

NOBODY SAID THAT IT WOULD BE EASY - IMPLEMENTATION OF DIGITAL HEALTH IN THE CONTEXT OF CARE

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Nurses together: a force for global health

In terms of the extensively debated demographic transition witnessed in G20 nations, there will be a notable surge in the population of older adults and individuals in the very elderly category, thereby leading to an amplified demand for caregiving services [1].

Moreover, the proportion of such individuals within acute care hospitals will also rise. Simultaneously, the length of hospital stays is decreasing, treatments are becoming more complex due to advancing medical developments, and the workload in caregiving is intensifying. Consequently, there are high expectations for addressing the challenges associated with care through the use of technical systems, shaping both national and international directions of innovation and research strategies. Ideally aligned with needs and requirements, these innovations will assume systemic significance in the future [2].

The question of how to systematically, effectively, and sustainably integrate new nursing technologies into care processes and structures within an acute care hospital is of paramount importance. The Center of Implementing Nursing Care Innovations in Freiburg, Germany, is a pioneer in researching and implementing technology-based solutions in the field of healthcare.

The NASSS framework (an approach for analyzing and modeling social systems) has been selected by the Center for a) analyzing the adoption and utilization of particular technologies and b) facilitating the identification of potential challenges and c) developing strategies to promote implementation [3].

This is demonstrated through the implementation of a bed exit system, wherein a bed-exit-system is employed (Figure 1). The sensor can detect changes in pressure and movement, alerting caregivers or healthcare professionals in real-time when a person with cognitive impairments leaves their bed. This timely notification allows for prompt assistance and reduces the risk of falls or other accidents.

The utilization of the framework not only serves as a robust foundation for the conceptual and practical facilitation of innovation processes but also highlights the realization that even in a relatively "simple" technical system, numerous factors can contribute to a high overall complexity. The Center is actively engaged in the development of an adapted framework specifically tailored to the care sector, aiming to comprehensively address all specific aspects and requirements. Figure 1 serves as a valuable resource, providing initial guidelines and insights in this area.

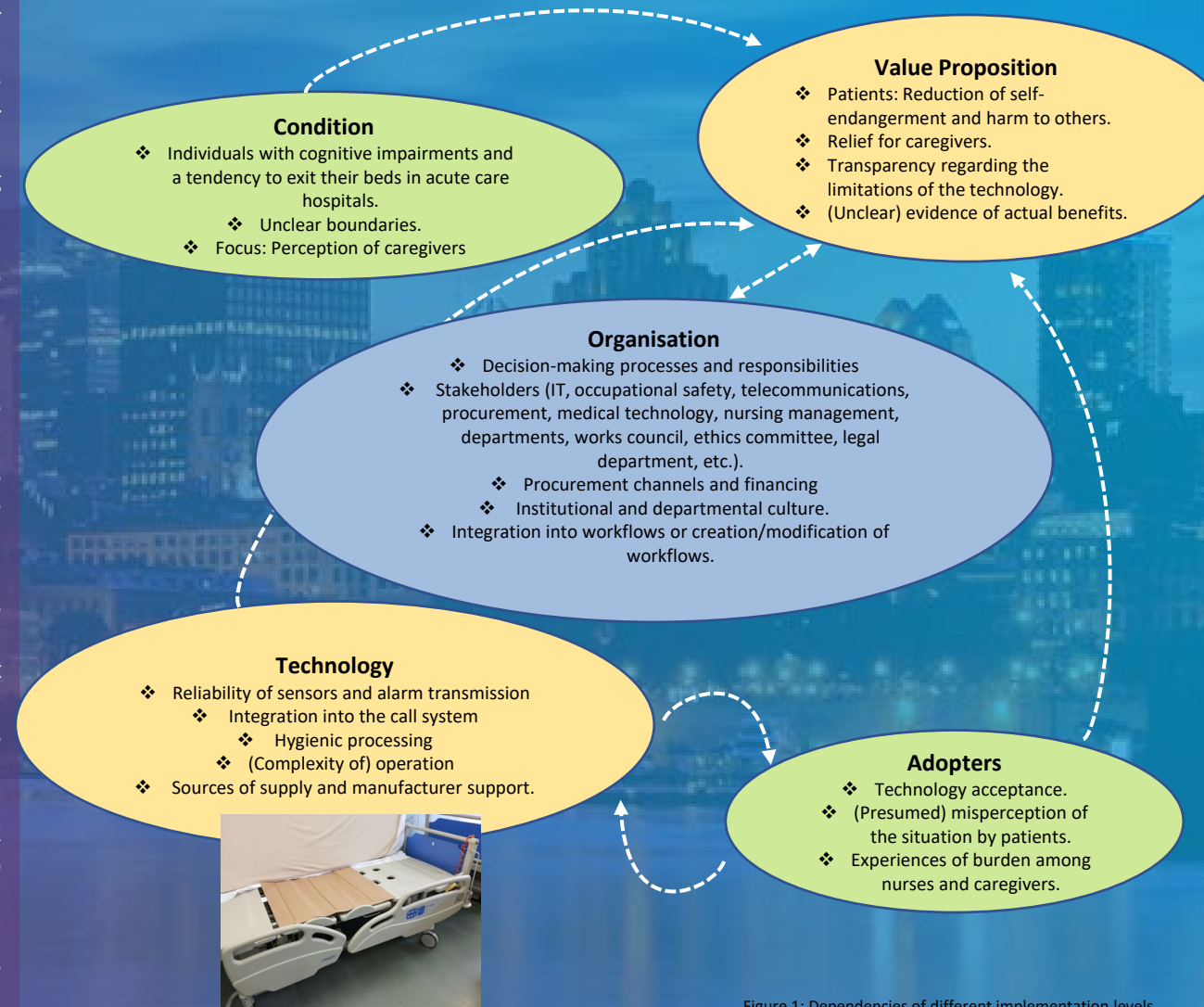


Figure 1: Dependencies of different implementation levels

[1] Desa, U. (2015). United nations department of economic and social affairs, population division. world population prospects: The 2015 revision, key findings and advance tables. Online Edition UN DESA, New York.
 [2] Benson, T. (2019). Digital innovation evaluation: user perceptions of innovation readiness, digital confidence, innovation adoption, user experience and behaviour change. *BMJ health & care informatics*, 26(1).
 [3] Greenhalgh, Trisha; Wherton, Joseph; Papoutsi, Chrysanthi; Lynch, Jennifer; Hughes, Gemma; A'Court, Christine et al. (2017): Beyond Adoption: A New Framework for Theorizing and Evaluating Nonadoption, Abandonment, and Challenges to the Scale-Up, Spread, and Sustainability of Health and Care Technologies. *In: Journal of medical Internet research* 19 (11), e367. DOI: 10.2196/jmir.8775.