



**Illegal Trade
Potential risk during first stage of
HCFC phase out (2011-2015)**



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HCFCs situation in the EU

- Current run rate : more than 20,000 tons / year of HCFC R-22 in cooling only
- Exclusively servicing of existing equipments
- Installed bank of HCFC R-22 is still very high in Southern Europe
- Replacement of HCFCs with HFCs (blends) is slow

Low sense of urgency

Misunderstanding of deadline 2010 vs 2015

Reluctance to spend / budget availability

Contractors' availability for retrofits/refits

It is likely that service needs for HCFC R-22 will remain in the same order of magnitude across 2009

Reclaimed HCFC R-22

- Major EU countries have reclaim facilities on their territories. These facilities are mainly operated by large national or international distributors. They also own and manage the fleet of recovery cylinders
- Difficulty to move recovered refrigerants across borders (hazardous waste) is a problem for smaller countries
- Reclaim capacity (process) is not the bottleneck. Most facilities operate way below maximum capacity

- **Bottlenecks :**

Availability of “ clean enough “ R-22 in sufficient amount/recovery as only large systems are suitable . Consolidated small amounts are sent for destruction without analysis

Fleet of recovery cylinders is too small

There is consensus within the industry that at best 15% of needs can be served with reclaimed R-22

Options to bridge the gap

The gap will represent more than 15,000 tons in the beginning

- Accelerate pace of refits / retrofits . Compliance not the issue anymore but business interruption
- Creativity : top up the system with “ what it is in the van” . Most cooling systems are more forgiving than one usually thinks. They will run for a while ...
- Placement of virgin HCFC R-22 , illegally labelled as reclaimed product

All 3 options will play a role

Attractiveness of illegal trade

- Average price of HCFC R-22 at end user level : € 20/Kg

However, there is broad dispersion around this average as delivered quantities vary from a few Kg to a few tons

- Previous comparable phase out : CFC R-12 in the mid – nineties

Stockpiling was allowed and huge quantities were stored by distributors

- R-12 market prices were multiplied by 5 to 7 times across an 18 months period of time
- Prices for reclaimed R-22 are expected to go up in a similar manner

R-22 is available in bulk on the spot market outside the EU at prices below € 2 / Kg

Value Chain Vulnerability

