

EU-funded Action on Black Carbon in the Arctic

Implementing the European Union Initiative in Support of International Action on Black Carbon in the Arctic

Technical Guidance Report on Domestic Heating

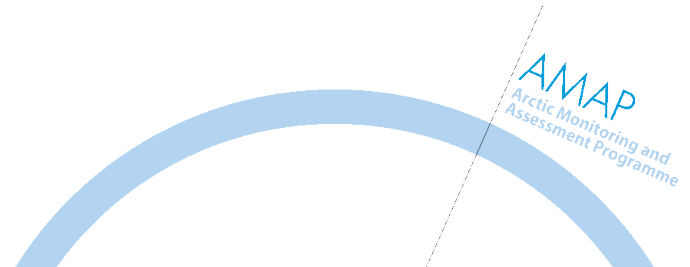
TFTEI Meeting

23 October 2020

Pam Pearson (ICCI) and Kaja Voss (Carbon Limits)



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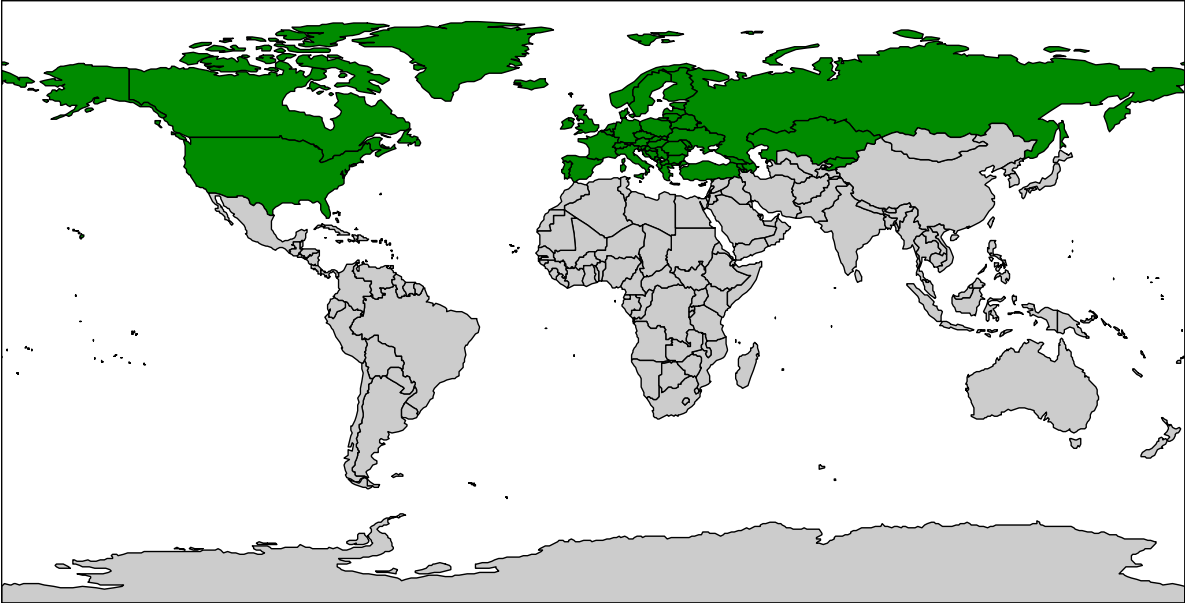
The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

