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Refrigeration | AC & Ventilation | Heat Pumps

13.–15.10.2020

NÜRNBERG MESSE



EU F-Gas Regulation:

where are we &

where are we going?

Dr Arno Kaschl

DG Climate Action

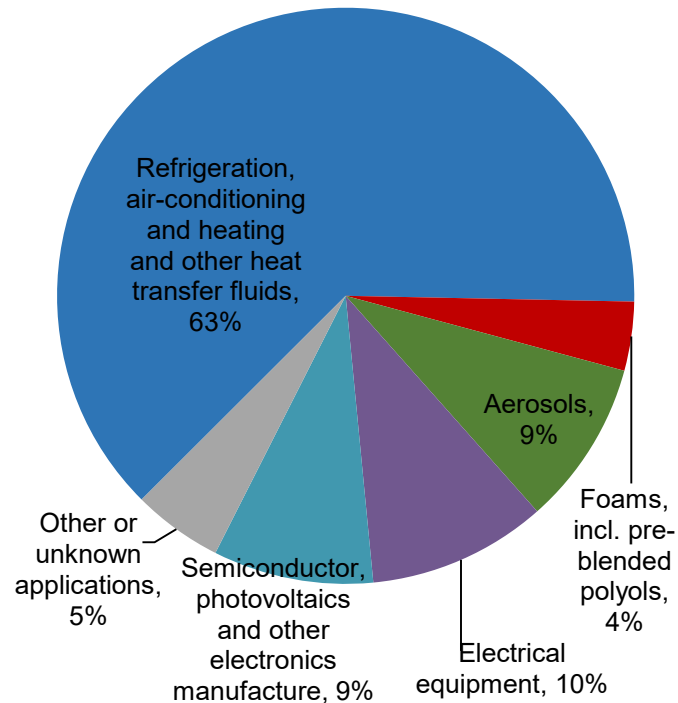
**14 October 2020 Chillventa
EURAMMON lecture event**

eurammon

refrigerants delivered by mother nature

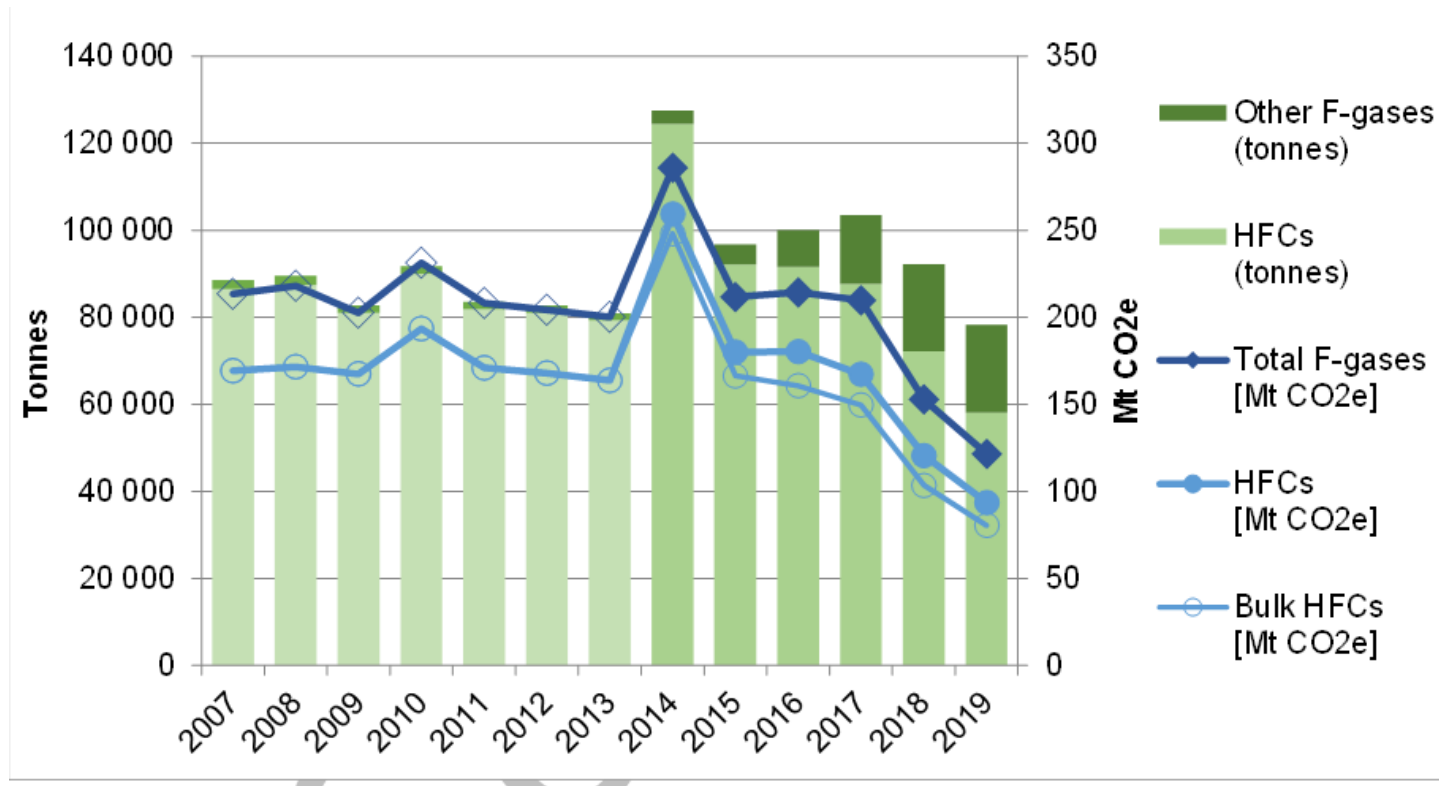
RAC: Still the most important sector using F-gases

