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TRANSLATING AGRICULTURAL INNOVATION: THE ROLE OF LANGUAGE PROFESSIONALS IN TRANSFERRING SUSTAINABLE FARMING TECHNOLOGIES ACROSS EUROPE

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Introduction

The transfer of sustainable farming technologies across Europe is essential for achieving the European Green Deal objectives and ensuring food security in an era of climate change. However, linguistic diversity across the continent's 24 official languages and numerous regional languages creates significant barriers to the effective dissemination of agricultural innovations. This research article examines the critical yet often invisible role of language professionals, translators, interpreters, terminologists, and localisation specialists, in facilitating the cross-border transfer of sustainable agricultural technologies. Drawing on interdisciplinary perspectives from translation studies, agricultural extension theory, and innovation diffusion research, we analyse how language mediation enables the flow of technical knowledge, equipment documentation, training materials, and policy guidelines necessary for technology adoption.

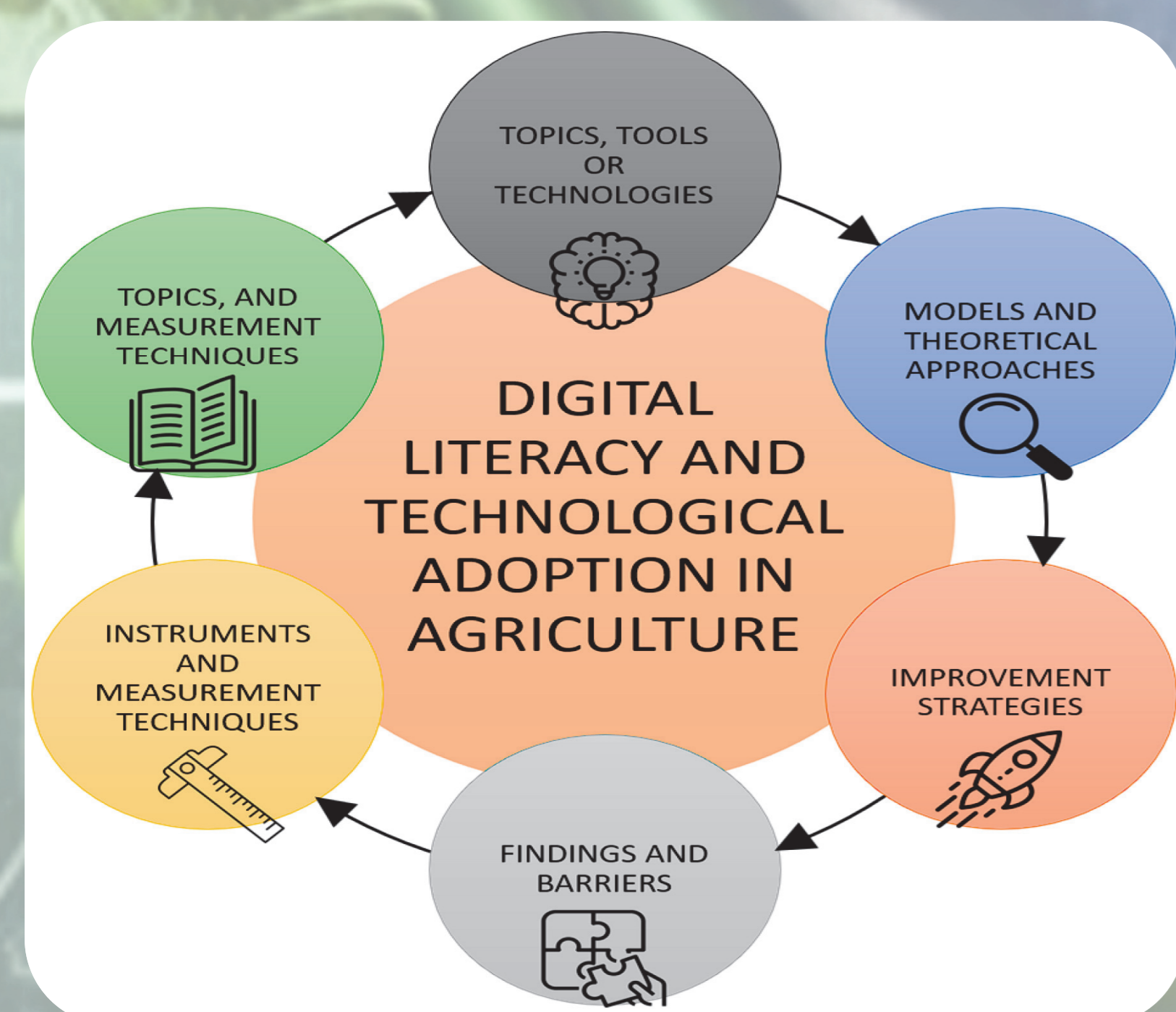
Material and method

The study identifies key challenges including the rapid evolution of agricultural terminology, the need for cultural adaptation of farming practices, and the resource disparities that limit translation capacity in smaller language communities. Through case studies of successful technology transfer initiatives, including multilingual precision farming documentation, interpreted cross-border training programmes, and localised sustainable practice guides, we demonstrate that professional language mediation significantly accelerates adoption rates and reduces implementation errors. The article proposes a framework for integrating language professionals into agricultural innovation systems, emphasising the need for specialised training at the intersection of agricultural science and translation studies. We conclude with policy recommendations for EU institutions, research funding bodies, and agricultural extension services to recognise translation as a strategic investment in sustainable development rather than merely an administrative cost.

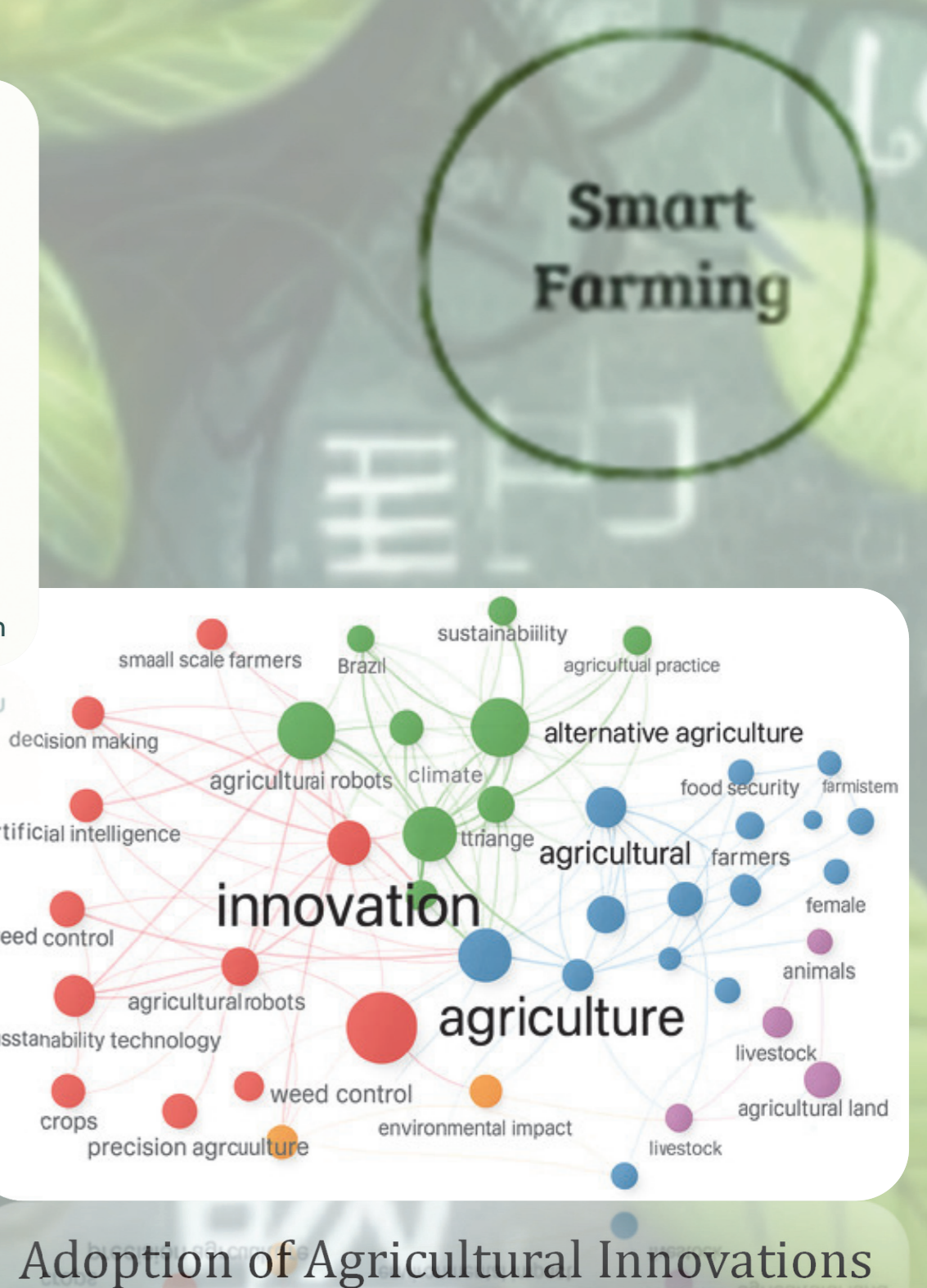
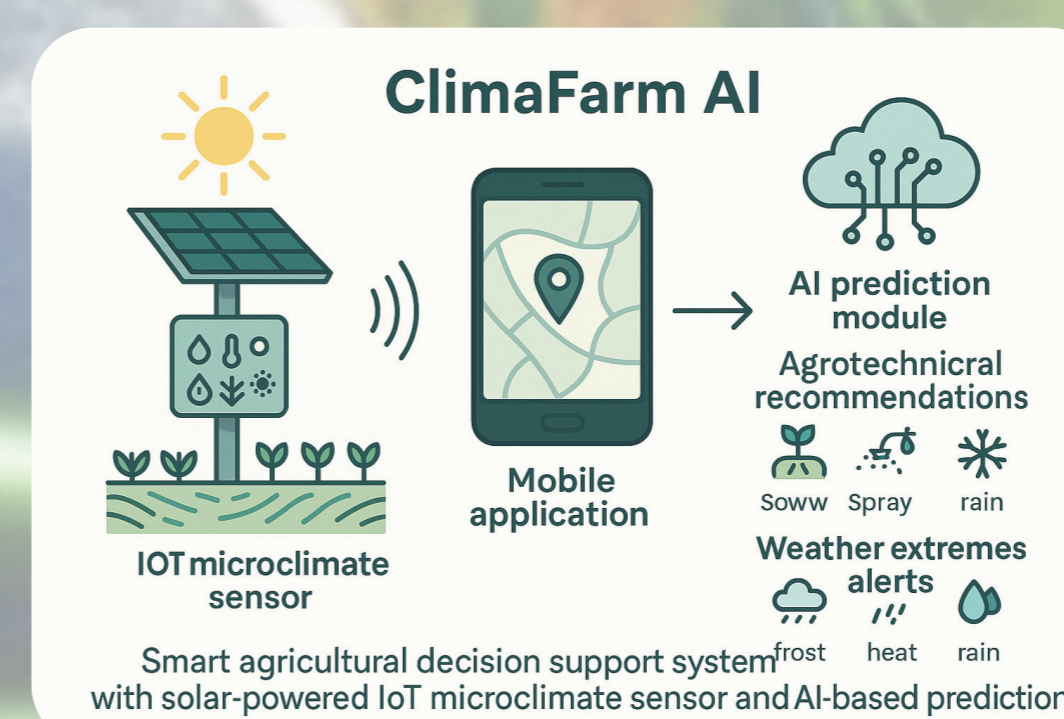


