

AUXIVO

Occupational
Exoskeletons

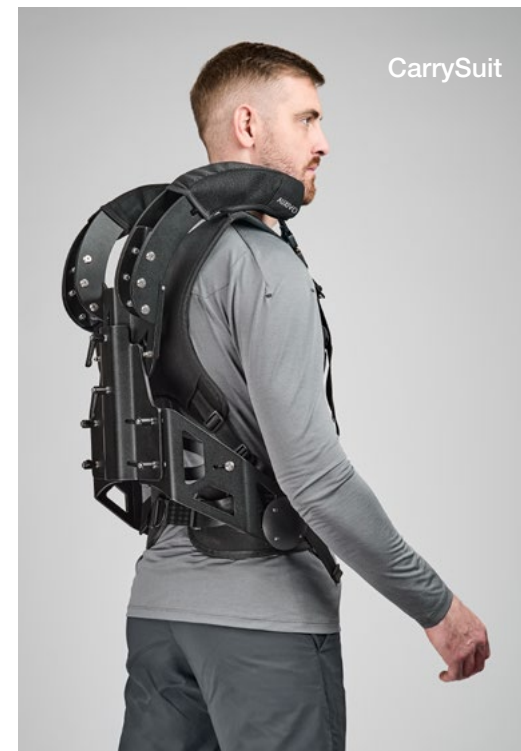
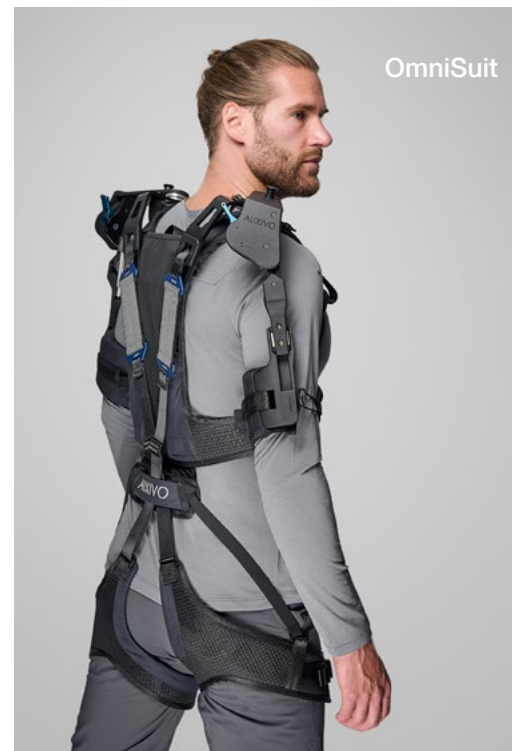
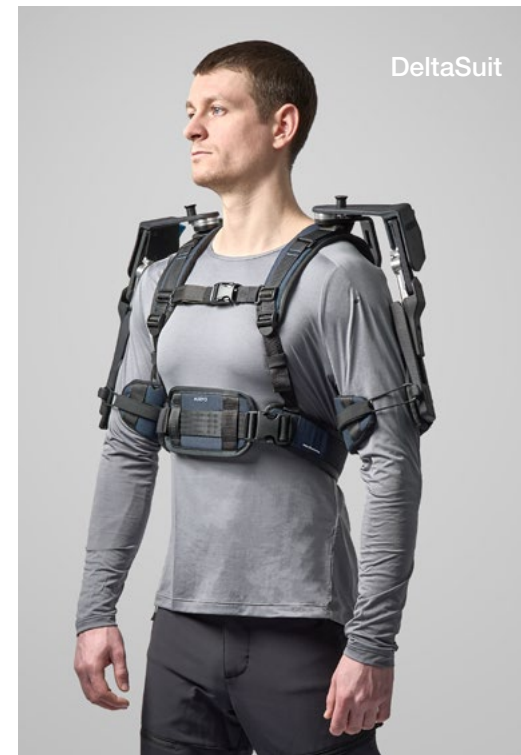
auxivo.com



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Product Overview

Auxivo offers four occupational exoskeletons, providing tailored solutions to meet diverse user needs and application requirements. Designed for versatility across various industries, each exoskeleton features passive support mechanisms and lightweight design elements, making them reliable, easy to maintain, and ready for use anytime and anywhere.





