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European Digital Innovation Hubs and the Agri-Food Sector: A Scoping Review of Current Knowledge and Sectoral Gaps

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Irina Toma-Constantin[1], Ioan Sebastian Brumă[1], Oana Coca[1], Gavril Ștefan[1]

[1]Faculty of Agriculture, Agroeconomy Department, "Ion Ionescu de la Brad" Iasi University of Life Sciences, 700490 Iasi, Romania

I.TOMA-CONSTANTIN

irinatoma.epm

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Abstract

The research protocol of our study outlines a **PRISMA-ScR–based scoping review** that systematically maps all academic and policy literature on **European Digital Innovation Hubs (EDIHs) in the agri-food sector (2016–2025)** to identify prevailing research themes, methodological patterns, and key knowledge gaps, using searches in **Web of Science, Scopus, and Google Scholar**. Data were extracted and synthesized thematically across **four levels of EDIH interaction** (internal, ecosystem, supra-national, and network) to inform future research and policy directions.

Attachments

DOCX

Appendix C - Prisma ...

14KB

Guidelines

This review follows the **PRISMA-ScR (Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews)** framework (Tricco et al., 2018).

Materials

Literature databases: Web of Science, Scopus, Google Scholar, MDPI database, ResearchGate.

Software: Zotero (reference management), Microsoft Excel (data extraction and coding), Microsoft Word (manuscript preparation), Claude Sonnet 4.0 / ChatGPT-5 (AI-assisted synthesis verification).

Documentation: PRISMA-ScR checklist, EC and JRC reports on Digital Innovation Hubs, Horizon 2020 and Digital Europe Programme guidelines.

Supplementary files: Scoping Review Protocol, PRISMA-ScR checklist, coding manual, PRISMA flow diagram, and data extraction table (Appendices A–D).

Objectives

1 Identify and classify the academic and policy literature addressing DIHs in the agrifood sector.

0.2 Examine the main research themes, methods, and regional focuses.

0.3 Highlight gaps and future research directions.

Review Type and Framework

1 This scoping review follows the **PRISMA-ScR (Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews)** framework (Tricco et al., 2018) applied retroactively.

Methods

2 **Eligibility criteria:** Publications addressing DIHs or related digitalization support structures in the agrifood sector (2016–2025), including peer-reviewed articles, EU policy documents, and JRC or Horizon Europe reports. As a result of this process, 84 papers met the criteria for inclusion in the final selection of articles for both abstract and in-depth analysis. These included publications explicitly referring to the concepts of DIH or EDIH (as defined by the EC since 2015) in the title, abstract, or main text, published in peer-reviewed journals, conference papers, book chapters, and doctoral theses, as well as reports on the topic published by the JRC. No restrictions were applied regarding disciplinary field, methodological approach, or publication year.

3 **Information sources:** Web of Science, Scopus, and Google Scholar were searched using the following Boolean strings: “DIGITAL INNOVATION HUB” or “DIGITAL INNOVATION HUB”, AND “AGRICULTURE”.

4 **Selection process:** Titles and abstracts of articles were screened by IT-C against the eligibility criteria.

5 **Data charting:** Data were extracted into a table recording author, year, method, sector, and thematic level. Due to the exploratory nature of the review, the charting process focused on identifying major conceptual and methodological trends rather than exhaustive quantitative coding. Information was summarized narratively across major themes (e.g., governance, funding, digital maturity).

6 **Synthesis:** Results were discussed based on the 4 levels of EDIH interaction based on the classification of Serrano-Ruiz et al. (2024), namely DIH level, DIH ecosystem level, the EDIH level and EDIH network level. Under each of these levels, results were presented thematically and based on the methodology of the studies.

Registration and Availability

7 This Scoping Review is registered with the protocols.io under registration link: https://www.protocols.io/view/european-digital-innovation-hubs-and-the-agri-food-hd6yb29fx.
All materials (protocol, PRISMA-ScR checklist, and search strategy) are openly available there.

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