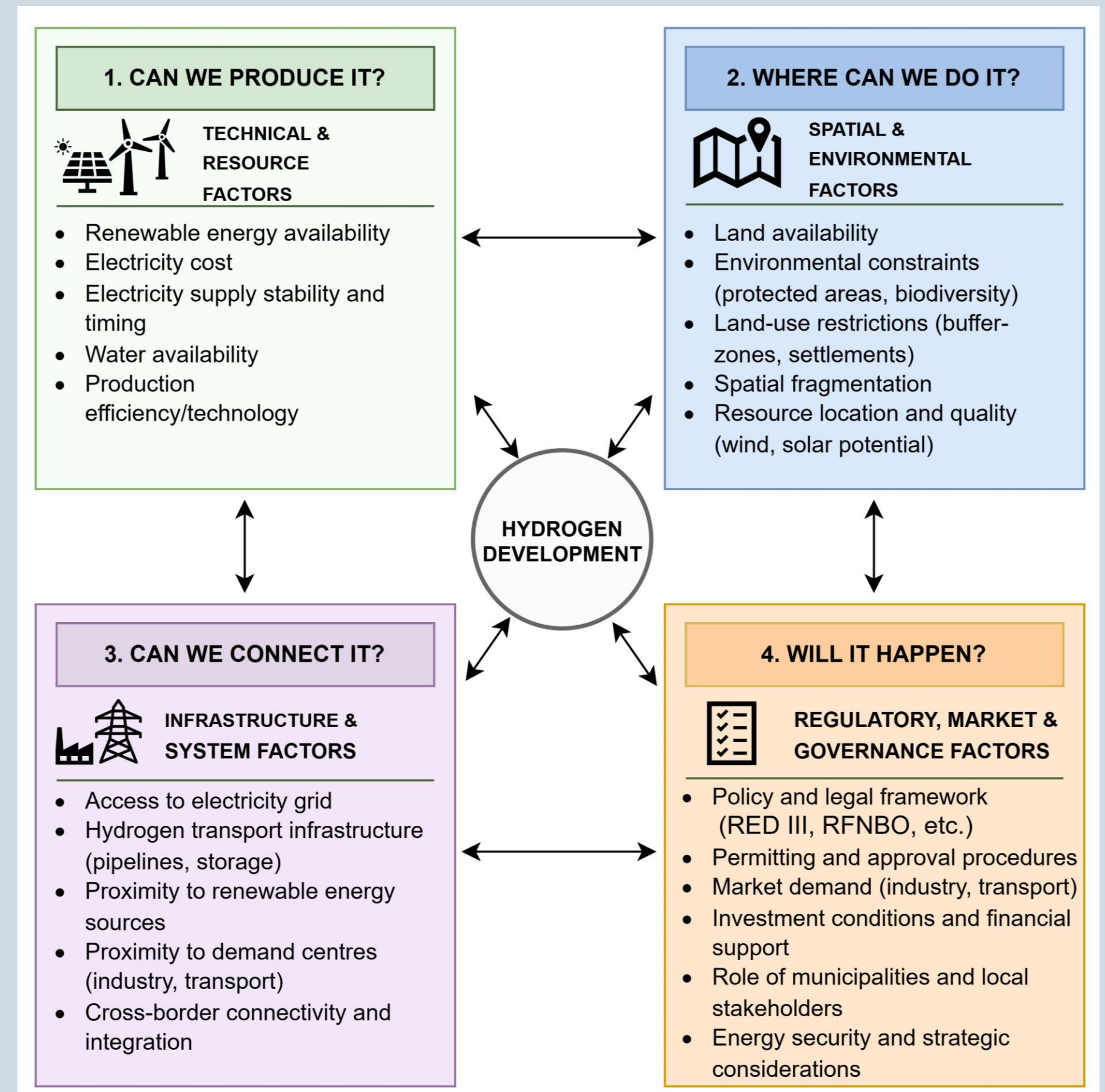


Main finding: Four key categories shaping hydrogen development

- A wide range of factors influencing hydrogen development was identified from spatial data, policy documents, and literature.
- The factors were grouped into four main categories based on their characteristics, role in hydrogen development, and the author's judgement.
- The categories reflect hydrogen development across the full life cycle, including site, resources, infrastructure, and regulatory aspects.
- These factors also reflect the broader European Union context, including the relevance and feasibility of hydrogen development.



Introduction

Hydrogen is becoming an important solution in the transition towards a climate-neutral economy in the European Union. It enables the integration of renewable energy and supports decarbonization of sectors that are difficult to electrify, such as industry and transport.

However, hydrogen development is **not only a technological issue**. It depends on multiple **interacting factors**, including renewable energy availability, infrastructure, market demand, and spatial constraints.