LiftSuit

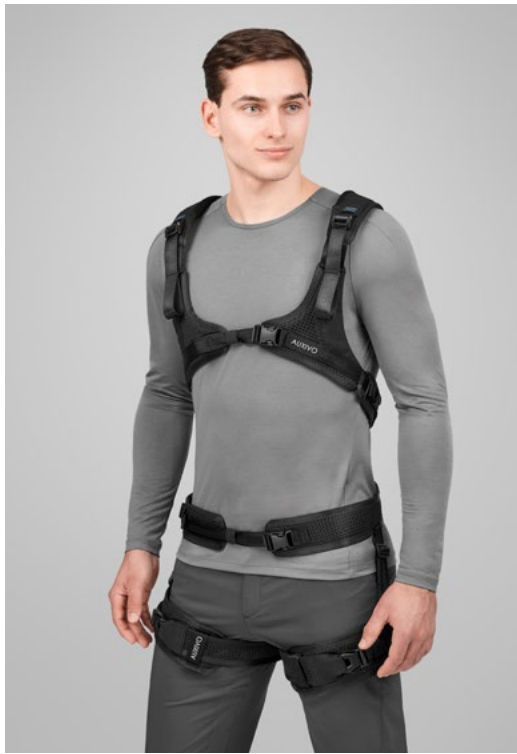
Lift Exoskeleton

Design and Engineering

The LiftSuit is a lightweight, textile exoskeleton that offers versatile back and hip support during repetitive lifting or prolonged forward-leaning work. Inspired by human anatomy, its innovative support concept delivers a natural way of supporting back and hip muscles.

Small, low-profile, flexible, lightweight, and naturally adapting to the user's body, the LiftSuit allows full freedom of movement across all work activities. Advanced technical textiles and artificial muscles create a lightweight and highly energy-efficient exoskeleton.

Its support system imitates the behavior of human muscles, resulting in natural and intuitive assistance relying on gravity compensation and energy recuperation. Relying on a fully textile frame to optimize for lightness, comfort, and freedom of movement, the LiftSuit blends the lines between advanced exoskeleton technology and work clothes to achieve a new level of practical performance.



The use of advanced technical textiles creates a high level of flexibility and results in a lightweight, low-profile exoskeleton.

Performance and Applications

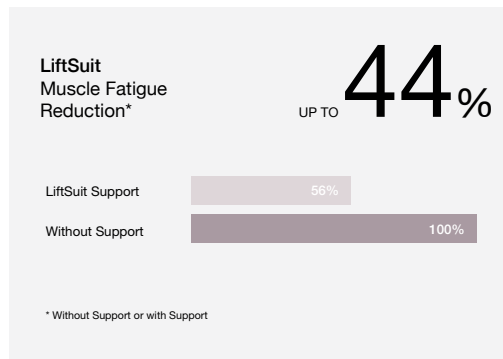
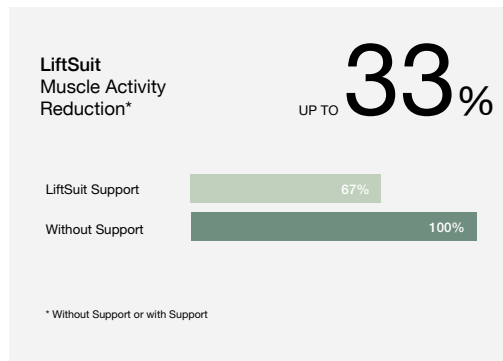
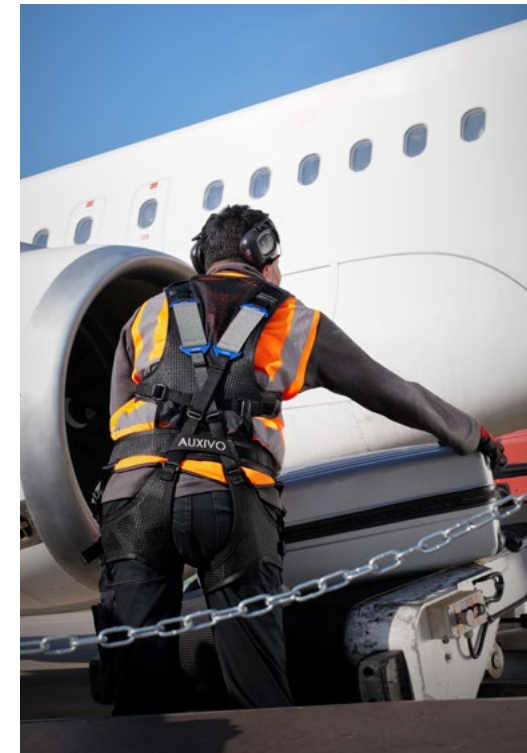
The LiftSuit provides significant relief for back and hip muscles during lifting or extended periods of leaning forward, significantly reducing the user's physical strain.

