

Regulatory Updates

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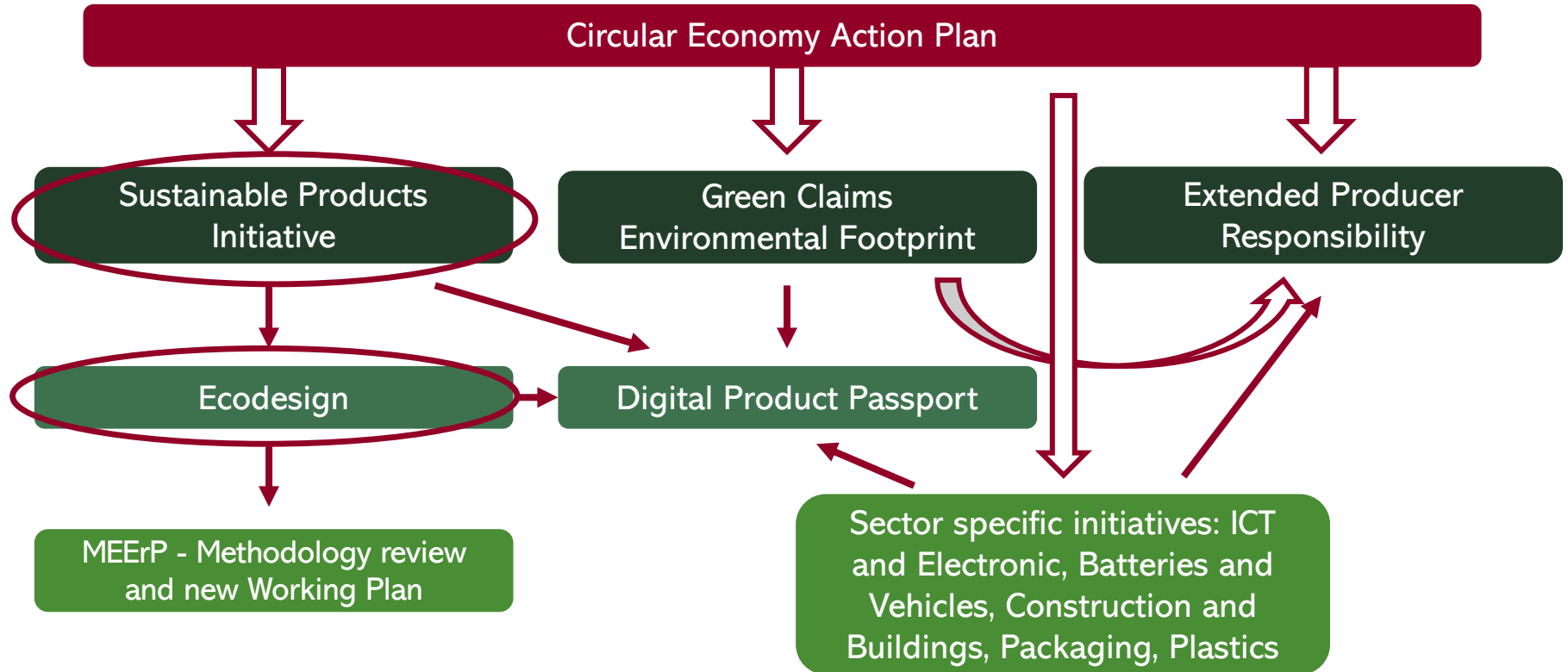
Agenda

1. SPI - Ecodesign for Sustainable Products Regulation
2. ENTR Lot 1 Condensing Units
3. F-Gas Regulation
4. PFAS under REACH @ *ASERCOM* Convention

SPI → Ecodesign for Sustainable Products Regulation (ESPR)

