Light Source Performances Achievements, J.L. LACLARE, SOLEIL PROJECT - More and more third generation light sources have come into operation. All of them were successful in reaching their performances. Some of them, like the ESRF, achieved brillances up to two orders of magnitudes higher than their initial target. Experience with the operation of existing machines indicates some imperfections and possibilities for new projects to integrate possible corrections in their design. These include: operation at the diffraction limit with even higher brillances, higher position stability, enhanced Touschek lifetimes with larger momentum acceptances combined with low chromaticity and feedback of coupled bunch transverse resistive wall instability, efficient control of the longitudinal coupled bunch instability, higher currents in single bunch, better signal to noise ratio by localising losses at selected places in the ring and avoiding the emission of high energy bremsthralung photons in the direction of beamlines, possibilities of permanent injection, production of focused photon beams, high quality insertion devices, etc.