

ODS Alternatives Surveys

Trends and Lessons Learned

OUTLINE

- CCAC HFC Surveys
- MLF ODS Alternative surveys
- Methodology
- Lessons Learned
- Trends
- Findings & Conclusions

CCAC HFC Surveys

- Jordan and South Africa;
- Approved in 2014
- Not completed yet;
- Trust Fund agreement btw. UNEP and UNIDO;
- Funds received in 2016.
- Consultants being identified;
- Methodology and ToR for consultants ready;

ODS alternatives surveys

- MLF: 26 countries - approved in 2015 (74th & 75th ExCom);
- Central implementation;
- UNIDO guideline for data collection;
- TOR for international/national consultants;
- Most are underway;
- No major problematic issues identified so far.

Methodology

- 38 page booklet;
 - Methodology;
 - Annexes for data collection
 - Legislation
 - Licensing/quota
 - Production
 - Import/export
 - Consumption sectors
 - Characteristics of servicing sector
 - Modified to match MLF guideline

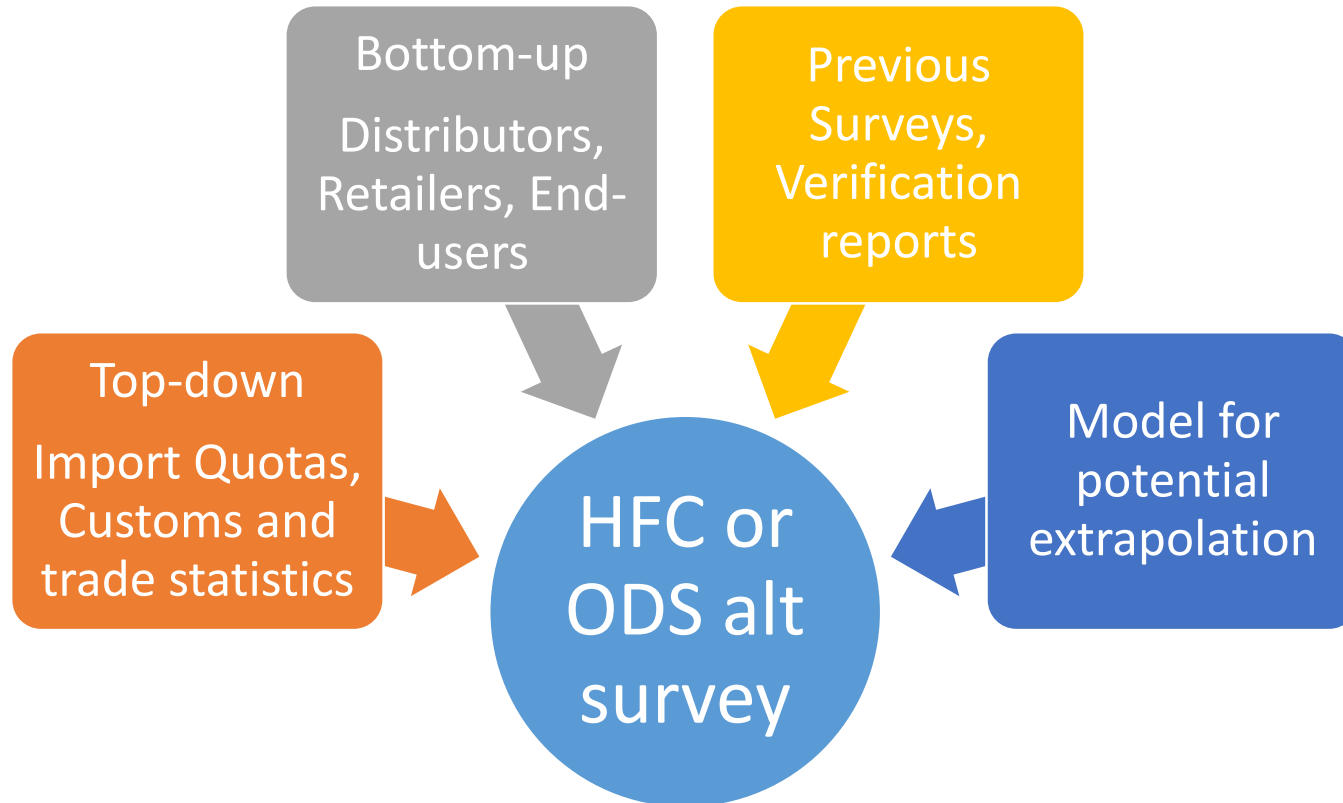


United Nations Industrial Development Organization

Preparation of a National Survey on Alternatives to ODSs

**Strategy for Data Collection on Production and Consumption
of Alternatives to ODSs**

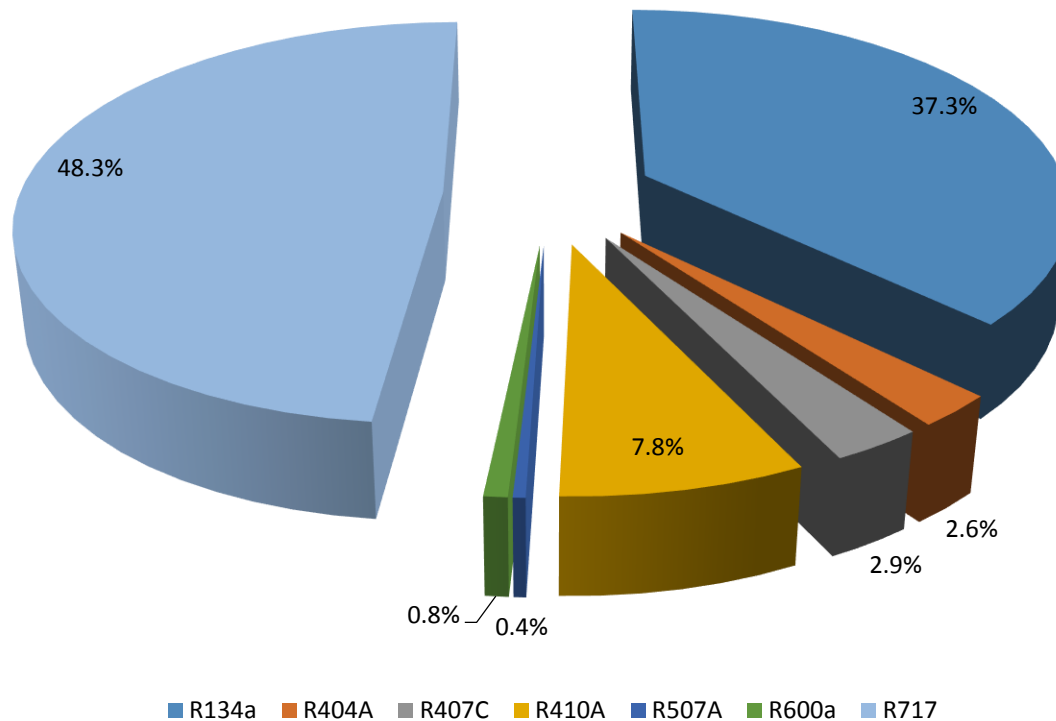
June 2015



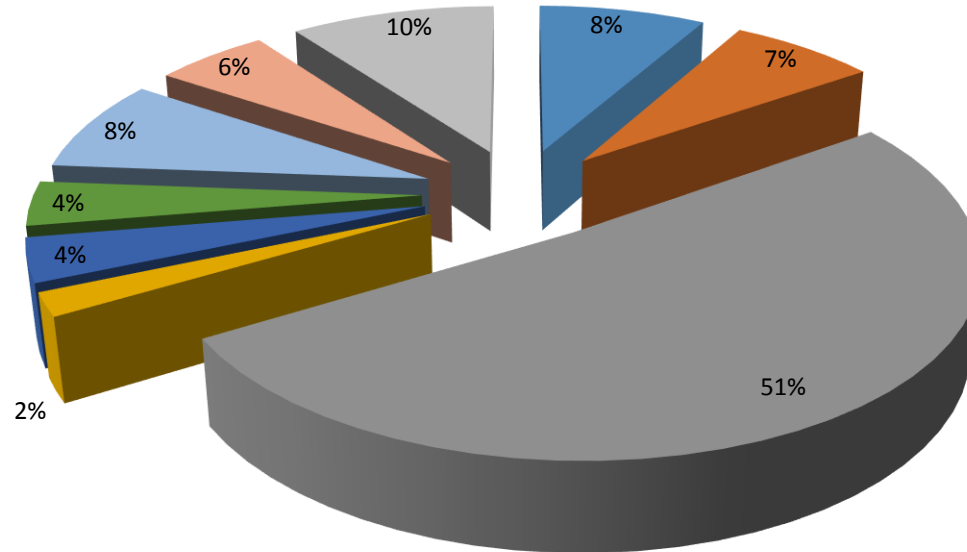
Lessons Learned and Challenges

- Current licensing systems helped in acquiring good quality data from importers/distributors/bulk consumers
- Stakeholders often wary of sharing information; larger companies were more open
- Stakeholder workshops helped in setting the stage, facilitating meetings with end-users
- Individual meetings with end-users help to ensure the quality of data

Example – ODS alternatives consumption Average 2010-15

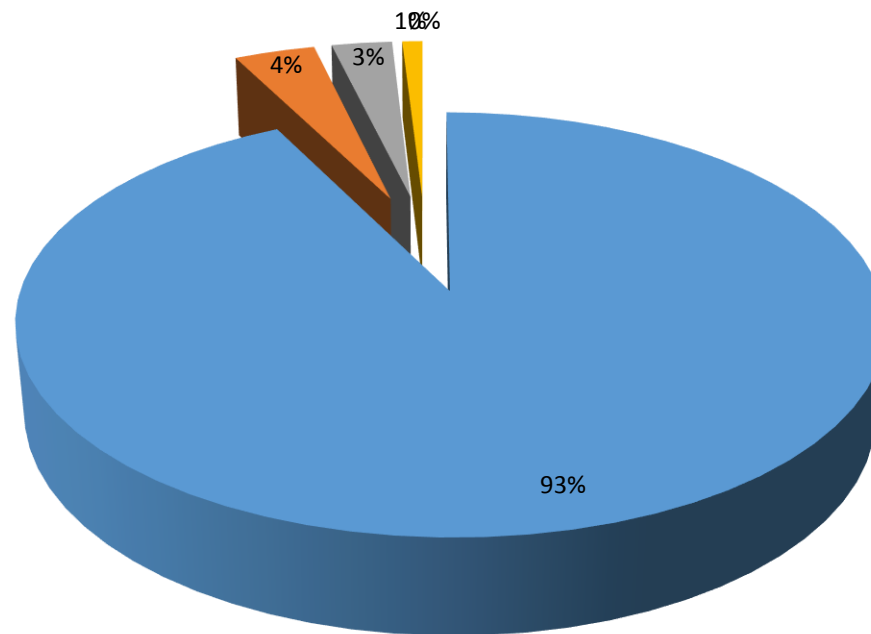


Example – ODS alternatives distribution Average 2010-15



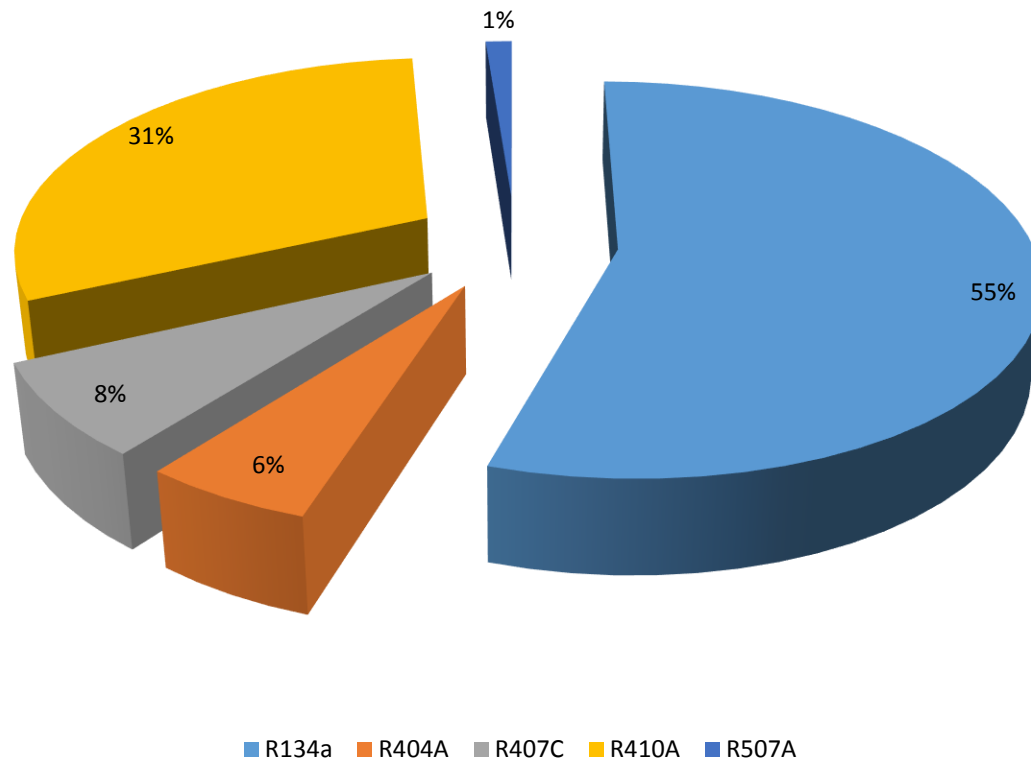
■ Domestic refr.
 ■ Commercial refr.
 ■ Industrial refr.
 ■ Refrigerated transport
 ■ Residential AC
 ■ Commercial AC
 ■ Chillers
 ■ Heat Pumps
 ■ MAC

Example – HFC consumption pattern 2010

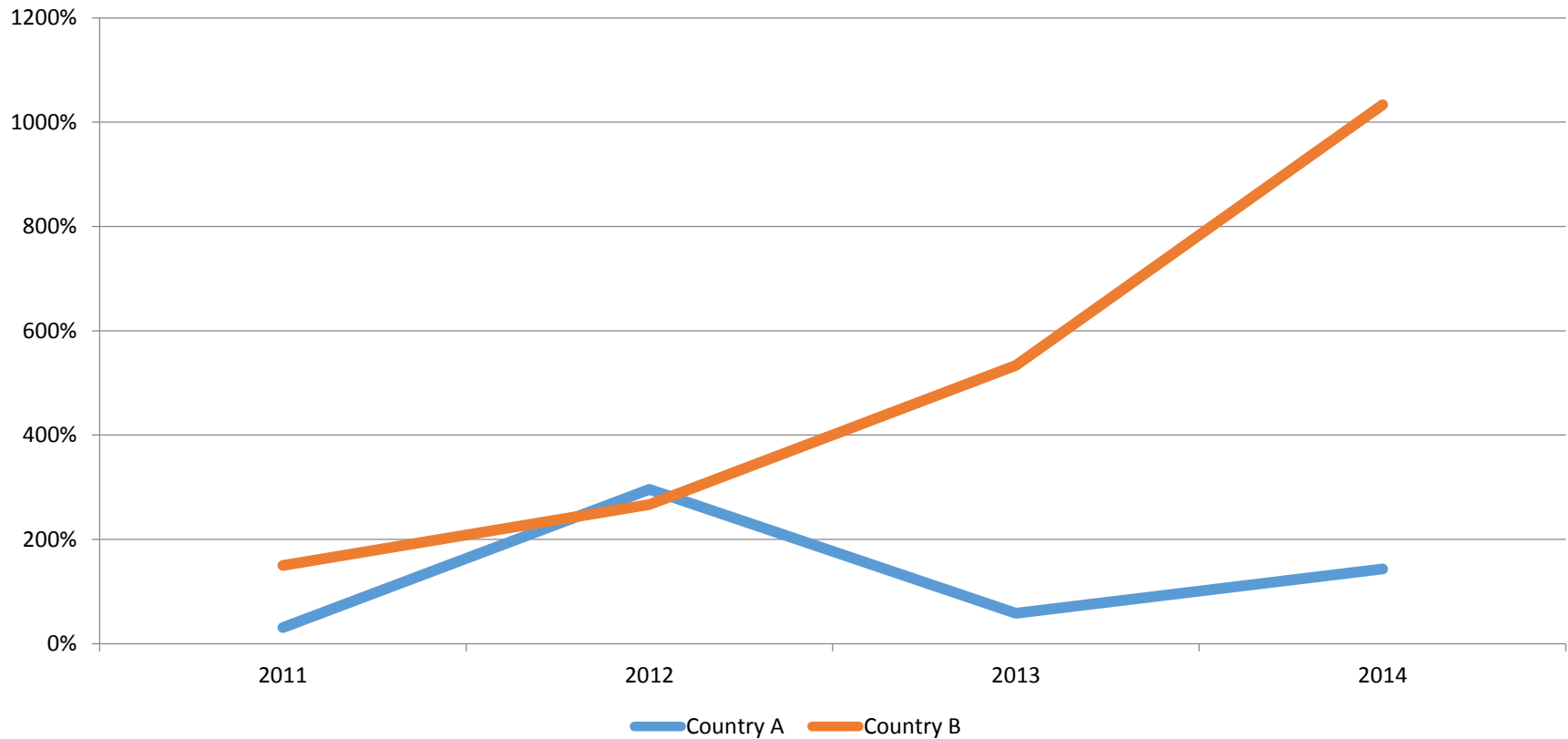


■ R134a ■ R404A ■ R407C ■ R410A ■ R507A

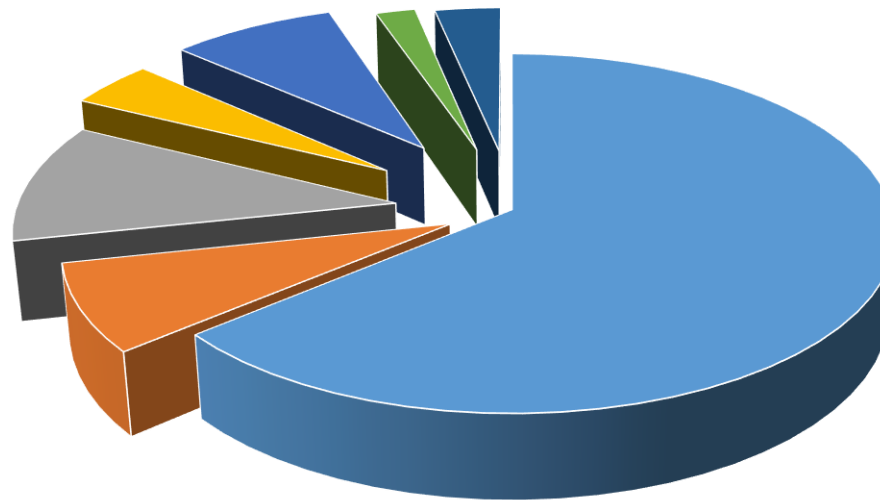
Example – HFC consumption pattern 2015



Example – R-600a trend – 2010 base year

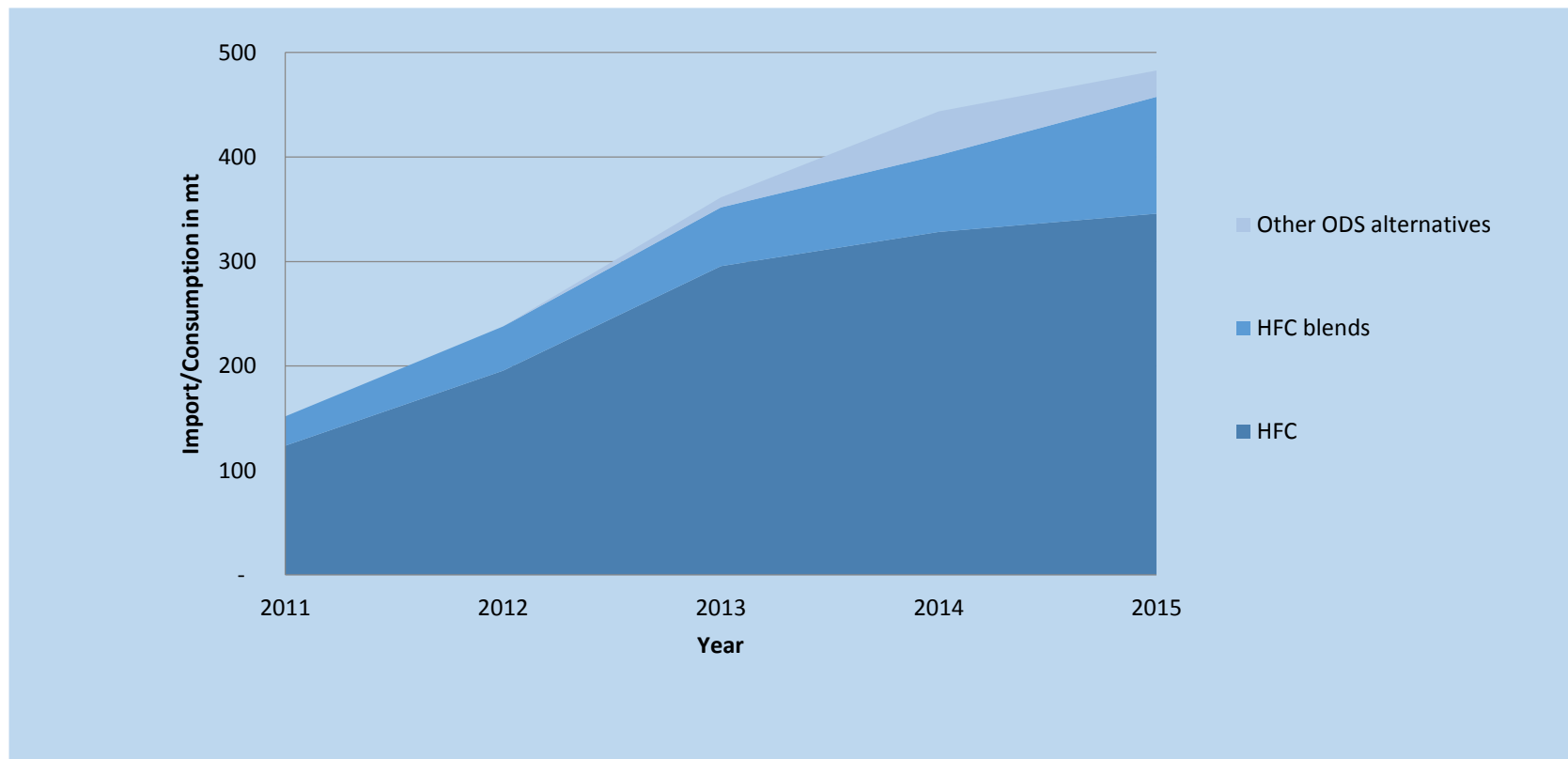


