IEA-AMF Task 61
Summary & Conclusions

Key findings

- During the fours years that Task 61 has been running, there has been a **substantial development** and refinement of all three types of RES technologies.

- These improvements have been **demonstrated in large scale deployments** of RES in real-world settings in Europe and China over the last few years, proving its **ability to detect gross-polluting vehicles**, especially diesels (both light- and heavy-duty).

- At the same time the **costs and complexity associated with RES measurements have been reduced substantially**, e.g., by enhanced automation of measurements and data analysis, smaller and lighter battery powered instruments, etc.

- With the implementation of the **RDE legislation** in recent years, RES has become a **promising add-on to the legislative emission measurements,** e.g., by PEMS, providing valuable input/feedback also to PTI programs.

- **Advanced exhaust plume simulations** proven useful to further **improve the ability of RES to detect gross-polluting vehicles** and make measurements more effective.

Conclusions with recommendations

- Remote Emission Sensing (RES) techniques have **substantially improved** in recent years and are **continuously being further developed**.

- RES is important as a **complementary real driving vehicle emission measurement tool** to help identify vehicles with failing emission control systems (SCR, DPF, TWC).

- RES can be used to **cost-effectively** follow up the future evolvement of fleet average real-world emissions, i.e., **to track the efficiency of recently implemented strict RDE legislation** in both Europe and China.

- RES has the potential to be developed as a **key parameter for emission accounting tools**, which can be further **applied in air quality planning and other incentive policy design** (e.g., accelerated fleet turnover or electrification with subsidies)

- In addition, a **standardized testing protocol** recommended in EU would also be very useful to promote such **use of RES methods in developing countries**.