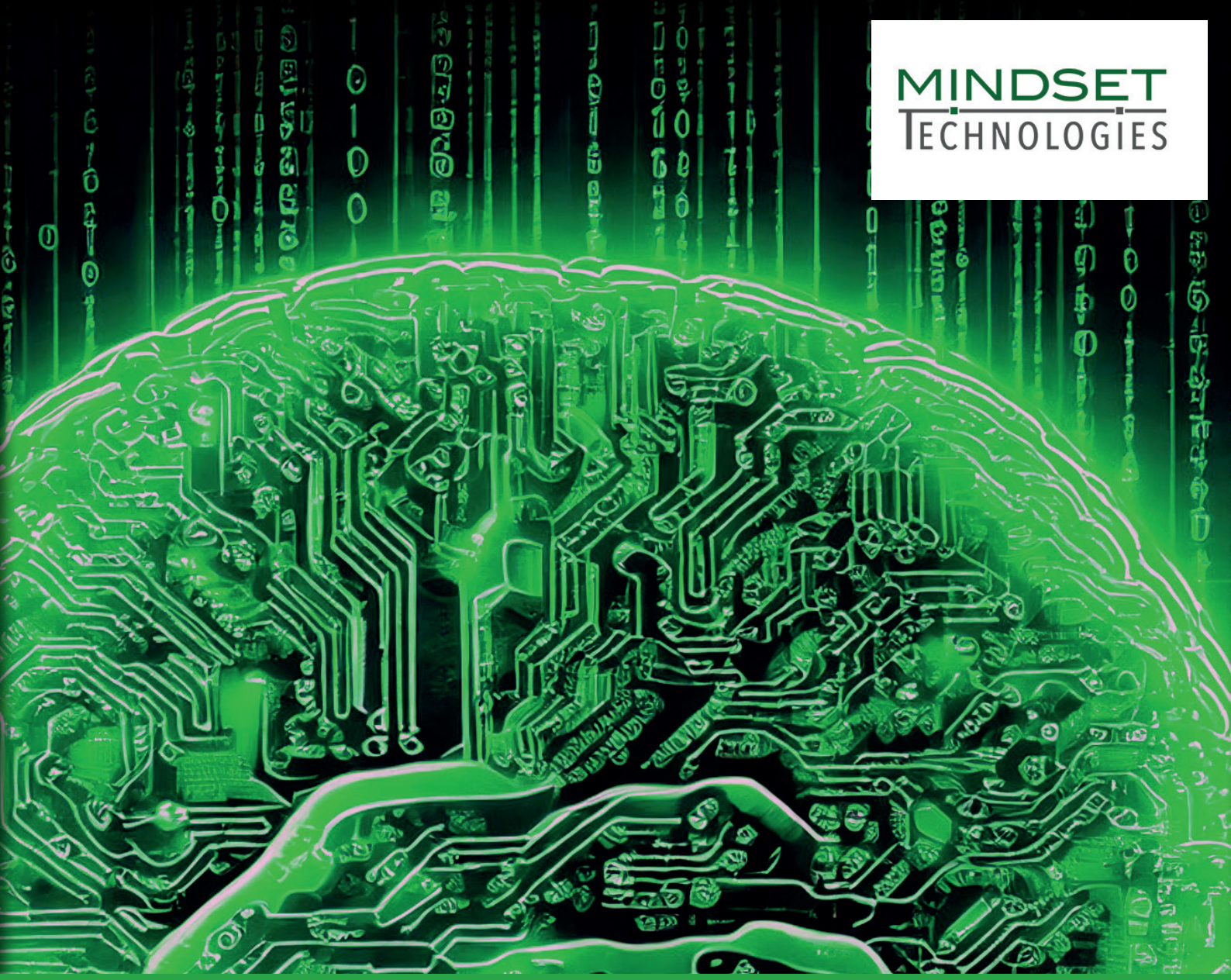
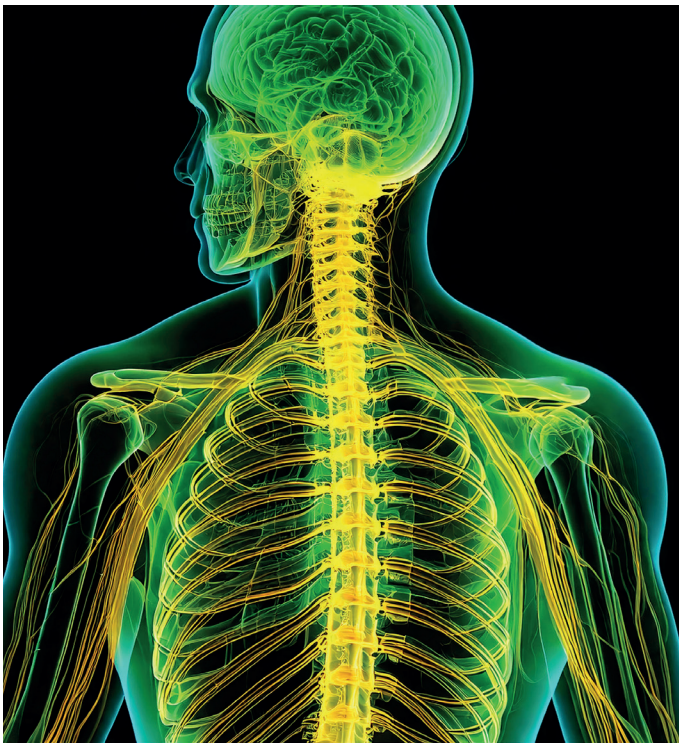


