vivelab ERGO

VIRTUAL ERGONOMIC VERIFICATION TO INCREASE EFFICIENCY AND TO LOWER COSTS

THE FORTUNE 100 ENTERPRISE TECHNOLOGY
IS NOW AVAILABLE FOR YOU IN THE CLOUD

WHAT IS VIVELAB ERGO?

ViveLab Ergo is an ergonomic lab in the cloud for modelling objects, machines and human beings moving together in a virtual 3D space. Thanks to its massive anthropometric database and built-in analyses it precisely simulates, analyzes and validates human interactions with industrial and other environments.

AFFECTED SECTORS

MANUFACTURING
Reduce fluctuation, increase efficiency, find the best points for robotizing.

SPORT & HEALTH
Capture human movement and analyze it accurately any times from any angle.

PRODUCT DESIGN
Create better products! Do usability tests as early as the design phase.

ARCHITECTURE
Check your blueprints from an ergonomist view point!

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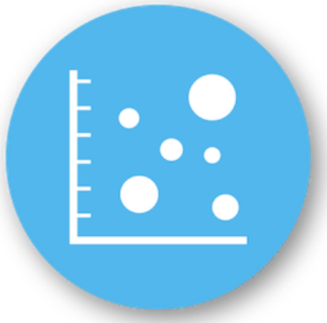
ERGONOMICS IS THE RETURNING INVESTMENT

SOLVE LABOR ISSUES

INCREASE EFFICIENCY



KEEP UP WITH FUTURE

VIVE LAB ERGO

SOLVE LABOR ISSUES

- Reduce absenteeism for health reasons (e.g. musculo-skeletal-disorders)
- Reduce the risk of accidents
- Reduce fluctuation through better working comfort
- Facilitate recruitment involving more age groups, women and disabled people

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INCREASE EFFICIENCY

- Lowers costs (eg.: costs arising from sick leave, fluctuation, training)
- Lowers the number of unoccupied workstations
- Lowers cycle time and the number of faulty products
- Optimize workflows

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KEEPS UP WITH DEVELOPMENT

- Virtual verification guarantees the ergonomic compliance of new workstations in the design phase without prototype production
- Checks the insertion of transferable tools/workstations
- Assists in organizing shifts using profile comparison
- Helps to coordinate the human – machine – environment system
- Helps to identify the automatable workplaces

VIVELAB ERGO

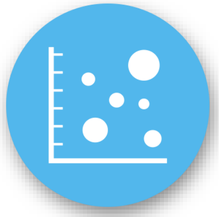
VIVELAB ERGO DETAILS

PRODUCT FEATURES I.

3D VISUALIZATION
Upbuild manually or import your own virtual environment with moving machines and robots!

ACCURATE ANIMATION
Build precise human movements manually or import XSENS movement files!

BUILT-IN ANALYSES
Use seven professional analyses (RULA, OWAS, NASA-OBI, ISO 11226, EN 1005-4, reachability zone, spaghetti diagram), both real-time and PDF reports!



HUMAN ANTHROPOMETRIC DATA BANK
Analyze segments based on age, sex, race and body composition. Consider changes of populations during upcoming decades!

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PRODUCT FEATURES II.

CLOUD BASED

You can use ViveLab Ergo anytime, anywhere, all you need is internet access. Does not require investments hereby easily accessible for even SMEs.

EASY-TO-LEARN

Due to the latest GUI design principles ViveLab Ergo provides an intuitive way of exploring itself.

AVAILABLE SERVICES

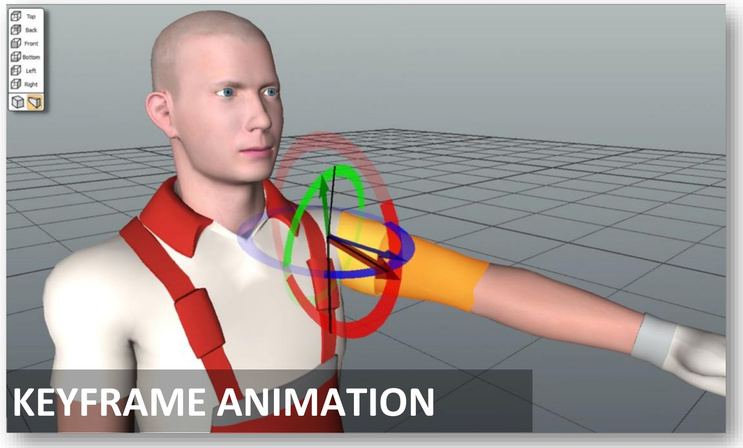
There is an experienced team of ergonomists behind the product.

