

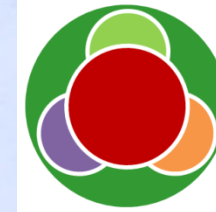
# Short-lived climate forcers in Chile

## Inventory development



# National Inventory System

National system in charge of comply with the international commitment of Chile, regarding inventories.



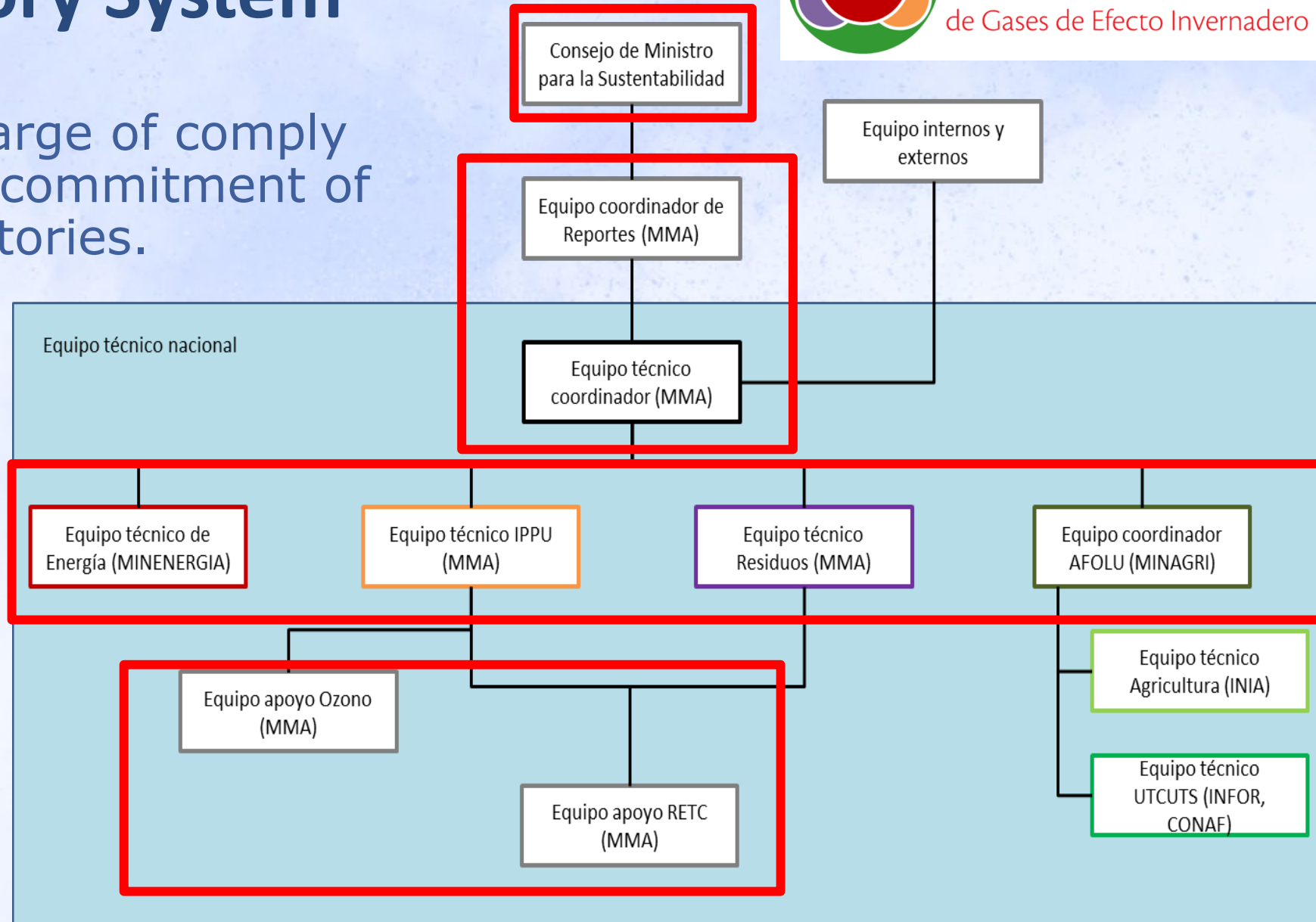
**SNiChile**  
Sistema Nacional de Inventarios  
de Gases de Efecto Invernadero

Sectorial teams

Support teams

Coordination

Authorities



# Other pollutants

Beside GHG emissions, we account for:

- Nitrogen oxides (NO<sub>x</sub>).
- Carbon monoxide (CO).
- Non-Methane volatile organic compound (NMVOC).
- Sulfur dioxide (SO<sub>2</sub>).
- Black carbon (BC).

