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## Movement Assisting Devices

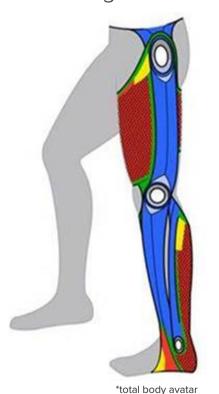
## MANUFACTURING OF PERSONALISED KINETO-DYNAMICS PARTS AND PRODUCTS FOR WORKERS, ELDERLY AND CHILDREN

We are faced with societal challenges due to aging populations, rising social and health care costs, a lack of qualified personnel in certain industrial sectors, and workplace-related injuries. MovAiD investigates how technology and additive manufacturing can address some of these challenges. This cross-disciplinary project develops technologies for manufacturing passive and highly-personalized wearable equipment to assist disabled children, the elderly, and workers in their everyday lives.

MovAiD involves eight work packages, including novel concepts for movement assistive devices, integration platform, advanced materials, computational designs, additive manufacturing machines and processes, demonstrators, dissemination, communication, technology transfer, and project management.

## **Functionally Graded Biomimetic Parts Embedded Sensors** Value Chain Morphologically For synchronized delivery and **Advanced** Tailored Custom Made Parts Kineto-Dynamic **Custom Made Parts Automatic Generative Design Additive Machines** For custom made parts Acquisition **Embedded** Sensing **Service Platform Total Body Avatar**

INTEGRATION PLATFORM



Movement assistive devices bridge the gap between exoskeletons and classic orthoses. These highly-personalised solutions are tailored to the user's body morphology and movement, and will bring the following benefits:

- The elderly will benefit from more secure and stable gait, lower fall risk, improved overall wellbeing.
- Offloading worker's joints will lower workplace injury rates, increase overall worker effectiveness, and enhance competitiveness and attractiveness of European industry.
- Children with neuromuscular disease will have more mobility, helping them perform physical activities with more ease and for longer.





