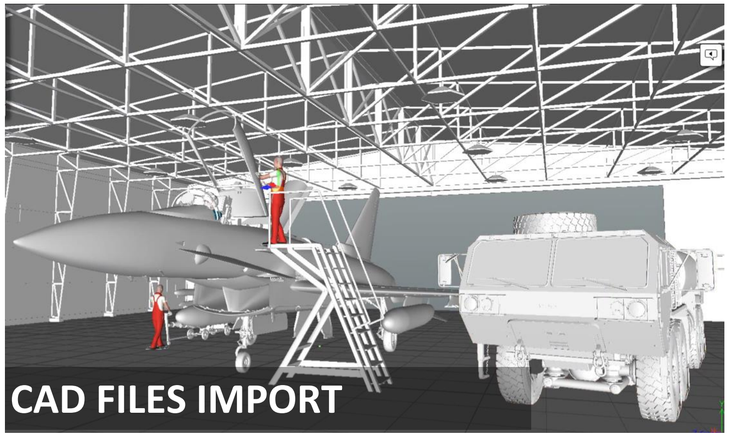
COLLABORATION

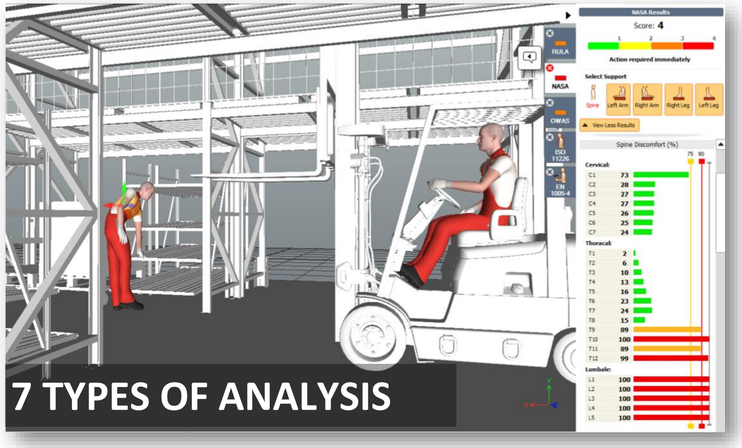
You can invite and collaborate with colleagues and agencies from all around the world while working on your project.