2019 EU supply by
intended applications
(% CO₂e)



Source: EEA 2020 report on fluorinated greenhouse gases

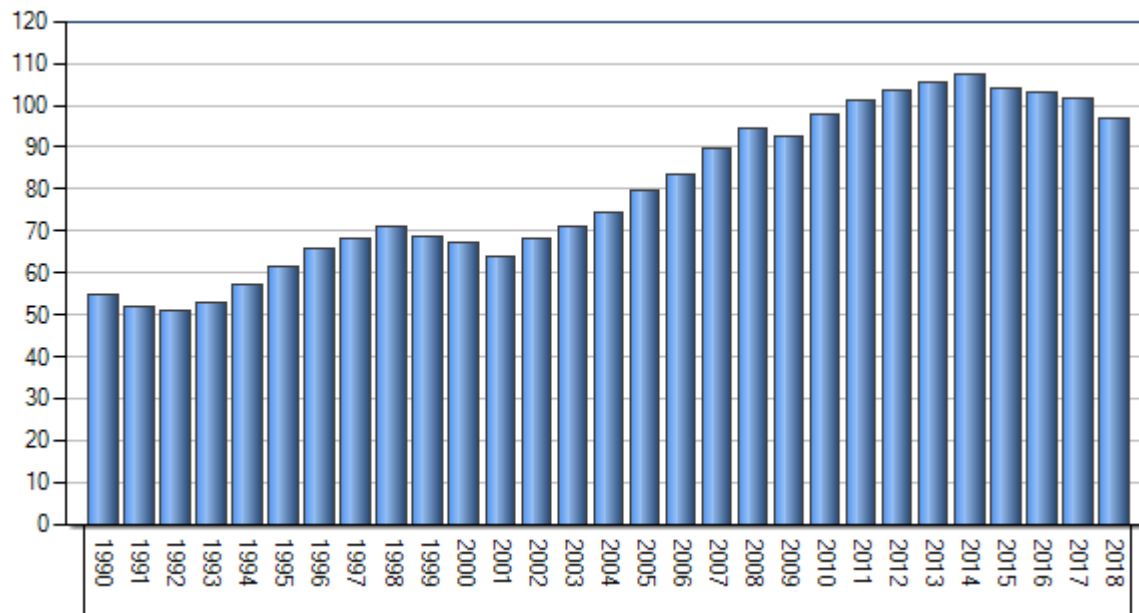
EU Fgas 1st supply to the market is falling