Example-HFC Consumption Pattern 2015

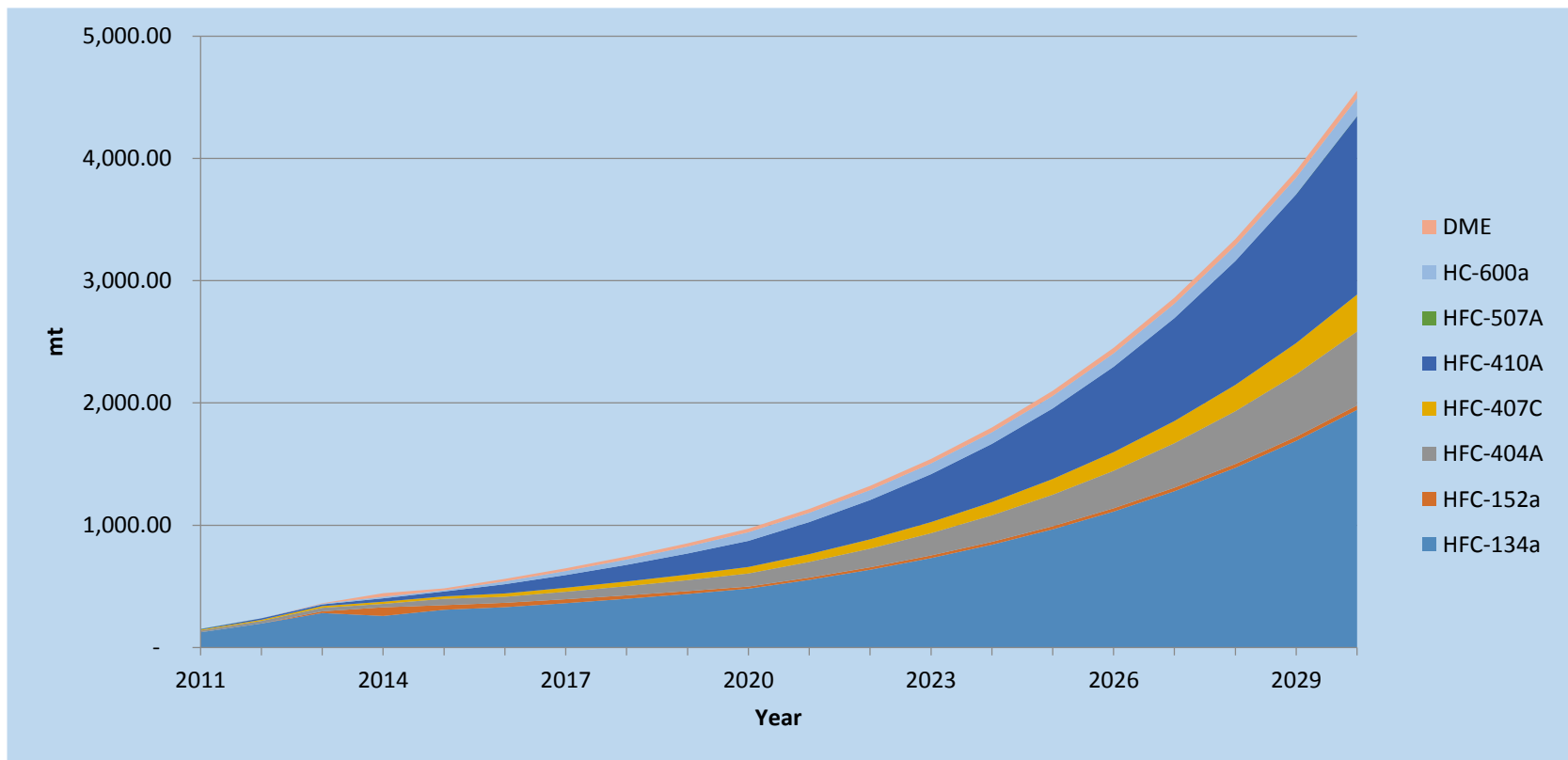


■ R-134a ■ R-152a ■ R-404A ■ R-407C ■ R-410A ■ R-600a ■ R-E170

Example-ODS Alternatives Consumption Trend 2011-2015



Forecast of ODS Alternatives Consumption



Findings and Conclusions

- Findings from Bottom-Up Data
 - Regular business shift from HCFC-22 to HFC-404A (refrigeration) or R-410A (A/C), consumption continues to increase for R-134a (both R&AC);
 - Stock-piles of recovered HCFC-22;
- HFC Consumption could double by 2020 and grow exponentially to almost 10x current values;
- Share of consumption for other refrigerants may not increase appreciably under a BAU scenario.



TOGETHER
for a sustainable future

1966 - 2016

THANK YOU

For Your Attention

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