vivelab ERGO

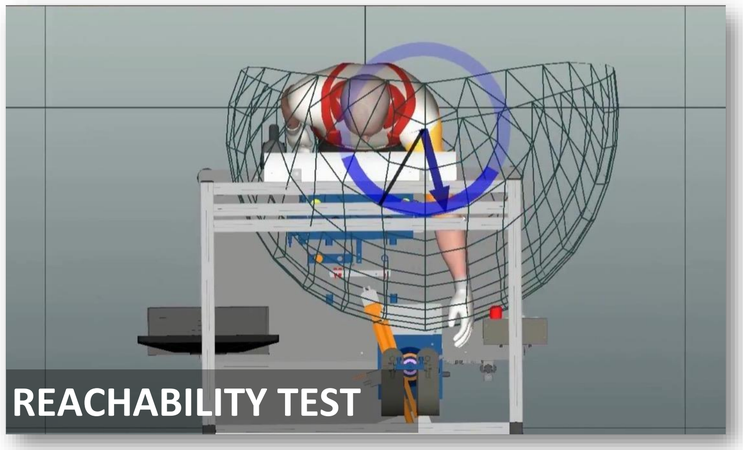

MOTION CAPTURE FILES IMPORT

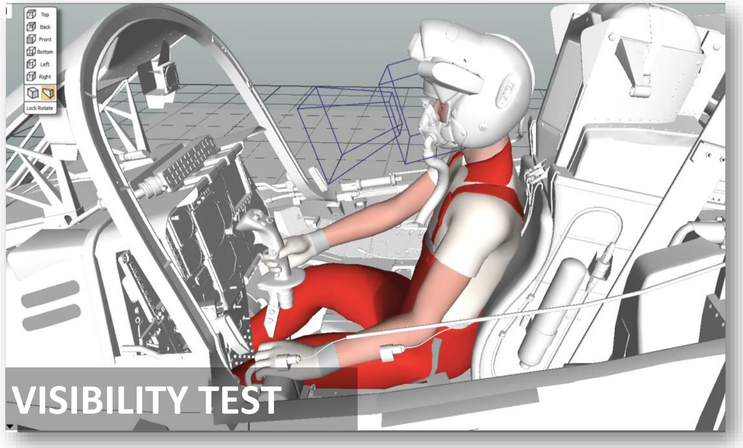

KEYFRAME ANIMATION


CAD FILES IMPORT



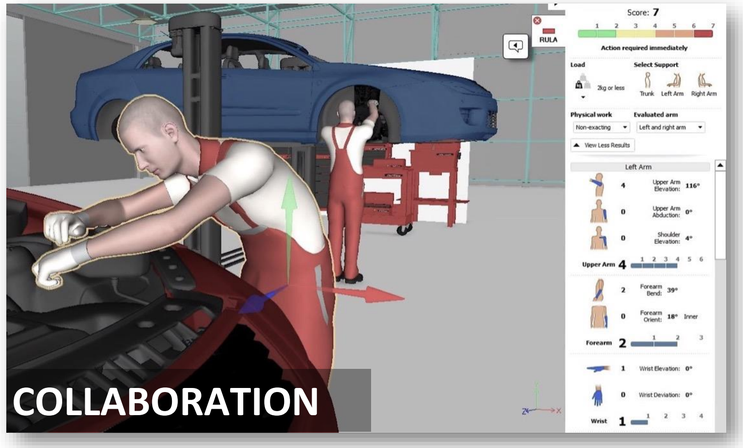
7 TYPES OF ANALYSIS


REACHABILITY TEST

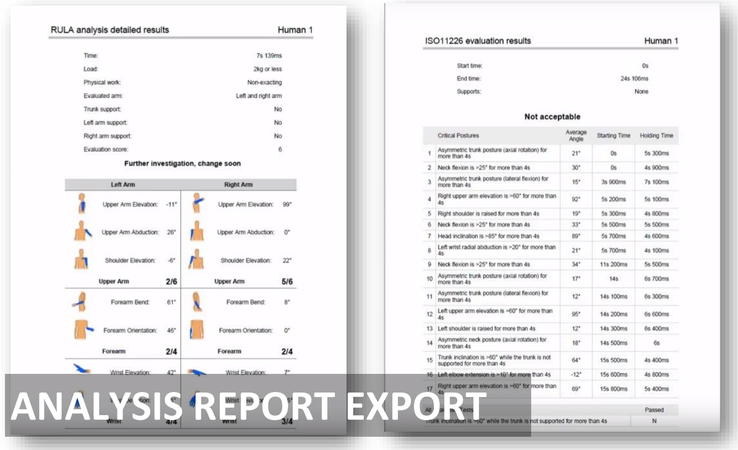


VISIBILITY TEST


SPAGHETTI DIAGRAM



COLLABORATION



ANALYSIS REPORT EXPORT

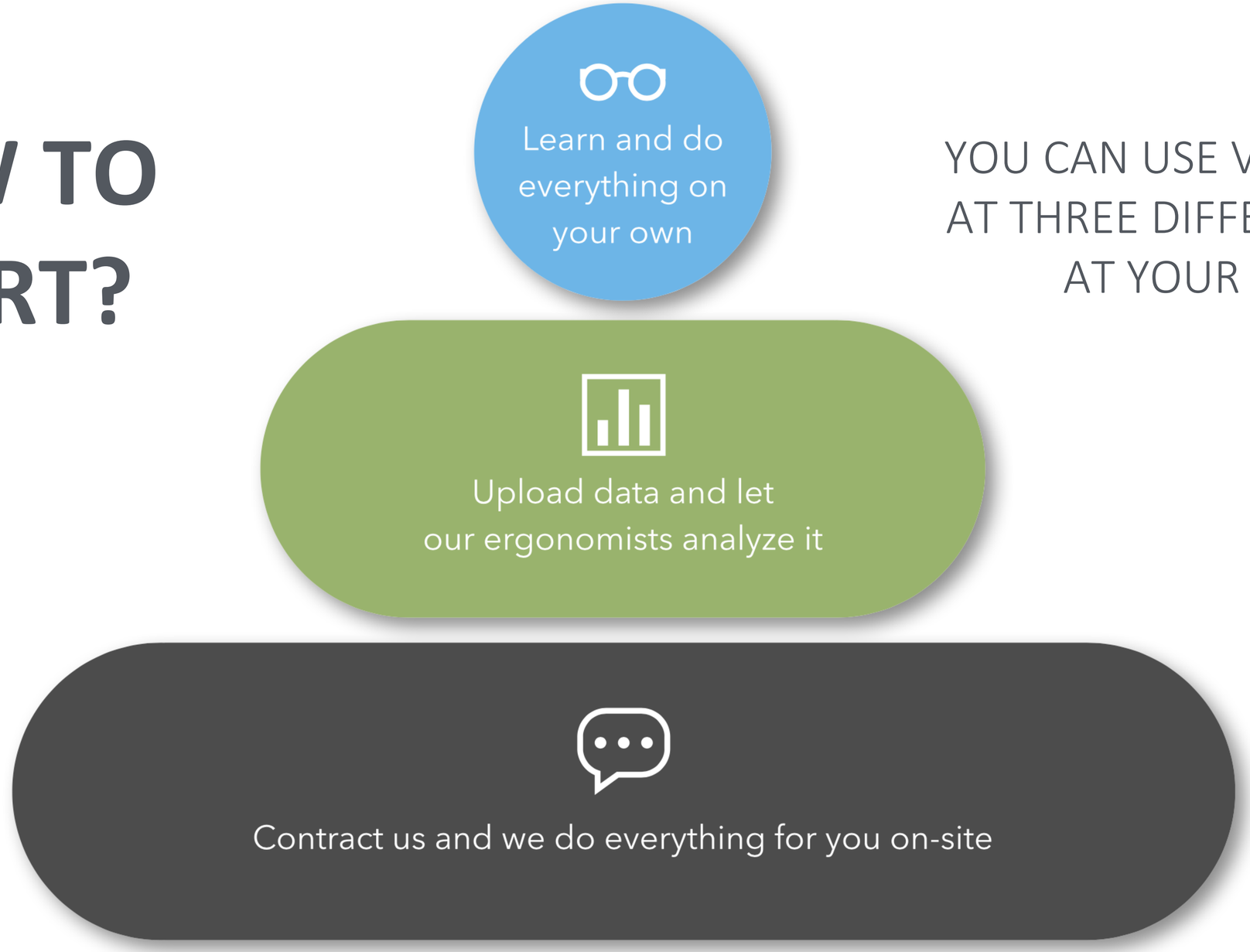
SUBSCRIPTION-BASED SOFTWARE LICENSE

STARTER	PRO	CORPORATE	ENTERPRISE
1 user	1 user	3 user	5 user (scalable: 1.5k €/user)
10 lab hours	40 ViveLab Ergo hours	120 ViveLab Ergo hours (monthly for all users cumulated)	Unlimited
Keyframing	Keyframing	Keyframing	Keyframing
-	Motion Capture file import	Motion Capture file import	Motion Capture file import
7 ergonomics analyses	7 ergonomics analyses	7 ergonomics analyses	7 ergonomics analyses
-	-	Analysis result export (pdf)	Analysis result export (pdf)
Email support (2 days SLA)	Email support (2 days SLA)	Email support (24 hours SLA)	Email support (24 hours SLA)
-	-	Dedicated mentor (8 hours/month)	Dedicated mentor (8 hours/month)
190 € / month	**950 € / month**	**4 950 € / month**	**7 500 € / month**

ViveLab ERGO

** For detailed pricing plans visit: vivelab.cloud/pricing.html*

HOW TO START?



