Eurovent Product Group 'Commercial Refrigeration Equipment' (PG-RDC)

Thursday, 27 October 2022, 13:45-16:45, Akasya





About this Product Group

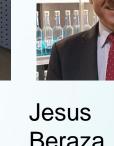
Eurovent Product Group 'Commercial Refrigeration Equipment' (PG-RDC)



The Eurovent Product Group 'Commercial Refrigeration' Equipment' (formerly 'Refrigerated Display Cabinets') covers refrigerated display cabinets (remote and integral units), walk-in cold rooms, commercial beverage coolers, ice-cream freezers and refrigeration packs. It is the largest European working group of commercial refrigeration equipment manufacturers. The group is supported by the Eurovent Member Associations on a national level. Its main tasks are advocacy on European and national legislation, development of EN, ISO and Eurovent standards, promotion of the industry and its export initiatives, and diminishing unfair trade barriers inside and outside Europe. The Group does not deal with certification.







Maurizio
Orlandi
Epta Group
Chairman

Jesus
Beraza
Grupo K
Refrigeracion
Vice-Chairman

over 30 companies registered from all over Europe



Agenda



- 1. Introduction, meeting rules
- 2. Attendances
- 3. Approval of the Draft Agenda
- 4. Approval of the Minutes of the last meeting
- 5. EPREL Database
- 6. Ecodesign and Energy Labelling

- 7. What's new in IEC 60335-2-89 last 2019 release?
- 8. EMI: statistics of PG-RDC group
- 9. F-GAS

Coffee break

- 10. Environmental Product Declaration (EPD) and Product Category Rules (PCR)
- 11. Upcoming agenda items
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1.-4. Formalities



- Introduction
- Rules: Competition law, bribery, corruption and data protection
- Attendances
 - Introduction of participants
 - Remember to sign the attendance list
- Approval of the Draft Agenda
- Approval of the minutes of the last meeting
 - Online, 02 May 2022



4. Approval of the minutes of the last meeting

EUROVENT SUMMIT ANTALYA 25-28 OCT 2022

Formalities (agenda items 1-4)

- Meeting called to order at 10:04h
- Meeting agenda unanimously approved
- Minutes of the last meeting unanimously approved

F-Gas Review

- Very sharp quota reduction
- A clarification of the wording "hermetically sealed" and "self-contained" is needed
- By removing the exclusion of appliances up to 40 kW, the F-GAS could result to be more effective
- Missing definition of parallel rack compressors
- Heat recovery should be promoted
- Lower GWP also for maintenance

P-FAS

Overview of the PFAS topic provided.

Exchange/Update on EPREL

The public website is online



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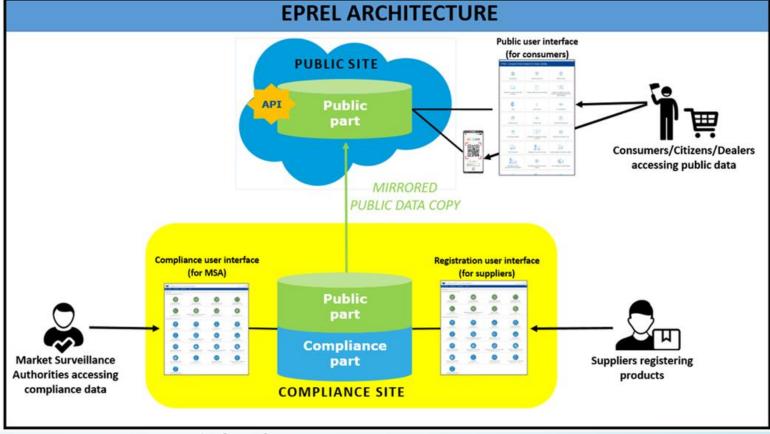


EUROVENT SUMMIT ANTALYA 25-28 OCT 2022

#Building Bridges

possible suggestions from the PG for future improvements

As of 1 January 2019, suppliers (manufacturers, importers or authorized representatives) need to register their product models, which require an energy label, in the European **Product Registry for Energy** Labelling (EPREL), before placing on the EU/EEA market the first product of a model in the scope of the Labelling legislation.







possible suggestions from the PG for future improvements

- Concerns about identity verification communicated in 2021
 - EU-Login protected against unauthorized data access, but not against providing fake data
 - A fraud could upload fake models to compromise competitors
- Verification of the organisation existence by means of 'electronic seals' – eIDAS legislative framework
 - Only products of verified suppliers to be listed on public website





possible suggestions from the PG for future improvements

- Beta-version of public interface open on 28 March
 - Limited numer of verified suppliers/products, and no proactive communication from the Commission.
- Official launch on 17 May 2022
 - New suppliers cannot register any model until verified
 - Suppliers already registered and having registered models can continue registering products.
 - Models from unverified suppliers displayed with a banner

A

This model is from a supplier that has not been verified yet





possible suggestions from the PG for future improvements

- Considered options for the verification deadline (March)
 - Waiting until a verification threshold is reached?
 - Establish a date?
 - Setting the obligation by a new implementing act?
- There will be no deadline for verification (May)
 - The Commission 'hopes' that the banner will stimulate the companies to organise their 'electronic seal'





possible suggestions from the PG for future improvements

- https://eprel.ec.europa.eu/
- Should any objections/comments from PG-RDC be communicated to the Commission?
 - Problems with the verification process (electronic seal)?
 - Identified incorrect information on the public website?
 - Malfunctioning of the search engine?
 - Limited number of search filters?