MINDSET TECHNOLOGIES

READING THE MIND: MADE EASY

Products
Services
Solutions
Impacts

EFFECTIVE HUMAN-CENTERED TECHNOLOGY



High cognitive load, fatigue or optimizing situational awareness with UX insights and tools: in professional settings human interaction with technology needs monitoring and continous training to optimize the efficiency of the human-machine system.

Understanding and predicting cognition, mental processing and load increases lead-time for appropriate action. Soldiers, pilots, operators get the system support they need in-time, on-time with a little help of Mindset Technologies' cognitive monitoring solutions for:

- Selection
- Training/Simulation
- Operations

The Mindset Technologies Monitoring Approach

Our proprietary Mindset Monitoring methodology (dual use) combines advanced eye tracking technology with state-of-the-art multi-factorial cognitive load monitoring to reveal the intricate workings of the human brain in real-time. *We make thinking and feeling transparent and actionable for human/machine interaction.*

Unveiling the Hidden Dimensions of Human Performance

Our cutting-edge Human Factors solutions transform the way organizations understand and optimize their most valuable asset: the human mind.

We can measure it so you can manage it and make reading the mind easy.

Humans & Context: A Holistic Perspective

Human performance is inextricably linked to its environment. Our comprehensive approach considers both the individual and their surroundings, providing a 360-degree view of cognitive processes in the context.

Our advisory together with subject matter experts from defence, aviation and sports puts things into actionable perspectives.

Understanding the state and fate of human cognition ...

... is a precondition for deploying support by AI systems or machine/computing resources when the time is right. Resourceful. Effective. Predictive.

Reading the mind means predicting it.

