

Level	Technology Development Supersonic Aircraft UAV Development
1	Basic principles observed and reported
2	Technology concept and/or application formulated
3	Analytical and experimental critical function and/or characteristic proof-of-concept
4	Component and/or breadboard validation in laboratory environment
5	Component and/or breadboard validation in relevant environment
6	System/subsystem model or prototype demonstration in a relevant environment
7	System prototype demonstration in an operational environment

*Figure 3-2 – Maturity scale for Technology related subsets
(Technology Development, Supersonic Aircraft and UAV Development)*

Level	Airport Noise Management
1	creating awareness of stakeholders, educating stakeholders, adoption of balanced approach, collecting evidence to support findings
2	Community engagement strategies in additional to balanced approach, defining benefits from adaptive LUP
3	Proof-of-concept based on literature and pilot studies to test proposed strategies
4	Validation within laboratory and field studies and pilot studies
5	Validation through a variety of field studies
6	Comparison of theoretical findings and empirical research on noise strategy approaches - iterative feedback and if needed re-evaluation
7	Proposal of guidelines, recommendations and methods to compare different approaches

Level	Impacts Understanding
1	creating awareness of stakeholders, educating stakeholders, adoption of balanced approach, collecting evidence to support findings
2	Community engagement strategies in additional to balanced approach, defining benefits from adaptive LUP
3	Proof-of-concept based on literature and pilot studies to test proposed strategies
4	Validation within laboratory and field studies and pilot studies
5	Validation through a variety of field studies
6	Comparison of theoretical findings and empirical research on noise strategy approaches - iterative feedback and if needed re-evaluation
7	Proposal of guidelines, recommendations and methods to compare different approaches

*Figure 3-3 – Maturity scale for Impact related subsets
(Airport Noise Management & Indicators and Impacts Understanding)*

Level	High Fidelity Methods
1	N/A
2	N/A
3	Demonstrated capability of HiFi CFD/CAA method to capture underlying physics.
4	Validation against laboratory / low Reynolds Number experimental data or already validated CFD/CAA results.
5	Validation against data from simplified but otherwise representative geometry (e.g. 2D blade section).
6	Validation for a fully representative geometry in a relevant environment at reasonable compute cost.
7	Wide application within the research community.

Level	Experimental Techniques Exposure Tools
1	Basic setup to demonstrate the principle of the method
2	Demonstration of the method capabilities on simple setup
3	Validation of the method to characterise simple configurations at small scale with reference data
4	Validation of the method to characterise representative geometry at small scale
5	Validation of the method on representative component and environment at large scale
6	Validation of the method on representative subsystem model and environment at large scale
7	Method usable with limited number of parameters and graphic user interface

*Figure 3-4 – Maturity scale for Enablers subsets
 (High Fidelity Methods, Experimental Techniques and Exposure Tools & Metrics)*