Measurements in the biomechanics lab have shown that this reduces average muscle load by up to 33% and the average rate of muscle fatigue by up to 44%. Combining this support with its optimized size, weight, comfort, and ease of use achieves a very high level of versatility and performance.

This performance makes the LiftSuit suitable for various industries. Whether lifting 1000 boxes daily in a warehouse, managing hundreds of luggage pieces at an airport under time constraints, spending hours leaning forward in agricultural work, or frequently bending over patients in healthcare settings, the LiftSuit offers reliable support.



For more information on the LiftSuit, please visit our product website.





DeltaSuit

Overhead Exoskeleton

Design and Engineering

The DeltaSuit is an innovative shoulder exoskeleton that offers high dynamic performance during overhead work. It seamlessly combines rigid and soft components to create a system that offers high support while ensuring maximal freedom of movement and usability.

Designed to achieve the perfect balance between freedom of movement, dynamic support, and usability, the DeltaSuit combines various mechanical and textile engineering solutions into a unique hybrid exoskeleton.

The DeltaSuit follows the natural lines of the human body, creating a sleek and compact design with an unparalleled ergonomic experience. This ensures accessibility and usability even in the tightest and most challenging working environments.



The split-vest design ensures high freedom of movement and serves as an interface between the wearer and the mechanical structure.

Performance and Applications

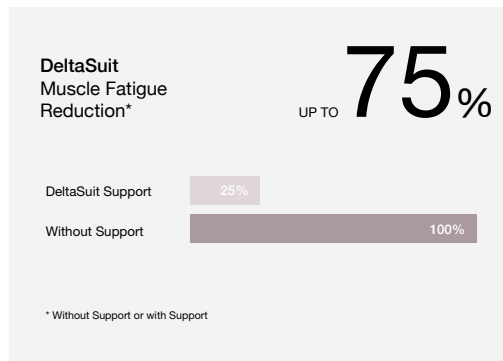
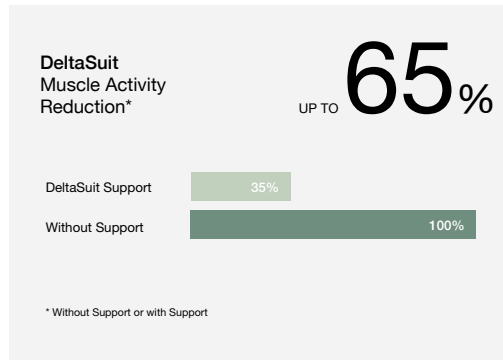
The DeltaSuit supports its users' neck, shoulders, and arms during prolonged work at or above shoulder height. The dynamic support reacts naturally to every movement, supporting it progressively as required with minimal constraints and limitations.

Measurements in the biomechanics lab have shown that the DeltaSuit's support can reduce average muscle load by up to 65% and the average rate of muscle fatigue by up to 75%. DeltaSuit users can say goodbye to the days when overhead activities caused strain on their neck and shoulders.

Whether installing ceiling panels, repairing a car, painting walls, or drilling hundreds of holes in a wall, put on the DeltaSuit and confidently tackle any overhead task, knowing you have the right level of support any time and everywhere you go.



