

Precision measurements on the transverse momentum dependent hadron multiplicities in semi-inclusive deep inelastic scattering is, with unpolarised azimuthal asymmetries, crucial in the determination of the quark intrinsic transverse momentum and in TMD evolution studies. COMPASS has measured differential multiplicities of hadrons using a deuteron target in a four-dimensional space. This data set is, to date, the only one that study the  $P_T^h$ -dependent production of hadrons in simultaneous bins of  $x$ ,  $Q^2$ , and  $z$ , and that covers a wide range in  $Q^2$ . The measurement of hadron multiplicity as a function of  $P_T^h$  using a liquid hydrogen target is foreseen based on data currently being collected by COMPASS and which will last until 2017. SIDIS data are collected in parallel to the deeply virtual Compton scattering reaction. A review of the latest results on deuteron target will be given and the status about the foreseen measurements on proton target will be discussed.