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6. Ecodesign and Energy Labelling

EUROVENT SUMMIT ANTALYA 25-28 OCT 2022 # B u i l d i n g B r i d g e s

possible suggestions from the PG for future improvements

Commission Regulation (EU) 2015/1095 and 2015/1094 on professional refrigeration

The secretariat has been recently informed that on the **next 28 November 2022** a Consultation Forum will take place as part of the revision process of the Ecodesign and Energy Labelling Regulations 2015/1095 and 2015/1094.



EUROVENT SUMMIT ANTALYA 25-28 OCT 2022 # B u i l d i n g B r i d g e s

possible suggestions from the PG for future improvements

Commission Regulation (EU) 2015/1095 and 2015/1094 on professional refrigeration

Eurovent Delegation (proposal)

- Francesco Scuderi
- Massimiliano Ferrario
- Maurizio Orlandi (PG-RDC Chairman)
- Charlotte Lots (for the Condensing Units)



possible suggestions from the PG for future improvements



Commission Regulation (EU) 2015/1095 and 2015/1094 on professional refrigeration

Background

Up to now the following documents have been produced:

- Preparatory Studies
- Stakeholders' meetings presentations
- Eurovent Position Paper

Usually, one month before the Consultation Forum a preparatory document (often the draft text of the new Regulation) is circulated.

We expect its circulation soon



possible suggestions from the PG for future improvements



Commission Regulation (EU) 2015/1095 and 2015/1094 on professional refrigeration

Eurovent Position Paper – after stakeholder meeting January 2022

- the current review of the Ecodesign regulation on professional refrigeration shall be neutral toward refrigerants and not consider any longer any bonus for products making use of low-GWP refrigerants.
- it is difficult to consider Walk In Cold Rooms as a product that would qualify for any Ecodesign measure. Eurovent holds that WICRs might qualify for being covered by CPR and not by Ecodesign measures.



possible suggestions from the PG for future improvements



Commission Regulation (EU) 2015/1095 and 2015/1094 on professional refrigeration

Eurovent Position Paper – after stakeholder meeting January 2022

Condensing Units

- Eurovent holds that the energy consumption in the use phase is to be carefully assessed and thus supports the proposed introduction of the SEPR for the units in the scope of the review.
- Before providing the Consultants with its position, Eurovent asks for a further proper assessment on MEPS.

- Eurovent does not support increasing the regulation's scope for LT condensing units to above 20 KW and for MT to above 50 KW.
- Eurovent supports that CUs having an evaporator on board are not to be covered by the scope of the current review.
- Eurovent does not support the introduction of any energy labelling measure for CUs.

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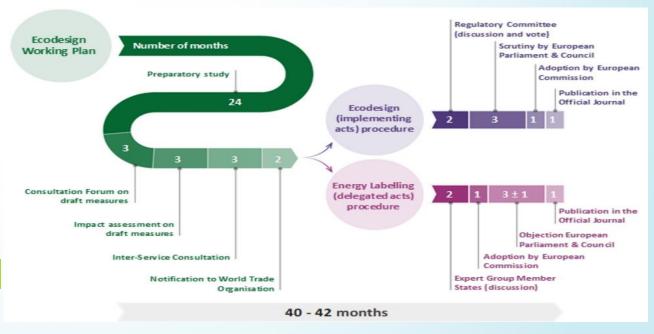
6. Ecodesign and Energy Labelling

SUMMIT ANTALYA 25-28 OCT 2022 # B u i l d i n g B r i d g e s

possible suggestions from the PG for future improvements

Commission Regulation (EU) 2019/2024 and 2019/2018 on refrigerating appliances with a direct sales function

Both the Regulations, 2019/2024 (Ecodesign) and 2019/2018 (Energy Labelling), states at article 8: The Commission shall review this Regulation in the light of technological progress and present the results of this assessment, including, if appropriate, a draft revision proposal, to the Consultation Forum no later than 25 December 2023.







Commission Regulation (EU) 2019/2024 and 2019/2018 on refrigerating appliances with a direct sales function

2019/2024 Ecodesign - This review shall among other matters assess:						
(a) the level of energy efficiency index requirements;	(e) the appropriateness to set energy efficiency requirements and additional information requirements for saladettes, horizontal serve-ove counters with integrated storage working at chilled operating temperatures, corner cabinets, vending machines designed to work at frozen operating temperature and serve-over fish counters with flaked ice;					
(b) the appropriateness of modifying the EEI formula, including the modelling parameters and the correction factors;	(f) the appropriateness to base the [equivalent volume] of a beverage cooler on the net volume instead of the gross volume;					
(c) the appropriateness of further segmentation of the product categories;	(g) the appropriateness to introduce an EEI formula for supermarket cabinets based on the net volume instead of total display area;					
(d) the appropriateness to set additional resource efficiency requirements in accordance with the objectives of the circular economy, including whether more spare parts should be included;	(h) the level of the tolerances.					



Commission Regulation (EU) 2019/2024 and 2019/2018 on refrigerating appliances with a direct sales function



2019/2018 Energy Labelling - This review shall among other matters assess:

- (a) the energy efficiency classes;
- (b) the possibility to address circular economy aspects;
- (c) the feasibility of refining the classification of products, inter alia, considering the difference between integral and remote cabinets.
- (d) the appropriateness to set additional resource efficiency requirements in accordance with the objectives of the circular economy, including whether more spare parts should be included;



EUROVENT SUMMIT ANTALYA 25-28 OCT 2022 # B u i l d i n g B r i d g e s

possible suggestions from the PG for future improvements

ESPR

What is? Concerns

Directive that will repeal and replace the Framework Ecodesign Directive 2009/125/EC with an Ecodesign for Sustainable Products Regulation (ESPR), extending its scope to non ErP products, such as textiles, furniture, construction materials, or chemicals; also, it will introduce requirements for products to become more durable, reusable, repairable, recyclable

may transform ecodesign into a one size fits all policy that is difficult to amend; this process may result in a Digital Product Passport, which may apply the Product Environmental Footprint (PEF) methodology.



