## CATALAN CONTRIBUTIONS

TRIBUNE
PERE MIRET Economist and member of
the Economy Section of the National
Catalan Assembly

atalonia has a thousand-year history as a European nation. Despite being a relatively small country throughout its long history it has made remarkable breakthroughs beyond having had the first parliament, in the Middle Ages, as Pau Casals said at the United Nations in 1971. Nowadays if you ask someone about universal Catalans, artists like Antoni Gaudí or Salvador Dalí will probably be mentioned. However, Catalan contributions to the progress of humanity cover virtually all facets of human activity to a greater or lesser degree. Nevertheless, there are those who have been hidden or attributed to Spaniards, especially as a result of centuries of oppression, and subjugation of the Catalan nation since 1714 by Spain.

In the book Outstanding Catalan Contributions, published in English in 2015, there is a collection of more than two hundred Catalan contributions to the advancement of humanity. Within science and technology some stand out: the invention of the telescope by Joan Roget in 1590, the scientific measurement of the chemical composition of the air by Antoni de Martí in 1790, the anaerobic submarine by Narcís Monturiol in the middle of the 19th century and the first jet engine for airplanes by the engineer Ramon Casanova in 1917! But there were also improvements to the procedure for obtaining quality iron in the 10th century, to the construction of spinning machines, steam engines, electric telegraphs, silk velvet looms and coffee dryers, among many others later.

Medicine deserves a special mention. Thus, the discovery of pulmonary circulation and oxygenation of the blood by Miquel Servet in 1553, a new method of operating on the crural hernia in 1772, modern toxicology, advances in immunology, bacteriology and physiology, the removal of cataracts by phacoheresis, the first blood bank, the viral etiology of some cancers and the surgical treatment of war fractures stand out. In the 21st century, many progresses have continued to be made, especially within the framework of

the fight against cancers.

On the other hand, in the middle of the 14th century the Llibre del Consolat de Mar was the reference law code for maritime trade and navigation in the Mediterranean Sea and in Europe. Also, the Taula de Canvi was opened in 1401 in Barcelona, which can be considered the first public bank in Europe. Currently, the Catalan economy is characterised by its diversification. Notwithstanding, it is especially strong in some clusters, such as biomedical and chemical, which are based on a long tradition of scientific and technological research, as noted above.

Still, the current situation of colonial de-

pendence of Spain is increasingly leading the Catalan economy to decline. Despite the volume of the Catalan economy, there are practically no big companies. The reason is clearly political: the hyper-centralist Spanish state does not allow it. In October 2017, it pushed for the few that remained to move their headquarters out of Catalonia in a new episode of a long historical series, and it succeeded partially. In spite of that, the Catalan economy has great potential. The effective independence of Catalonia will mean not only the end of the plunder of 8% of the Catalan gross domestic product annually, but also the release of productive and creative forces that now are latent due to the current situation of colonial treatment by Spain. The history of global Catalan contributions indicates that Catalonia can become a dynamic economic hub in Southern Europe and contribute more vigorously to the development of mankind.