Tier 1 methodology  
Default EF

Detailed BC emission inventory

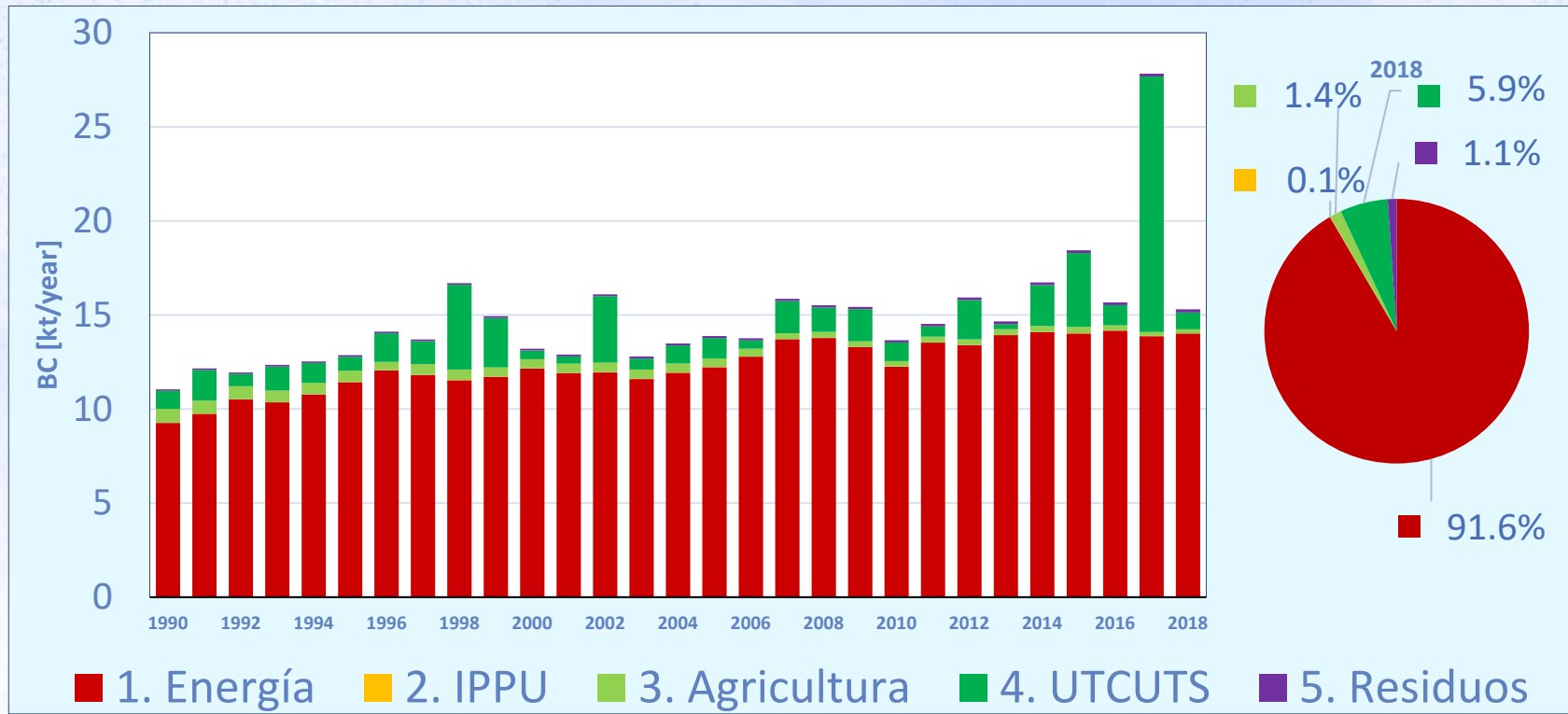


**CLIMATE &  
CLEAN AIR  
COALITION**  
