# LIVsens Smart Patient monitoring Living Lab

What: Coordinated research, development, and testing of generic wireless sensor monitoring systems in the real life setting of multiple departments. Scientific experiments and observations of patients and health care professionals in interaction with these systems, coextensive with the everyday workflow.

Why: A big challenge in health care is to ensure sufficient highly trained nurses, and warrant the required level of quality. The costs for personnel and health care are high. Smart patient monitoring reduces routine clinical workload of hospital staff, improves quality of care, and diminishes complications and costs of health care. However, current systems are expensive, incomplete, error prone and not always suitable for in-hospital use. The impact and requirements for end-users and non-technological aspects are often overlooked. Multiple departments within the hospital recognize the need for the implementation of smart patient monitoring. Different use-cases, require other patient parameters that need to be monitored. Collaboration between teams and departments, and coordination of related projects with external parties, will increase efficiency, and accelerate processes of development and use of smart patient monitoring.

Who: Erasmus MC, TNO, TU Delft, Industrial partners, other knowledge institutions. Within this collaboration infrastructure, the latest technologies are continuously available, and quick adaptations to needs (iteration) of end-users can be made.

How

LIVsens provides a structured organization and ideal environment for generating knowledge, and development, testing, validating, and implementing existing, and new smart patient monitoring innovations, in a real-life setting with the focus on clinical needs, and impact. Centralization increases the efficiency (time, costs) of projects by providing roadmaps, and protocols, and sharing experience and knowledge. L operates as a intermediary between patients, health care professionals, researchers, R&D institutions, and industrial partners, at which upscaling results in more targeted collaborations, and better visibility for internal and external parties. There are three pillars, an experimental pillar, a pre-clinical pillar, and a clinical pillar.

In addition to in-kind commitment of various stake-holders, the living lab requires a financial contribution from projects and processes who use the network and the infrastructure, and will stimulate funding applications for new projects in collaboration with the various partners.
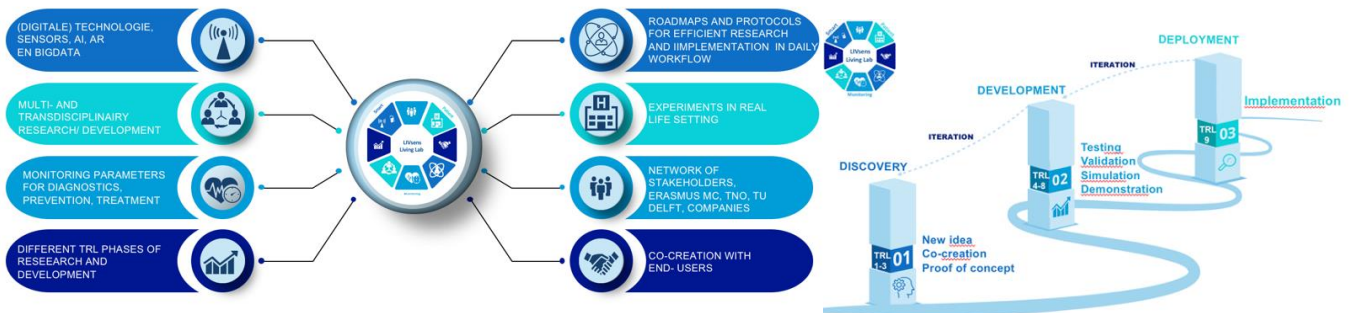
Current smart patient monitoring projects in the experimental, and in the pre-clinical pillars are: