Measuring the beam transverse emittance is fundamental in every accelerator, in particular for the LHC, where its precise determination and its preservation is essential to maximize the luminosity and thus the performance of the colliding beams. In this contribution, a review of the status of the synchrotron radiation monitors, the beam gas vertex detector and the wirescanners will be presented alongside the assessment of the obtained performance. The new features implemented and the issues encountered in Run II will be highlighted.