TO REDUCE SHORT-LIVED  
CLIMATE POLLUTANTS



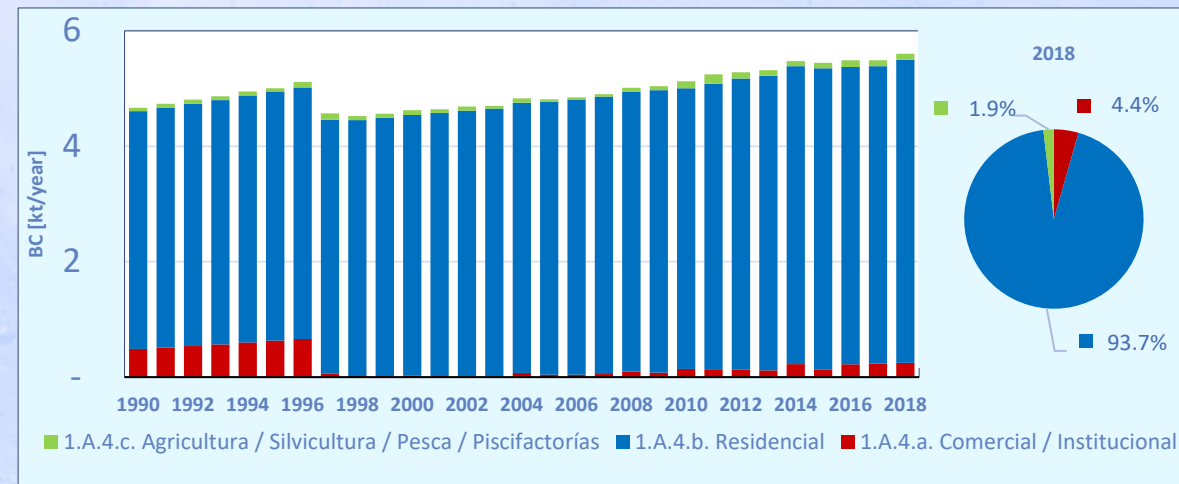
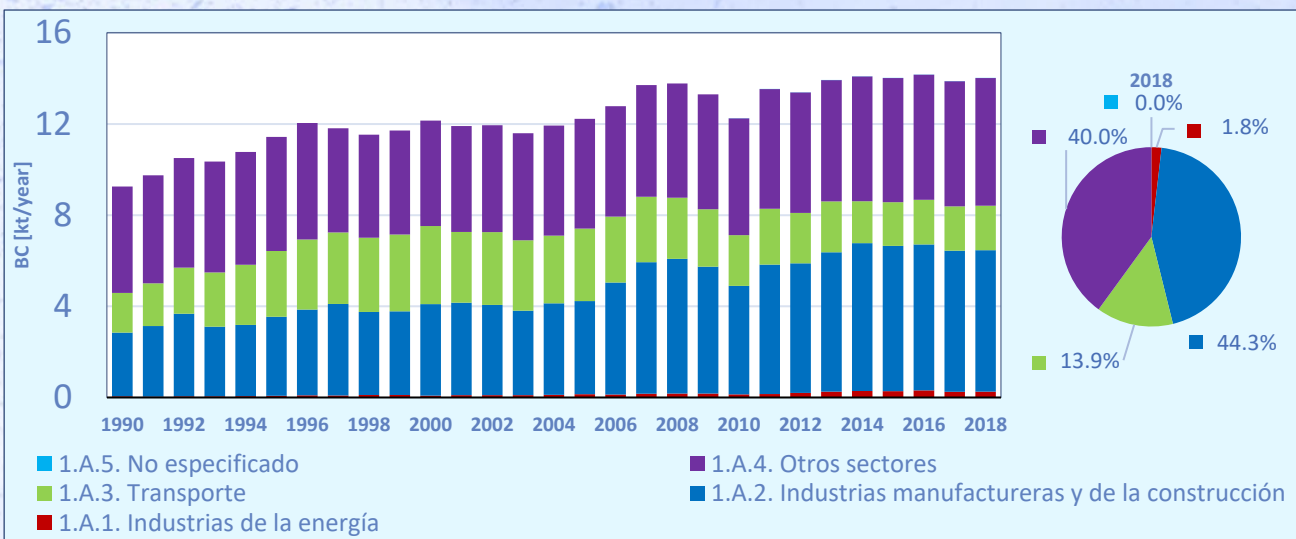
# National Inventory System

