

Project Area HWB HEALTH, CARE AND WELL-BEING



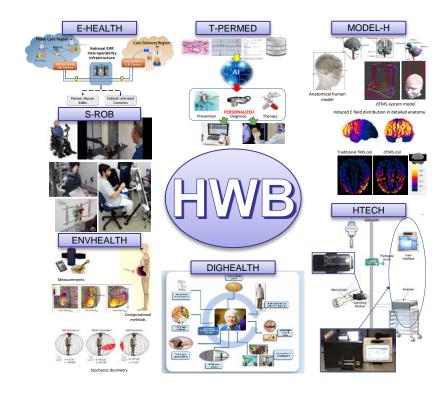
Objective: The objective is the design, development and evaluation of ICT and engineering solutions for diagnosis and therapy in medicine, empowering citizens towards healthier life styles and preventing or managing chronic conditions. To this aim, this project area focuses on 7 pillars fully in line with the priorities identified at European level: (a) digital solutions for health throughout the life course (DIGHEALTH); (b) environmental and social health (ENVHEALTH); (c) in silico

models for health (MODEL-H); (d) service robotics (S-ROB); (e) tools, technologies and devices for advanced diagnosis and

therapies (HTECH); (f) tools for personalised medicine (T-

PERMED); (g) e-health and health care systems (E-HEALTH).

Approach: The scientific activities are conducted applying engineering design and analysis principles to biological systems and biomedical technologies, involving extremely different skills: bioengineering, applied electronics, applied electromagnetism and microwaves, computational biology, bio-modelling and control systems, system and communication engineering, information theory, pervasive and mobile computing, artificial intelligence and data analytics, robotics and virtual/augmented reality. Currently, this project area involves 142 structured personnel units (researchers, technologists and technicians) and 38 assistant researchers distributed over 12 CNR DIITET Institutes.



Scientific Impact/Results: This project area will be able to address different research challenges in order to support the transformation of medicine and health, in line with the main European and international indications regarding the development of this specific sector. Moreover, it represents an international reference point in the different sectors, as proved by a large number of multi-center European and international projects and a wide research and industrial network in which its researchers are involved, also through the participation to national and international working groups.