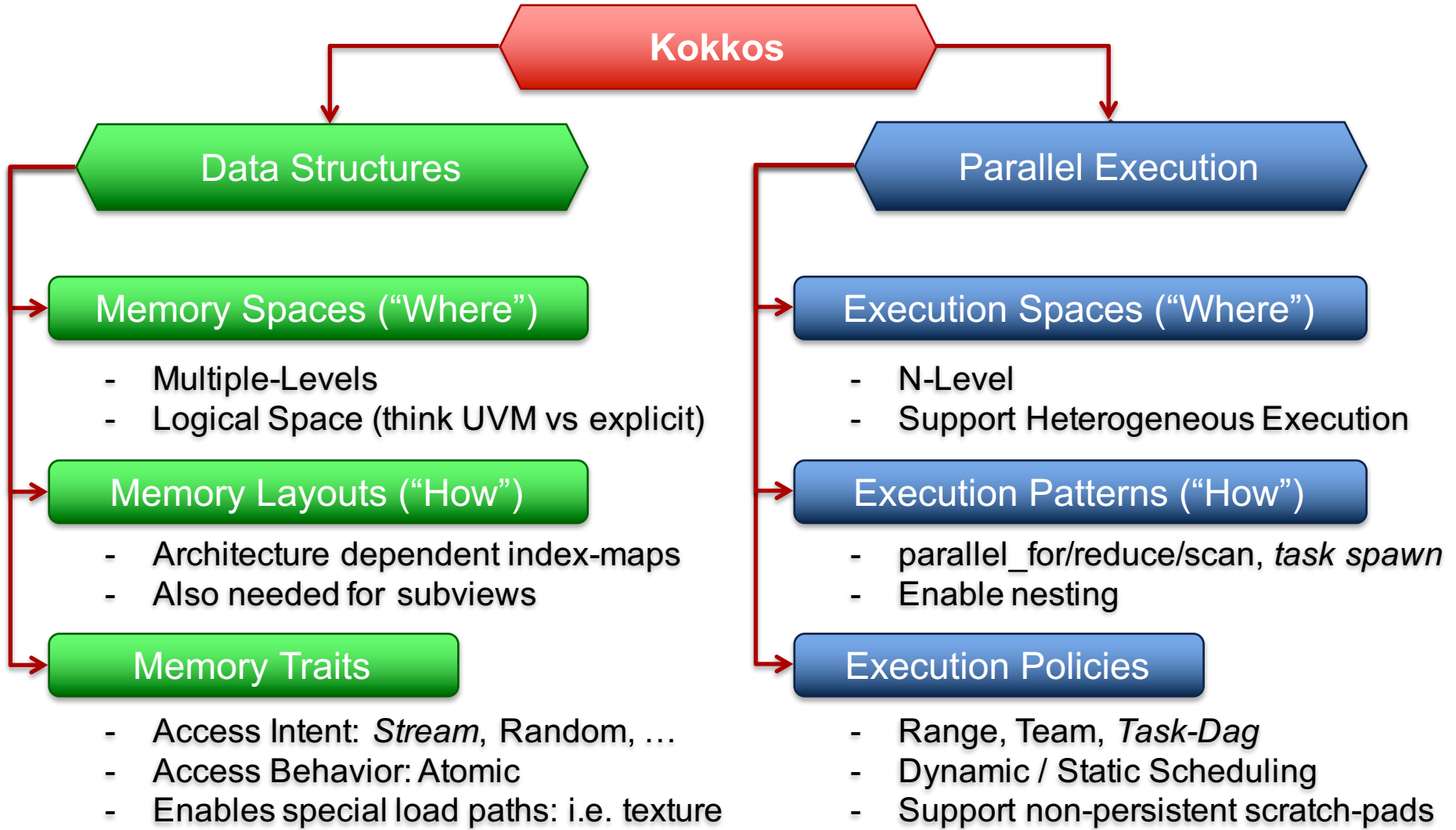
Kokkos
Data Structures
Parallel Execution
Memory Spaces (“Where”)
- Multiple-Levels
- Logical Space (think UVM vs explicit)
Memory Layouts (“How”)
- Architecture dependent index-maps
- Also needed for subviews
Memory Traits
- Access Intent: Stream, Random, …
- Access Behavior: Atomic
- Enables special load paths: i.e. texture
Execution Spaces (“Where”)
- N-Level
- Support Heterogeneous Execution
Execution Patterns (“How”)
- parallel_for/reduce/scan, task spawn
- Enable nesting
Execution Policies
- Range, Team, Task-Dag
- Dynamic / Static Scheduling
- Support non-persistent scratch-pads