Source: EEA 2020 report on fluorinated greenhouse gases

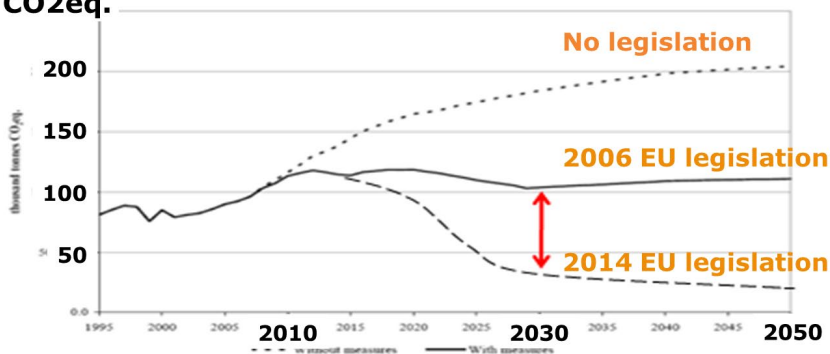
EU Fgas emissions are falling

*Actual Fgas
emissions as
reported to
UNFCCC*



Source: EEA greenhouse gas data viewer

Mt CO2eq.

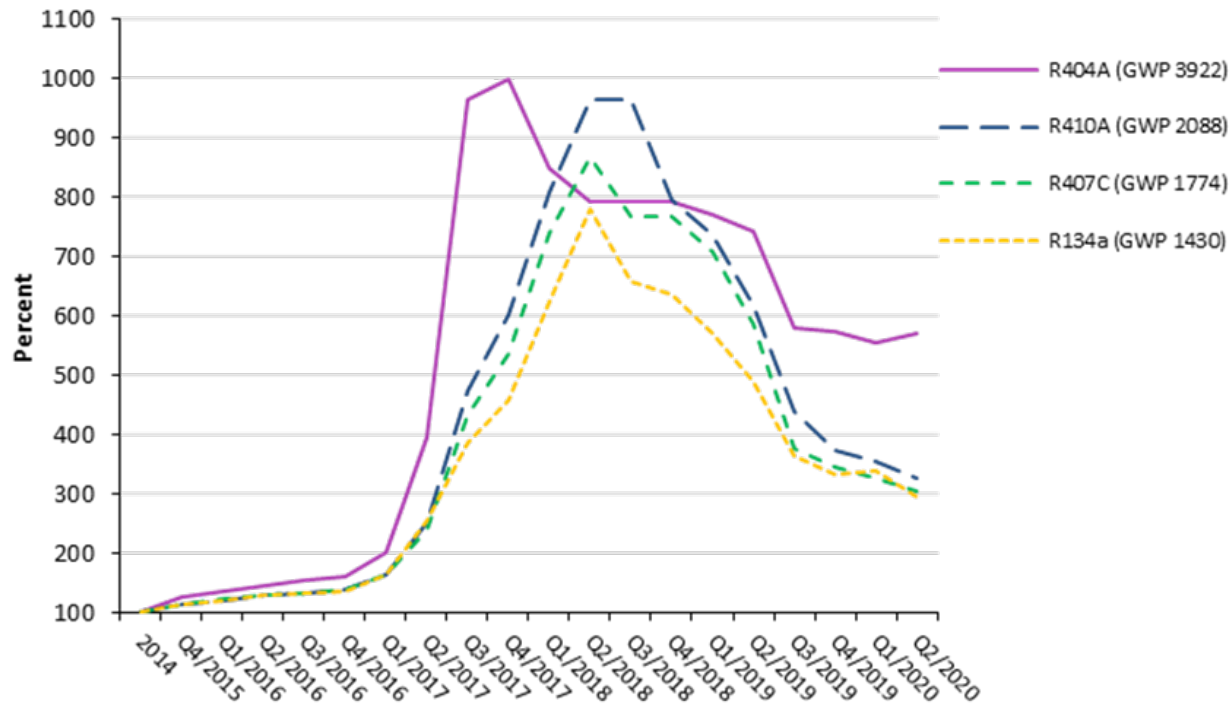


