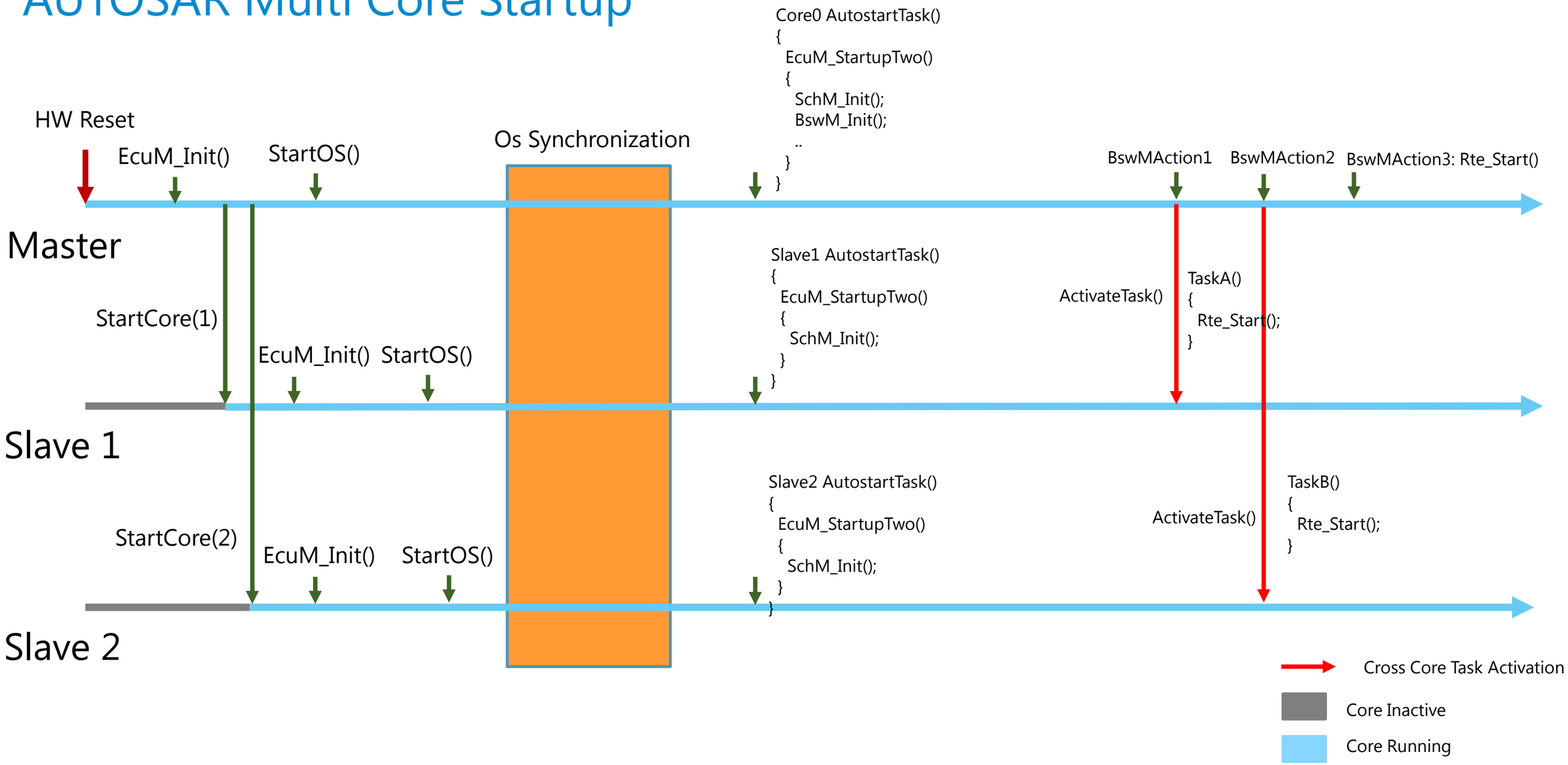
AUTOSAR Multi Core Operation

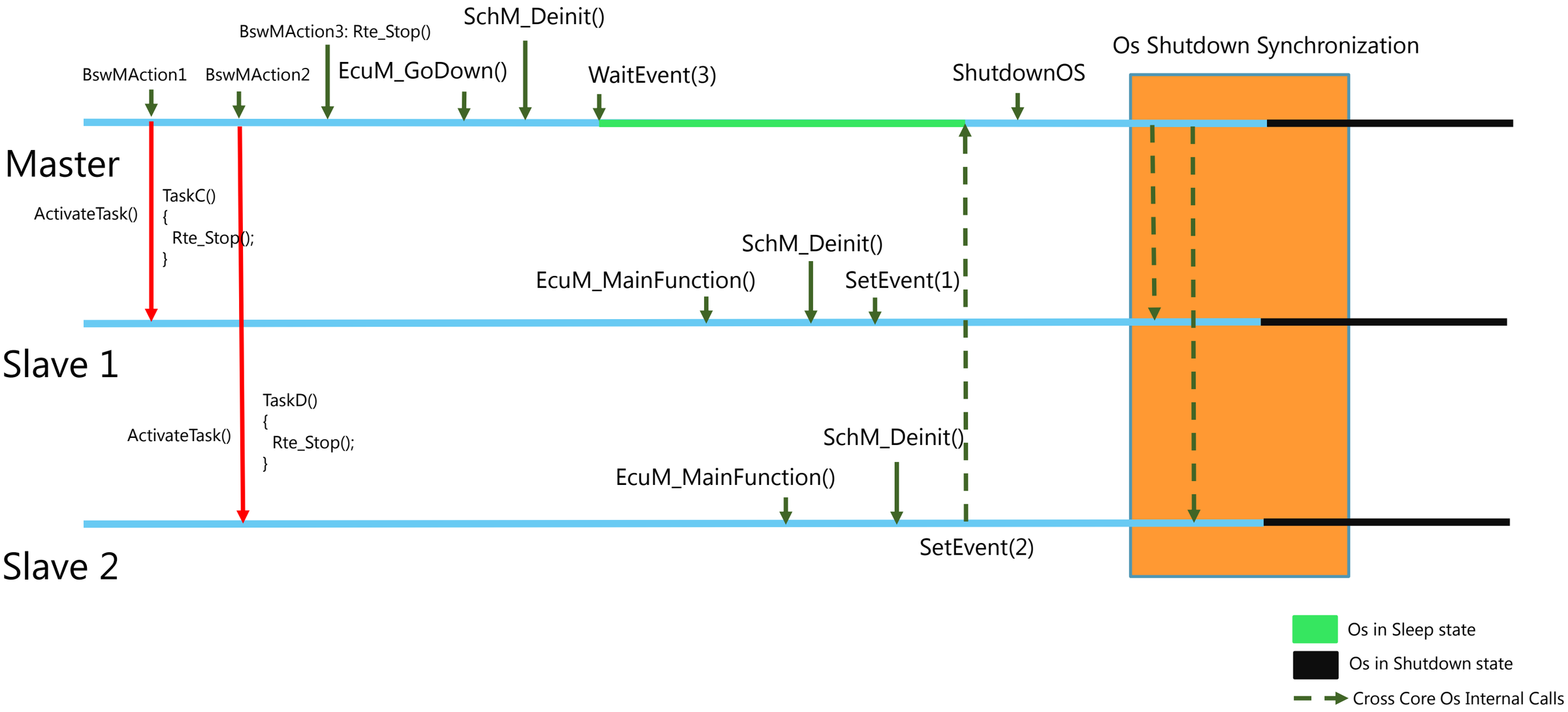
AUTOSAR Multi Core Startup



AUTOSAR Multi Core Startup (contd.)

- MCAL initialization has to be done for Master Core.
- Each OsApplication mapped to their respective core needs to have an Autostart Task for invoking EcuM_StartupTwo() which starts Alarms for BSW main functions via SchM_Init().
- Application shall be initialized on the slave cores via Rte_Start() which has to be invoked through cross-core task activations by BswM on Master Core.
  - BswMAction_TriggerStartupPhase2 Action Choice has to be used which will activate a task on the slave core.
  - The task body for the same shall be part of Integrator's code.
  - Rte_Start() shall be invoked from these tasks on their corresponding cores which will start Alarms for all the partitions residing on that core.

AUTOSAR Multi Core Shutdown



AUTOSAR Multi Core Shutdown (contd.)

- Application shall be de-initialized on the slave cores via Rte_Stop() which has to be invoked through cross-core task activations by BswM on Master Core.
  - BswMAction_SlaveRTEStop Action Choice has to be used which will activate a task on the slave core.
  - The task body for the same shall be part of Integrator's code.
  - Rte_Stop() shall be invoked from these tasks on their corresponding cores which will stopAlarms for all the partitions residing on that core.
- WaitEvent() shall be called from Master Core from EcuM_GoDown() which shall put the task in WAITING state.
- SetEvent() has to be invoked from EcuM_MainFunction() scheduled on the slave cores after the above instant which resumes the WAITING task on Master Core.
- Master Core invokes ShutdownOS() once the above process is complete.

THANK YOU