YOU CAN USE VIVELAB ERGO AT THREE DIFFERENT LEVELS AT YOUR CHOICE

VIVELAB ERGO

ATTACHED SERVICES
FOR THE MANUFACTURING SECTOR

ADVANTAGES OF OUR SOLUTION

- 3 measurements of a given workstation within 45 minutes
- During the measurement we record video also
- Comparison of the original and the optimized work movement
- ROI calculation if we can receive the basic data
- Specification the possible organizational, technical and individual actions
- In the phase of technical planning, our ergonomics specialists are offering counselling, collaborative works and virtual validation and verification tests.

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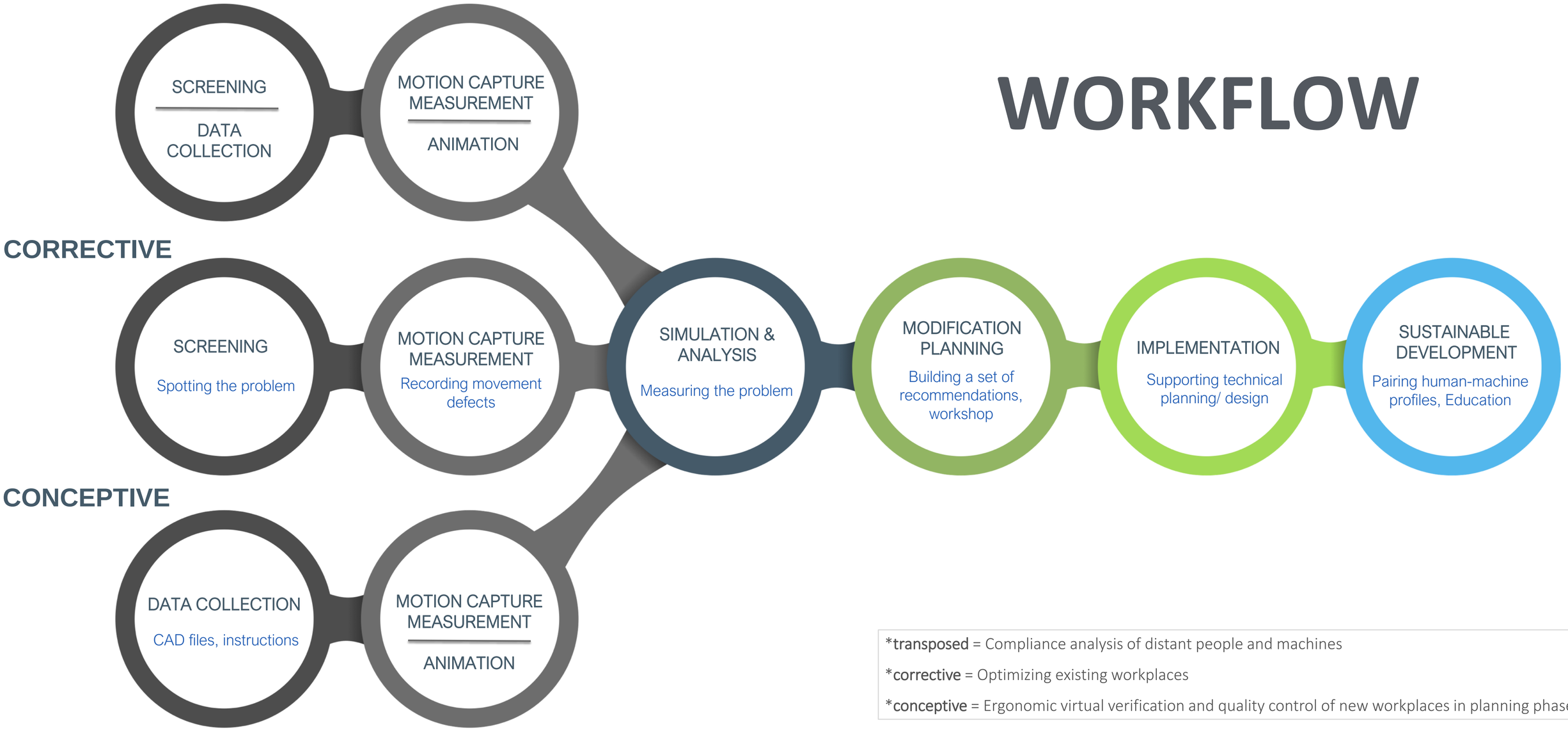
WORKFLOW



*transposed = Compliance analysis of distant people and machines

*corrective = Optimizing existing workplaces

*conceptive = Ergonomic virtual verification and quality control of new workplaces in planning phase

