



## 2004: the Old Continent explores the Solar System

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**Abstract.** This a fundamental year in the history of exploration of the Solar System. I will discuss the role that Europe has taken to undergo this enterprise. I will start from the recent results on Mars, due to Mars Express, indicating the presence of minerals, like Hematite, that usually involve water in the process of formation. I will discuss the new probes, like the Cassini-Huygens that, put on an interplanetary trajectory due to the gravitational pull of the various planet it encounters, will reach Saturn and its moon Titan to study it in detail. New technology tests are developed for the SMART and Rosetta missions that are searching for the origins of the Solar System by reaching a few asteroids and landing on a comet to spy its content. At last I will touch upon our next future: the Venus surface that will be explored by Venus express.