

# Development Phases of Aircraft Design

Our Focus

## Conceptual

- **Whole-aircraft design and optimization**
- Configuration & sizing
- Requirements feedback
- Goals:
  - OML, primary structure, internal layout defined
  - Mass/volume/power/cost budgets defined
  - Interfaces defined

## Preliminary

- **Subsystem(s) design and optimization**
- Configuration freeze
- Uncertainty analysis, probabilistic performance modeling
- Risk reduction: Detailed design and/or building of key subsystems
- Verifying performance & allocations
- Mid-to-high-fidelity point analysis

## Detailed

- **Part design and optimization**
- In-depth testing of key subsystems
- Finalize mass/power/cost budgets, cross-check against initial estimates.

Multidisciplinary design optimization (MDO) is an overloaded term to mean both of these

# “Aircraft Design Optimization” is an Overloaded Term

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