EU-funded Action - BC in the Arctic

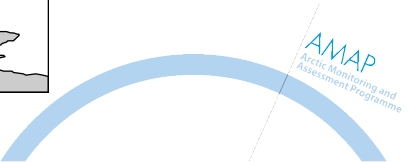
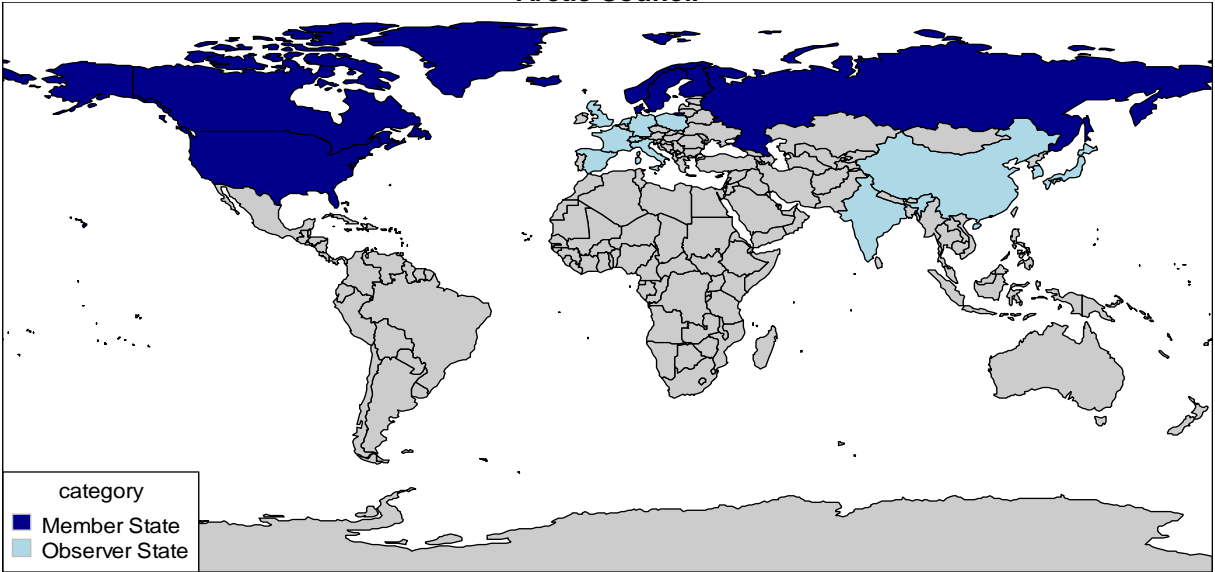
- **Funding:** EU Partnership Instrument over 3 years (15 January 2018 - 30 June 2021)
- **Main Objective:** contribute to the development of collective responses to reduce black carbon emissions in the Arctic and enhanced international cooperation to protect the Arctic environment. No duplication / support on-going work.
- **Implementation Plan: 4 Work Components**
 - **WP1 - Improved Knowledge Base**
 - **WP2 - Increased Awareness and Shared Knowledge**
 - **WP3 - Technical Advice Documents and Scenario Analysis**
 - **WP4 - Roadmap for Enhanced International Cooperation**

Regional context for the EU Action

CLRTAP Parties



Arctic Council





DOMESTIC HEATING

Wood stoves and the burning of coal to heat homes emit black carbon to the atmosphere and can be a health hazard.

[Learn More >](#)



GAS FLARING

Flaring is used extensively in the oil and gas industry to burn unwanted flammable gases and a major source of black carbon emissions affecting Arctic regions.

[Learn more >](#)



MARITIME SHIPPING

Expected increases in shipping in the Arctic could lead to much higher emissions of black carbon in the Arctic than today.

[Learn More >](#)



DIESEL ENGINES

Diesel engines used in heavy road vehicles, ships and machinery constitute a significant source of black carbon in the Arctic.

[Learn More >](#)



OPEN BURNING

Wildfires and agricultural fires may be underestimated sources of black carbon emissions that pollutes the Arctic

[Learn More >](#)