*Fgas emission scenarios
as modelled in 2012*

Source: Impact Assessment

The EU phase-down (HFC quota system) is driving innovation

Gas distributors purchase prices

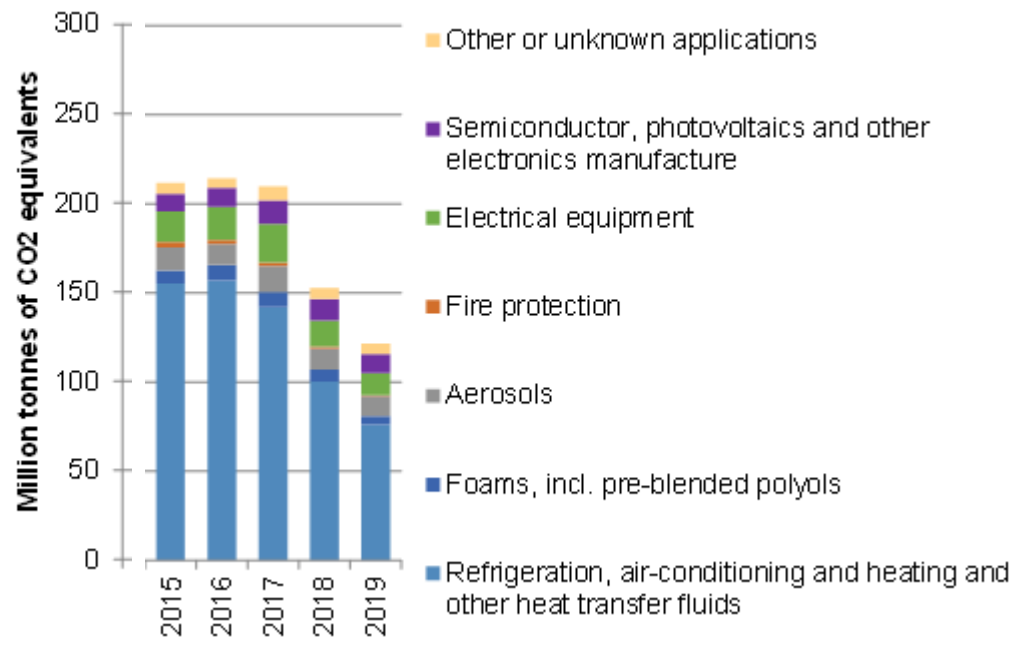
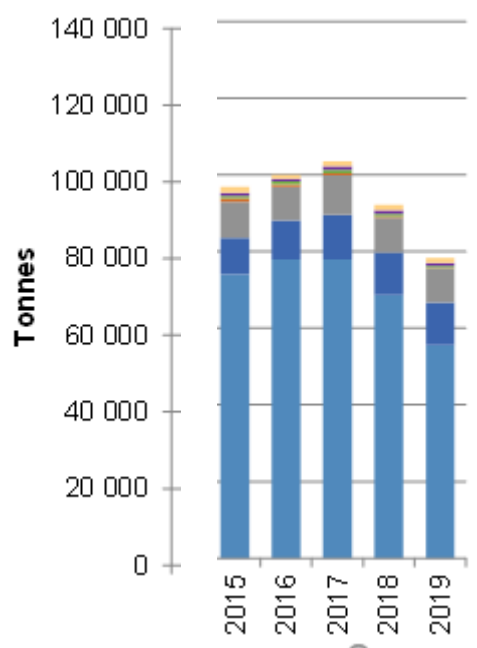