Circular Economy Action Plan

Context behind SPI

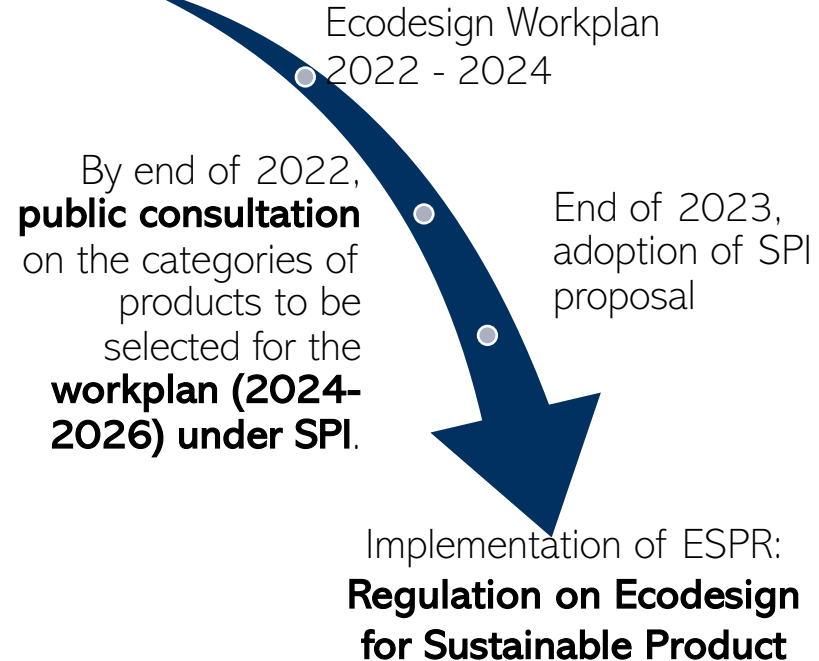


SPI → Ecodesign Directive → ESPR

WHAT CHANGES:

- The SPI will repeal and **replace** the existing Ecodesign Directive (Directive 2009/125/EC),
- The SPI will expand the scope of the framework **beyond energy-related products**,
- **New categories** of ecodesign requirements (e.g. concerning durability, reusability, upgradeability and reparability) introduced.
- The **last** Ecodesign and Energy Labelling **Working Plan 2022-2024** under the Ecodesign Directive.

SPI proposal publication



Sustainable Products Initiative

- *Introducing circularity requirements and moving beyond electronics*
- *Products to be climate neutral, circular, resource efficient, and reduce waste*
- *Extend the scope and track substances of concerns in products*
- *Requirements for product design, production and waste management are extended*
- *In addition, it can be expected that legislators will push for more reporting requirements along the supply chain and increase sustainability product requirements for CE labelling*



Establishing overarching product **sustainability principles**



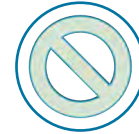
Establishing EU rules to make producers **responsible** for providing more circular products and intervening before products become waste



Setting mandatory minimum **sustainability requirements** on public procurement of products



Setting requirements on mandatory sustainability labelling and/or disclosure of information in the form of **Digital Product Passport**



Measures to **ban** the destruction of unsold durable goods



Sustainability: Knowing what is in the products...



Legislation intended to help improve sustainability and reduce risk to human health and the environment

- ▶ Regulating large families of substances that have an impact on wide range of materials → Proliferation of substance control laws
- ▶ Steering producers towards greener alternatives and improved materials circularity

Ecodesign and Life Cycle Analysis (LCA)

- ▶ Easier to understand carbon footprint and environmental impact when we know what is in our products

Full Material Disclosure information can be used to advance the “greening” of and by of companies

- ▶ Full Material Disclosure (FMD) is a complete breakdown through IPC 1752 (D)
- ▶ Our customers expect us to stay in compliance – we can be ahead of the curve if we know what is in our products before legislation is ratified

Supplier benefits

- ▶ We do not need to request new info every time a new law comes out - more efficient communications
- ▶ Helps our suppliers in compliance, allows us to give feedback/keep them up-to-date on regulations and stay ahead of the curve, too

It is easier for all of us to “control our destiny” if we know what is in our products!