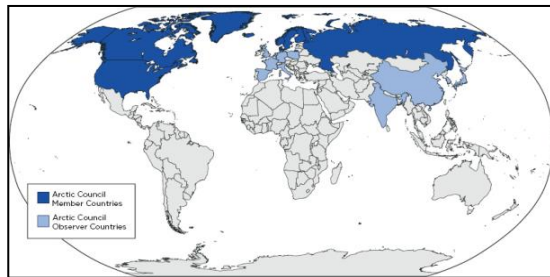
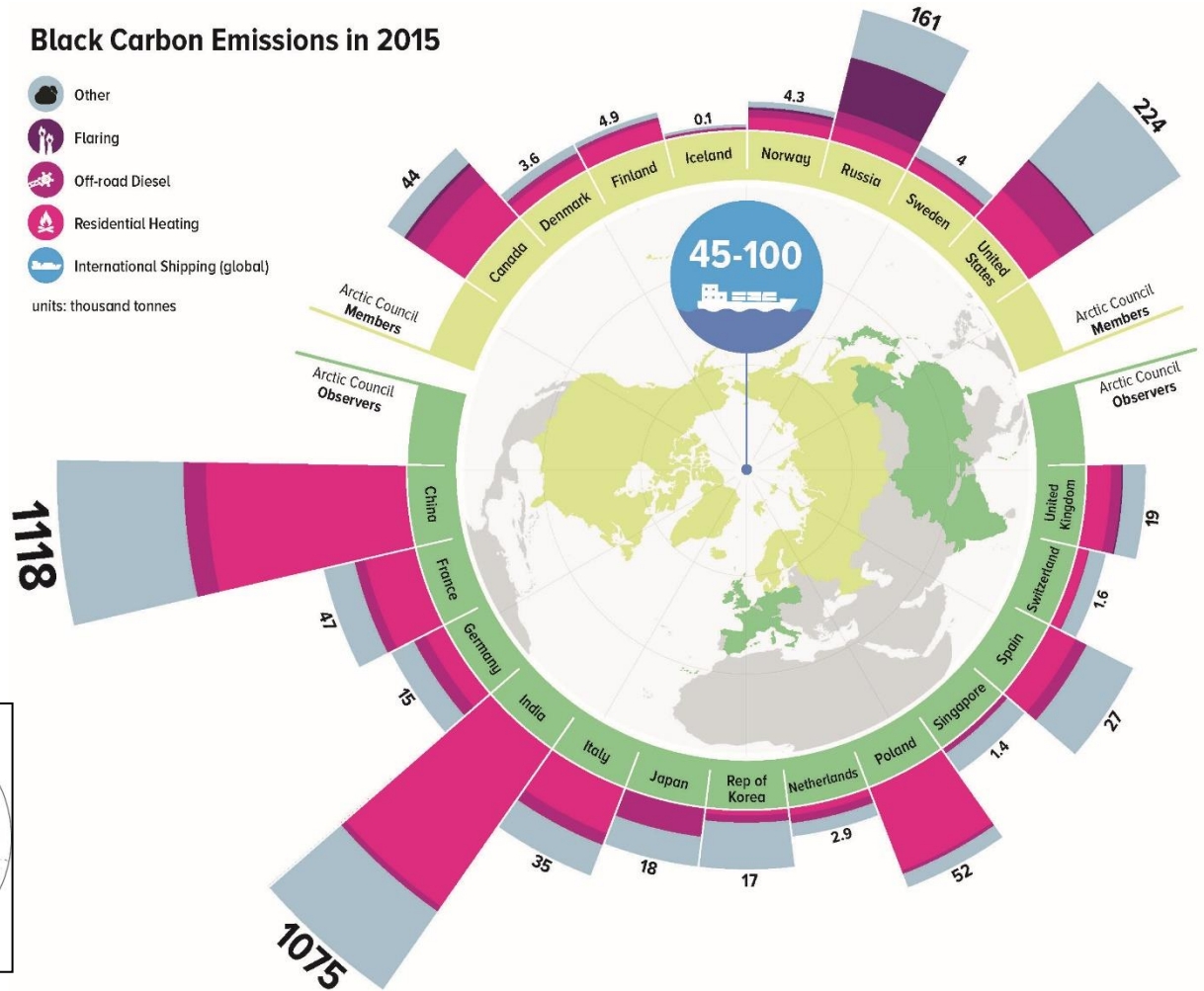
POLICY ACTION

The road towards reduced emission of black carbon include applying the best available technologies and practices

[Learn More >](#)

Arctic Council / Observers BC emissions

Black carbon emissions from Arctic Council member and observer countries account for greater than 50% of global BC emissions





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Domestic Heating Approach

- **Main Objective:** Provide background and summary of science and best approaches (technologies such as stove types, as well as measures)
- Based heavily on CLRTAP 2019 Guidance Document
- Desire to avoid duplication of other CLRTAP and Arctic Council efforts (such as ACAPWood)
- Oriented especially towards more local/municipal actors such as cities, counties (often where most action occurs): important especially in context of domestic heating due to local (rather than national) regulations, measures and enforcement and public communication

Available Measures

(especially at local/municipal levels)

- **EXISTING STOVES: "Burn Right" Campaigns:**
 - Emissions reduced 30-50%, up to 80 % where "burn very wrong"
 - Good first step with low costs – BUT
 - Limited evidence of actual behavior change without personal contact and reinforcement
 - Best done by local actors: sweeps, firefighters, stove retailers



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Available Measures

(especially at local/municipal levels)

- **NEW STOVES:** Introduction of low-BC/PM2.5 stoves and associated measures/regulations
 - Very low-BC and PM2.5 stoves already exist (Pellets, "Bionic fire")
 - Incentives/support for buying new stoves-phasing out old stoves: subsidies, banning use of old, inefficient stoves
- **ELIMINATE WOOD ENTIRELY:** Fuel/Technology Shift:
 - Change to other domestic heating systems (especially heat pumps)-geothermal, waterborne systems/boilers, district heating
 - Local bans (especially when all else fails)



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Website: <https://eua-bca.amap.no/>

(Technical Guidance Report on Black Carbon
Emissions from Domestic Heating (in press)
available on-line)

