

The workings of the EU HFC Phase-down and Quota System

GIZ Proklima Side-event

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Geneva

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Öko-Recherche GmbH

- Policy- and industry consulting for over 20 years
- Key topics: Application and emissions of fluorinated gases
- Main clients:
 - European Environment Agency
 - German Ministry for the Environment
 - German Federal Environment Agency
 - European Commission
 - National authorities in other jurisdictions

European Environment Agency



Federal Ministry
for the Environment, Nature Conservation,
Building and Nuclear Safety

Umwelt
Bundesamt



Overview

- Key measures of the EU F-gas Regulation
- The EU HFC Phase-down
- The EU HFC Quota System and Registry
- Take-away aspects



The EU F-gas Regulation

- Regulation (EU) No. 517/2014
- Based on previous Regulation (EC) No. 842/2006
- Covers HFCs, PFCs and SF₆
- Reporting obligations incl. HFOs, HFEs, NF₃, PFPME and other perfluorinated compounds
- Entered into force on 01.01.2015

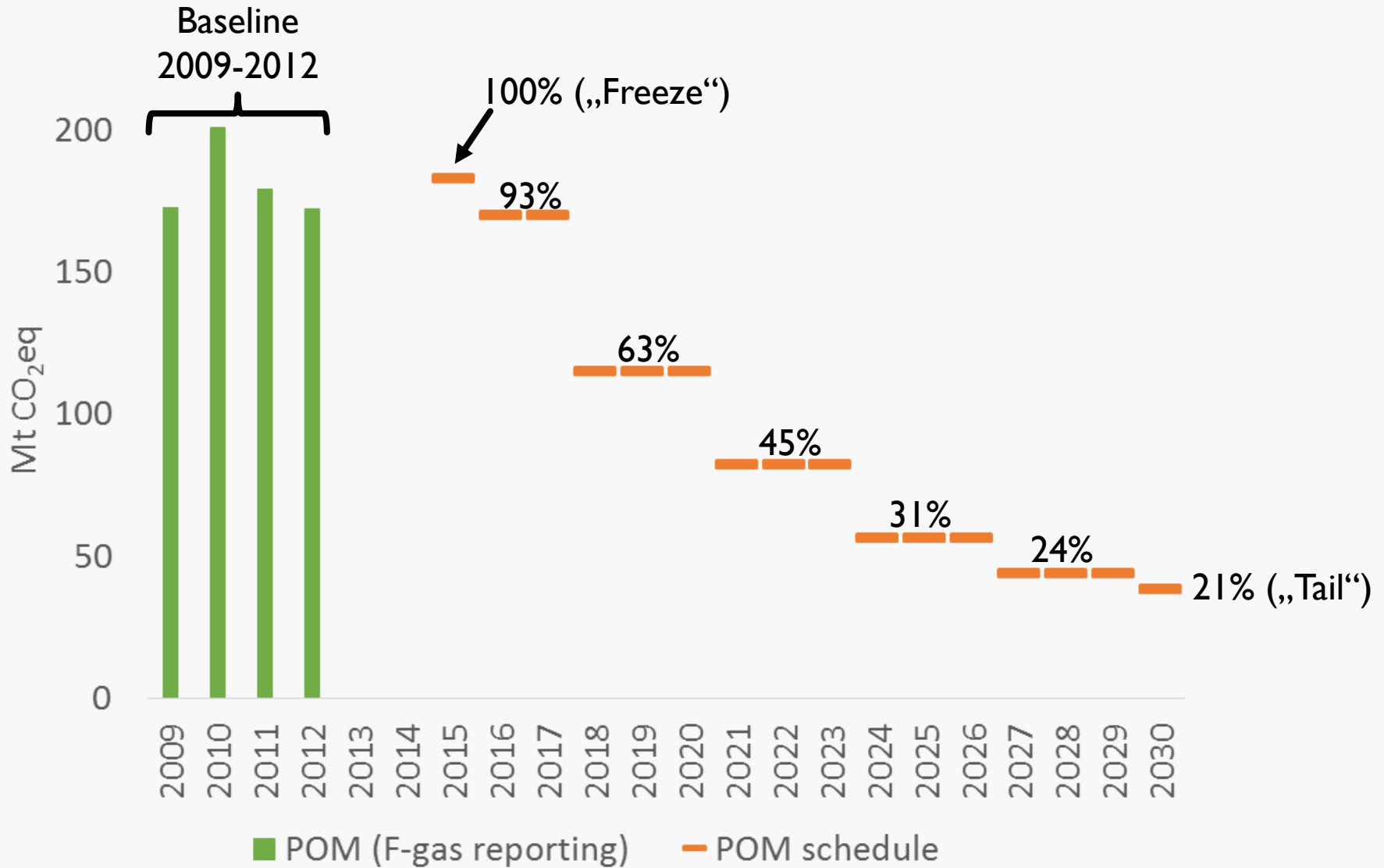


Key measures

- HFC phase-down
- Product/equipment as well as servicing bans
- Containment and recovery of F-gases
- Training and certification for handling F-gases
- Labelling for equipment and containers



EU HFC Phase-down



Common substances covered by Phase-down

Industrial designation	GWP	Typical Applications
HFC-23	14,800	Low temperature refrigerant/Fire extinguishant
HFC-32	675	Blend component for refrigerants
HFC-125	3,500	Blend component for refrigerants/Fire extinguishant
HFC-134a	1,430	Refrigerant/ Blend component for refrigerants/ Extraction solvent/ Propellant for medical and technical aerosols/ Blowing agent component for extruded polystyrene (XPS) polyurethane (PUR) foams
HFC-143a	4,470	Blend component for refrigerants
