

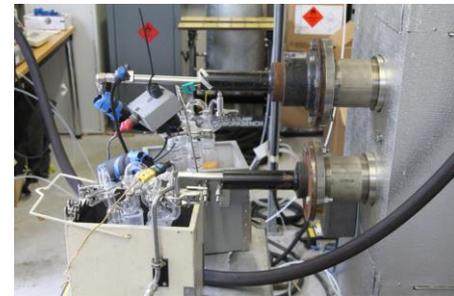
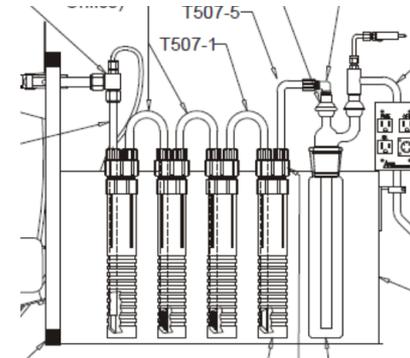
# Scope of Future EMPIR Projects IMPRESS 2 and Sulf-Norm

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End of Project Workshop, 3<sup>rd</sup> May 2017, NPL, UK

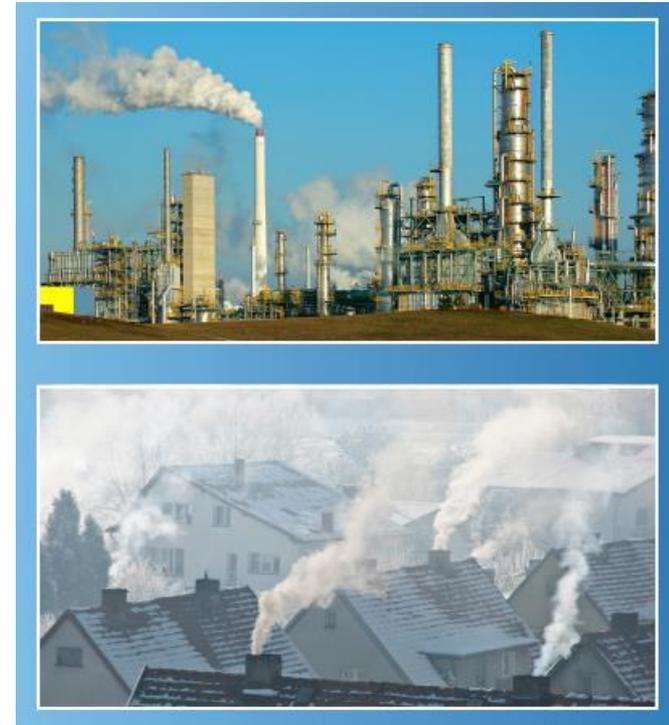
# Sulf-Norm: *Metrology for Sampling and Conditioning SO<sub>2</sub> Emissions from Stacks*

- Now that the Industrial Emissions Directive (2010/75/EU) has come into force for some processes the uncertainty requirement is  $U_{95} = \pm 1.0 \text{mg.m}^{-3}$
- EN14791 is based on wet chemistry and hence the stack is sampled “unconditioned”
  - The vast majority of instrumental techniques in principle capable of improved uncertainties rely on “conditioned” sampling, which remains un-validated
  - Furthermore, UK proficiency testing data suggest an industry bias to under reading SO<sub>2</sub> which must be explained
- The SO<sub>2</sub> Technical Specification document authored by NPL under CEN TC264 can not progress until sampling issues are addressed
- Sulf-Norm has been formulated to support TC264 in promulgating the SO<sub>2</sub> Technical Specification



# IMPRESS 2: *Metrology for Air Pollutant Emissions*

- Follow on to IMPRESS, due to start June 2017
- Stack concentration and flow work will continue
  - Work on SRMs for previously unregulated pollutants
  - Flow in narrow ducts
- Area source work replaced with residential biomass boilers
  - 64% of EU population exposed to PM above WHO guidelines
  - Residential biomass boilers/space heaters are, “the most important contributors to total PM emissions in the EU” (European Environment Agency)
- Area source work will continue under other funding streams



# IMPRESS 2: Metrology for Air Pollutant Emissions