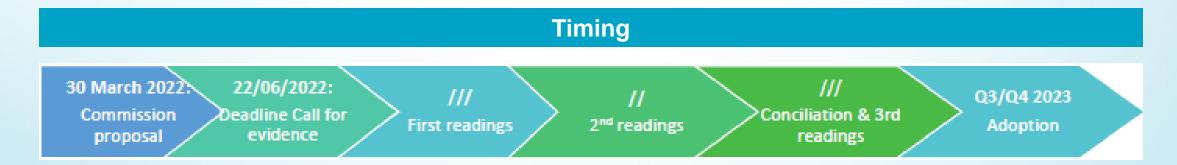


possible suggestions from the PG for future improvements

ESPR

Impacts for PG-RDC

This proposal will not affect the ongoing revision of the Regulations on professional refrigeration, depending on the entry into force could impact the revision of the Ecodesign and Energy Regulations for refrigerating appliances with a direct sales function.







possible suggestions from the PG for future improvements

Review of the MEErP

What is? Concerns

the Methodology for Ecodesign of Energy related Products (MEErP) is the assessment and calculation methodology used by the Commission's consultants when performing and drafting the preparatory and final studies on establishing or reviewing ecodesign and energy labelling policies; the study aims to consider, amongst other things, material efficiency, improve the LLCC approach by introducing PEF methods, etc.

this review widens the assessment of ecodesign beyond energy related products and moves towards circularity of products as does the ESPR; it is expected that the new methodology will be applied with upcoming ecodesign and energy label reviews.





possible suggestions from the PG for future improvements

Review of the MEErP

Impacts for PG-RDC

This proposal will not affect the ongoing revision of the Regulations on professional refrigeration, it will likely impact the revision of the Ecodesign and Energy Regulations for refrigerating appliances with a direct sales function.





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Coffee break

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7. What's new in IEC 60335-2-89 last 2019 release?



Guest presentation by UL Solutions

 Speaker: Mr. Stefano Traversi, Lead Sales Executive, Appliances and HVACR





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8. EMI: statistics of PG-RDC group



Speaker: Mr. Yannick Cotrelle - Market Intelligence Manager Eurovent Market Intelligence





Be aware that without market collection, there is no longer a solid basis for substantiating Eurovent PG-RDC's position with legislators





Coffee break

Join us in the foyer

See you again in 30 minutes!



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9. **F-GAS**

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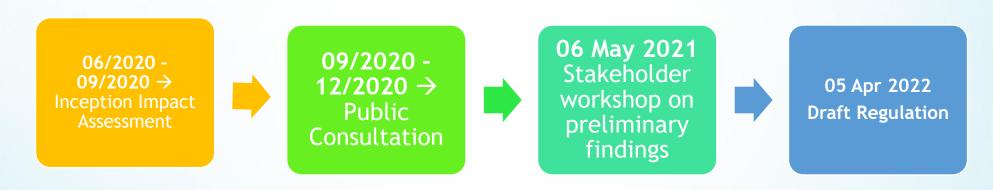
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update on recent Eurovent activities and position

EUROVENT SUMMIT ANTALYA 25-28 OCT 2022

It's been a quite long process









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9. F-GAS

ANTALYA 25-28 OCT 2022

update on recent Eurovent activities and position



New EU F-Gas Regulation - Draft 5th April 2022

The Regulation will be directly applicable in all Member States

29th June 2022 deadline for public comment on the "Have your say" portal

In late autumn the negotiation between Member States and European Parliament will start - now Committees at work

Entry into force expected for beginning of 2024

EUROVENT SUMMIT

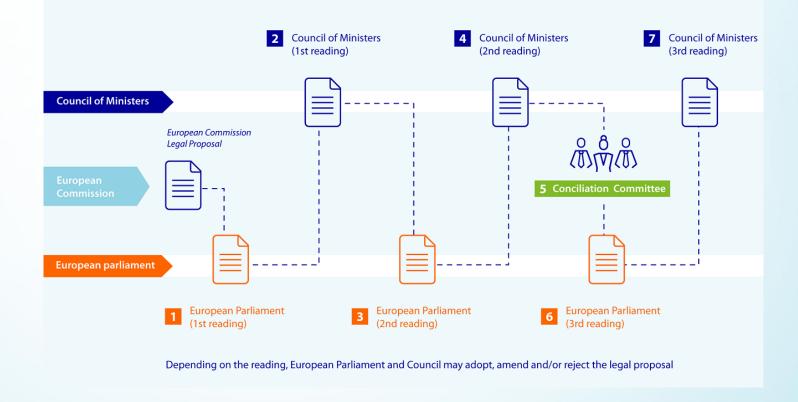
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9. F-GAS

update on recent Eurovent activities and position

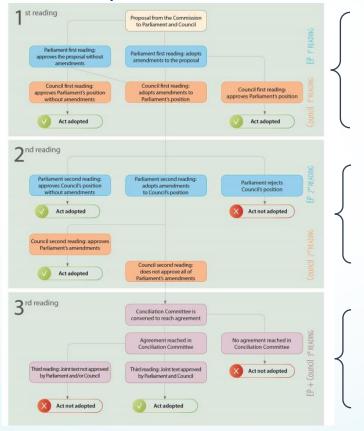
The Ordinary Legislative procedure





update on recent Eurovent activities and position

The Ordinary Legislative procedure – more in detail



EUROVENT SUMMIT ANTALYA 25-28 OCT 2022 # B u i l d i n g B r i d g e s

No deadlines

3+1 months EP 3+1 months EC

4+2 weeks EP 4+2 weeks EC

Thursday, 27 October 2022 Meeting of PG-RDC 57



update on recent Eurovent activities and position



Key Figures





ITRE

+ Shadow Rapporteurs



update on recent Eurovent activities and position



Next steps

- Beginning of October: draft opinion of rapporteurs circulated
- The discussion in the ITRE Committee is foreseen on 26 October
- 27 October is the deadline for amendments for the ITRE committee
- On 07 November there should be the discussion within ENVI on the report of Mr. Bas Eickhout
- 15 November is the deadline for amendments for the ENVI committee