HFC-152a	124	Propellant for specialised technical aerosols/ Blowing agent component for extruded polystyrene (XPS) foams/ Refrigerant
HFC-227ea	3,220	Refrigerant/ Propellant for medical aerosols/ Fire extinguishant/ Blowing agent for foams
HFC-245fa	1,030	Foam blowing agent for polyurethane (PUR)/ Solvent for specialised applications
HFC-365mfc	794	Foam blowing agent for polyurethane (PUR) and phenolic foams/ Blend component for solvents

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	R404A	3,921
	R407C	1,774
	R410A	2,088
	R422D	2,729
HFC-143a		
HFC-152a		
HFC-227ea		
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F-gas Reporting System

- Reporting by undertakings since 2007
- Pre-charged equipment since 2014
- Established by previous F-gas Regulation
- 468 reporters in 2015
- Reporting of all F-gases covered by the Regulation

The screenshot shows the EIONET Business Data Repository website. The header includes the EEA logo and the text 'EIONET Data reporting for business'. A left-hand menu lists services such as 'BDR home', 'Search', 'Help F-gases', 'Help ODS', 'Help Cars and Vans', and 'Confidentiality'. The main content area is titled 'Eionet Business Data Repository' and contains introductory text about the repository's role in the Reportnet architecture and its use for reporting obligations on ozone-depleting substances, fluorinated gases (F-gases), cars, and vans. It features two login buttons: 'Login F-gases' and 'Login ODS/cars and Vans'. Below these are two login options: 'Login using ECAS' (with the ECAS logo) and 'Login using EIONET' (with the EIONET logo). A 'Don't have an account?' section provides links for 'F-gases', 'ODS', and 'Cars-Vans'. A 'Need help?' section offers guidance and contact information for BDR Support at BDR_helpdesk@eea.europa.eu. The footer indicates the document was last modified on 21 March 2016.