SCREENING

PROCESS:

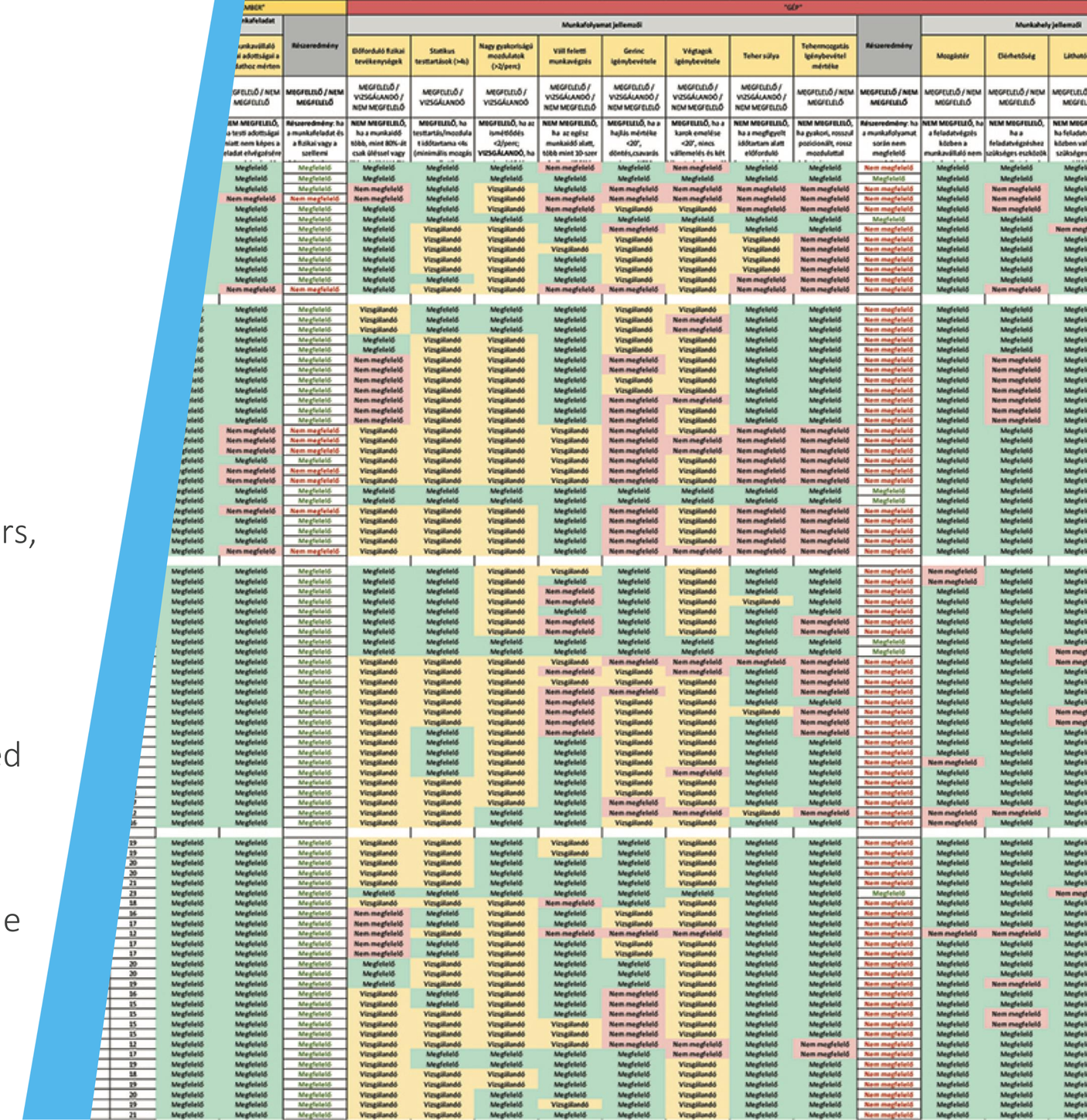
- Ergonomic impact assessment
- Tracking and observation of the production area
- Interview with the employees, line supervisors, company doctor

OPTIONAL EXAMINATIONS:

- Selecting automatable workplaces
- Integrating elderly workers or workers with changed working abilities

RESULTS:

- An overall picture about the ergonomic issues of the company
- Grouping and ranking of issues
- Selection of workstations requiring further action



MOTION CAPTURE MEASUREMENT

PROCESS:

- 3 measurements of a given workstation within 45 minutes
- Capturing full body movement with the aid of Xsens MVN inertial sensors
- Accurate, quick, objective and precise data capture of every detail of movement
- Movement is not limited

RESULT:

- Movement files that can be imported into the ViveLab Ergo software, which include improper movements, forced postures that cannot be captured by human eye.
- Video records

LEICA 3D SCANNING

IN LACK OF CAD FILES NECESSARY FOR THE EXAMINATION

PROCESS:

- 3D scanning of machines and environment
- CAD file import to the ViveLab Ergo software

RESULT:

- CAD files about the machines and the environment. Our ergonomics specialists can accurately examine the placement, layout and space requirements of the machines and the workforce relative to each other.

