OAK
elderly care innovation

THE UNIQUE AND INNOVATIVE SYSTEM
FOR PREVENTION OF FALLING RISK

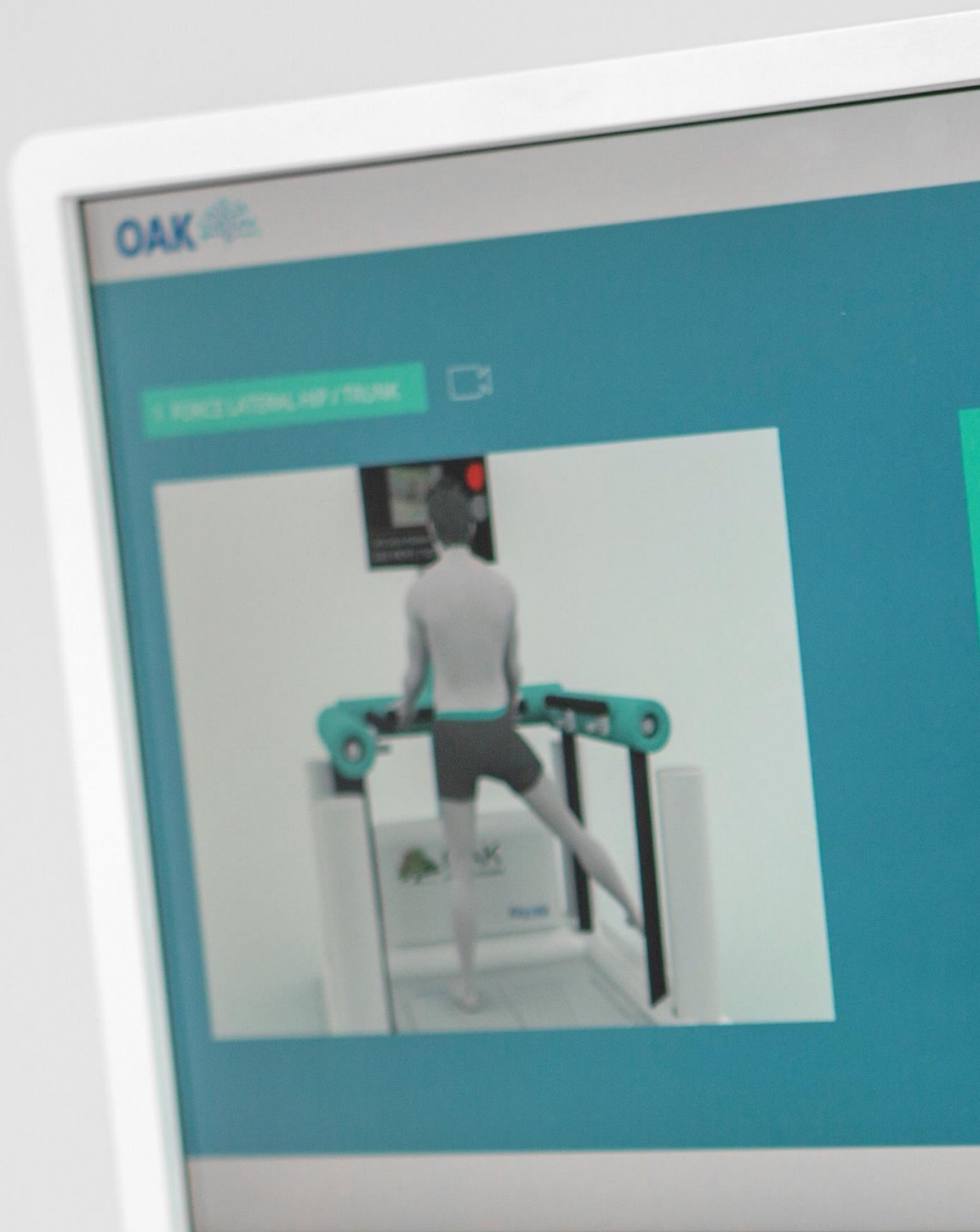OAK IS A PATENT OWNED BY KHYMEIA GROUP

Khymeia
e-health innovation

RATIONAL

OAK is the innovative integrated system for the evaluation and prevention ofOAK is the innovative integrated system for the prevention of falling risks. The system generates specific prevention exercises according to the eventual specific patient's falling risk.

TECHNOLOGY

The technological OAK platform is fully sensorized to allow precise and detailed rehabilitation activity. The system is equipped with 3D wearable sensors to perform kinematic tracking based on inertial technologies. The OAK technology allows incomparable accuracy during the postural trainings.

SCORING SYSTEM

The scoring system includes:

• Dynamic info about the correct postural position for the execution of each item of the scale;

• Info in real time about the execution of each item and the acquired data;

- Acquisition of the kinematic variables, including the forces applied on the handlebars and the balance system data;
- Analysis of the score for each item for the therapist's evaluation of the falling risk rate.

DATA FOR RESEARCH AND ANALYSIS

OAK integrates an advanced reporting system, fully customizable, that includes graphical representations for the therapist's evaluation's of the rehabilitation exercises performed by the patient. All the data are organized by reporting charts, yet they can be exported as raw data or in the main available formats.

NETWORKING

OAK is equipped with the widest networking functionalities, that allow to manage the system remotely, making data available on web platforms. The system allows also to manage the patient rehabilitation at home through its dedicated devices.

CLINICAL REHABILITATION

According to the related therapist's evaluation, the system generates a specific set of rehabilitation activities, within the following domains:

Limits of stability   Reactivity

Posture   Trunk stability

While the patient is executing the exercises, the system records in real time the quality of the execution. The wearable sensors track all the movements of the patient, feeding the system with the relevant data generating different feedback like visual, acoustic and vocal ones.