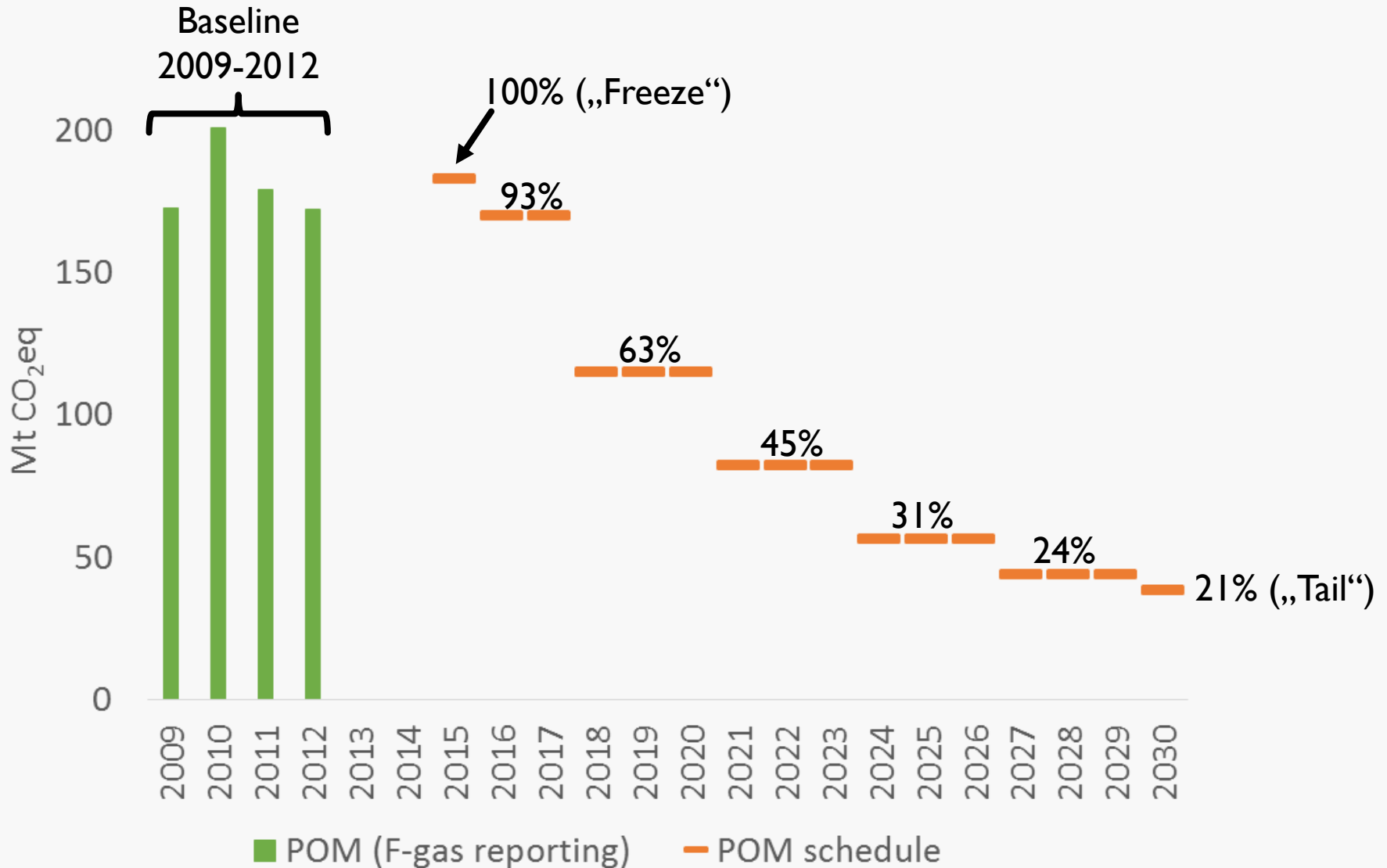
Calculating 'placing on the market' (POM)

- Definitions:
 - Customs release for free circulation on the EU market (importer)
 - Making available to another party in the EU for the first time (producer)

$$\text{POM} = \text{Prod.} + \text{imp.} + \text{stocks used} - \text{exp.} - \text{destr.}$$

- Exempted amounts (semiconductor industry, MDI from 2018)
- Includes amounts in equipment (from 2017)
- Overall similar to 'consumption' metric