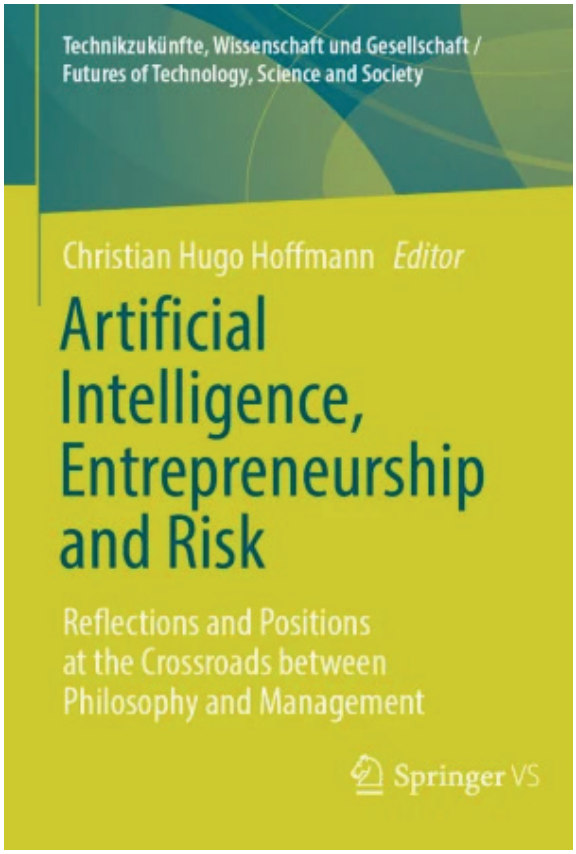
Our Services Include:

- Real-time cognitive load assessment
- Eye tracking analysis for attention and focus metrics
- Human-machine interface optimization
- Cognitive ergonomics consulting
- Performance enhancement strategies
- Safety-critical decision-making support

Cooperation Offer:

- SaaS Solutions are installed together with sensors and APIs or reporting tools
- Co-development of solutions for OEM
- Joint research & development projects in national/international funding schemes

AVAILABLE FROM MARCH 2025



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Advancing Management Development with Biofeedback 3.0

Unveiling Insights into Decision-Making via Next-Generation Markers for Cognitive Processing in Aviation and Organizational Contexts

in

Artificial Intelligence, Entrepreneurship and Risk Reflections and Positions at the Crossroads between Philosophy and Management (Editor: Christian Hugo Hoffmann)

- A variety of highly relevant and popular topics in an original way.
- The reader becomes fit for the future and can derive the requirements that tomorrow will place on her.
- Written by world experts from different fields.

SIMULATIONS

Training & Selection Innovations for High Stake Environments

What are the predictors for success? A study* by the USAF Personnel Center detected significant capabilities of successful pilots: 80% are directly related to cognition and activation level. However, both cognition and activation or implicit, they are influential from the background. We make cognition and activation overt, readable, measurable, thus manageable.

Together with OEMs and training centers we co-develop or equip *Next Generation Cognition Aware Simulators,* so that:

1. Operators of or stakeholders in simulator training save money and time with every training.
2. Users spend their money and their time more efficiently.
3. Instructors/trainers interact with the hidden side of talent and accomplishment and co-create better results.
4. Work Style, Abilities, Skills under the scrutiny of cognitive load predict success in the program and as an operator or pilot.

We cover the full-range from entry levels to recurrent trainings or tactical trainings.

* Paullin, C., Ingerick, M., Trippe, D. M., & Wasko, L. (2011). Identifying best bet entry-level selection measures for US Air Force remotely piloted aircraft (RPA) pilot and sensor operator (SO) occupations. Human Resources Research Organization. Disponible en: https://apps. dtic. mil/sti/pdfs/ADA554209. pdf.

Services

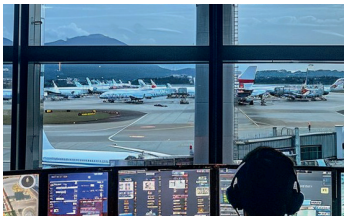
1. Requirements and process design
2. Installation of Remote Eye Tracking Sensors or integration of Wearables
3. On demand installation of additional devices (Heart rate monitors, EEGs, microphones)
4. Implementation into Simulator for synchronization of tasks, events, errors, behavior via API.
5. Setup of Biomarker Detection Model and Behavioral Classification Model
6. Setup of the customized Feedback Function (Report, Testresult, Selectionresult, Selection of Training programs for faster progress, etc.)
7. Co-Development of a *Next Generation Cognition Aware Simulator* including research and development with OEMs .

The **use of wearable devices** allows us to design cognitive monitoring solutions for any simulator, for cockpit environments or free movement.

For **VR/XR/MR** Simulations: Varjo series or XTAL VR Headset are supported. Supported **wearables** include Tobii series, VPS19 lite and professional or Pupil Labs series.