Result and discussions

The results highlight that language diversity represents one of the main barriers affecting the dissemination of sustainable agricultural technologies across Europe. Although modern agricultural innovations are increasingly developed within international research projects, their practical implementation often depends on the quality and accessibility of multilingual communication materials. The analysis showed that professional translation and localisation significantly improve the accessibility of agricultural information for farmers, agricultural advisers, and local institutions. Translated technical documentation, multilingual training materials, and interpreted workshops contribute to a better understanding of sustainable farming practices and reduce implementation errors caused by linguistic misunderstandings. Particular difficulties were identified in the translation of agricultural terminology associated with precision farming, digital agriculture, irrigation systems, and environmental management. The rapid development of agricultural technologies frequently leads to the appearance of new technical concepts that do not always have direct equivalents in all European languages.



Digital Literacy and Technology Adoption in Agriculture



Conclusions

The research highlights the important role of language professionals in supporting the dissemination and implementation of sustainable agricultural technologies across Europe. In the context of increasing linguistic diversity and rapid technological development, efficient communication represents a key factor influencing the accessibility and adoption of agricultural innovations. The study demonstrates that professional translation, interpretation, and localisation contribute significantly to improving the transfer of technical knowledge between researchers, agricultural institutions, and farmers from different linguistic and cultural backgrounds.

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