EU HFC Phase-down

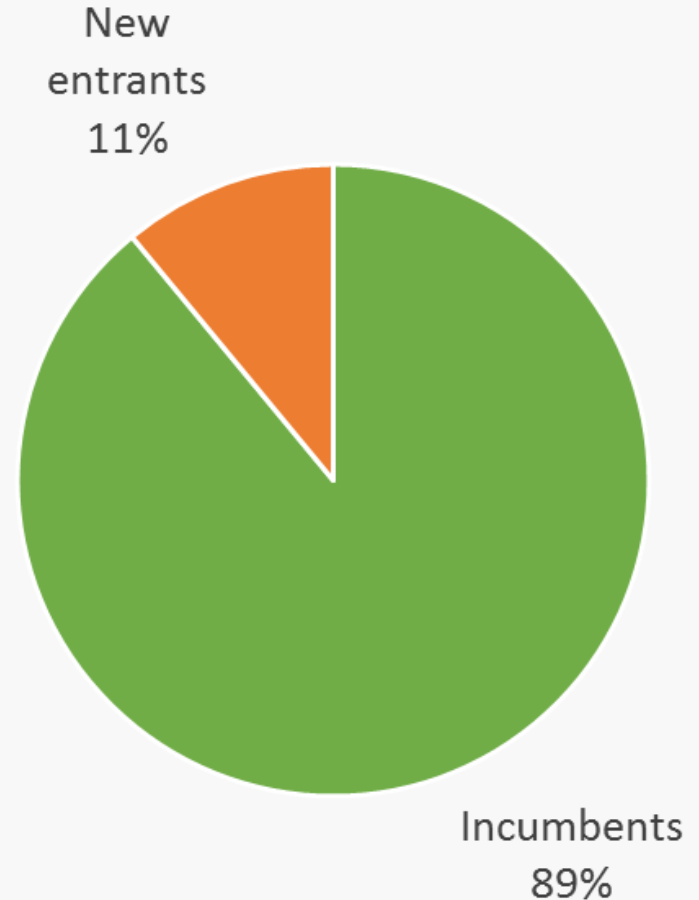


The HFC Quota System

- Quota expressed in tonnes CO₂-eq
- Allocated to importers and producers of bulk gases active during baseline years (incumbents)
 - Receive quota based on 2009-2012 market share
- Market reserve for new market entrants (importers and producers of bulk gases only)
 - 11% market reserve for new entrants based on requested amounts
 - Requests must be made for each year
- Ex-post comparison with reporting by undertakings
- Exceeding quota is illegal and punishable by law

Example: 2015

- Multitude of new entrants requested quota
- 11% of quota allocated to new entrants
- Incumbents were able to place 89% of 2009-2012 amounts on the EU market



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HFCs in pre-charged equipment

- From 01.01.2017:
 - Must be accounted for under HFC quota system
 - Importers required to prove HFC in equipment accounted for in quota system
 - HFC previously placed on EU market
 - Authorisation to use incumbent quota
 - Proof of verification required at time of import
- Reporting obligation from reporting year 2014

What is pre-charged equipment?

- Refrigeration and air conditioning equipment that contains at least one HFC at the time of import
- Includes:
 - Hermetically sealed: Domestic fridges/freezers, commercial stand-alone equipment, heat pump tumble dryers
 - Non-hermetically sealed: Split AC units, heat-pumps, multi-split AC units, chillers, MAC equipment
- Not included: Fire protection equipment, foam products, aerosol products, solvents, switchgear

