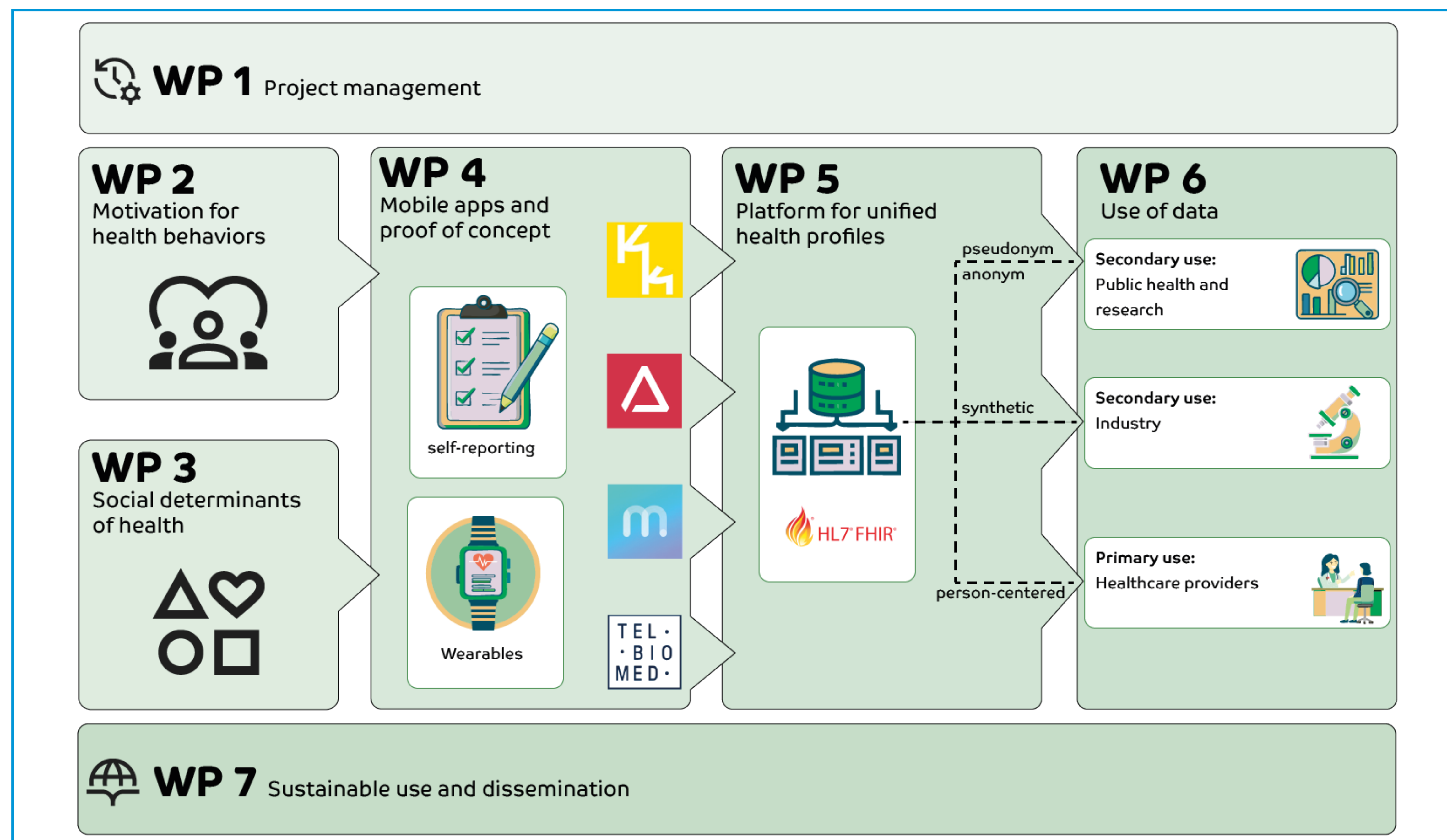


# PreNUDGE: Advancing Health Promotion Through Digitalization and Structured Health Data

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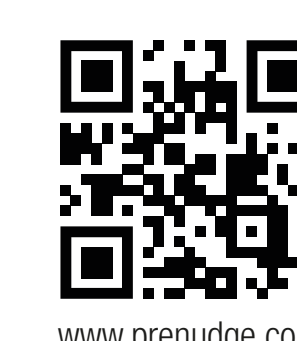
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## Project Website



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## Introduction

Austria ranks high in life expectancy, but its citizens experience relatively few healthy years<sup>[1]</sup>. This discrepancy reflects both public health and economic challenges. While many people collect health-related data using lifestyle apps<sup>[2]</sup>, these valuable data points are often underutilized due to a lack of integration and trust. Health care providers (HCPs) have limited access to such data, which are crucial for personalized preventive strategies. Moreover, the public sector struggles to utilize these insights for public health evaluations.

## Methods

PreNUDGE employs a mixed-methods approach, integrating digital data collection, citizen engagement, and public health insights. The project will standardize health determinants using established health apps and create a platform that integrates these data into comprehensive health profiles. Citizen participation will be driven through nudging strategies, i.e. motivation mechanisms rooted in behavioral science<sup>[3]</sup>. Key methodological steps include co-creation workshops, population surveys, and testing personalized health communication approaches.

## Expected results

The anticipated result is an interoperable platform for collecting and utilizing citizen-reported health data. This platform will consolidate lifestyle and health app data, providing HCPs and public health entities with structured insights. Personalized nudging strategies, when combined with structured health data, can significantly improve citizen engagement with preventive measures. Additionally, research indicates improved health literacy and stronger citizen involvement in health management through nudging.

## Discussion

PreNUDGE addresses critical gaps in Austria's preventive health system by creating a structured framework for health data collection and utilization. It offers an innovative approach to linking personal health responsibility with public health efforts. The platform's interoperability with existing systems is expected to improve both, primary and secondary use of health data, fostering better health outcomes and policy development.

## Conclusion

The project aims to fundamentally shift Austria's health landscape from curative to preventive care. By empowering citizens to track and share their health data securely, PreNUDGE not only enhances individual health outcomes but also strengthens public health infrastructure. This initiative promises to increase the number of healthy life years and reduce costs through early intervention and personalized prevention strategies.

## References

- [1] AIHTA (2021) National strategies and programmes for preventing and managing non-communicable diseases in selected countries. 139.
- [2] Chandrasekaran, R., Katthula, V. and Moustakas, E. (2020) 'Patterns of Use and Key Predictors for the Use of Wearable Health Care Devices by US Adults: Insights from a National Survey', Journal of Medical Internet Research, 22(10), p. e22443. Available at: <https://doi.org/10.2196/22443>.
- [3] Harrison, Joseph D., und Mitesh S. Patel. „Designing Nudges for Success in Health Care“. AMA Journal of Ethics 22, Nr. 9 (1. September 2020): 796–801. <https://doi.org/10.1001/amajethics.2020.796>.