For **maximum convenience** and reality feel we implement remote devices (e.g. cameras, dedicated for eye-tracking or industry cameras) almost invisible to the trainee but fully connected to your simulation.






Applications and Products

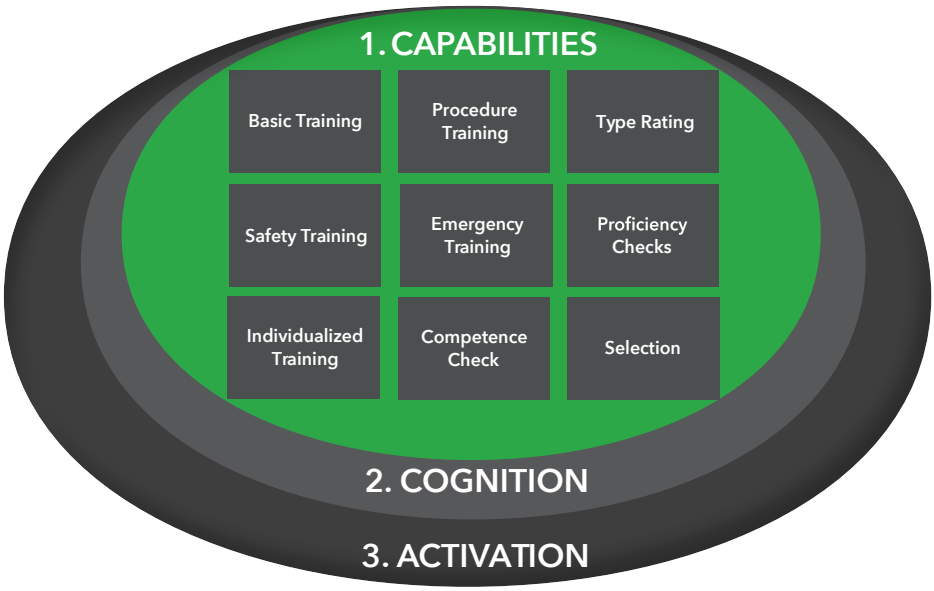
EPPS (Enhanced Pilot Performance System) We add the decisive extra-information to the pilot selection process and increase training effectiveness for civil and military aviation or vehicle operators.

EOPS (Enhanced Operator Performance System) We add the decisive extra-information to the selection process and increase training effectiveness for control rooms.

EPPS

Enhanced Pilot Performance System

Better Pilots - Longer Careers - Higher Safety: EPPS addresses aspects of Training and Selection. EPPS can be implemented in all classes of simulators, for planes or helicopters and all types of training. EPPS monitors cognitive load and performance and tracks fatigue. Sophisticated modules for analysis and feedback make pilots better and traininees learn better. EPPS increases safety and performance in aviation. But first of all it supports the instructor in teaching at her/his best!



EPPS can be implemented in every simulator and for every training. It provides reports and live views on:

1. Capabilities
2. Cognition
3. Activation level

EPPS allows for customizing training and detecting strenghts and weaknesses faster and with actionable insights.

Who needs it?

End-Users
- Instructors
- Ongoing pilots
- Trainees of all maturity levels
- in any type of training

Civil Institutions
- Flight Training Institutes
- Airlines
- Railways
- Simulator OEMs

Authorities
- Military Airforce
- Military Vehicles
- Drone Pilots
- Police

How does it work?

Press Start

Contact us for a quick overview or demo

1 We design for your needs

Your choice is the level of integration. With wearables such as gaze trackers (Tobii glasses, VPS19, Pupil Labs) or VR/XR/MR devices (Varjo, XTAL VR) results are just one set-up away. A full-implementation with remote cameras and APIs to the simulator software requires a small but decisive project for set-up.

2 You get your system installed

Our engineers guide you through the process at your site. With the release EPPS is licensed with its ground-breaking functions for making training better. Dedicated modules for further improving training or selection will be available on demand.

