BRAIN CONTROL

Artificial Intelligence for
Human-Machine Interaction

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V 3.1.29

1ST CATEGORY: PROMISE eHealth Solution EU SME Competition 2013 eHealth Week 2013 - Dublin, Ireland

Microsoft Health Innovation Awards

SLUSH UP! CHENGDU

Health 2.0

eScienze

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THE PRIORITY

Degenerative **neuromuscular diseases, ischemic** or **traumatic injuries** causes paralysis and communications problems

People with tetraplegia

20 millions

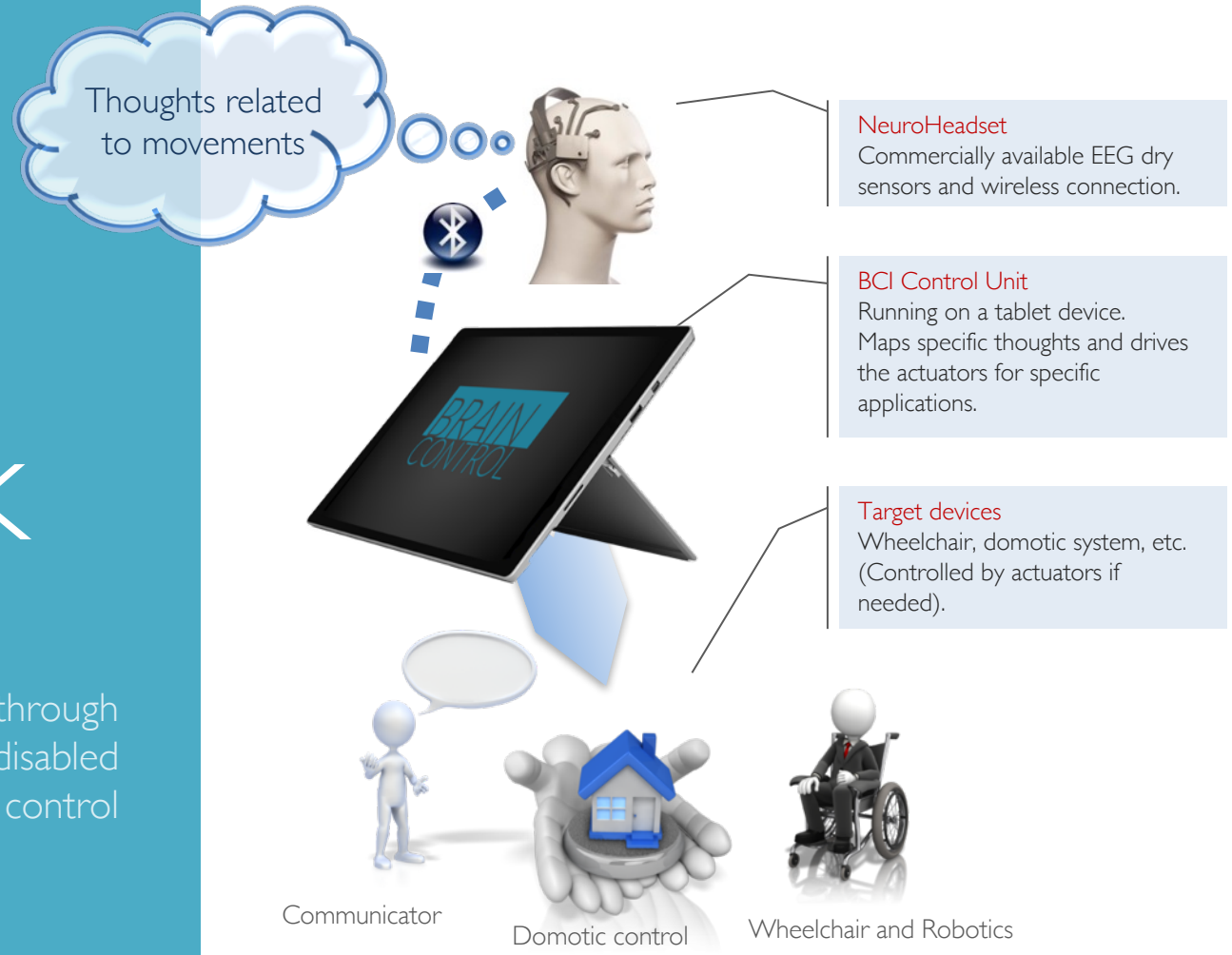
LIS/CLIS

3 millions

THE SOLUTION

Mental joystick

Braincontrol is a breakthrough technology that gives disabled people the power to control objects with their minds



NeuroHeadset
Commercially available EEG dry sensors and wireless connection.