Ecodesign

Ecodesign ENTR Lot 1

Condensing Units



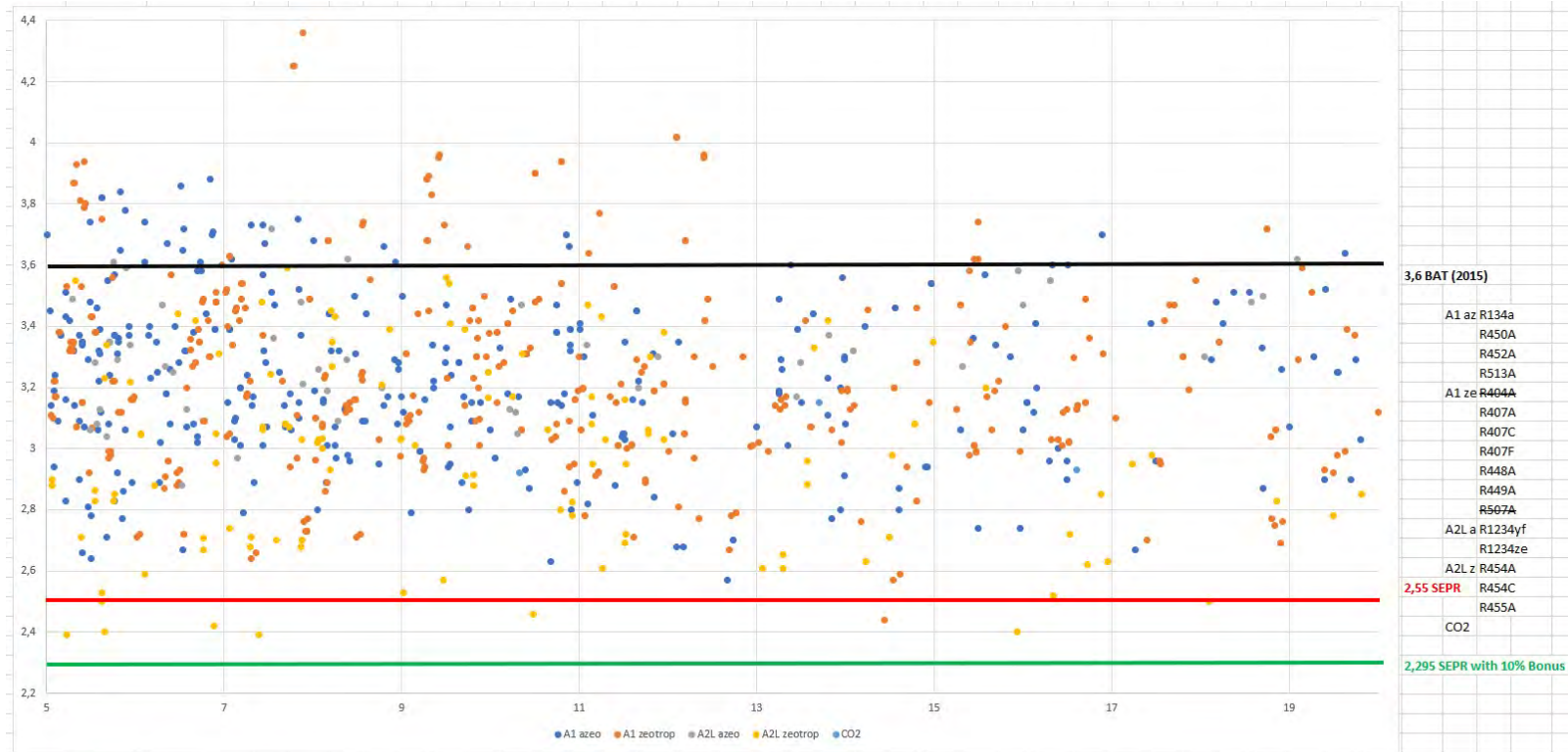
Stakeholder meeting February 2022 – presentation of interim project report