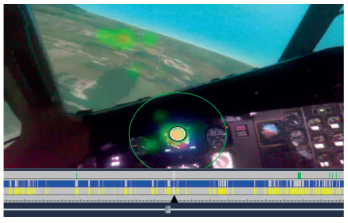
3 Your experience is our experience

Your personal Experience Manager will inform you about news and be our ear to your needs and wishes. As customer you will have early access to latest developments in applied science, sensors and innovations.

Contact





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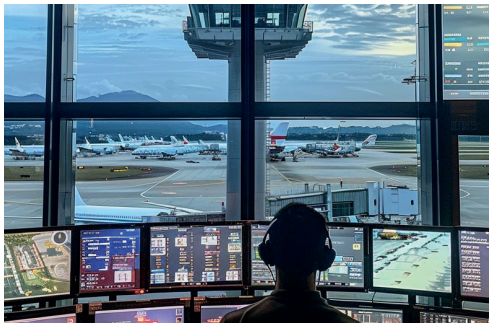
APPLICATIONS

DUAL USE

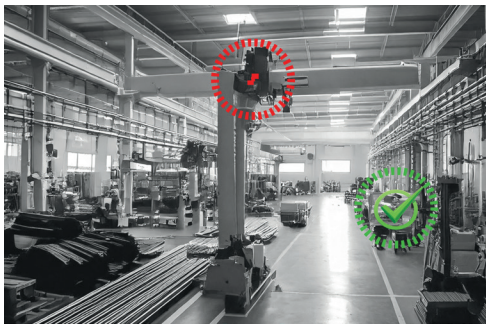
Better Pilots - Longer Careers - Higher Safety
Our Enhanced Pilot Performance Systems (EPPS) addresses aspects of Training and Selection. EPPS can be implemented in all classes of simulators and in the plane or helicopter. EPPS monitors cognitive load and performance and tracks fatigue. It makes pilots better and traininees learn better. EPPS increases safety and performance.

Control Rooms and Air Traffic Control (ATC)
Our Enhanced Operator Performance System (EOPS) enables better layouts and designs of devices and control rooms. The effect on cognitive load, situational awareness and operator readiness is made visible, in an objective and quantitative way, additional to UX measures. Continuous cognitive and fatigue monitoring as well as situational awareness enables effective and efficient management of people and technology/AI.

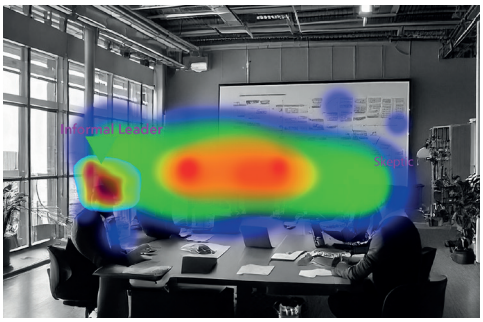


CIVIL

Shopfloor Safety Solutions: Efficiency meets Safety
Eye tracking enhances shop floor safety by monitoring worker attention, detecting fatigue, and identifying hazards. It helps optimize workstation design, reduces human error, and alerts workers if they overlook critical safety cues, preventing accidents and improving efficiency. Application in remote services, safety training or Factory Acceptance Tests (FATs).