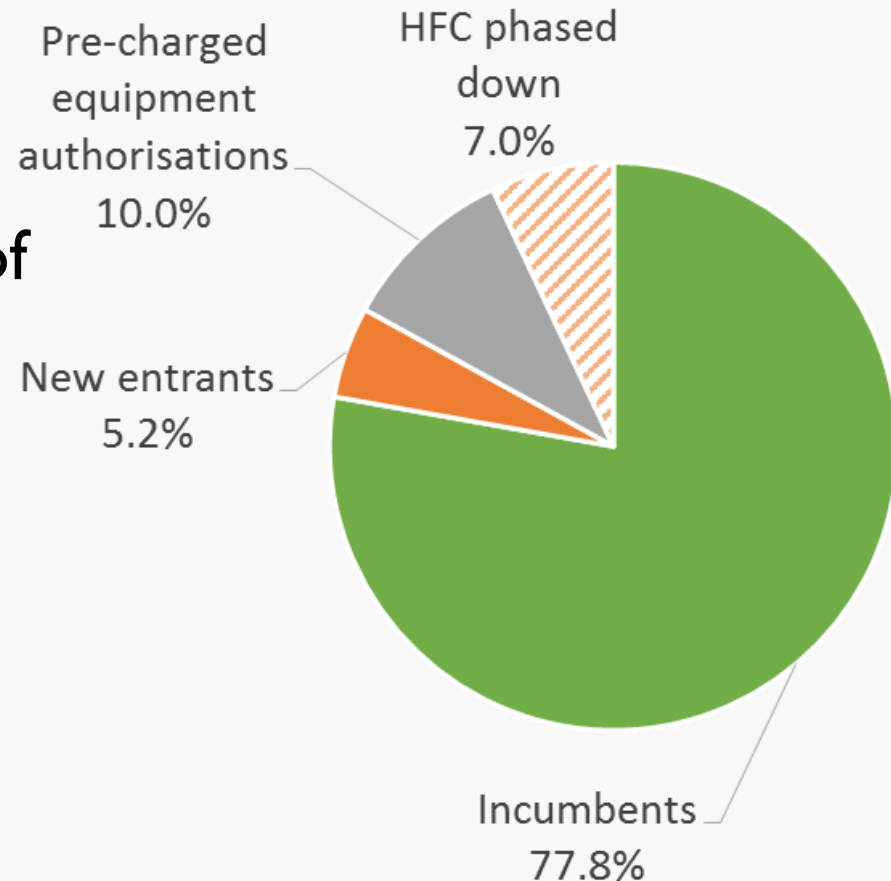


What is an authorisation?

- Contractual agreement between quota holder and importer of equipment
- Quota holders cannot authorise themselves to import pre-charged equipment
- When an authorisation takes place the underlying quota is considered used up
- Authorisations are not time-limited and can be used in any year

Fictional example: 2017

- 93% phase-down step
- New entrants claim full market reserve
- Incumbents receive 82.8% of their 2009-2012 amounts
- Incumbents and new entrants each give 5% of total quota to pre-charged equipment importers via authorisations



EU HFC Registry to distribute Quota

- Online electronic registry
- Registration mandatory for:
 - Producers and importers of bulk gases (incumbents)
 - New entrants (producers and importers of bulk gases only)
 - Importers of pre-charged equipment
- Communication gateway for EC
- Access for competent national authorities (e.g. customs)

The screenshot shows the 'CLIMATE ACTION F-Gas' portal. The header includes the European Commission logo and navigation links: 'HOME', 'PROFILE', 'HFC REGISTRY', and 'REPORTING'. The main content area is titled 'WELCOME TO THE HFC REGISTRY' and contains three sections:

- MY QUOTAS:** This part of the HFC Registry is for importers and producers of bulk HFCs. It allows them to see their allocated reference values and quotas as well as make and receive quota transfers. A 'NOT APPLICABLE' button is visible at the bottom.
- MY DECLARATIONS:** This part of the HFC Registry allows importers and producers of bulk HFCs to make their yearly declarations of quota need, thus bidding for a possible allocation of quota from the NEW ENTRANTS RESERVE. A 'NOT APPLICABLE' button is visible at the bottom.
- MY AUTHORIZATIONS:** This part of the HFC Registry allows importers and producers of bulk HFCs to authorise the use of quota allocated to them to importers of precharged refrigeration, air conditioning and heatpump equipment. Such an authorisation allows the importers of precharged equipment to account for gases imported inside the equipment under the quota system (Art. 14). An 'ACCESS MY AUTHORIZATIONS' button is visible at the bottom.

Transferring Quota and Authorisations

- No official market-place for quota!
- Incumbents may
 - transfer quota to other EU undertakings or only representatives of non-EU undertakings.
 - authorise importers of pre-charged equipment to use their quota.
- New entrants may
 - authorise importers of pre-charged equipment only if they physically provide HFC for charging equipment!

Building blocks for a successful phase-down implementation

1. Comprehensive and sound reporting system
2. Quota and allocation system
3. A record to keep track of quota



Take-away aspects

- Comprehensive reporting necessary
 - Verification of ex-post reports required above 10 kt CO₂eq (bulk POM)!
- Quota system to achieve HFC Phase-down targets on national level
 - Require registration of all players (HFC Registry)
 - Involve customs in checking compliance
- Quota provide flexibility
 - Due to accounting in tonnes of CO₂-eq
 - Transferability of quota
- Additional options:
 - Value quota in monetary terms
 - Create an official national market place for quota

Thank you for your attention!

Questions...???