As a general results, we obtained a national BC inventory for the time series 1990 – 2018.



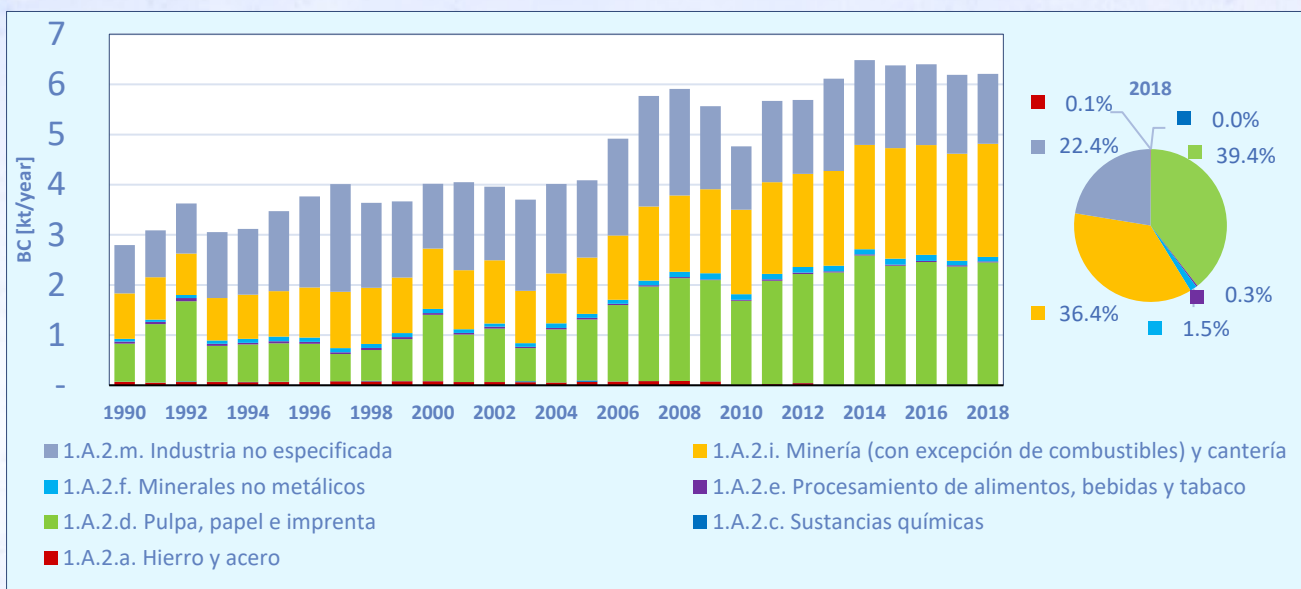
- ~90% from Energy sector.
- Not a clear trend in the emissions of BC.
- Maximum levels due to wildfires.

