Recommendations we have the scientific confidence to make now

- Reduce methane emissions globally.
- Implement a northern hemisphere tropospheric ozone reduction strategy targeting NMVOCs, CO and methane with an emphasis on reductions at higher latitudes.
- Due to their impact on climate, emissions of short-lived pollutants within the Arctic should be minimized.
- Implement a black carbon (BC) reduction strategy in the northern hemisphere targeting BC sources that result in deposition within the Arctic - particularly during winter and spring.

Issues that will enable further recommendations (addressable within two years)

- Source region, sector, and season specific recommendations for the optimal reductions in emissions of short-lived pollutants can be made within two years where they are not already known. Determine the effect of individual mitigation strategies on Arctic climate.
- Identify the impact of short-lived pollutants on the Arctic cryosphere particularly in regions where melting has been most dramatic.
- Determine and account for the post-deposition lifetime of black carbon on multi-year Arctic snow and ice and the impact on melting.
- Determine the global and Arctic-specific boreal forest fire climate impacts.
- Assess the role of short-lived pollutants in the early 20th century high latitude warming period.
- Assess Arctic climate impacts from the short-lived pollutant emissions associated with increased shipping activity and resource exploration within the Arctic.
- Assess the relative role of the short-lived pollutants and the associated impacts (including clouds) on the Arctic surface heat budget.

Issues that will enable further recommendations (Long term research projects)

- Evaluate potential Arctic climate feedbacks from increased Arctic warming and melting, focusing on processes that effect short lived pollutants (e.g., wetlands emissions and cloud changes)
- Assess the role of short-lived pollutants on the dynamics and accelerated mass loss of the Greenland ice sheet and Arctic glaciers.