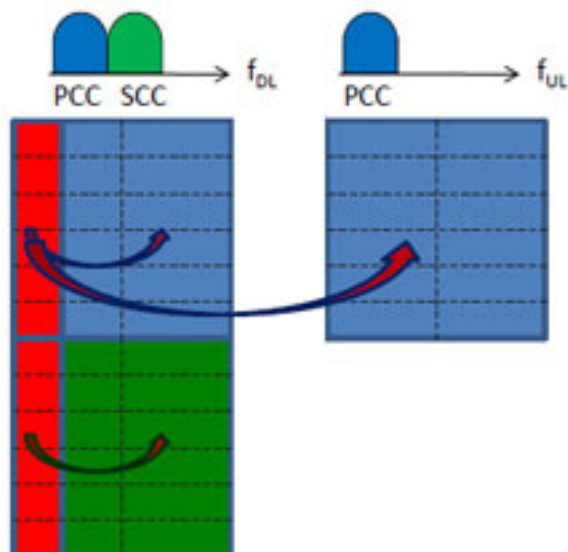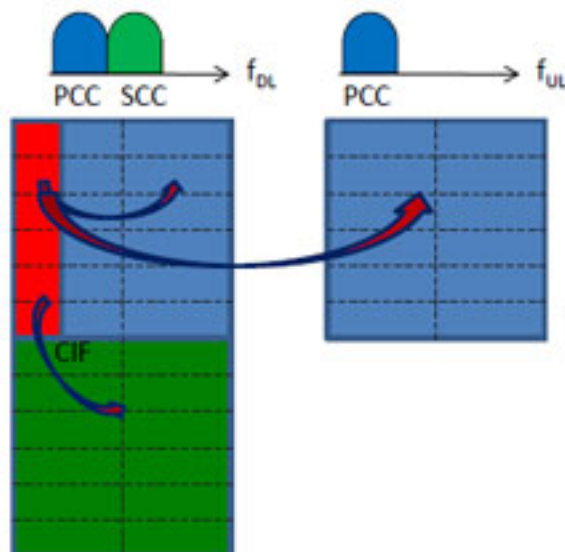**A) Scheduling grant and resource on the same carrier**
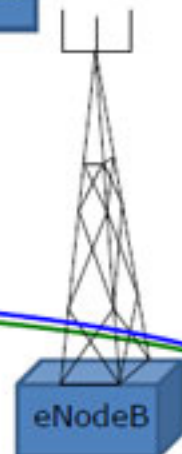
**B) Cross-carrier scheduling; Scheduling grant and resource NOT on the same carrier** -Carrier Indicator Field (CIF) on PDCCH

PCC SCC $f_{DL}$ PCC $f_{UL}$

CIF

LTE-Advanced

eNodeB

Primary Serving Cell (PSC), Primary Component Carrier (PCC), RRC connection and data

Secondary Serving Cell (SSC), Secondary Component Carrier (SCC), user data