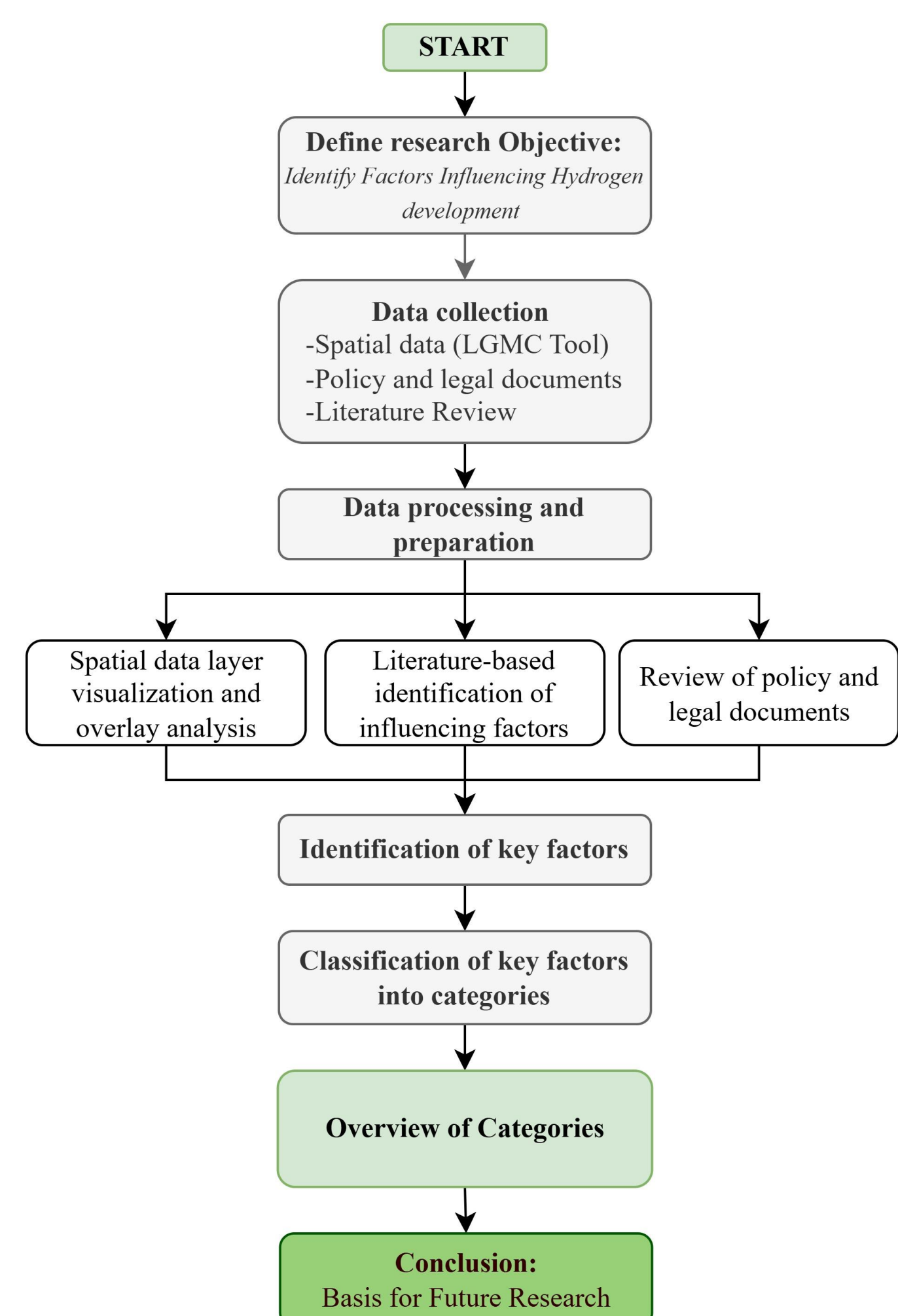
This study aims to identify key factors influencing renewable hydrogen development in Latvia, forming four main categories that provide a foundation for subsequent studies.

Methodology

This study is based on a multi-source approach combining data, policy, and literature analysis:

- **Spatial analysis:** Constraints such as protected areas, buffer zones, and land-use limitations were analyzed to identify key factors.
- **Policy, legal documents and literature review:** EU and national documents and literature were analyzed to identify key factors.
- **Factor identification:** All factors were structured into several categories based on author's knowledge and analytical judgement.

Methodological Framework



Conclusion

- This study highlights the importance of an integrated approach when assessing hydrogen development.
- Hydrogen development cannot be assessed by individual factors alone, as it depends on the interaction of multiple interrelated factors.
- Future research will focus on detailed analysis of individual factor groups and their spatial implications in Latvia.