

Monitoring of driver states

Managing Fatigue 2017

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CEO & co-founder

Phasya (since 2015)

- **Software for monitoring physiological & cognitive states**
- 10 years of expertise
- Engineers collaborating with experts in human factors, sleep, neurology,...
- Spin-off of the University of Liège



**INNOVATORS
UNDER 35**

Vision



OCULAR PARAMETERS

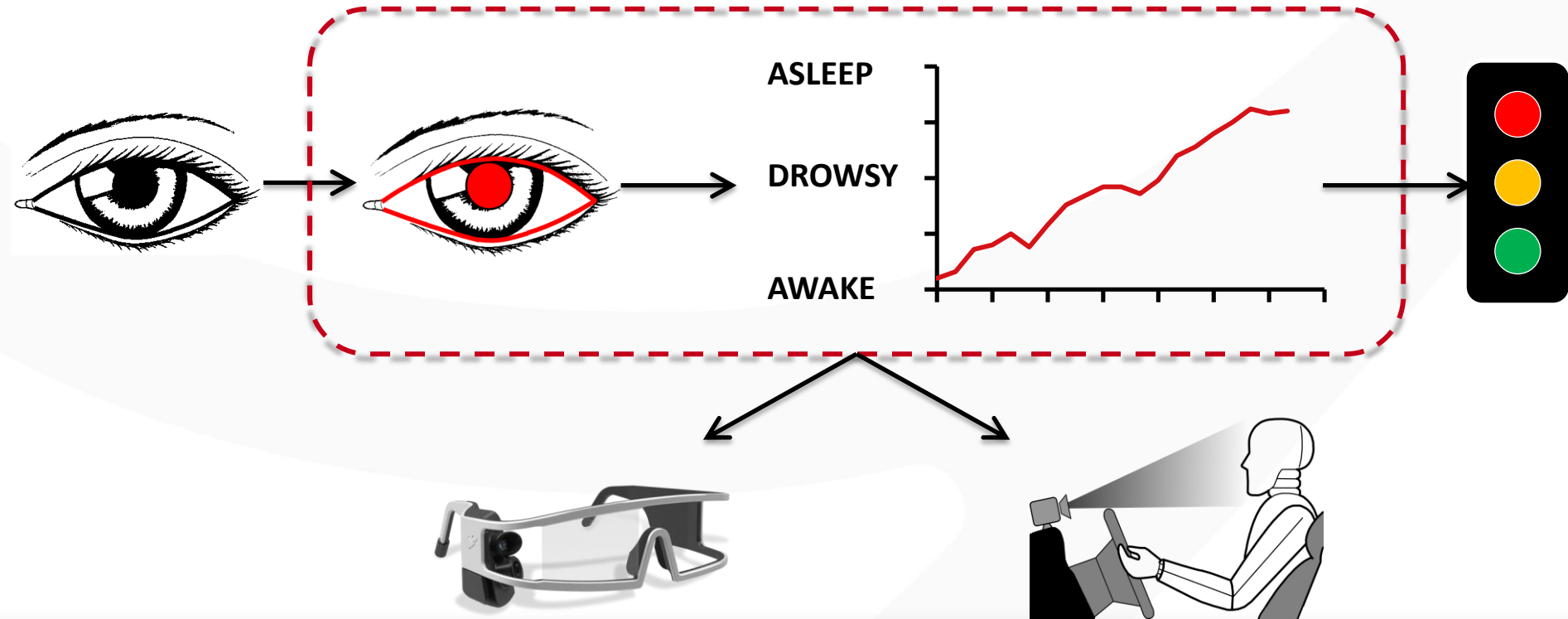
Blinks, saccades, pupil dilation

PHYSIOLOGICAL AND COGNITIVE STATES

Drowsiness, stress, consciousness, ...