BCI Control Unit
Running on a tablet device.
Maps specific thoughts and drives the actuators for specific applications.

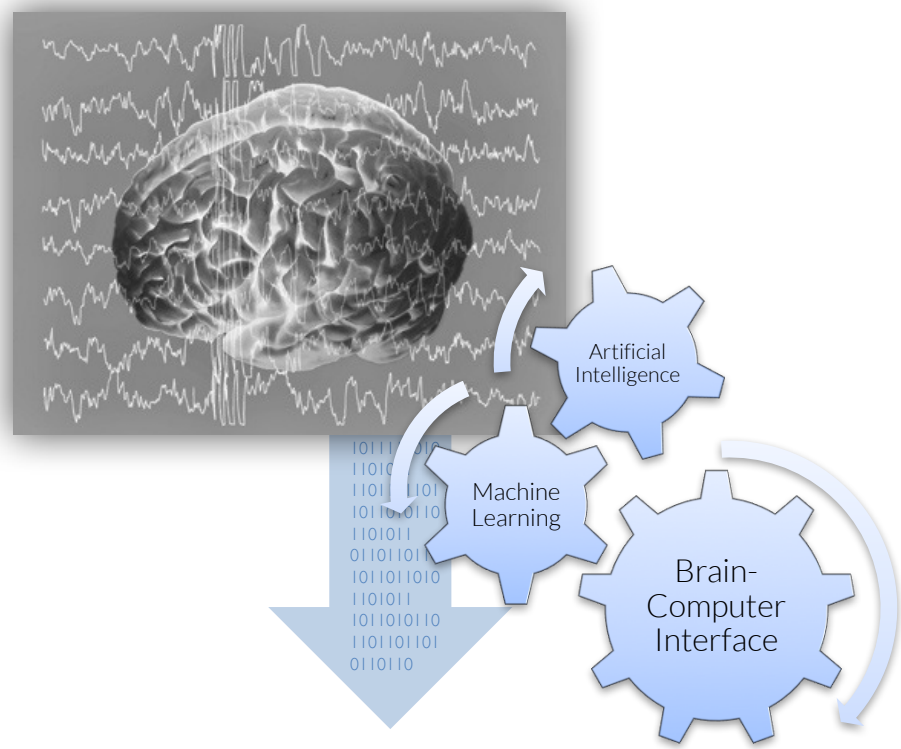
Target devices
Wheelchair, domotic system, etc. (Controlled by actuators if needed).

VIDEO: http://goo.gl/azLGg8

HOW IT WORKS

Brain-Computer Interface

Artificial Intelligence



CLINICAL VALIDATION

125

✓ trainings completed

500+ informal trainings

Multicentric clinical study

✓ Protocol defined

64 Healthy users

All trainings completed successfully

61 Patients (59 with ALS, 9 other patologies)

Early stage

- 8 successfully

Advanced stage

- 14 successfully

LIS:

- 27 successfully

CLIS:

- 9 successfully
- 3 failed

COMPETITIVE ADVANTAGE

First CE medical device in the market based on **BCI** technology

PATENT
N.IT102015000052009
PCT/IB2016/055442

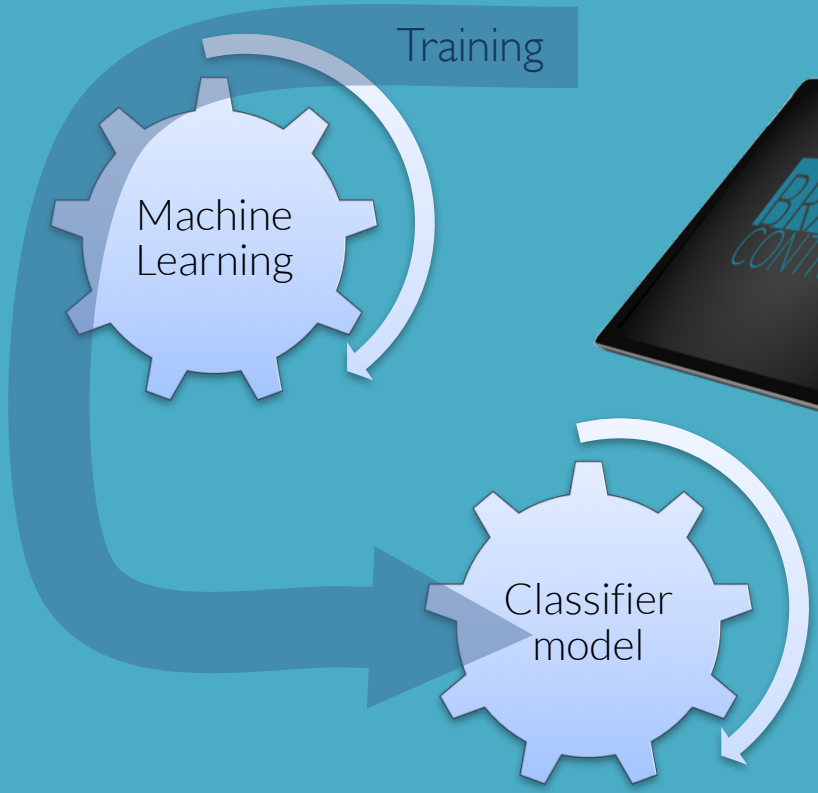
Class I medical device

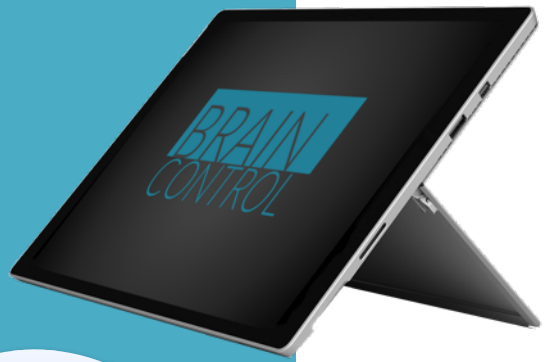
TM Braincontrol ®

It fills a technological void for LIS patients

Core solution of a future bio-feedback framework based on machine learning techniques for human-computer interaction

TECHNOLOGY BEHIND





Interaction methods

(BCI and more …)

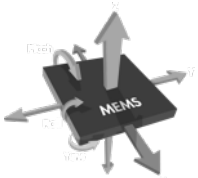
EEG

Eye Tracking

Microphone

Camera

Touch



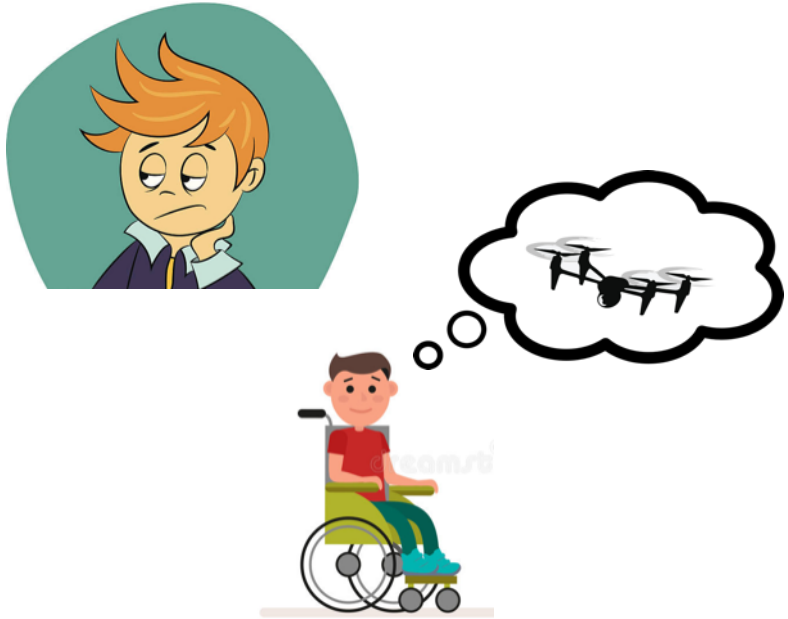
Motion sensor

Innovative
BCI
Modular
Motion
Eye-tracking
Voice
BRAIN CONTROL
Augmentative
Alternative
Communication
Functional/Cognitive
Assesment
Robotics

FOCUS ON PEDIATRIC PATIENTS

Engagement for trainings

Functionalities and design



FOCUS ON PEDIATRIC PATIENTS

Engagement for trainings

Continuous Algorithms Learning process

Games-based trainings for patients

Functionalities and design

Entertainments

Games

Imagine you where able to control object through your mind …
VIDEO: https://goo.gl/uLD2wF

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