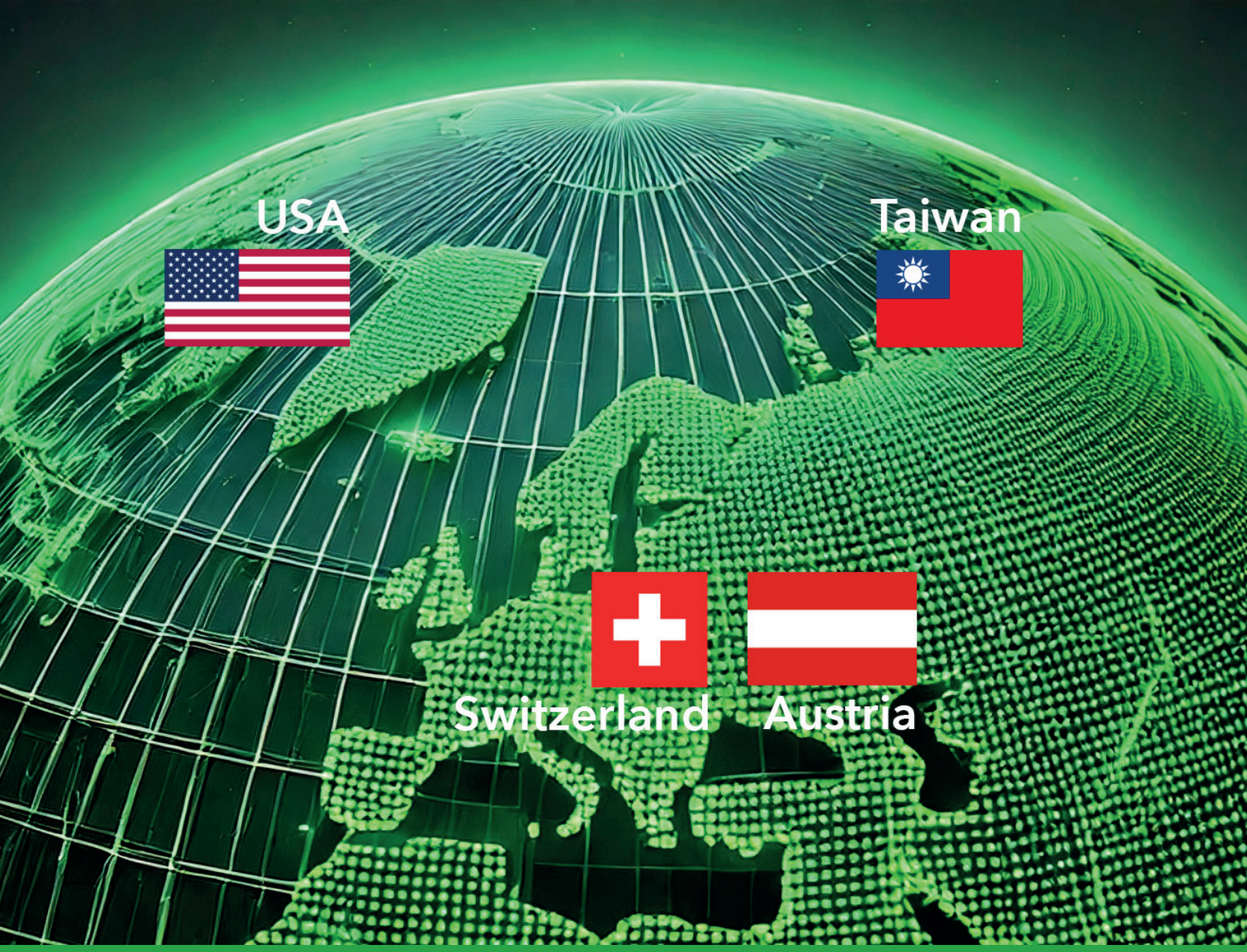


Boardroom Solutions: Better Decisions
Eye tracking and cognitive process tracking help executives by analyzing focus, decision patterns, and stress levels. They enhance situational awareness, reduce cognitive overload, and optimize leadership strategies, leading to better decision-making, efficiency, and team engagement.



MILITARY

Augmented Training in Military Settings
Eye tracking and cognitive monitoring in military training enhance situational awareness, decision-making, and target acquisition. They identify stress responses, optimize reaction times, and refine training by analyzing attention patterns, reducing errors, and improving combat readiness. Simulations of combat situations, trainings for support staff (logistics, engineering, technicians, medical).



MORE THAN MEETS THE EYE

Mindset Technologies AG is seated in Switzerland. We have representatives in the USA and in Taiwan. Contact our experienced team of cognitive scientists and engineers for tailored solutions and digital services and products. Mindset Technologies Development GmbH near Vienna, Austria, is the competence center for joint research projects and tailored solutions.

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