Mitigating aviation-based noise pollution

Data collection	Aggregation & Visualization	Validation & Mitigation Strategies

Establishment of a Acoustic Sensor Network (ASN) near published approach- and departure routes (STARs/SIDs) of airports, as well as in urban areas in proximity to airports as to monitor adherence of noise mitigation strategies. Data to be collected per sensor: [dB, timestamp]

Sensors are labeled based on location and/or route. E.g. "Stockholm North" or "KOGAV 3B Departure". Noise abatement violations can then be tracked and classified (dB & location) by visualization tools such as Grafana.

Using air-based data (e.g. ADS-B) as well as ground-based (e.g. ATC radar), violations can be connected to a specific flight/airline. Airports can them apply existing mitigation strategies more effectively.

R. Girvin, "Aircraft noise-abatement and mitigation strategies", University of California, 2009