

# Maintenance and Development of the Hungarian Land Parcel Identification System (LPIS-HU) for IACS

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## ABSTRACT

Land Parcel Identification System (LPIS-Hu) and Control with Remote Sensing (CwRS) play an important role in the system of the direct agricultural area-based payments in the EU Member States. The preceding R+D phase and the operational years of the National Crop Monitoring and Production Forecast program (NCMPF, 1997-2003) that had been carried out by Institute of Geodesy, Cartography and Remote Sensing (FÖMI) provided a good basis for the establishment of LPIS-Hu and CwRS. The LPIS-Hu has been one of the ongoing main activities of FÖMI since 2002. The system is based on physical blocks with natural boundaries, which was found to fit the best to the country's agricultural utilization characteristics. Approximately 300 000 physical blocks cover the entire area of Hungary. The average size of the blocks is 32 ha, including all land cover categories. The LPIS-Hu project also includes the development of the GIS of physical blocks, integrating area-based information for managing rural development schemes, LPIS-Hu internet applications together with training for the institutional participants and the clients of the IACS. The thematic layers of LPIS on Less Favoured Areas (LFA) and Environmental Sensitive Areas (ESA) were set up in 2004. Afterwards, the thematic layers of nitrate sensitive areas were also integrated into LPIS in 2006. In 2007, the NATURA 2000 areas were integrated into LPIS. Further development of the definition with GIS tools of the LFA are also managed, based on the requirements given by the new system of European Agricultural Fund for Rural Development (EAFRD) should be implemented from 2007. Since 2004, there are over 200 000 farmers using the LPIS-Hu system during submitting the annual area-based aid applications in every year, such as applications for the SAPS and Top-up payment, for agri-environmental schemes and for Less Favoured Area scheme. The renewal and the development of the LPIS-Hu is managed in collaboration with Agricultural and Rural Development ARDA and harmonised with the IACS activities. The LPIS-Hu is the driving force of the IACS development and it is appreciated by several EU missions and regular reviews. In 2005/2006, the update of LPIS was completed programmatically covering Hungary. It was based on orthophotos created from aerial photographs taken in 2005, topographical maps and satellite image time series taken in the period 2000-2005. In 2007, we continued the update of LPIS based on a multi-year schedule (2007-2010).

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