



Practice Abstract no. 46

Data based nutrition systems and data sharing practices

Driven by a continuous process of research, dialogue, and reflection, and ultimately validated with the support of the FOODITY Innovators, a series of recommendations are proposed as a roadmap for building responsible, inclusive, and user-driven digital food systems, ensuring that data works for people, not the other way around.

Recommendations for data based nutrition systems and data sharing practices

Well-designed nutrition systems rely on accurate, user-centred data and transparent sharing practices. These recommendations outline how to build secure, accessible, and adaptable solutions that balance legal compliance, usability, and meaningful personalisation.

- 1. Gather Comprehensive User Data Before Development:** Collect detailed information on users' age, language, health status, and digital literacy to inform the structure, logic, and personalisation of the nutrition system.
- 2. Ensure GDPR-Compliant Data Sovereignty Through User-Friendly Design:** Build privacy features that meet legal requirements while remaining accessible. Interfaces should make it easy for users to control, understand, and manage their data.
- 3. Enable Native Integration with Common Cloud Services:** Ensure that external tools can be seamlessly integrated into infrastructures like Amazon Web Services (AWS), Microsoft Azure, or Gaia-X. Avoid reliance on redirections or siloed services that disrupt user experience.
- 4. Allow Multiple Input Formats to Improve Accessibility and Data Accuracy:** Support various data input types such as multiple-choice, numeric fields, and open text. Design with multilingual and accessible interfaces to accommodate diverse users.
- 5. Guide Users to Provide High-Quality Data:** Integrate prompts, tutorials, and instructional text to help users enter accurate, complete, and relevant data (e.g., lab values, dietary intake, or symptom logs).
- 6. Design the System Based on Real User Data:** Use insights from collected user data to drive system design and iteration. Avoid pre-defined models; let real usage patterns guide feature development.
- 7. Provide Clear Developer Documentation and Integration Support:** Accompany all external components with up-to-date technical documentation and integration guidelines to minimise friction and reduce onboarding time for development teams.





- 8. Plan for Technical Complexity and Allow Sufficient Time for Integration:** Recognise that integrating third-party or modular tools may require more time than expected. Build flexibility into project timelines for troubleshooting and adaptation.
- 9. Ensure All Team Members Are GDPR-Aware and Aligned:** Equip the interdisciplinary team, with a shared understanding of GDPR responsibilities to maintain compliance across all development stages.
- 10. Tailor Outreach and Recruitment Strategies to Specific Target Groups:** Allocate time and resources to develop project-specific strategies for reaching and involving the intended user base. Customise outreach methods based on demographic and cultural profiles.

The aforementioned information is available and further detailed in the report “Recommendations for data sovereignty of consumers, engagement processes in development phase, tools for data based systems and data sharing processes.” (DOI: <https://doi.org/10.5281/zenodo.17360930>)