For more information on the DeltaSuit, please visit our product website.





OmniSuit

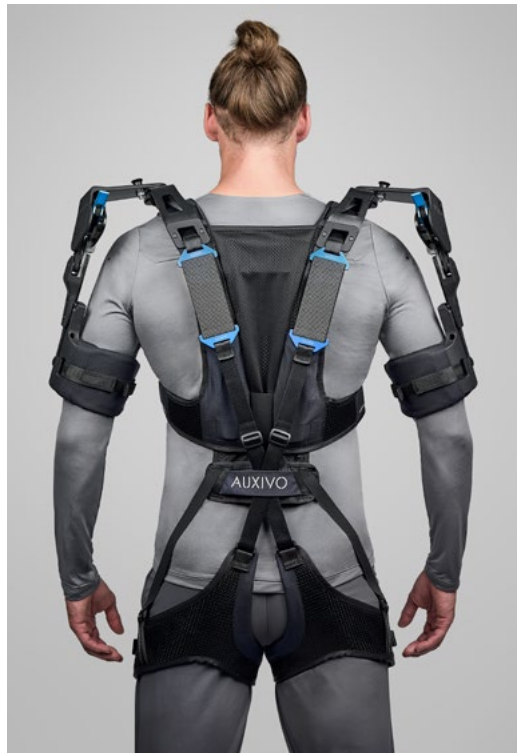
Multitask Exoskeleton

Design and Engineering

The OmniSuit is a fully integrated multitask exoskeleton that provides combined shoulder and back support for dynamic work activities, including overhead and lifting tasks.

Designed to deliver a unique level of versatility, with a focus on ergonomics and human-centered engineering, the OmniSuit seamlessly supports the entire vertical range of motion.

The OmniSuit is engineered to maximize anatomical compatibility and energy efficiency while minimizing weight and size. The support system consists of two Elastic Energy Storage (EES) units that utilize gravity compensation and energy recuperation for the back and shoulders.



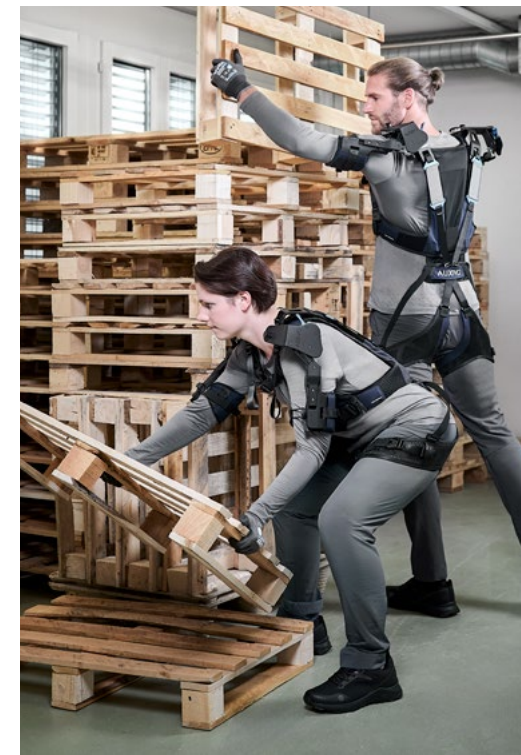
The ergonomic design naturally aligns with the human body, providing support over the entire vertical range of motion.

Performance and Applications

The OmniSuit offers multitask support for overhead and lifting work. It can support both activities seamlessly without compromising on performance.

As a combined back and shoulder exoskeleton, the OmniSuit eliminates the need to choose between lift- and overhead support when the work actually requires both. With its highly integrated design, it assists users in handling loads from floor level to the highest shelf.

Scientific evaluations show that the OmniSuit significantly reduced muscle load and fatigue in the shoulder, neck, arms, back, and hip. This versatility makes it uniquely suitable for logistics, construction, manufacturing, agriculture, and various other applications.



OmniSuit
Muscle Activity
Reduction*

UP TO **65%**

OmniSuit Support

35%

Without Support

100%

* Without Support or with Support

OmniSuit
Muscle Fatigue
Reduction*

UP TO **75%**

OmniSuit Support

25%

Without Support

100%

* Without Support or with Support



For more information on the OmniSuit, please visit our product website.

