This colloquium will be divided into two parts. First, as the European ALMA Programme Scientist, I will report on the current status of the ALMA observatory. The Atacama Large Millimetre/Submillimetre Array (ALMA) in the Northern Chile is an interferometric submillimetre telescope consisting of 66 antennas, operated by a partnership consisting of ESO, NRAO (representing North-America) and NAOJ (representing East-Asia). I will briefly discuss the organizational structure, the current and future observational capabilities, some scientific highlights, and other aspects that are of relevance to the general observer.

In the second part of the talk I will focus on the study of dust in galaxies with ALMA and other submillimetre facilities. The evolution of interstellar dust reservoirs, and the evolution of galaxies themselves go hand-in-hand, as the presence of dust alters evolutionary drivers, such as the interstellar radiation field and the star formation history, while at the same time, the dust is being formed and altered by processes taking place in galaxies. However, far-infrared and submillimeter studies have revealed enormous dust masses at high redshifts that are difficult to explain with dust production from evolved stars (the so-called "dust budget problem"), while in the nearby universe there is also a significant mismatch between the dust production rate and the dust mass observed in the interstellar medium of galaxies. I will go over some possible explanations in an attempt to find a way forward towards a solution to this seeming discrepancy.