update on recent Eurovent activities and position



Context



European Green Deal, European Climate Law and the enhancement of the contribution under the Paris Agreement on Climate Change require reinforcing all instruments relevant for decarbonisation of EU \rightarrow -55% GHG emission by 2030 and climate neutrality by 2050.

- F-gas emissions amount to 2,5% of EU's total GHG emissions but doubled from 1990 to 2014.
- Kigali Amendment to implement a global HFC phase-down.
- The actual Regulation 517/2014 cannot fully ensure compliance with all the obligations. Nevertheless, the supply of HFCs has declined by 37% in metric tonnes and 47% in terms of tonnes CO_2 equivalent from 2015 until 2019.





update on recent Eurovent activities and position

Context





REPowerEU (published a month and a half after the proposal): The RePowerEU Plan envisions an additional 20 million new heat pumps to be installed in the Union by 2026 and nearly 60 million by 2030.*

*Source: Amendment 1, recital 4(a) of the draft opinion of the Committee on Industry, Research and Energy. Rapporteur Sara Skyttedal

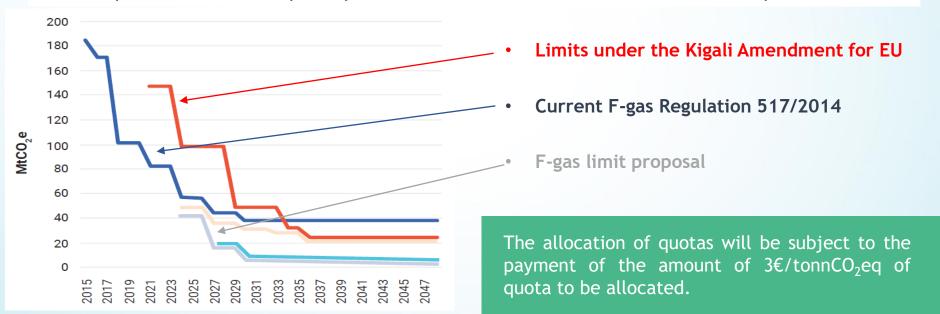


EUROVENT SUMMIT ANTALYA 25-28 OCT 2022

update on recent Eurovent activities and position

Main Contents of the draft proposal

1. New phase-down for the quota system. It will start in 2024 and will be extended up to 2050.





EUROVENT SUMMIT ANTALYA 25-28 OCT 2022

update on recent Eurovent activities and position



Proposed bans in Annex IV			
(11) Refrigerators and freezers for commercial use (self-contained equipment)	-that contain HFCs with GWP of 2 500 or more.	1 January 2020	
	-that contain HFCs with GWP of 150 or more.	1 January 2022	
	-that contain other fluorinated greenhouse gases with GWP of 150 or more.	1 January 2024	
12) Any self-contained refrigeration equipment that contains fluorinated gr	1 January 2025		
13) Stationary refrigeration equipment that contains, or whose functioning except equipment intended for application designed to cool products to temperatures below	1 January 2020		
(14) Stationary refrigeration equipment, that contains, or whose functioning with GWP of 2 500 or more except equipment intended for application designed to cool pro	1 January 2024		
(15) Multipack centralized refrigeration systems for commercial use with a rated capacity of 40 kW or more that contain, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 150 or more, except in the primary refrigerant circuit of cascade systems where fluorinated greenhouse gases with a GWP of less than 1 500 may be used.		1 January 2022	



EUROVENT SUMMIT ANTALYA 25-28 OCT 2022

update on recent Eurovent activities and position

Main Contents of the draft proposal

3. The GWP of HFCs is based on the Fourth Assessment Report adopted by the IPCC

Substance	GWP
R32	675
R134a	1430
R410a	2088

4. The GWP of HFOs is based on the Sixth Assessment Report adopted by IPCC

Substance	GWP
R1234yf	0,5
R1234ze	1,37



update on recent Eurovent activities and position

Main Contents of the draft proposal

- 6. Rules extended to HFO refrigerants.
- Operators of stationary equipment containing HFCs and HFOs shall ensure that the recovery of those gases is carried out by certified persons and that those gases are recycled, reclaimed or destroyed.
- Any HFCs or HFOs recovered shall not be used for filling or refilling equipment unless the gas has been recycled or reclaimed.
- Member States shall establish or adapt certification programmes, ensure training on practical skills and theoretical knowledge for person dealing with HFCs, HFOs and other relevant alternatives to fluorinated greenhouse gases.





update on recent Eurovent activities and position

Don't forget PFAS



Substance name	EC / List no	CAS no C	Status 🗢	Expected date of submission	Submitter(s) ◆	Details on the scope of restriction
Per- and polyfluoroalkyl substances (PFAS)	-	-	Intention	13-Jan-2023	Germany Denmark Netherlands Norway Sweden	Restriction on manufacture, placing on the market and use of PFAS.

PFAS are defined as substances that contain at least one fully fluorinated methyl (CF3-) or methylene (-CF2-) carbon atom (without any H/Cl/Br/I atom attached to it).



