

The Remotely Piloted Aircraft Systems (RPAS) market is the new technologies market, which means that it is a source of innovation and economic growth. It is estimated that in 2017 drones will be sold for 6 billion USD worldwide, and this sector will be worth 11,2 billion USD in 2020. Such dynamics is equally impressive in Poland, since in 2015 the sector was valued at about 165 million PLN and today it is worth over 200 million PLN. The above figures have given an impetus to undertake research on legal aspects of the use of drones. Drones, as any new technology, give rise to many challenges requiring discussion and development of solutions. Evolution of unmanned aircraft and their integration with manned aircraft system represents one of the major challenges for the future of aviation, and requires the development of regulations governing their use. At the moment there are no binding international rules which would regulate the use of RPAS. Determination of rules that concern the use of drones is therefore currently within the competence of national law. Poland was one of the first countries in which legal regulations for RPAS use were implemented (2013). Although there is intensive legislative work in progress on developing such provisions at the European level, the first EU legal acts on drones will enter into force in two years at the earliest. Enabling the operation of remotely-controlled aircraft or even operation by automated flight control systems (as part of the so-called autonomous flights), requires the development of detailed solutions for a number of technical and operational aspects which include, inter alia, the following: airworthiness, i.e. rules of design, production, release to service, maintenance (including maintenance of ground control station), data transmission from a ground control station (including ensuring continuity of data transmission), using radio frequencies or other data transmission techniques, using available radio frequencies for data transmission systems; motion detection and collision avoidance systems; emergency systems (e.g. loss of communication); RPAS operators (including training and competence requirements) as well as rules of the air, especially at the lowest altitude or procedures for air traffic services. The main objective of the project is the detailed analysis of above issues based on previously existing national regulations, as well as the draft UE regulations, and foreign and international documents. The analysis must also enable an assessment of the impact of proposed UE regulations on the use of drones in Poland. Past experience related to the use and applications of drones in Poland will also be described within the project. The analysis will also include available national statistics on incidents involving drones, which will allow to indicate associated potential risks. Within the project, the legal issues which go beyond the sphere of air safety regulation, and which are still related to the use of new technologies, will also be addressed. For example, relations between the use of drones and property right, the protection of the right to privacy, civil or criminal liability. The results of the project will be helpful not only in creating new legal regulations, but also in interpretation of already existing rules. They will also contribute to raise legal awareness among users of RPAS and enable to attempt to answer the questions concerning the impact of new technologies on society.