MON SYSTÈME FOURRAGER

Maximize your quality of life with sustainable forage systems

My Forage System

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Data

Producers/ agronomists

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MONITORING

DIAGNOSTIC

PREDICTION

OPTIMIZATION

Information/ knowledge

Why We Chose ADE ?

- To avoid starting from scratch.
- We saw ICAR ADE as a way to:
  - Reduce trial and error in system design.
  - Adopt best practices faster.
  - Improve interoperability with future partners.
- ICAR ADE agrees with our vision by linking biological, management, and outcome data.

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Our Implementation Strategy

1. Convert ADE specifications into Pydantic models.
2. Use Pydantic models in Django for validation and reference for defining database schema.
3. Integrate models progressively into platform: herd, pasture, feeding.

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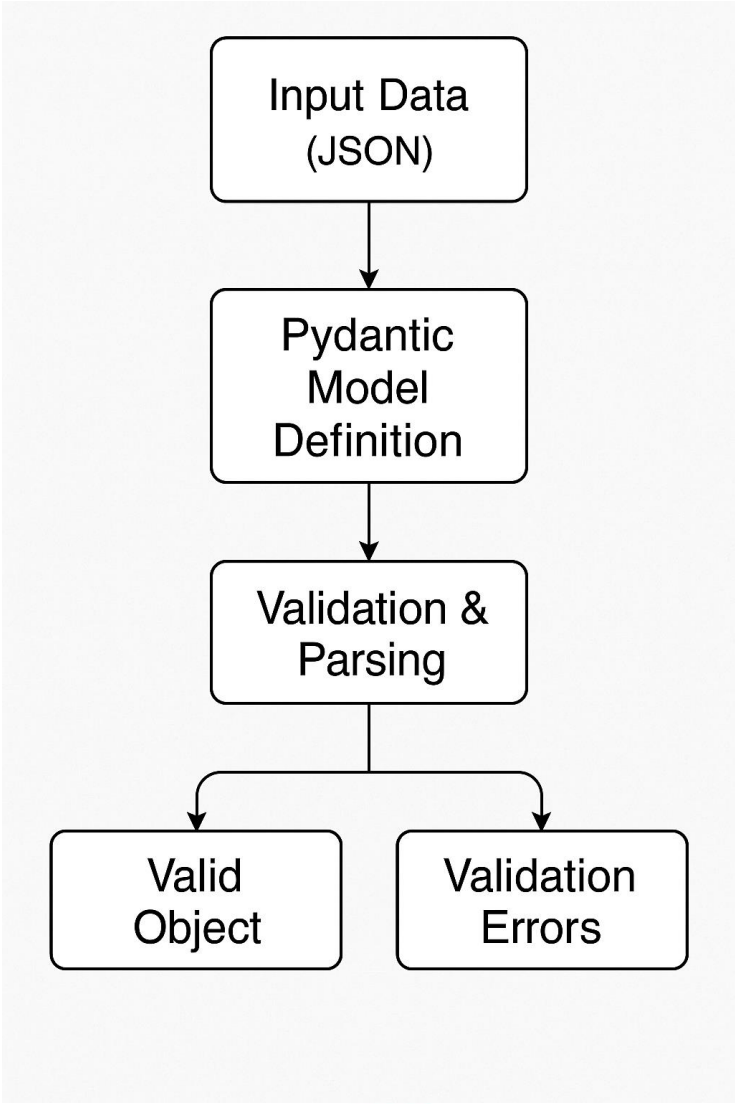
What is Pydantic ?

- **Pydantic** is a Python library used for:
  - Defining data models (similar to data classes with strict typing).
  - Validating and parsing input data (from JSON, dict, etc.).
  - Producing clear error messages.



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Automation Pipeline Overview

Trigger the Pipeline

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Current Gaps in ADE

- **We encountered key limitations when working on:**
  - **Beef cattle, sheep,** and goat data: Not fully supported
  - **Pasture feeding:** Limited modeling for grazing systems
  - **Wool yield tracking:** Not present
  - **Non-traditional sample types:** Blood, feces, etc., with seropositivity data—needed for diseases like paratuberculosis.
  - **Lack of proposed database architecture aligned with ADE**

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How to Strengthen the Ecosystem

- **Based on our experience, here's what could improve adoption and collaboration:**
  - **Lower entry barrier:** Current fees and structure limit startup access.
  - **Increase engagement:** Add more dynamic and inclusive formats.
  - **Enable semantic mapping:** Use shared ontology (e.g., Wikibase) for better interoperability.
  - **Improve async work:** Use Slack channels to follow key discussions across time zones.

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Looking Ahead & Let’s Connect

- We’re excited to continue collaborating and contributing to the ADE ecosystem.
- If anyone here is interested in Pydantic models or developing basic database schemas based on ADE, let’s talk!

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