→ Assessment of the ability to do a task or to make a decision

Drowsiness monitoring – Software



Drowsiness monitoring – Validation



Reaction time

PVT



Driving performances

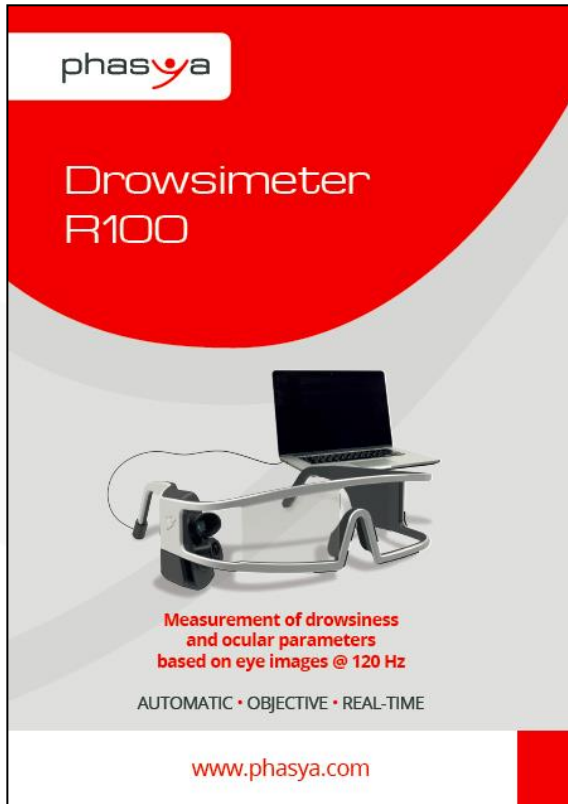
SDLP



Brain activity

KDS

Drowsimeter R100



Drowsiness & ocular parameters

Dedicated to research purposes

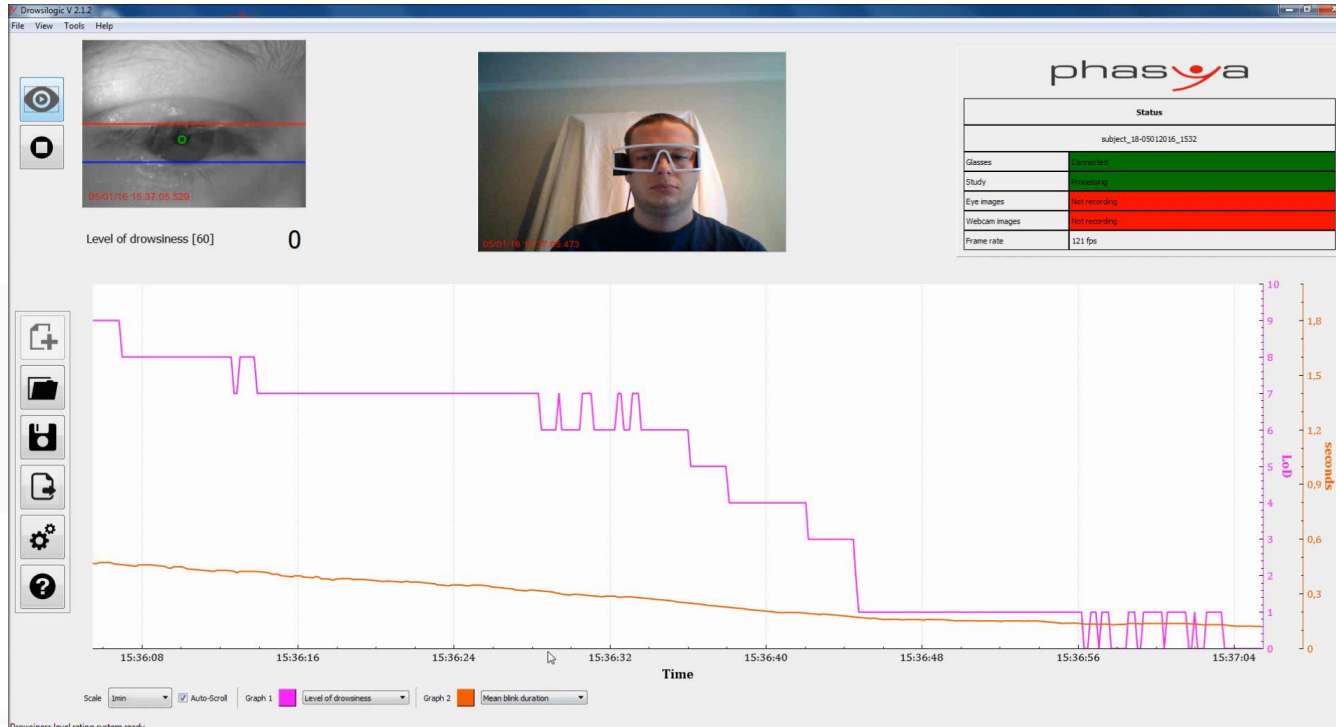
Based on eye images @ 120 Hz

Plug & play



Drowsimeter R100

! Demo video – Not naturalistic behavior !