EUROVENT SUMMIT ANTALYA 25-28 OCT 2022

update on recent Eurovent activities and position

Ongoing Activities

In 2022 the Eurovent Task Force "FGAS" met 11 times, and another meeting was held yesterday, 26 October in Antalya.

The last position paper drafted by the TF-FGAS includes a general statement on the historical and unique context in which the revision of this regulation is taking place and a set of amendments to the European Commission's proposal.

The aim of the set of amendments is to contribute to the gradual phasing-down of fluorinated greenhouse gases while leaving enough time and solutions to the industry to reach the goals that Europe set on decarbonisation and consequently deployment of the heat pump technology.



update on recent Eurovent activities and position

EUROVENT SUMMIT ANTALYA 25-28 OCT 2022

Ongoing Activities

In the meanwhile, the Committees ENVI and ITRE circulated their first documents on the Regulation on Fluorinated Greenhouse Gases proposed by the European Commission. These will also be addressed during the next TF-FGAS meeting.

ENVI draft Report: https://www.europarl.europa.eu/doceo/document/ENVI-PR-737211_EN.pdf

ITRE draft Opinion: https://www.europarl.europa.eu/doceo/document/ITRE-PA-737218_EN.pdf



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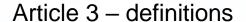
Article 3 – definitions

Original text	Eurovent suggested modification
'hermetically sealed equipment'	'hermetically sealed equipment'
means equipment in which all	means equipment in which all
fluorinated greenhouse gas	fluorinated greenhouse gas
containing parts are made tight	containing parts are made tight by
during its manufacturing process	welding, brazing or a similar
at the premises of the	permanent connection, which may
manufacturer by welding, brazing	include capped valves or capped
or a similar permanent connection,	service ports that allow proper
which may include capped valves	repair or disposal, and which have a
or capped service ports that allow	tested leakage rate of less than 3
proper repair or disposal;	grams per year under a pressure of
	at least a quarter of the maximum
	allowable pressure;

Original text	Eurovent suggested modification
- (new proposal)	(x) Self-contained equipment
	Complete factory-made
	refrigerating system in a
	suitable frame and/or
	enclosure, that is fabricated and
	transported in one or more
	sections and in which no
	refrigerant containing parts are
	connected on site other than by
	companion or block valves.



update on recent Eurovent activities and position





Original text	Eurovent suggested modification	
- (new proposal)	(x) Refrigeration system	
	Combination of refrigeration equipment interconnected in field constituting one closed refrigeration circuit	

Original text	Eurovent suggested modification
- (new proposal)	(x) Power Rack
	Equipment consisting of a
	combination of two or more
	compressors intended to be
	connected to a condenser in a
	refrigeration system



update on recent Eurovent activities and position



Annex IV – subclauses 11,12

Original text	Eurovent suggested modification	Original text	Eurovent suggested
Refrigerators and freezers for commercial use (self-contained equipment)	Refrigerators and freezers for commercial use (hermetically sealed	Any self-contained refrigeration equipment that contains fluorinated greenhouse gases with GWP	Eurovent suggested modification Any stationary self-contained refrigeration equipment (except chillers) that contains fluorinated greenhouse gases with GWP of 5 or more. 1 January 2024
more. 1 January 2022 -that contain other fluorinated greenhouse gases with GWP of 150 or more. 1 January 2024	-that contain HFCs with GWP of 150 or more. 1 January 2022		



update on recent Eurovent activities and position



Annex IV – subclauses 14,15

Original text

Stationary refrigeration equipment, that contains, or whose functioning relies upon, fluorinated greenhouse gases with GWP of 2 500 or more except equipment intended for application designed to cool products to temperatures below – 50 °C. 1 January 2024

Eurovent suggested modification

Stationary refrigeration equipment, that contains, or whose functioning relies upon, fluorinated greenhouse gases with GWP of 150 or more except equipment intended for application designed to cool products to temperatures below -50 °C and except process chiller. 1 January 2024

Original text

Multipack centralized refrigeration systems for commercial use with a rated capacity of 40 kW or more that systems, power racks and/or contain, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 150 or more, except in the primary refrigerant circuit of cascade systems where fluorinated greenhouse gases with a GWP January 2024 of less than 1 500 may be

used. 1 January 2022

Eurovent suggested modification

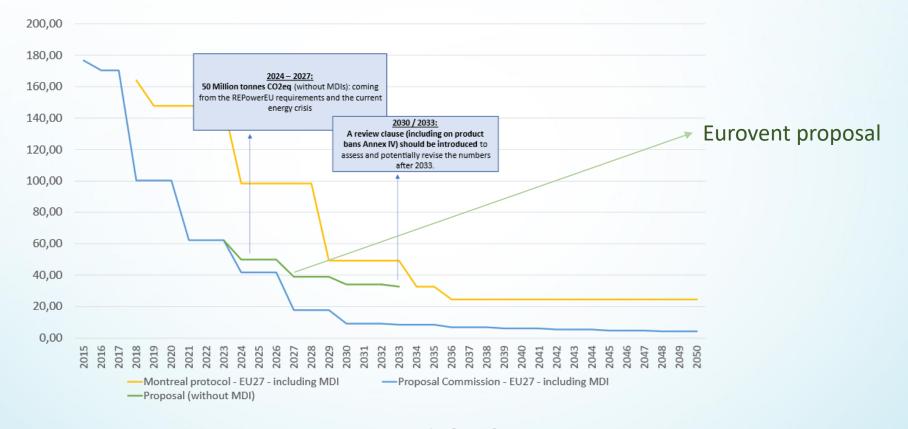
Stationary refrigeration refrigerated remote cabinets assembly with a total rated capacity of 10 kW or more that contain, or whose functioning relies upon, fluorinated greenhouse gases with GWP of 5 or more, except chillers. 1



9. F-GAS

update on recent Eurovent activities and position







Agenda



- 1. Introduction, meeting rules
- 2. Attendances
- 3. Approval of the Draft Agenda
- 4. Approval of the Minutes of the last meeting
- 5. EPREL Database
- 6. Ecodesign and Energy Labelling

- 7. What's new in IEC 60335-2-89 last 2019 release?
- 8. EMI: statistics of PG-RDC group
- 9. F-GAS



- 10. <u>Environmental Product Declaration</u>
 (EPD) and Product Category Rules (PCR)
- 11. Upcoming agenda items
- 12. Announcements, updates on Eurovent activities
- 13. Next meeting(s)



on building level.

