

PRESS RELEASE

## SENER in Poland develops the device technology for satellite assembly

### Next step in the growth of the Polish space industry

Within the programme launched by the European Space Agency titled “Polish Industry Incentive Scheme”, which is intended to increase the competences of the national space industry companies, SENER in Poland has a contract for the development of the equipment known as clamp band technology, i.e. mechanisms fastening satellites to the devices used for their transport and assembly. The project is also a great success as a result of the internship programme launched by the Industrial Development Agency, as the senior engineer is one of the winners of the first edition of the programme.

A clamp band can be compared to a giant cable tie or clamp. It is the only element fastening the satellite to the transport device or the launch vehicle. If the clamp band fails, a satellite valued at several hundred million dollars will crash down to earth. Such joints must be extraordinarily durable and easy to assemble. The device designed by SENER in Poland will weigh around 60 kg, have a diameter of 1.7 m and its main element - the steel band - will be only 3 mm thick. The clamp band must be able to bear the load of a 10 t satellite. Additionally, it will be used in extreme conditions: in a vacuum and in temperatures ranging from -40 to 70°C.

The purpose of the contract awarded by ESA to SENER in Poland is the development of clamp band production and testing technology. After the project is completed in 2018, the Polish company will join the selected group of European manufacturers of this type of device, which should affect competitiveness on the market and reduce production costs. The ultimate outcome of the contract performed by SENER in Poland will be not only the clamp band itself, but also the test facility, which will remain in the country and will be used to test the functionality of further devices. The first stage of the project has recently come to a close - ESA has approved the initial technological solutions and test proposals for the clamp band produced in our country.

The contract is performed under the “Polish Industry Incentive Scheme” programme. For the first 5 years of ESA membership, Polish entities receive funds for the development of technology and competences, so as to adjust their capabilities to participate in the projects launched by the European agency. Having gained new skills, Polish companies can be more effective in winning new contracts and cooperate on them with local subcontractors.

“Winning the contract under the Incentive Scheme makes it possible for us to involve companies from other sectors in the space industry, some of which did not even expect to become part of it so far. The entire clamp band project will be completed in our country, starting from the design prepared by the SENER in Poland Engineers, to the production and testing done by our partners.” - says Kamil Grassmann, Project Manager for SENER in Poland.

The development of competences and competitiveness of the Polish space industry is also one of the objectives of the internship programme titled “Development of human resources for the space sector”, which was launched one year ago by the Industrial Development Agency and the Space Sector Employers’ Union. SENER in Poland is one of the companies participating in the initiative.

Further information:

“All the technologies in the space industry, even the minor ones, always require top quality and state-of-the-art scientific, technical and technological knowledge. Our internship programme gives young scientists a chance not only to put their knowledge to the test, but also to participate in the latest projects carried out in Poland. What is more, this also represents an opportunity for them to build their future in the country rather than go abroad and work for foreign space technology companies. Similarly, they can also have their say in the shape of the Polish space industry in the nearest future.” - says Michał Szaniawski, vice-president of the Industrial Development Agency.

One of the eight winners of the first edition of the programme, Paweł Kozłowski, is the senior engineer in the clamp band project. He started his internship in SENER in Poland almost exactly one year ago. “The participation in the internship programme was a turning point for me. This is also when I started to get to know the space industry from the inside and I found an exciting job” - says Paweł Kozłowski.

Also Kamil Grassmann, the project manager for SENER in Poland, has a positive opinion of the programme. “The initiative of the Industrial Development Agency makes it easier for young people to accelerate their career and it also helps space sector companies find students who have the potential to become excellent employees. The participants of the programme can become familiar with the high technology industry, the procedures that govern international space projects and they can even participate in formal discussions with the European Space Agency.”

### About SENER in Poland

*SENER in Poland started in 2006 and it focuses its activity in the aerospace sector, understood as defence, space engineering and aeronautics. The main area of SENER in Poland operations in the aerospace industry is mechanical engineering, including in particular space vehicle structure and disassembly mechanisms. Other areas of the company activity in Poland include mechanical ground support equipment (MGSE) and space vehicle navigation. Although Poland joined the ESA only in 2012, SENER in Poland has already become an important stakeholder in the space industry and through projects it has launched it aims to contribute to building a strong space sector in Poland. Among the important enterprises it is worth mentioning ExoMars, Proba-3, Euclid, E.Deorbit, Saocom-CS, Athena, JUICE, as well as the ESA Incentive Scheme, which supports the growth of the space industry in Poland.*

### About SENER

*SENER is a private engineering and technology business group founded in 1956. Its aim is to offer its clients the most advanced technological solutions and to achieve international recognition based on its independence and commitment to innovation and quality. SENER has almost 2,500 professionals across its centres in Algeria, Argentina, Brazil, South Korea, Chile, China, Colombia, the United Arab Emirates, Spain, the United States, India, Morocco, Mexico, Poland, Portugal, the United Kingdom and South Africa. The group's operating revenue exceeds 910 million euros (2016 data).*

*SENER brings together its own Engineering and Construction activities with industrial holdings in companies working in the field of Aeronautics and Energy & Environment. In the field of Engineering and Construction, SENER has become a leading company worldwide in the fields of Aerospace; Infrastructure and Transport; Power, Oil & Gas; and Marine.*



*In 2017, SENER is celebrating 50 Years in Space, with more than 275 equipment elements and systems for satellites and space vehicles successfully delivered for agencies from the USA (NASA), Europe (ESA), Japan (JAXA) and Russia (Roscosmos). In Space, SENER supplies engineering and production services in precision mechanisms, optical systems, guidance, navigation and control systems (GNC/AOCS), microgravity and life-support systems, and astronomy.*

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