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Links:

List of incumbents: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:JOL_2014_318_R_0008

Guidance for equipment importers:
http://ec.europa.eu/clima/policies/f-gas/docs/guidance_equipment_importers_en.pdf

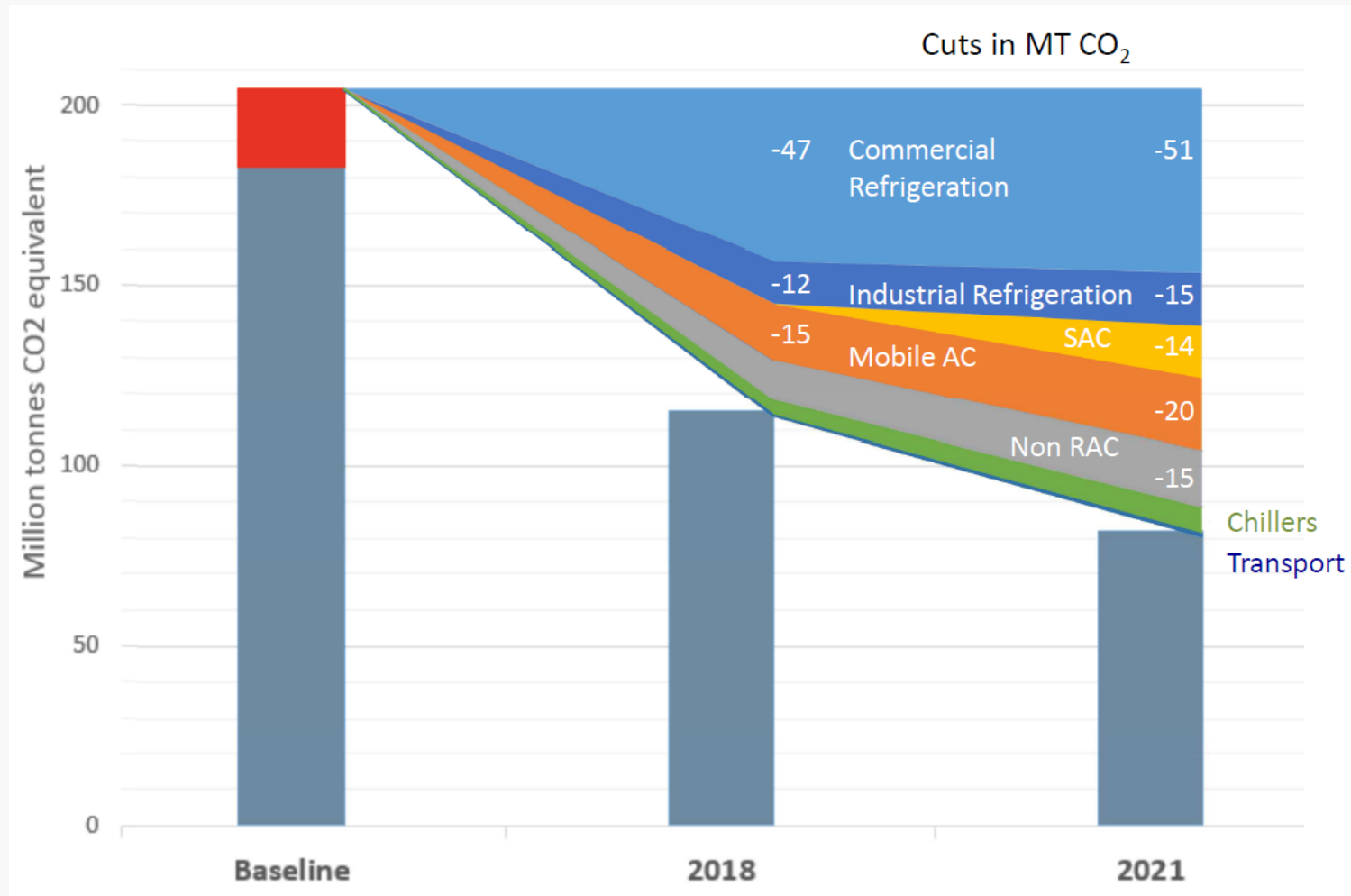
Guidance for verifiers: http://ec.europa.eu/clima/policies/f-gas/docs/guidance_to_verifiers_en.pdf



Definitions

- **Importer:**
 - consignee in customs declaration document or SAD
 - extra-EU trade only
- **Placing on the market (physical):**
 - customs release for free circulation on the EU market (importer)
 - making available to another party in the EU for the first time (producer)
 - Excludes (re-)exports
- **Placing on the market (compliance):**
 - Excludes exempted amounts (semiconductor industry, MDI from 2018)
 - Excludes amounts in equipment (until 2017)
- **F-gases: Annex I of the F-gas Regulation (HFC, PFC, SF₆)**
- **Pro-rata basis: calculation method for quota distribution**

Implications of the Phase-down



Source: EPEE Gapometer