



AEOLUS

Human Factors
Research Center

WHY

For workers in extreme operational conditions (e.g. military and civil pilots), the work environment is rapidly changing from a purely physical reality into a mixture of both physical and virtual realities. Man is exploring the limits of his possibilities on earth, in the skies and beyond, exposing him or herself to more extreme operating conditions than ever before. As a result of the accelerated pace of innovation of technical systems, as e.g. in modern aircraft, the system performance is now limited by the capabilities of the human operator. In order to lift the boundaries imposed on system performance by the human factor, we need to further develop human factors knowledge, but that in itself is not enough. We also need to develop new forms of collaboration: new combinations of expertise and cross-overs between application domains. Furthermore, time-to-market needs to be reduced to fully exploit the potential created by the accelerated pace of technical innovation. In order to develop better solutions in a shorter time-frame close cooperation of end-users, manufacturers and researchers is needed for the full length of the innovation process.

WHAT

AEOLUS is an ecosystem, a network of relations between organizations, a platform and environment for interrelated innovative programs. Our mission is to support government agencies and businesses with state-of-the-art knowledge and innovative ideas that improve human performance in real and virtual environments. As an independent entity, with two strong founding partners (TNO and RNLAf) we act as a catalyst and facilitator and bring together science, business and end users on our campus. Our programs are based on scientific and applied research and we take everything a human operator needs for optimum performance in real and virtual environments as the starting point. We want to take human factors research to the next level.

HOW

We create value on the basis of our expertise with respect to human performance in extreme operational conditions. Our primary focus application is (military) aerospace and we are open to knowledge transfer and cross-overs to other application domains. We invite partners from industry, start-ups, R&D institutes and end-users, both national and international, to start cooperation in Aeolus on the bases of shared interests. All participants contribute unique value to Aeolus. All participants share in the profits of Aeolus because the results of each research project are available to all participants in that project.

We work in three research areas: Wearable technology, Operation oriented simulation and Man in space. In all three areas, we know how technology can be applied to help the human operator to perform more effective and more efficient, with a high level of user-satisfaction. With the Aeolus initiative, we aim to further enhance human performance in extreme operational conditions through knowledge sharing, faster innovation and co-creation of brilliant solutions. Together we create exponential potential!