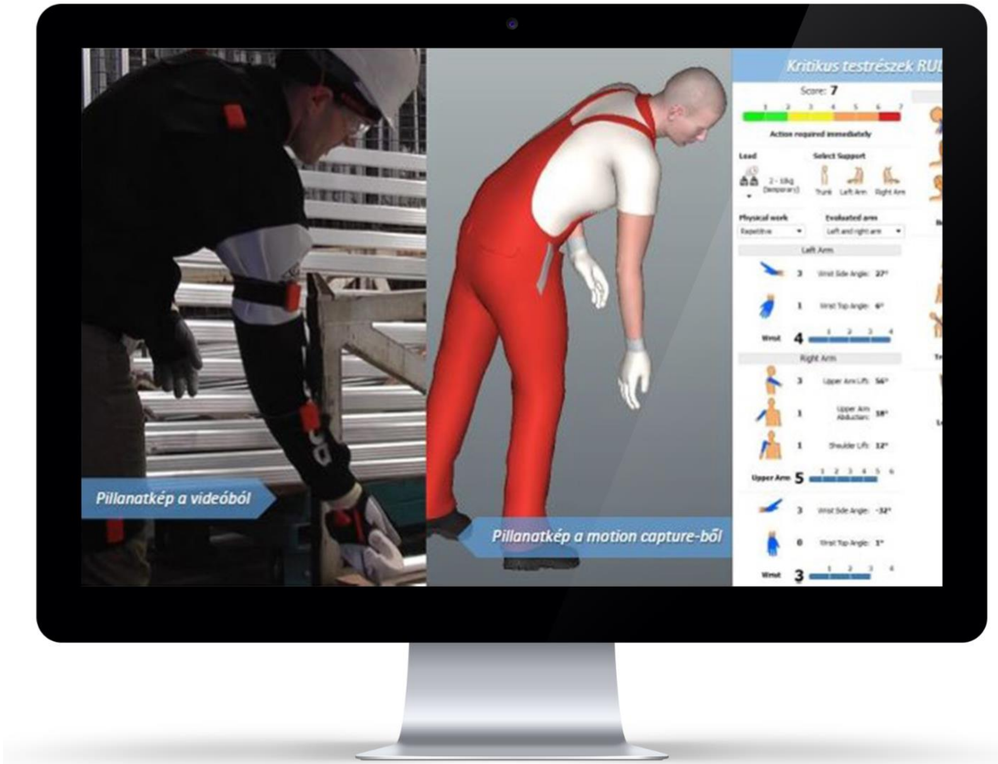
SIMULATION AND ANALYSIS

PROCESS:

- Importing CAD and motion files into the three-dimensional, virtual environment of ViveLab Ergo, where motion can be viewed or analyzed from any angle
- Running analyzes using the built-in 7 ergonomic analysis
- Analysis for any kind of body structure: Character's body structure, gender, age and origin can be changed, therefore the working environment can be tested for workers with all kinds of features

RESULTS:

- Accessible simulations in ViveLab Ergo
- Analyses can be exported from ViveLab Ergo



EN1005-4 evaluation results — Attila

Start time: 0s

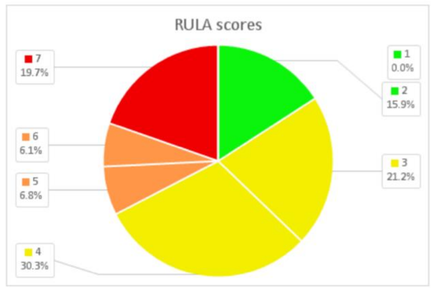
End time: 2m 10s 704ms

Not acceptable

	Critical Postures	Maximum Frequency	Starting Time	Holding Time
1	Left upper arm adduction occurs with a frequency >=2/min	6/min	0s	1m 13s 900ms
2	Right upper arm adduction occurs with a frequency >=2/min	15/min	0s	1m 20s 700ms
3	Left knee flexion is >0° while standing (bottom not rested) occurs with a frequency >=2/min	18/min	0s	2m 8s 200ms
4	Left shoulder raising occurs with a frequency >=2/min	12/min	0s 300ms	2m 10s 404ms
5	Left wrist radial abduction >20° occurs with a frequency >=2/min	11/min	0s 300ms	2m 5s 800ms
6	Neck flexion is >40° occurs with a frequency >=2/min	9/min	0s 400ms	2m 1s 400ms
7	Trunk inclination is 20°— 60° while the trunk is not supported occurs with a frequency >=2/min	7/min	0s 500ms	1m 54s 600ms
8	Asymmetric trunk posture (lateral flexion) occurs with a frequency >=2/min	16/min	0s 500ms	2m 10s 204ms
9	Asymmetric trunk posture (axial rotation) occurs with a frequency >=2/min	10/min	2s 800ms	2m 7s 904ms
10	Left elbow extension is >10° occurs with a frequency >=2/min	4/min	3s 300ms	1m 8s 700ms
11	Right knee flexion is >0° while standing (bottom not rested) occurs with a frequency >=2/min	15/min	3s 700ms	2m 5s

RULA Statistics Result — Attila

Time interval:	0s — 2m 10s 704ms
Load:	2kg or less
Physical work:	Non-exacting
Evaluated arm:	Left and right arm
Trunk support:	No
Left arm support:	No
Right arm support:	No



ACTION PLAN

PROCESS:

1. Action plan proposal:

Based on the analysis report our ergonomics specialist specifies all organizational, technical and individual actions.