Drowsimeter R100

! Demo video – Not naturalistic behavior !



Validation: 86,000 eye images (> 200 persons)

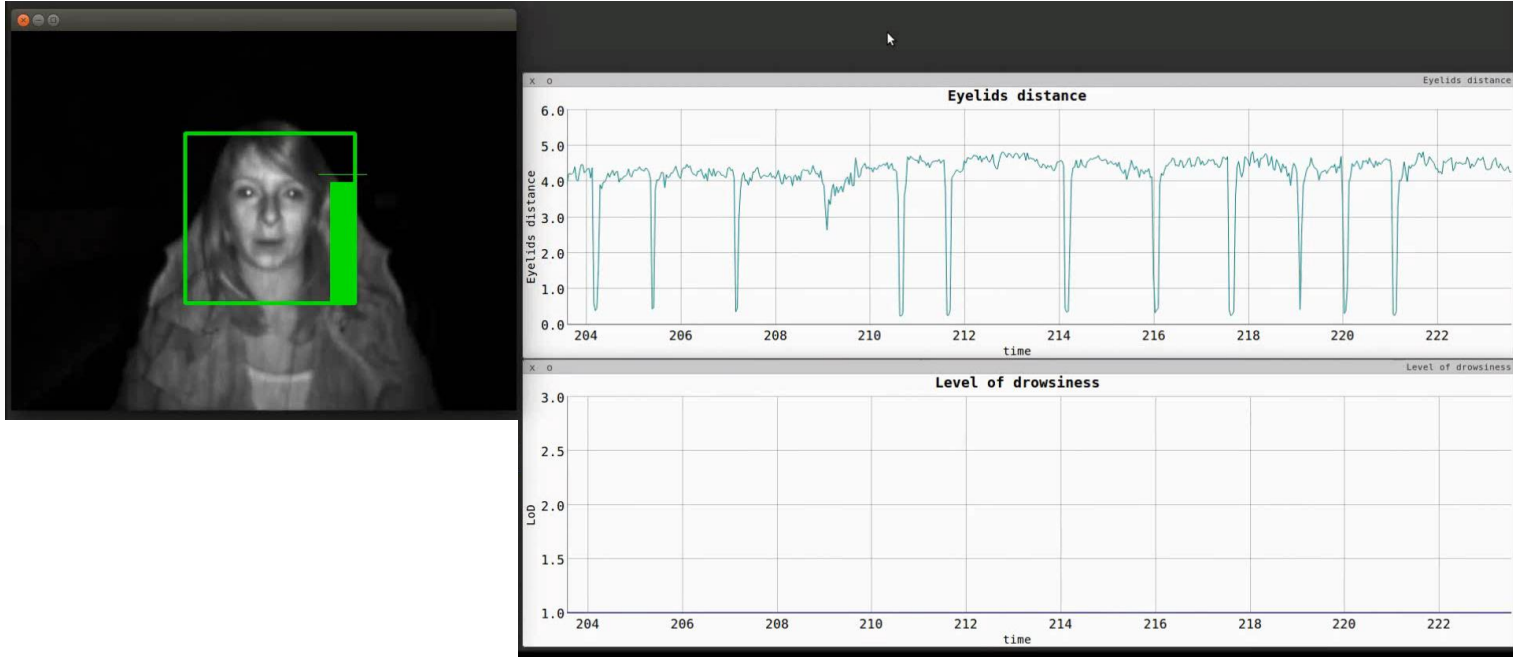
Drowsimeter R100

NOT ONLY IN LAB!

