I prefer:

X ORAL presentation

□ POSTER presentation

**Can Smart Technology Adoption in the Pig and Poultry Industries Better Facilitated?**

Thomas BANHAZI\*1,5, Annamaria BANHAZI1 , Ildiko E. TIKASZ2, Szilveszter PALOTAY2, Kevin MALLIMGER3, Thomas NEUBAUER3, Luiza CORPACI3, Uri MARCHAIM4, Idan KOPLER4, Sebastian OPALINSKI5, Katarzyna OLEJNIK5, Eugen KOKIN6, Stefan GUNNARSSON7, Thomas BJERRE8 and Claus SOERENSEN9

[1thomas.banhazi@plfag.com](mailto:1thomas.banhazi@plfag.com), AgHiTech Kft., Budapest, Hungary and Wroclaw University of Environmental and Life Sciences, Wroclaw, Poland; 2AKI Institute of Agricultural Economics, Budapest, Hungary; 3SBA Research, Vienna, Austria. 4MIGAL, Galilee Research Institute, Kiryat-Shmona, Israel. 5Wroclaw University of Environmental and Life Sciences, Wroclaw, Poland. 6Estonian University of Life Sciences, Tartu, Estonia. 7Swedish University of Agricultural Sciences, Uppsala, Sweden. 8Innvite ApS, Copenhagen, Denmark. 9Aarhus University, Aarhus, Denmark.

**Abstract:**

**Background/Objective:** The importance of Precision Livestock Farming (PLF) technologies in agricultural practices is widely recognized, yet the actual adoption rate remains low. To address this issue, research with several interconnected sub-studies was initiated across seven countries to encourage PLF technology utilization.

**Methods:** Initially, 15 farms received PLF tools to showcase their benefits. Despite successful deployment, challenges such as animal behavior, sensor positioning, and internet connectivity affected operational efficiency. Concurrently, surveys were conducted to assess livestock producers’ attitudes and identify adoption barriers. Subsequently, a sophisticated cloud-based ICT tool was developed to integrate research outcomes.

**Results and Conclusion:** The findings have highlighted concerns regarding the cost, complexity, maintenance, and perceived benefits of PLF technologies, exacerbated by internet connectivity issues in rural areas. Machine learning analysis identified the technological readiness levels of farmers, providing information for the development of the new PLF Compass tool. This integrated application facilitates technology adoption by offering personalized recommendations and benefit assessments.

**Keywords:** PLF/smart technologies, ICT tools, adoption, implementation, technology barriers JEL classification