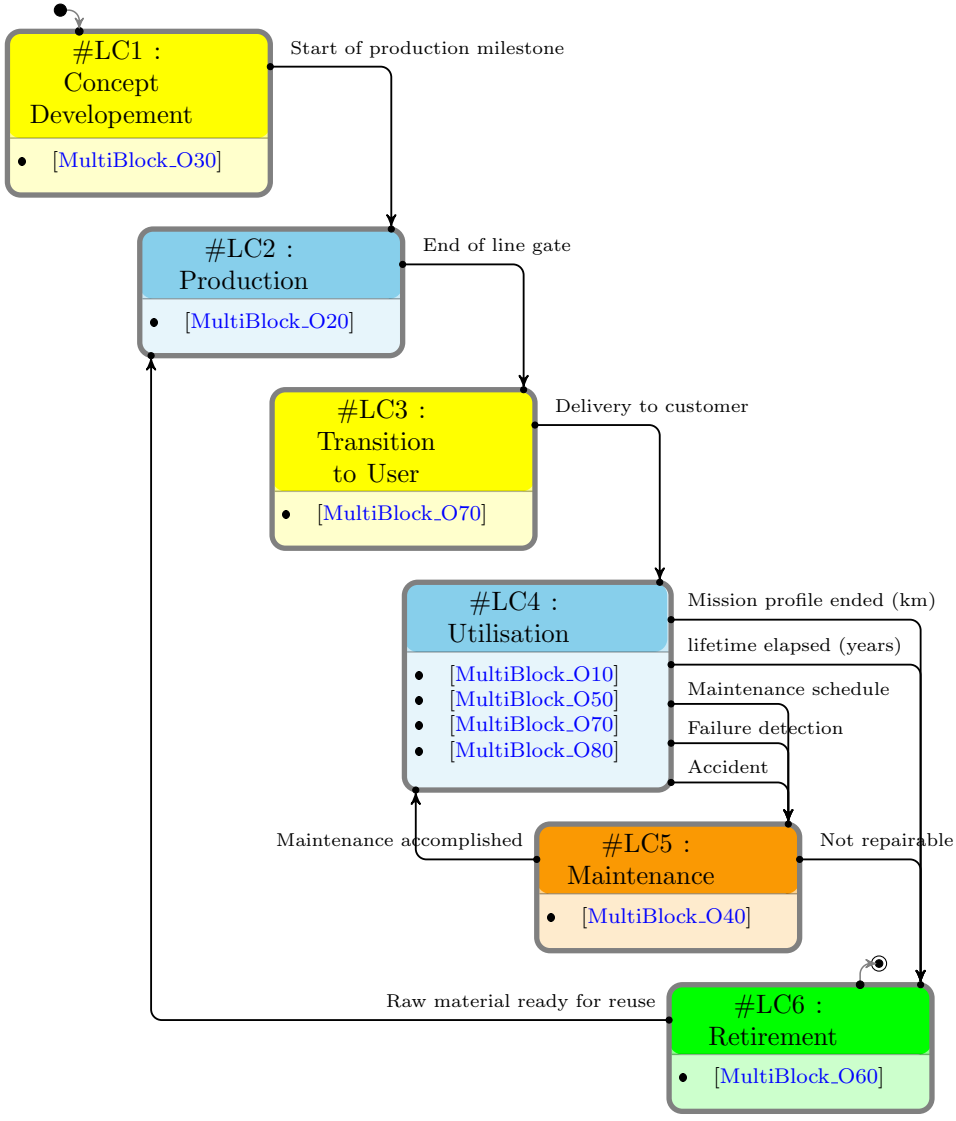stm SOI [LifeCycle]