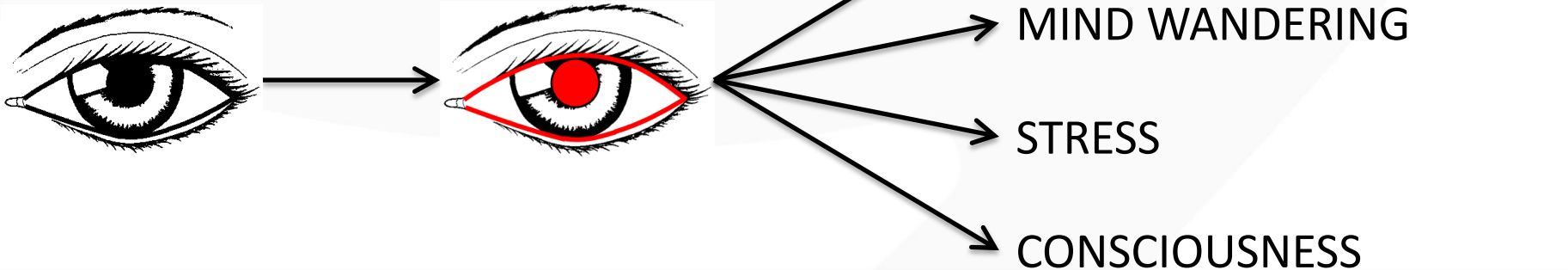
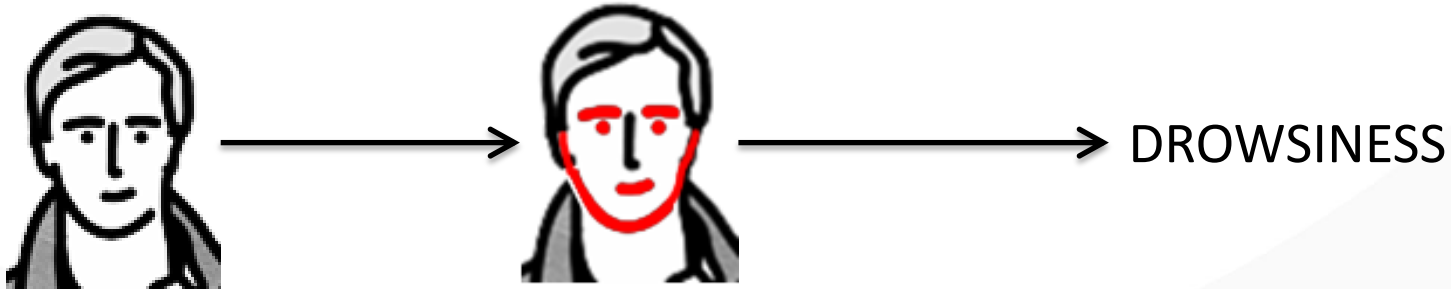


Remote demonstrator

! Demo video – Not naturalistic behavior !

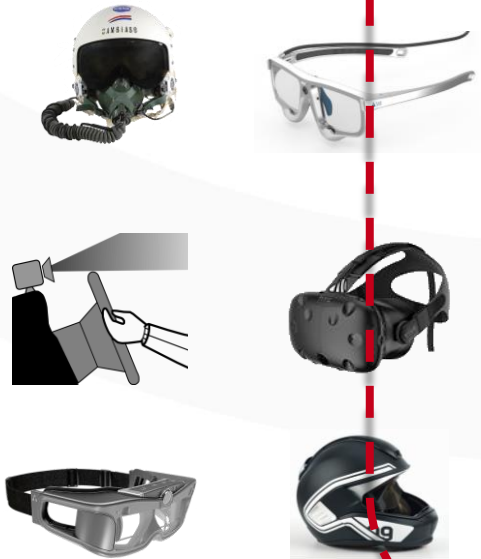


R&D pipeline



Positioning

Eye tracking devices



Physio./Cogn. states

DROWSINESS

MIND
WANDERING

STRESS

CONSCIOUSNESS

...

Applications

SAFETY

MEDICAL

EDUCATION

UX

...

Improving current solutions

- Drowsiness monitoring
 - Physiological approach
 - Scientifically validated
- Not only drowsiness!
- Software for E2E products





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