ASERCOM sent statement on more general subjects

ASERCOM WG started a market analysis on condensing unit performance data - (MEPS – minimum efficiency performance standards, either COP for small indoor units or SEPR for larger outdoor units)

Nobert Kaemmer extracted the data in cooperation with the manufacturers

Example of analysis chart for Medium Temp 5-20kW capacity



Ecodesign ENTR Lot 1

Next actions

ASERCOM delegates met with Wuppertal Institute to discuss face to face 14.4.2022

ASERCOM working further on a detailed market/sensitivity analysis (through member-provided and neutralized data) → % eliminated from market by increase of MEPS in steps of 0,05

EN13215 allows to use either mid or dew point for the performance measurement – has to be incorporated into data

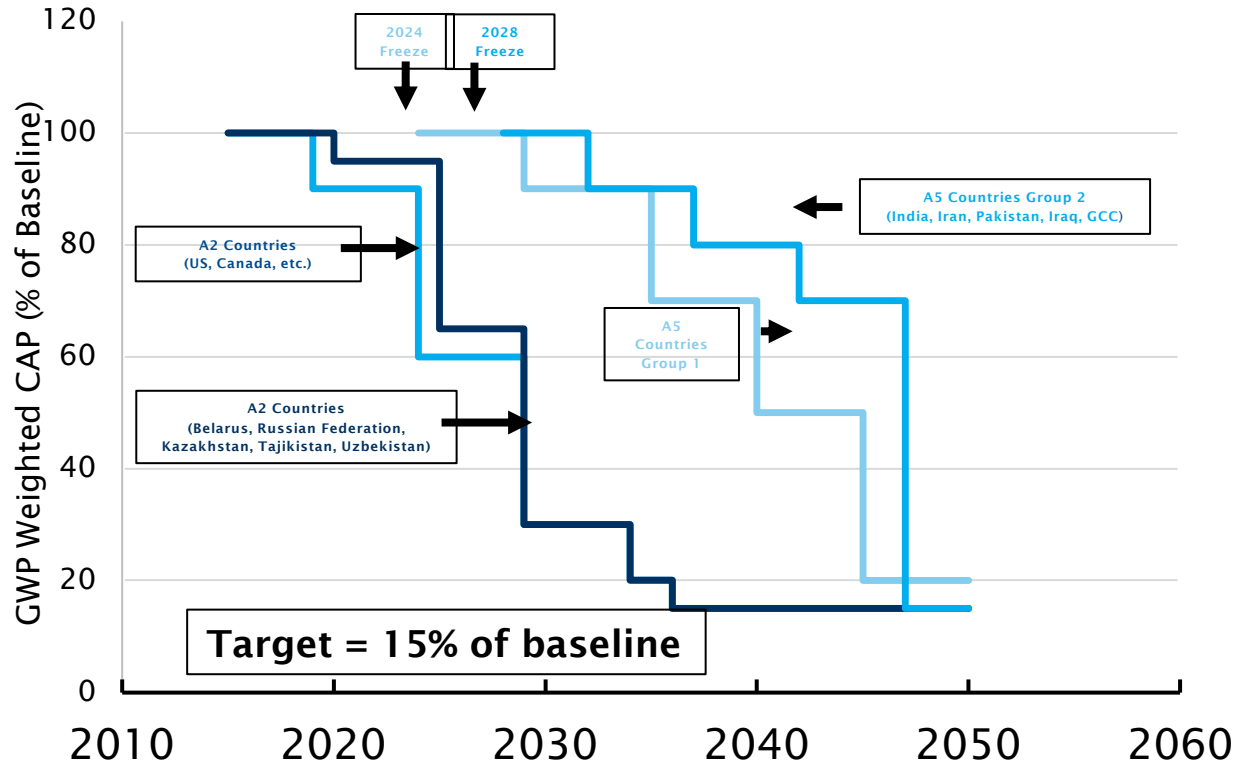
Plan to submit a more detailed proposal to the consultant on the potential of MEPS/Bonus changes end of May 2022

