

The European Union (EU) jointly with the European Space Agency (ESA) are in the process of building their own satellite navigation system – the global Galileo and the supporting EGNOS. The European systems will be an alternative to the American GPS and Russian GLONASS and are meant to be mostly for civilian use. At the beginning of the 21st century, the member of the European Commission G. Verheugen recognised space as a principal tool in administering the EU and one of the essential techniques in implementing other European policies. Even then, one of the objectives of the EU was its transformation from being a beneficiary, to being a provider of space services, especially with regard to global navigation satellite systems. Global satellite navigation systems are currently used in various fields: banking operations, financial transactions, telecommunication, electricity distribution networks, radio and television broadcasting, computer synchronisation, space research, dating of measurements in automatic measuring instruments (probes, tide gauges, seismometers, buoys etc.), and others. In the future, universal access to navigation signals emitted by satellites will contribute to an increase in the number of possible GNSS applications in various sectors. GNSS receivers will be included in electronic devices of everyday use, like PDAs, cameras, portable computers or even watches. It is of particular importance that even today satellite navigation receivers are featured in mobile phones and means of transport, e.g. cars. Broader perception however associates satellite navigation systems mostly with its use in air, sea and road transport.

It is important to remember that satellite navigation, like GPS and GLONASS, were designed and put in operation for purposes of security and defence. Currently, those systems offer the most precise way of positioning and targeting in weapons systems, characterised by their precision in guidance and maximal accuracy. In addition, studies have shown that satellite navigation systems are immune to natural disturbances, such as weather conditions or interference in the ionosphere, as well as the time of day.

Due to these reasons, the space sector is currently considered one of the pillars of national security and is used both by countries with a huge military potential, e.g. the US and Russia, as well as countries particularly vulnerable to intervention from outside, e.g. Iran, Pakistan, South Korea.

It is slowly dawning on the public opinion in Poland that the development of satellite technologies can support the development of the economy, contribute to the creation of new workplaces and create opportunities for Polish businesses to appear on foreign space industry markets.

It is already seen in countries that have run their own space policy for years that The implementation of practical use of satellite technologies, including satellite navigation, in Poland will entail significant positive consequences, as has already been demonstrated in states which have been conducting their own space policies for years.

One of the most important tasks set out in the "Agenda for the development of space technologies and the use of satellite systems in Poland" prepared by the Ministry of Economy of Poland in 2012 was the development of the space sector in Poland (both the industry and research institutes) by 2020, increasing the participation of the Polish space sector in space programmes and projects implemented by the EU and ESA, as well as development and implementation of new and innovative solutions, based on satellite technologies, in the economy and public administration.

The document stated that "Meeting the international technical, technological and organisational requirements will therefore be one of the biggest challenges for Poland now and in the coming years. To achieve this, a national programme for the development of space technologies has to be created and Poland needs to take an active part in multinational programmes...".

By becoming a member of the EU and ESA Poland took co-responsibility for the implementation of the European space policy. Poland can boast prestigious scientific projects, and Polish companies and research centres are able to deliver advanced technologies and carry out multimillion-dollar contracts. The realisation of these objectives requires detailed analysis covering the political foundations and the legal basis of flagship space programmes implemented within the framework of the European space policy by the EU and ESA. Our research project will focus on the European satellite navigation systems - EGNOS and GALILEO. Problems of a legal and political nature might arise not only in connection with the launching of navigation satellites into space, but also as a result of improper use of GNSS and various applications of satellite navigation. In this regard, science has several important tasks to fulfil, including a review of existing international, European Union and national law in terms of how adapted it is to current needs arising from rapidly developing space technologies, including satellite navigation, and assistance in solving legal problems arising in connection with space technology.