

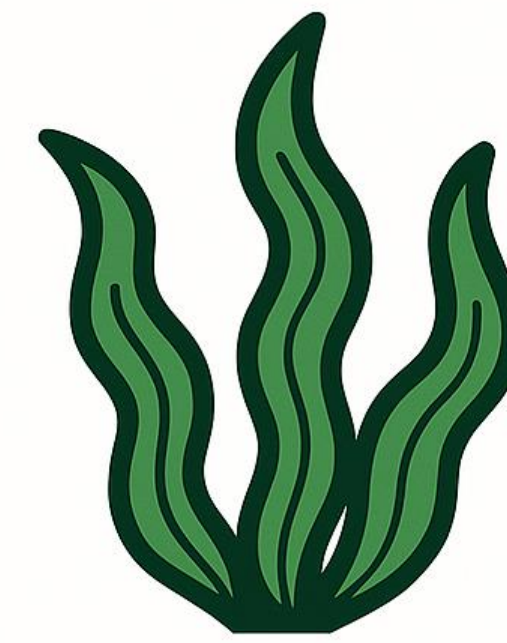
K.U.N.S.T. - Alternative Materials in Packaging

Packaging protects our food — but who protects the planet from the packaging?



PLASTIC^[1,2]

- Persistent
- Fossil-base
- Environmentally costly



SEAWEED^[3]

- Grows without land or freshwater
- Absorbs CO₂
- Biodegradable

Goal


In order to help solve the plastic crisis and reduce its impact on future societies, we strive to investigate packaging materials in the food sector, particularly comparing traditional plastic & seaweed-based packaging.

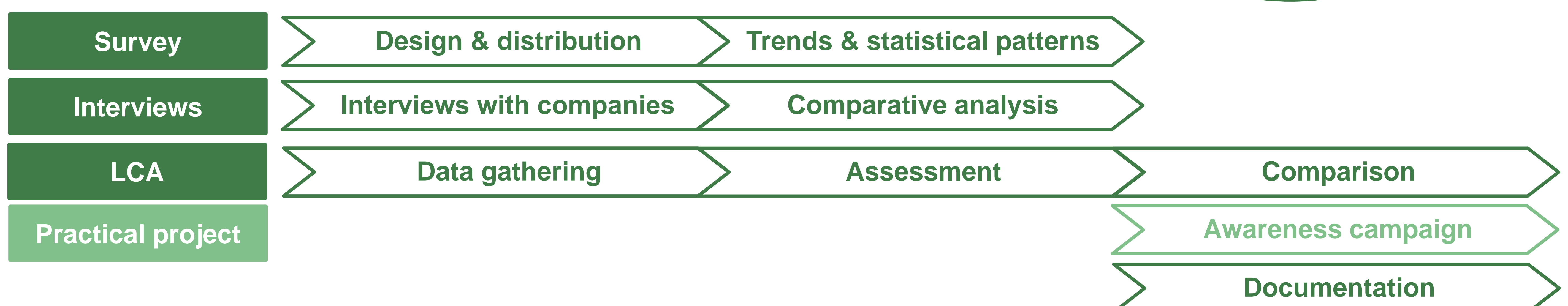
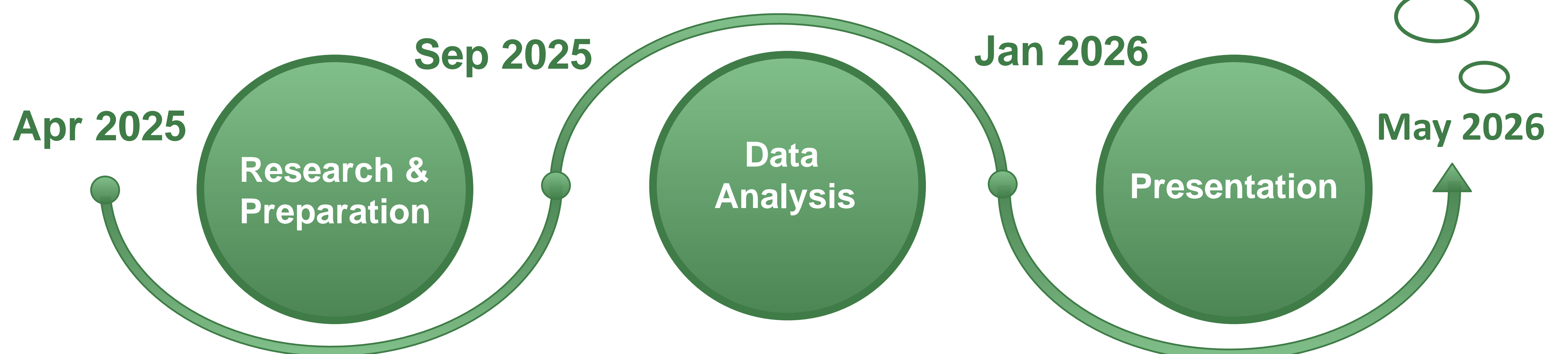
Research Questions

1. How do plastic & seaweed-based packaging compare across their entire life cycle?
2. How do consumers perceive the environmental implications of plastic vs seaweed packaging, and does increased awareness of these impacts affect their purchasing choices?
3. What practical or economic barriers (e.g., availability/accessibility, cost, performance) limit the adoption of seaweed-based packaging, and how might these be overcome?

How?

- Examining the environmental impact of plastic & seaweed packaging through a Life Cycle Assessment (LCA).
- Identifying the factors influencing packaging choices by the food retailers and consumers via interviews and surveys, and whether awareness affect choices.

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- Publish the results (in a paper & online)
 - Collaborate with food retailers & packaging companies



* K.U.N.S.T. logo, plastic bag and seaweed images generated by ChatGPT.

[1] De Temmerman, J., Vermeir, I., & Slabbinck, H. (2023). *Eating out of paper versus plastic: The effect of packaging material on consumption*. Food Quality and Preference, 112, 105023. <https://doi.org/10.1016/j.foodqual.2023.105023>

[2] NCASI. (2020). *Review of life cycle assessments comparing paper and plastic products*. White Paper (WP-20-09). Cary, NC: National Council for Air and Stream Improvement, Inc.

[3] Notpla. (accessed April 2025). *Notpla – Packaging made from seaweed and plants*. Retrieved from <https://www.notpla.com>

