Transition Steps (Modeling)

1 Identification for Selection

2 Code/Algorithm Assessment and/or Development

3 Interface with Operational Codes

4 Level I: Preliminary Testing (Lower Resolution)

5 Level II: Preliminary Testing (DA/Higher Resolution)

6 EMC Pre-Implementation Testing (Packaging/Calibration)
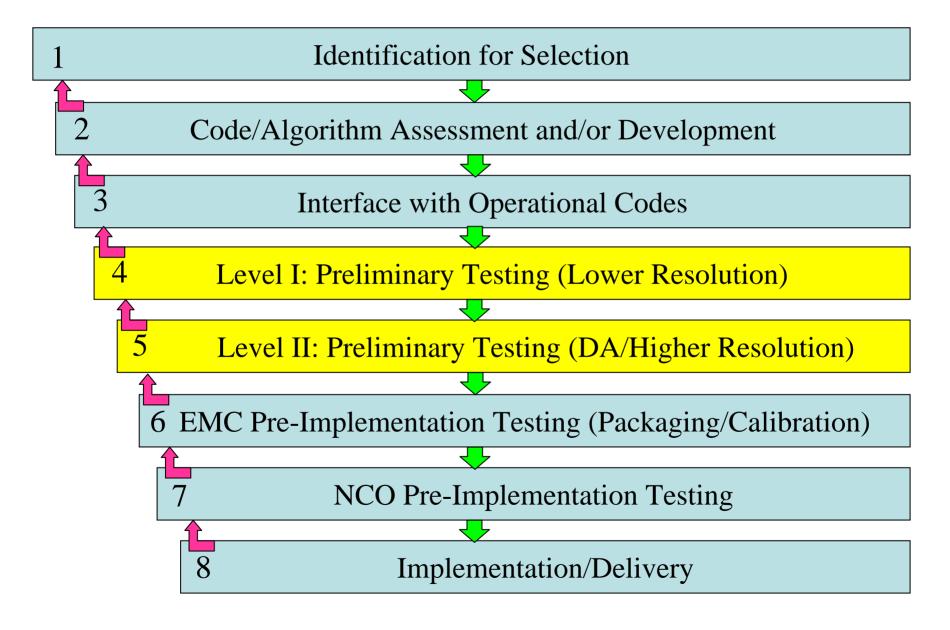
7 NCO Pre-Implementation Testing

8 Implementation/Delivery

The Path to Operational Implementation

1   Code or Algorithm Development & Refinement
Repeated case studies, proof of concept, eliminate bugs

2   Interface with Operational Codes & Data Structures
Connect input/output to BUFR/GRIB, develop backup version,
Make code robust & efficient to fit time/cpu/memory window

3   Preliminary Runs (Research Quality)
Low resolution case studies, static initialization, relevant diagnostics,
warm & cool cases, assess short-term model climate (30 days)

4   Low Resolution Parallel Runs (Experimental)
Connect to fully cycled data assimilation, run for all seasons,
accumulate verification statistics, identify&solve problems:e.g. biases,
amplification through cycling, spin-up/down etc.

5   Pre-Implementation Runs
Operational resolution fully cycled real-time parallel, more
comprehensive verification, documentation and user notification,
real-time forecaster exposure/evaluation