# Fundamentals of Heterogeneous Cellular Networks with Energy Harvesting

Self-powered BS is realistic:

* Small cells cover smaller areas, hence require significantly smaller transmit powers compared to the conventional macrocells.
* Due to the nature of traffic loads, the traffic on the BSs variate massively.In the dense deployments, BSs will be closed most of times to save energy.
* The energy harvesting energy are becoming more energy efficiency compared to the conventional sources.
* High speed backhaul is repidly becoming a reality for small cells.Therefore, wireless deployment of BSs,especially of small BSs, is even more attractive.