Target: Arrive at industry-acceptable MEPS; avoid Energy Label



Review of the F-Gas Regulation draft 5.4.2022

Kigali Amendment to Montreal Protocol, 15.10.2016



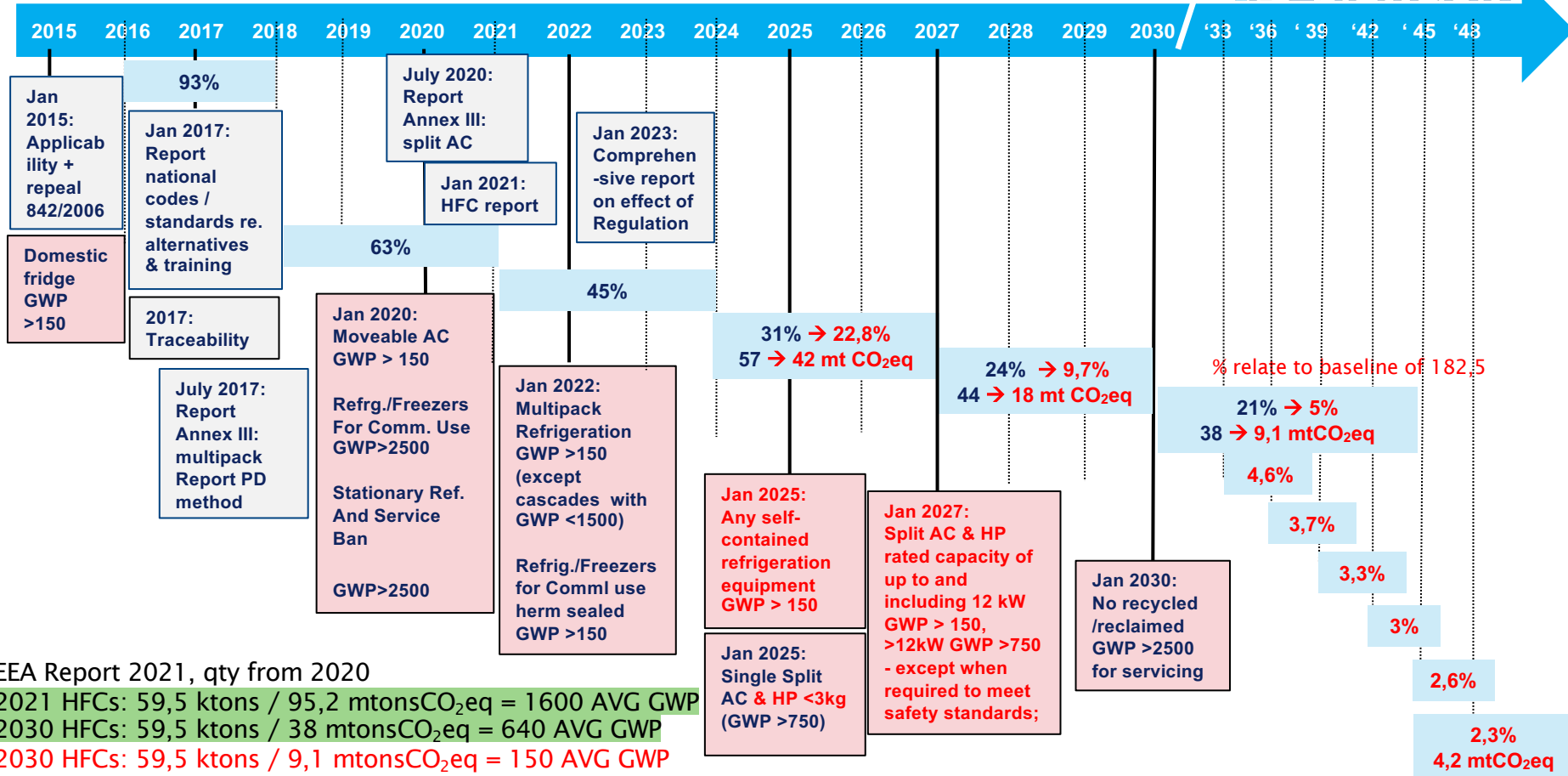
Global agreement on HFC phase-down reached by 197 countries of the world in Kigali, Rwanda “38th Meeting of the Parties to the Montreal Protocol on Substances That Deplete the Ozone Layer”