10. Environmental Product Declaration (EPD) and Product Category Rules (PCR)



Overview of ongoing activities and proposal to set up a relevant Task Force

What is an environmental declaration?

Information on the environmental performance of a product, i.e about the impact and ways of impact the product has on the climate and the environment throughout its life cycle.

Evaluation of environmental performance is based on the Life Cycle Assessment (LCA)
The resulting environmental declaration (most common, EPD) is typically used as input for an LCA

What is LCA?

Life Cycle Assessment is a well-established method for the systematic analysis of the potential environmental impacts of products or services during their entire life cycle.

A general framework for LCA is established in standards ISO 14040 and ISO 14044 which provide a broad scale of applicability but with limited granularity.





Overview of ongoing activities and proposal to set up a relevant Task Force

What are Product Category Rules (PCRs)?

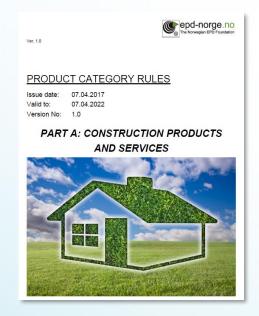
- ISO standards for LCA calculations for EPDs are general.
- Guidance on preparation of EPDs for product group is supplemented in product category rules (PCRs)
- EN 15804 gives a generic PCR for construction products (no use phase & energy consumption).
- The scenario for energy is defined by an EPD programme operator.
- A c-PCR (complementary) may be developed for a specific product group by the EPD programme operator.





Overview of ongoing activities and proposal to set up a relevant Task Force

Product Category Rules / c-PCR - example



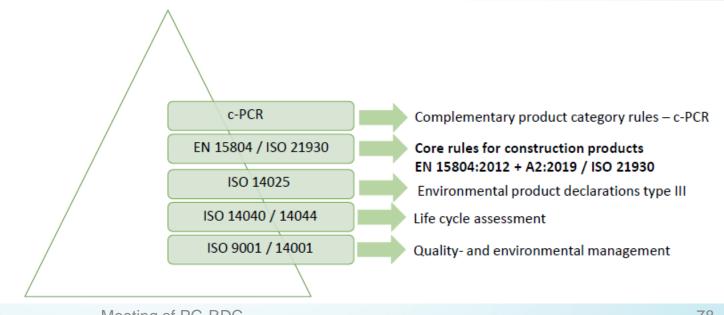






Overview of ongoing activities and proposal to set up a relevant Task Force

Hierarchy of standards for construction products

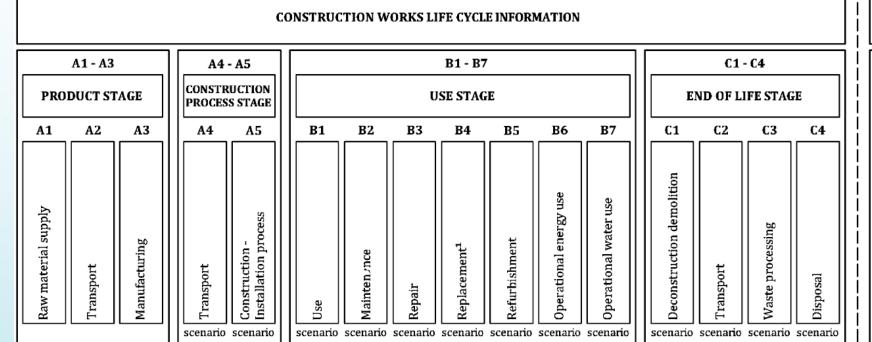






Overview of ongoing activities and proposal to set up a relevant Task Force

Life Cycles for constr uction works (EN 15804)



SUPPLEMENTARY
INFORMATION BEYOND
CONSTRUCTION WORKS
LIFE CYCLE

D

BENEFITS AND LOADS BEYOND
THE SYSTEM BOUNDARY

D

Reuse, recovery,
recycling, potential

Thursday, 27 October 2022

Meeting of PG-RDC

79





Overview of ongoing activities and proposal to set up a relevant Task Force

Core enviro nment al impact indicat ors (EN 15804)

Impact category	Indicator	Unit (expressed per functional unit or per declared unit)
Climate change – total ^a	Global Warming Potential total (GWP-total)	${\rm kgCO}_2$ eq.
Climate change - fossil	Global Warming Potential fossil fuels (GWP-fossil)	${\rm kgCO_2}$ eq.
Climate change - biogenic	Global Warming Potential biogenic (GWP-biogenic)	${\rm kg}{\rm CO}_2$ eq.
Climate change - land use and land use change b	Global Warming Potential land use and land use change (GWP-luluc)	kg CO ₂ eq.
Ozone Depletion	Depletion potential of the stratospheric ozone layer (ODP)	kg CFC 11 eq.
Acidification	Acidification potential, Accumulated Exceedance (AP)	mol H+ eq.
Eutrophication aquatic freshwater	Eutrophication potential, fraction of nutrients reaching freshwater end compartment (EP-freshwater)	kg PO $_4$ eq.
Eutrophication aquatic marine	Eutrophication potential, fraction of nutrients reaching marine end compartment (EP-marine)	kg N eq.
Eutrophication terrestrial	Eutrophication potential, Accumulated Exceedance	mol N eq.