CarrySuit

Carry Exoskeleton

Design and Engineering

The CarrySuit is a passive, upper-body exoskeleton that reduces the load on the hands, arms, shoulders, and back when carrying and holding heavy loads. It consists of a rigid exoskeleton frame spanning from the user's hip to above the shoulders.

By design, the CarrySuit creates alternative load paths and ensures that loads are diverted away from vulnerable joints in the arms, shoulders, and spine. This approach aims to protect these critical areas from strain and injury. Additionally, the CarrySuit's frame helps distribute loads evenly, reducing local load peaks in the body that can cause damage to the muscles, tendons, or cartilage.

The engineering of the CarrySuit emphasizes safety, durability, and performance. Its sturdy frame ensures the CarrySuit can withstand dynamic load peaks, providing robust protection in demanding environments. The textile interface transfers weight comfortably and effectively. Simple size adjustments make it adaptable to many users, ensuring maximum comfort and usability.





The sturdy frame unloads the torso and upper extremities when carrying heavy loads. A flexible adapter system connects payloads of various sizes and shapes.

Performance and Applications

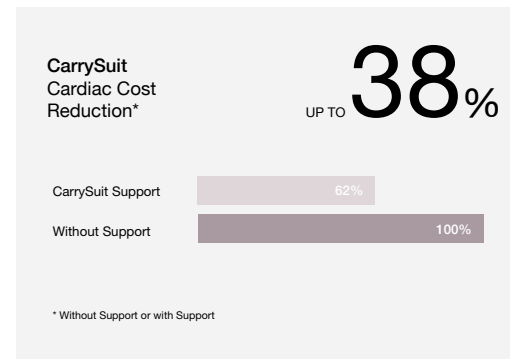
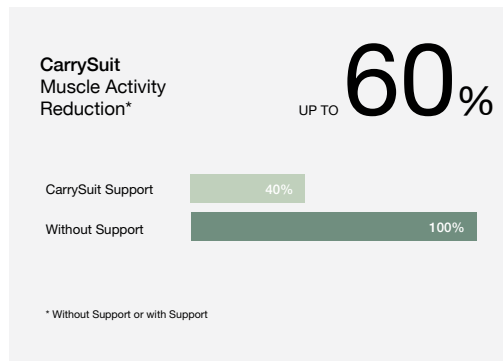
The CarrySuit relieves the torso and arms when carrying and holding heavy loads by transferring the weight of the payload to the user's hips, bypassing critical joints like the wrist, elbow, shoulder, and spine.