Kigali Amendment Ratified by 129 Countries

Entered Into Effect 1.1.2019

United States has not ratified the amendment yet; Currently being considered by Senate Foreign Relations Committee.

EU F-Gas – Regulation Current and Proposed



EEA Report 2021, qty from 2020

2021 HFCs: 59,5 ktons / 95,2 mtonsCO₂eq = 1600 AVG GWP

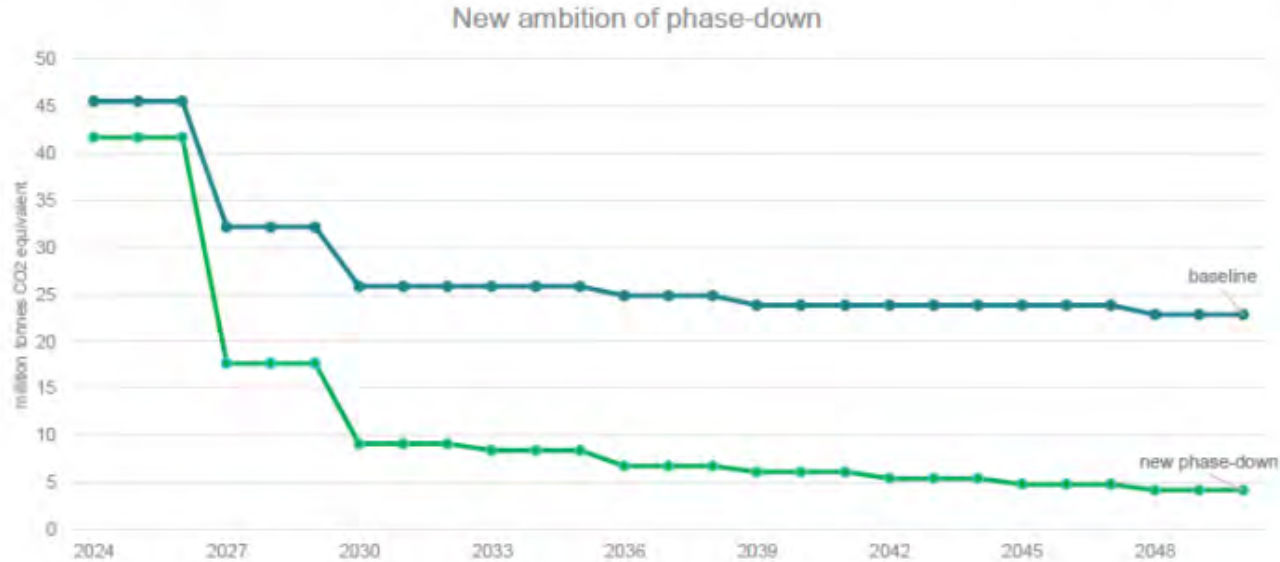
2030 HFCs: 59,5 ktons / 38 mtonsCO₂eq = 640 AVG GWP

2030 HFCs: 59,5 ktons / 9,1 mtonsCO₂eq = 150 AVG GWP

2048 HFCs: 59,5 ktons / 4,2 mtonsCO₂eq = 70 AVG GWP

Phase down proposal (A. Kaschl)

Potential climate impact of new HFCs supplied to the EU market (including in equipment) to be reduced by 98% from 2015 to 2050



Findings so far

PHASE DOWN

Phase down allows just enough quantity for service and maintenance of HVACR equipment

Quota proposal in fact results in no HFC or HFC blends any more for new equipment as of 2027