Impact category	Indicator	Unit (expressed per functional unit or per declared unit)
	(EP-terrestrial)	
Photochemical ozone formation	Formation potential of tropospheric ozone (POCP);	kg NMVOC eq.
Depletion of abiotic resources - minerals and metals ^c d	Abiotic depletion potential for non- fossil resources (ADP- minerals&metals)	kg Sb eq.
Depletion of abiotic resources - fossil fuels ^C	Abiotic depletion for fossil resources potential (ADP-fossil)	MJ, net calorific value
Water use	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	m^3 world eq. deprived

kg Sb eq.

MJ

m3e depr.

3,04E-03

3,21E+03

1,20E+02

2,45E-07

3,69E+01

2,57E-02

3,66E-05

4,77E+01

2,60E+00



10. Environmental Product Declaration (EPD) and Product Category Rules (PCR)



#Buildina Bridaes

Overview of ongoing activities and proposal to set up a relevant Task Force

Environmental impact category	Unit	A1	AZ	А3	total	A4	В4	В6	C1	C2	C3	C4	D
Global warming potential (GWP) – fossil	kg CO2e	2,30E+02	2,77E+00	3,28E+00	2,36E+02	5,89E-01	1,57E+01	2,04E+02	1,63E-02	3,70E-02	2,02E+01	2,75E-02	-1,21E+0
Global warming potential (GWP) - biogenic	kg CO2e	5,58E+00	-3,24E-03	-8,66E-01	4,71E+00	-6,90E-04	2,11E-01	1,91E-02	1,28E-05	-4,45E- 05	3,17E+00	-7,98E- 04	1,56E+0
Global warming potential (GWP) - luluc	kg CO2e	1,72E-01	2,26E-02	1,67E-02	2,11E-01	4,80E-03	1,01E-02	3,87E-02	1,39E-06	3,06E-04	2,62E-02	8,07E-05	-4,27E-0
Global warming potential (GWP) - total	kg CO2e	2,36E+02	2,79E+00	2,43E+00	2,41E+02	5,93E-01	1,59E+01	2,04E+02	1,63E-02	3,73E-02	2,34E+01	2,67E-02	-1,20E+(
Ozone depletion (ODP)	kg CFC11e	5,56E-06	5,46E-16	3,19E-07	5,88E-06	1,16E-16	1,83E-06	1,41E-13	3,51E-09	7,38E-18	1,12E-11	1,07E-16	-1,68E-0
Acidification (AP)	mol H+e	9,20E-01	1,13E-02	1,92E-02	9,50E-01	2,29E-03	9,09E-02	7,37E-02	1,70E-04	4,17E-04	3,61E-02	1,96E-04	-4,49E-0
Eutrophication (EP) – freshwater	kg PO4e	3,28E-02	8,22E-06	1,41E-03	3,42E-02	1,75E-06	4,78E-03	3,28E-05	4,91E-07	1,11E-07	4,37E-05	4,61E-08	-1,42E-
Eutrophication (EP) – freshwater	kg Phosphate eq.	1,87E-01	1,89E-03	9,10E-03	1,98E-01	3,84E-04	4,78E-02	7,31E-03	2,89E-05	7,22E-05	4,35E-03	1,76E-05	-3,01E-0
Eutrophication (EP) – marine	kg Ne	1,78E-01	5,33E-03	9,48E-03	1,93E-01	1,08E-03	2,68E-02	2,00E-02	7,53E-05	2,11E-04	1,04E-02	5,08E-05	-7,35E-
Eutrophication (EP) – terrestrial	mol Ne	1,71E+00	5,92E-02	6,15E-02	1,83E+00	1,20E-02	1,86E-01	2,19E-01	8,24E-04	2,32E-03	1,14E-01	5,58E-04	-7,94E-
Photochemical ozone formation (POCP)	kg NMVOCe	5,08E-01	1,22E-02	1,43E-02	5,35E-01	2,40E-03	6,40E-02	5,42E-02	2,26E-04	3,87E-04	3,46E-02	1,54E-04	-2,42E-

A1-A3

Sample EPD report

Depletion of abiotic resources

Depletion of abiotic resources

(ADP) - minerals & metals1

Water deprivation potential

(ADP) – fossil fuels1

(WDP)1

3,08E-03

3,29E+03

1,23E+02

5,21E-08

7,83E+00

5,45E-03

1,59E-04

3,08E+02

1,23E+01

2,54E-04

2,02E+02

3,53E+02

6,57E-09

2,22E-01

5,34E-04

3,31E-09

3,47E-04

4,87E-06

2,02E+02

1,28E+00

2,59E-09

2.95E-03

-1,79E-03

-1,40E+03

-5,06E+01





Overview of ongoing activities and proposal to set up a relevant Task Force

Environmental Product Declaration (EPD)

- EPD, which is an ISO type III Environmental Declaration according to ISO 14025 standard, must be verified by an independent third-party.
- Available environm ental declarations
- Commonly adopted in the building industry (acc. CPR 305/2011 EPDs are voluntary to assess the sustainable use of resources and the environmental impact of construction works).
- EPDs are developed based on ISO 14025 and EN 15804 which provides the core rules for the product category of construction products





Overview of ongoing activities and proposal to set up a relevant Task Force

Types of EPD

- Generic EPDs are based on datasets, not specific to a certain product or project, but representing an average for a product category
 - representative set of suppliers (min. 80%), typically for a specific geographical market – Industry average EPDs
- Product specific EPD containing specific data for a certain product coming from one specific manufacturer
 - covering the environmental footprint from transportation from the supplier to the specific construction site – project specific EPDs

Available environm ental declarations





Overview of ongoing activities and proposal to set up a relevant Task Force

Who can issue an EPD?