# Main sources in Chile

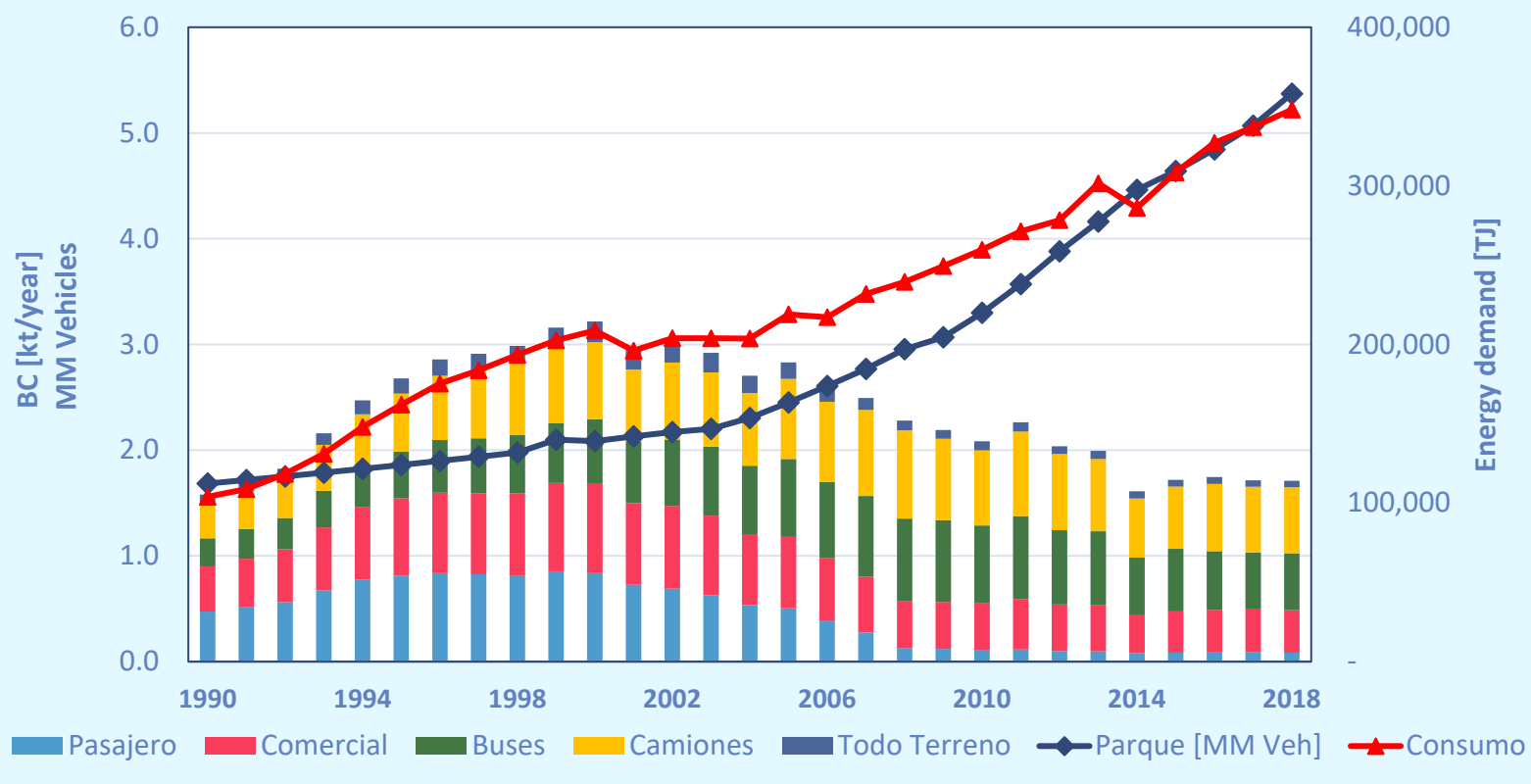
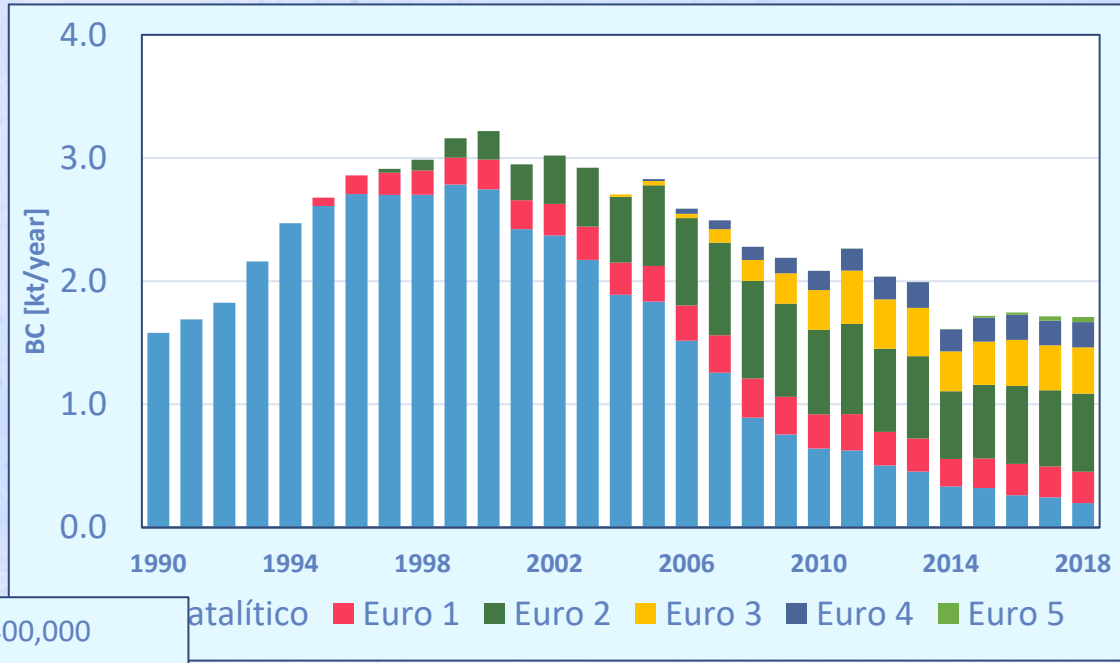
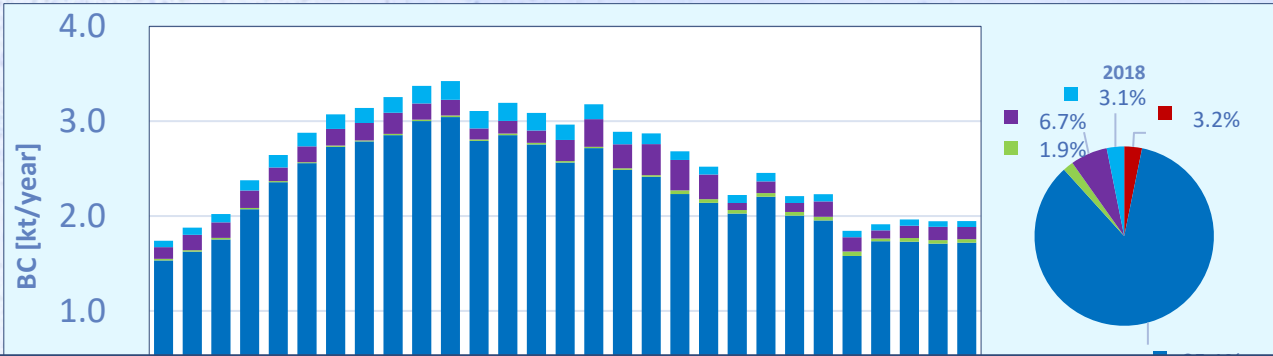


Residential sector, wood burning (heating).

- Mining activities (diesel use – off-road machinery).
- Pulp and paper industries.



# Terrestrial transport emissions



- Constant increase of vehicles and energy fuel use.
- Decrease in BC emissions since 2000, due to regulations.



# Main uncertainties

The uncertainties are related to the main sources and others.

- Residential activities (1.A.4.)
  - Emission coming from wood burning.
  - Difficult to quantify the annual consumption.
  - High uncertainty in emission factor.
- Industrial activities (1.A.2.)
  - Strong participation of diesel and biomass from industries.
  - Uncertainties in off-road machinery (e.g., standard, activity levels, sectors).
- Methodology
  - Use of international EF.
  - Consider BC as PM<sub>2.5</sub> fraction.



# Improvement plan and challenge

- Downscale the estimation to subnational levels (political regions).
- Coordinate with national entities to better understand the gaps of information.
- Link climate and air quality policies.
- Improve methodology levels, through national studies.
- Develop national EF.
- Include other climate forcers to the estimation.





**Thank you!**  
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