(Stockpiles of authorization can only be used for imports)

2027 theoretically only naturals and HFOs for new equipment (except when not meeting safety standards, but HFC blends will not be available anyways)

Findings so far

DECARBONIZATION ASPECTS

RePowerEU calls for 30 m Heat Pumps in 2030 – and fossil fuel abatement through Heat Pumps is far above any direct emissions through leakage

Assumption of equal energy efficiency with propane, but neglects charge constraints due to safety

Potential increase of energy consumption expected, especially with indirect systems

2027 bans on split AC/HP >150GWP for <12kW, >GWP750 for >12kW appears obsolete versus the phase down (18 mt CO₂eq)

Findings so far

BANS – IS THE DEVIL IN THE DETAIL?

Ban 12: Any self-contained refrigeration equipment that contains fluorinated greenhouse gases with GWP of 150 or more - 1. January 2025

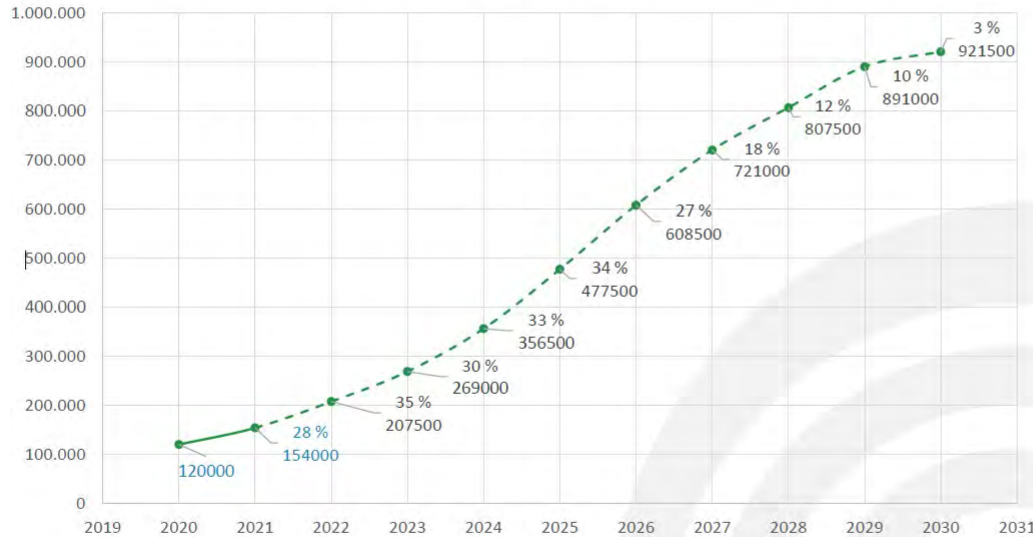
Does this mean that no gas from Annex I >150 GWP may be used in the refrigerant mix?

Definition of self-contained versus of „hermetically sealed“:

- To avoid that companies may circumvent the already existing restriction and avoid that equipment becomes leakier. This would not entail that the definition moves away from the “traditional meaning” of hermetically sealed heat pumps*

Heat Pumps for Decarbonization Supply Chain (BWP): Microchips

Branchenstudie: WP Absatz 2022-2030 (-> 6 Mio. WP in 2030)



*Was considered by
German HP industry
feasible under current
F-gas regulation*

*Not considered
possible under new
draft phase down*

*Plus legal uncertainty
of PFAS under REACH*

Other items

The exemption from the phase-down of metered dose inhalers (MDIs) for pharmaceutical use is removed to align with the consumption phase-down schedule of the Montreal Protocol, where the latter products are not exempted.

Importers and producers that share the same beneficial owner(s) shall be considered as one undertaking for the purpose of the determination of reference values and the allocation of quotas.

The proposal imposes as a condition to trade, a valid license to be presented to customs authorities in cases of import and export.

The proposal imposes a ban on the trade of HFCs with non-Parties to the Protocol, in line with the obligations set out in the Protocol as from 2028.