- ISO 14025 requires that an EPD must be independently verified.
- In practice data are verified by a third party licensed by an EPD programme operator, and the EPD is registered in the system of the EPD programme operator
- Cost of the EPD development ranges 17.000 to 50.000+ EUR
- Annual fee for registation in EPD libraries: 1.000 3.000 EUR





Overview of ongoing activities and proposal to set up a relevant Task Force

Many EPD programme operators in Europe / other continents

- International EPD System (Sweden) first world's operator
- Association P.E.P (France), French EPD = PEP ecopassport
- Institut Bauen und Umwelt IBU (Germany)
- EPD Norge (Norway)
- KITECH (Korea)

not all of them mutually recognise EPDs nor <u>Product Category</u> <u>Rules (PCRs)</u>

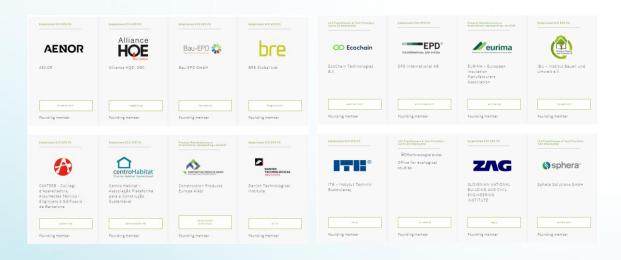


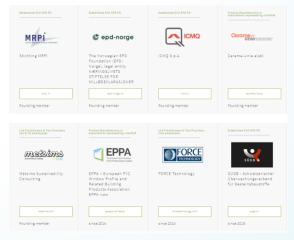


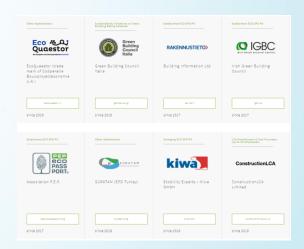
Overview of ongoing activities and proposal to set up a relevant Task Force

eco-platform.org

Umbrella association of EPD programme operators











Overview of ongoing activities and proposal to set up a relevant Task Force

Are EPDs mandatory for Eurovent products?

NOT for the time being, but

- ongoing developments in many Member States related to the integration of LCA calculations in the national Building Codes
 - Several voluntary schemes for assessing the sustainability and environmental performance of buildings

Force HVACR manufacturers to draw up EPDs for their products





Overview of ongoing activities and proposal to set up a relevant Task Force

National Implementations

French RE2020 building regulation

considers the carbon footprint of buildings and requires LCA analisys of materials and equipment (applies as of July 2022)

LCA based on default data, if a supplier has no EPD for its product, or based on EPD if available

Danish building regulation (mandatory in 2023)

limit on CO2 emission of the building live determined based on LCA





Overview of ongoing activities and proposal to set up a relevant Task Force

Regulatory Forecast

Construction Product Regulation (CPR)

The revision of CPR aims to progressively introduce mandatory environmental declarations in the construction product family and to link requirements to the product placing on the market.

Sustainable Products Initiative (SPI) – Ecodesign Requirements for Sustainable Products

The European Commission has worked on the "Sustainable Products Initiative" that is now a proposal for a Regulation, under the name "Proposal for a regulation of the European parliament and of the council establishing a framework for setting ecodesign requirements for sustainable products (ESPR) and repealing Directive 2009/125/EC". The ordinary legislative procedure has officially started, a

The ordinary legislative procedure has officially started, a plenary vote on it could take place around mid-2023.





Overview of ongoing activities and proposal to set up a relevant Task Force

Regulatory Forecast

Product Environmental Footprint (PEF)

- The European Comission has been working on the development of a harmonised methodology for calculation of the Product Environmental Footprint (PEF) since 2012.
- PEFs are in the scope of the Sustainable Product Policy Initiative (SPI) and addressed in the new proposed Ecodesign for Sustainable Products Regulation (ESPR).
- It is expected that with time, PEF and the Digital Product Passport (DPP) will be introduced also in the updated Methodology for Ecodesign of Energy-related Products (MEErP)

Differences between PEF and EPD

The PEF is based on and identical to the Environmental Product Declarations (EPD) initiated and developed by the US Green Building Council (https://www.environdec.com/about-us/global-house-of-epd). The data provided in EPDs are not to compare the environmental performance of respective products. They are used to assess LCA for the entire building, this is why the European Commission has been working on PEF and PEFCR for a decade now on.





Overview of ongoing activities and proposal to set up a relevant Task Force

General Recap

- Lack of PCR harmonisation and EPD recognision
- New national construction regulations addressing the reduction of Whole Life Carbon (WLC) of Buildings
- Indirect forcing HVACR manufacturers to develop EPDs (high cost)
- Expected future mandatory EPDs / PEFs ESPR expected publication in 2023

-> What should / can Eurovent do about this?





Overview of ongoing activities and proposal to set up a relevant Task Force

The Eurovent Commission on 2 September identified PEF/EPD as a priority for the near future And consequently, a dedicated Taskforce will be set up



Before the end of the meeting



- 11. Upcoming agenda items
- 12. Announcements
- 13. Next Meeting

2023 CALENDAR

JANUARY										
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End of meeting

See you soon and enjoy the rest of the **EUROVENT**SUMMIT!





Building Bridges