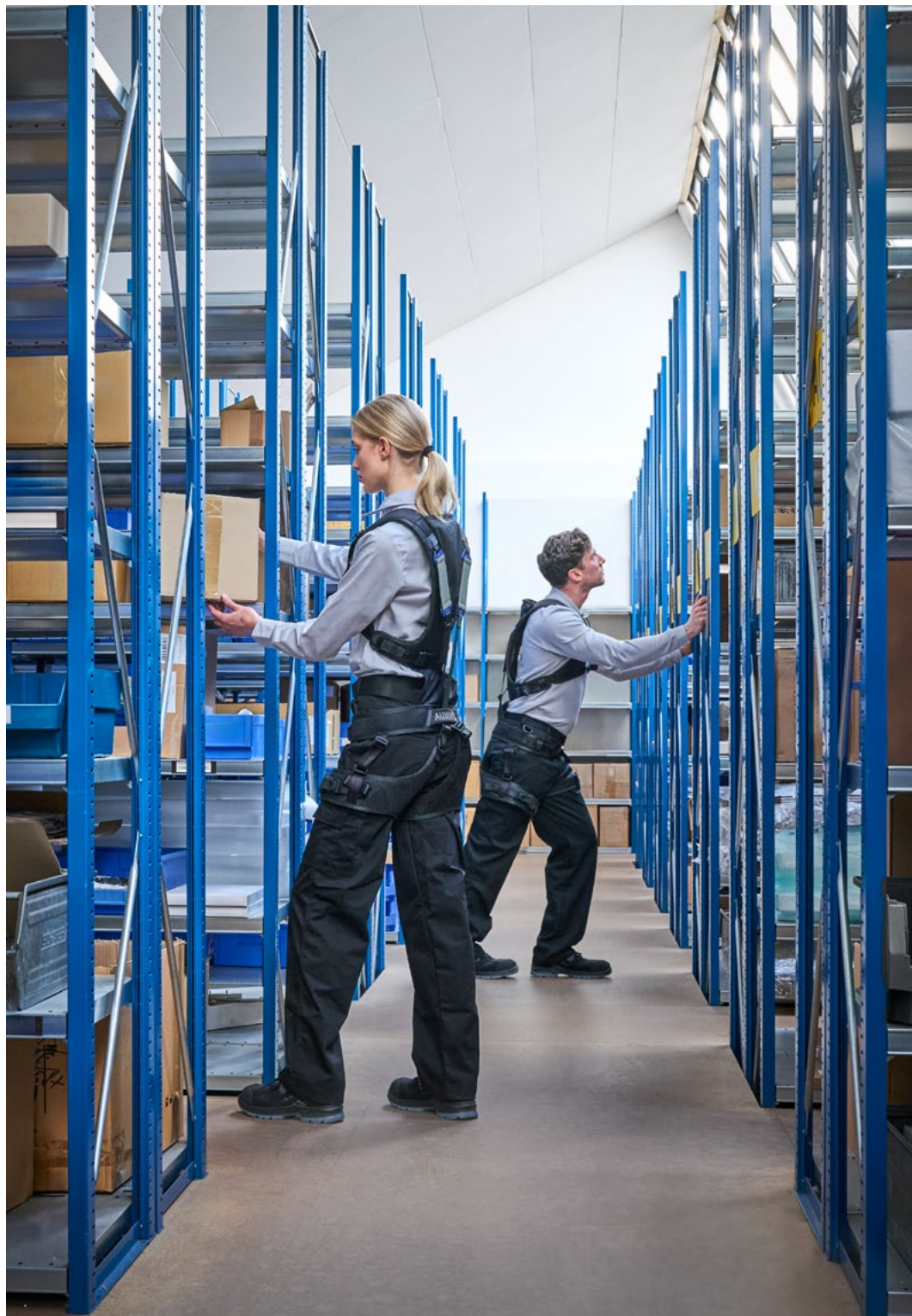
Heart rate and muscle activity measurements have shown that the CarrySuit can significantly reduce the load on the users' musculoskeletal and cardiovascular systems. When carrying a 15 kg load, the average reduction in shoulder muscle activity was up to 60%. During the same tasks, the load on the neck muscles was reduced by 45%. Using the CarrySuit while carrying 15 kg also reduced the working heart rate by up to 38%.

A flexible payload attachment system using adapters allows for connecting loads of different sizes and shapes. This makes the CarrySuit suitable for various applications in construction, relocation, transportation, tool handling, and any other work that requires frequent carrying or prolonged holding of heavy objects.



For more information on the CarrySuit, please visit our product website.





Auxivo as Your Partner

Auxivo AG is a leading developer and manufacturer of exoskeletons dedicated to enhancing workplace safety and well-being. Since our inception, we have consistently pushed the boundaries of exoskeleton technology to deliver high-performance products for demanding industrial environments. All our products are scientifically evaluated and CE-certified to meet strict performance, safety, and quality standards.

With over 10,000 exoskeletons implemented across various industries, we have the experience to help you identify the most suitable solutions for your needs. Once we identify the appropriate solutions together, our team provides training and on-site integration support to maximize the benefits for you and your workforce. Whether you need a single unit or a large-scale deployment across multiple divisions, we can assist at any scale.

By choosing Auxivo as your partner, you gain access to advanced solutions alongside a dedicated team committed to supporting you in future-proofing your workforce. Our global presence, including our Swiss headquarters, a European subsidiary, and a network of partners on all continents, ensures that we are well-positioned to serve our customers worldwide.

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