

# PANACEA

FITNESS TO DRIVE

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**PracticAI** and effective tools  
to moNitor and Assess  
CommErciAI drivers' fitness to drive

# Aims

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Deliver  
**marketable products**



Develop an holistic pre-, during  
and roadside **monitoring and  
assessment system**  
of driving ability



**Assess** physiological  
**Fitness to Drive**  
(commercial drivers)



Deliver **cloud-based  
countermeasures and coaching  
tools** to deploy solutions to drivers,  
operators and enforcement

# Objectives

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**Create 3 Commercial Health Toolkits (CHT)**  
(Health monitoring, assessment methodologies  
and technical solutions for commercial drivers)



**Estimate their sensitivity**, specificity, effectiveness and operability  
(Alcohol, licit and illicit drugs, fatigue, stress and cognitive load)



**Evaluate their usefulness**, ease-of-use, satisfaction and acceptance  
(3 Use Case Pilots)



**Develop and evaluate** cloud-based coaching and supporting solutions



Create a **new definition of Fitness to Drive**



**Prepare policy and legislative recommendations** and updates of  
existing standards



**Assess** the safety, socioeconomic and 'quality of life' impacts

## Home

**Eat–Exercise–Recuperate**  
Wearable devices  
(watch, ring, mattress)



### 24hr coaching

- Sleep patterns
- Food
- Napping
- Physical activity
- Alcohol/drug feedback

## Shuttle

**Fatigue–Inattention–Workload**  
Datik, wearable devices



### Countermeasures

- Distraction alert
- Sleepiness alert
- Stress alert
- Rest break
- Caffeine, energy drinks
- Change of driver

# PANACEA CHT A

## Application



Monitoring



Content



Collaboration



Communication



Finance

## Platform



Object Storage



Identity



Runtime



Queue



Database

## Infrastructure



Compute



Block Storage



Network

## Bus depot

**Alcohol–Drugs**  
Leitat, Senseair



### Countermeasures

- Drug abuse
- Alcohol impairment
- Feedback to coaching
- Change of driver

## Back office

**Eat–Exercise–Recuperate**  
Wearable devices  
(watch, ring, mattress)



### 24hr coaching

- Sleep patterns
- Food
- Napping
- Physical activity
- Alcohol/drug feedback

# Use Cases

## Shuttle and city bus drivers

Linköping,  
Sweden (UCA)

## Taxi drivers and courier service riders

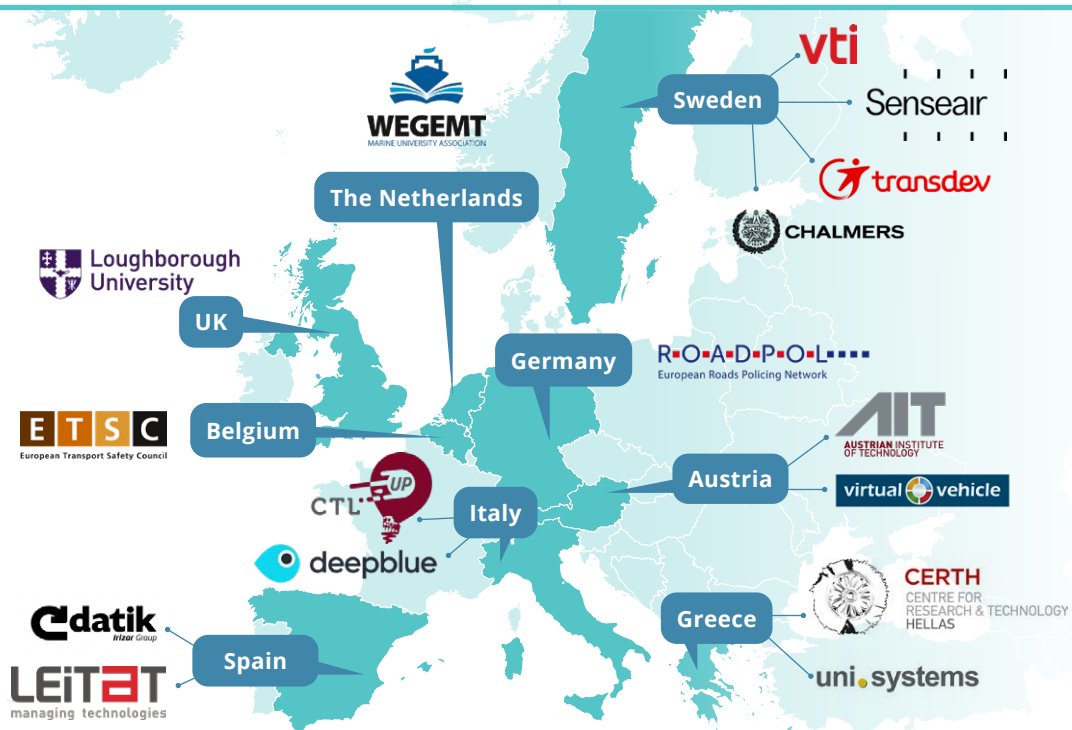
Thessaloniki,  
Greece (UCB)

## Electric truck and coach drivers

San Sebastian,  
Spain (UCC)

## Transferability to other transportation modes

(UCD)



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