→ prices for high GWP gases rise

→ **Producers, importers, users switch to low GWP**

Increased shift to natural alternatives overall

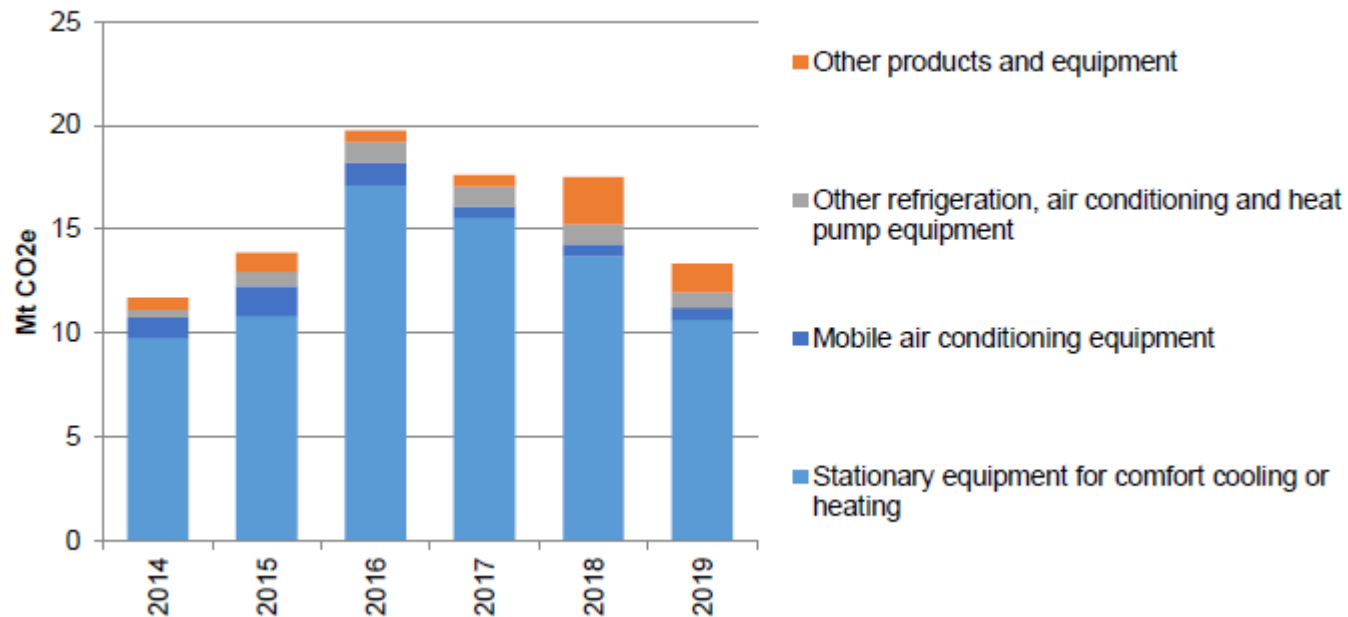
Intended applications of EU total supply of fluorinated gases



Source: EEA 2020 report on fluorinated greenhouse gases

- Stronger decrease in CO2eqs indicates falling GWP of Fgases (44% reduction since 2017)
- Fall in metric tonnes indicates increased contribution of natural refrigerants (CO2, hydrocarbons, ammonia,..)

Shift to more climate-friendly refrigerants in imported products and equipment



Source: EEA 2020 report on fluorinated greenhouse gases

- Total CO₂ equivalents imported inside equipment declines year-on-year from peak in 2016
- Incomplete reporting in early years (2014 & 2015)

European Commission Report on Split AC

- **Technically possible to avoid F-gases today in new single split AC** (below 7 kW) by using the refrigerant R-290 (propane) (unless prohibited by national legislation or codes)
- R-290 units provide good energy efficiency, available at a very modest price increase that would likely disappear if marketed at large scale
- **For larger split units, R410A can today be replaced by R32**, with a better climate impact and comparable or better energy efficiency (unless prohibited by national legislation or codes)
- A number of new mixtures with low GWPs are in the pipeline. A GWP reduction to below 150 may be possible in single split systems in the medium term if the constraints are addressed (e.g. standards and codes)
- Majority of small single split units sold today in the EU do not any longer contain R410A. R32 is also being offered in larger units and other AC systems.

Green Deal and EU climate ambitions

- Stimulate the creation of green jobs and continue the EU's track record of cutting greenhouse gas emissions whilst growing its economy
- Become climate-neutral by 2050 ("European climate law" proposed)
- European Climate Pact to engage citizens and all parts of society in climate action
- 2030 Climate Target Plan: COM proposed a 2030 target of 55% plus based on an assessment of impacts
- Next Generation EU: EU budget including a recovery package, supporting the green and digital transition

Fgas review in the context of the Green Deal

- Planning an F-gas Regulation review: COM proposal end of 2021
=> European Parliament + Council adopts (202?)
- Combine evaluation (how did it work?) and impact assessment (how can we make it better and at what price?)
- Taking into account findings in Commission Reports on AC, SF6, quota)

- **HAVE YOUR SAY!** Open public consultation on past experience and future policy options <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives>

Policy options considered

- *Raising ambition in line with EU Climate ambition*
 - Steeper HFC phase-down?
 - Additional restrictions?
- *Aligning with the Montreal Protocol*
 - Add HFC phase-down steps beyond 2030
 - Remove HFC phase-down exemptions?
- *Improving implementation and enforcement*
 - Link to EU Single Window for customs
 - Clarify obligations for customs and surveillance authorities
 - Prevent misuse of quota system



Thank you

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Public F-gas consultation open until 29.12.2020:

<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12479-Review-of-EU-rules-on-fluorinated-greenhouse-gases/public-consultation>

**Thank you for your
attention.**

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