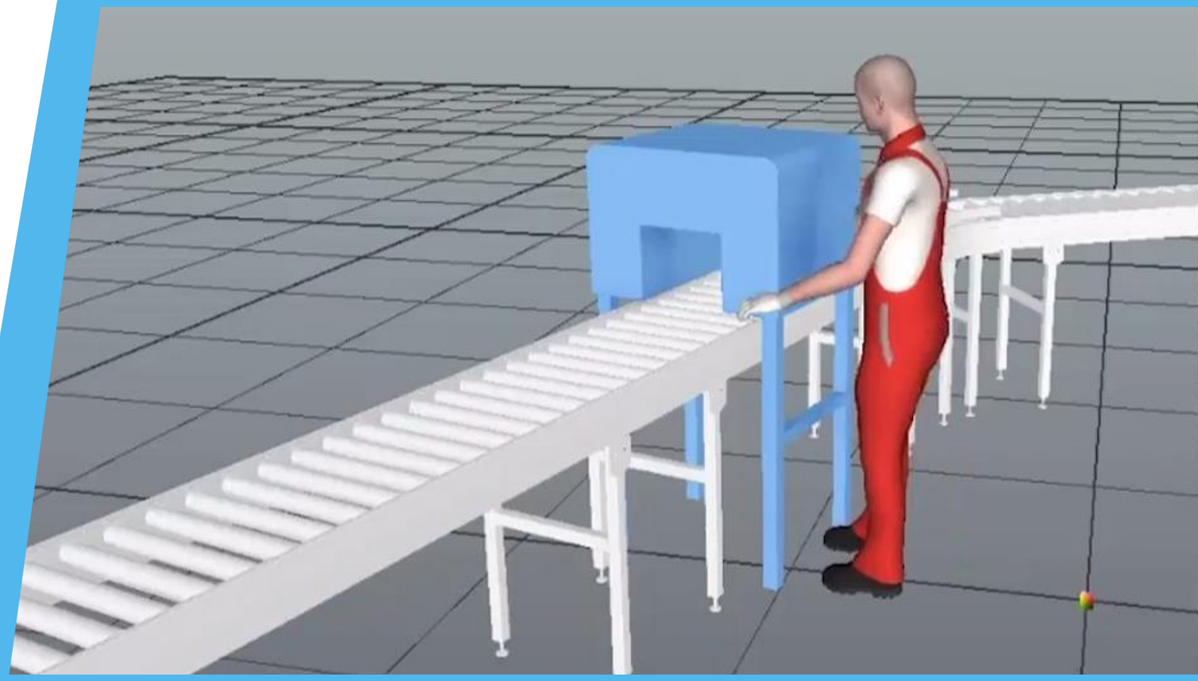
2. Workshop:

Jointly with the Customer we interpret the proposals, select and schedule the actions to be implemented

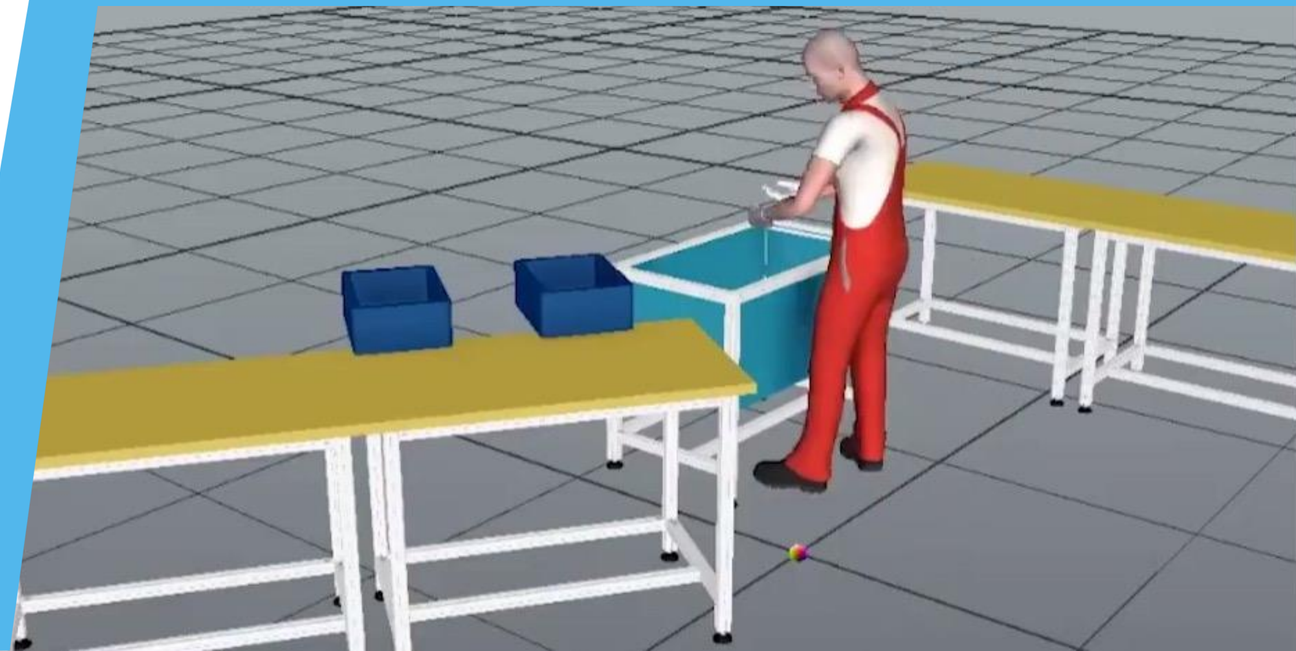
RESULT:

- Scheduled action plan

OPTIMAL WORK PROCESS AND ENVIRONMENT



ORIGINAL WORK PROCESS AND ENVIRONMENT



IMPLEMENTATION

Support of technical planning:

- Virtual validation and verification*
- Ergonomic counselling
- Impact assessment / measurement

Virtual validation and verification:

During design our specialists check without prototype production in a virtual space whether the product/component meets the requirements.

PROFILE COMPARISON

Tool of sustainable development

PROCESS:

- Making profiles of workstation requirements and employee's capabilities
- Allocating employee to the appropriate workstations

RESULTS:

- Profile comparison chart
- Assistance in shift scheduling, substitution
- Assistance in integrating workers with changed abilities and older workers

TRAININGS & SEMINARS

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SUPPORT & MENTORING

- Collaboration with our ergonomists
- Dedicated mentor
- Support

ABOUT US

OUR COMPANY

ViveLab Ergo Ltd. is a technological startup enterprise founded in Hungary. ViveLab Ergo’s mission is to provide fast and accurate three-dimensional virtual ergonomic tests, analysis and planning for wide range of companies. ViveLab Ergo developed a simulation system along this objective to create optimal working environments and workflows for health, efficiency and competitiveness. ViveLab Ergo’s founders have three decades of academic level scientific work and professional history to ensure that our company becomes one of the world's leading research and development workshops in the field of virtual ergonomics researches. We believe that the key factor to the future of mankind and sustainable development lies in smooth cooperation between humans, machines and the environment.

VIVELAB ERGO

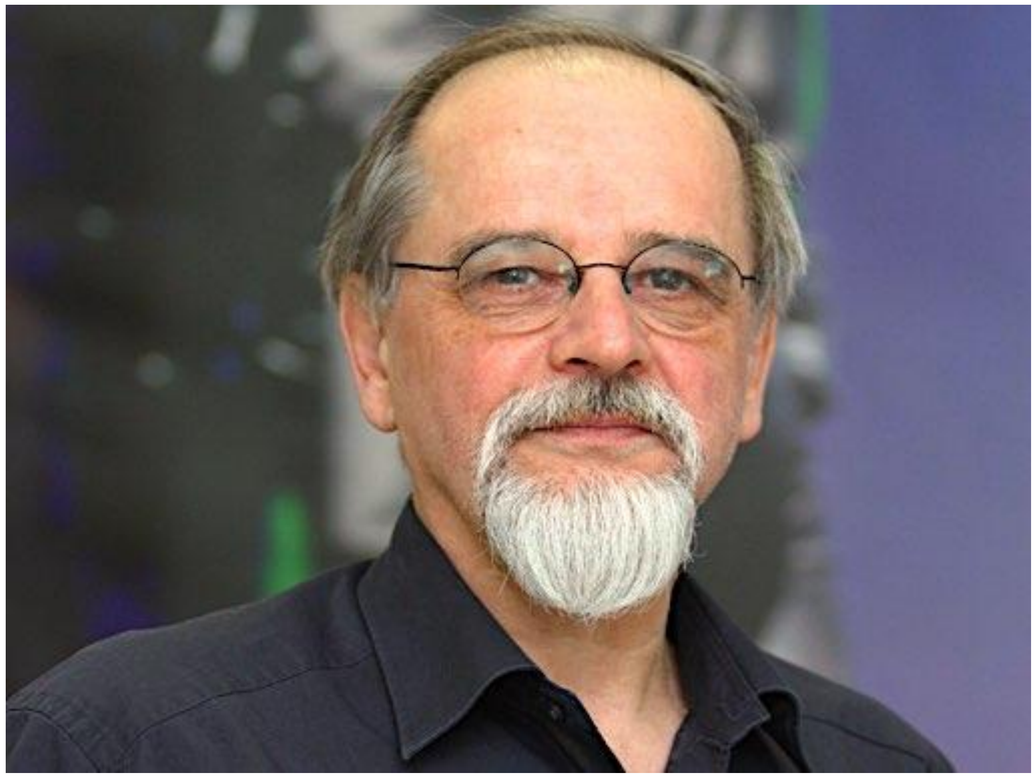
OUR LEADERS

Csaba Szeredy
Founder, CEO

László Ördögh
Founder, CTO

Miklós Márton
Partner, Sales Director

OUR MISSION



"Our mission is making virtual ergonomic verification available for every single enterprise in the world. Therefore, we put ViveLab Ergo into the cloud for rent on-demand. Technology is for mankind, after all."

Dipl. Des. Dipl. Inf. Ördögh, László

FOUNDER, CTO

ViveLab ERGO

REFERENCES

Some of our successful projects

at major manufacturing companies in Hungary

GOING INTERNATIONAL

VIVELAB ERGO

PEOPLE CENTRIC TECHNOLOGY

Sign up for a free trial:
WWW.VIVELAB.CLOUD