The manuscript ESSD-2024-351, presents a near real-time vegetation monitoring system for Spain, spanning a historical database from 1981 to the present. It is a well-written and comprehensive study that clearly explains the data sources, preprocessing methods, results, and validation procedures. The integration of harmonized satellite imagery from AVHRR, MODIS, and VIIRS using widely accepted vegetation indices is a commendable and novel approach. This work holds significant value for understanding vegetation dynamics in the context of climate change.

However, before publication, the following technical corrections and clarifications should be addressed:

- **Incomplete Documentation**:
  The README file provided at https://digital.csic.es/handle/10261/353068 is incomplete and confusing. Please revise and complete the document to ensure clarity and usability for future users.

- **Broken URLs**:
  Several URLs in the manuscript are not functioning correctly:

  - Page 4: The link https://e4ftl01.cr.usgs.gov/MOLA/MYD13A2.061 is broken. Please remove or replace it with a working alternative.
  - Page 5: The link https://lpdaac.usgs.gov/products/vnp13a2v002/ is also not working. Kindly verify and update all URLs to avoid confusion.

- **Clarification on Limitations**:
  The manuscript reviews previous vegetation indices methods but does not elaborate on the limitations of the generated database, except for the temporal limitation. A brief discussion on why these datasets may not be suitable for the Iberian Peninsula and Balearic Islands would help clarify the motivation behind the proposed method and its near-real-time capabilities.
- **Figure Reference Error**:
  On page 17, the manuscript refers to Figure S3b, which does not exist in the supplementary materials. It appears the intended reference is to Figure S4. Please correct this.
- **Clarifications on Figures and Results**:

  - **Figure 3**: Please explain why OPDN harmonization does not overlap with Ratio harmonization before the year 2000. Also, define the acronym "OPDN" clearly.
  - **Figure 4**: The annual d index appears notably lower in the northern regions of Spain and Portugal. Please provide a clearer explanation and explicitly define each subfigure.
  - **Figure S3**: There is a noticeable difference in the seasonal median values for grasslands and Eucalyptus compared to dry crops. Could phenological characteristics be influencing these variations? This is important for assessing the robustness of the method for global applications.

- **Figure 7**: The manuscript states that Pearson's correlation values are low in winter and higher in summer. However, low values are also observed in May. This could be due to spring snowmelt and early vegetation bloom, which should be mentioned for clarity.
- **Figure 9**: The vegetation anomalies corresponding to the 2005 drought are well captured. However, please elaborate on the causes of prolonged drought conditions during the 1980s and again in 2002.
- **Figure 10**: The observed vegetation variability is a key highlight. Please provide ground truth evidence or reasoning to support these findings. Has the use of GEDI LiDAR data been considered for validating vegetation responses?

Overall, this manuscript presents a valuable and innovative contribution to the field of vegetation monitoring and climate research. The integration of harmonized satellite data and vegetation indices across multiple decades for Spain is both timely and impactful. With minor technical corrections and clarifications as outlined above, the manuscript will be well-positioned for publication and will serve as a useful resource for researchers and practitioners working on environmental monitoring and land surface dynamics.