ACACIA

http://acacia.digital

ACACIA Partners

14 Universities:

 - 3 European and 11 from LAC

Cofinanciado por el
programa Erasmus+
de la Unión Europea
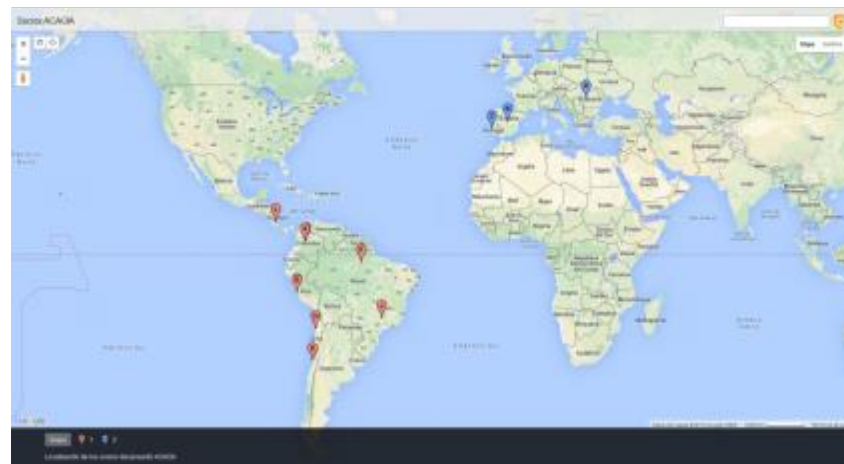
General Objective

- **In order to tackle the student retention problem,** the importance of **evaluating students' motivation and attention** to the class **is of major importance.**

- **To define a technological infrastructure** comprising **non-intrusive affect detection methods** along with ambient intelligent solutions, which may

    - **provide context-aware affective feedback to each student.**
    - **analyse what affects students retention/dropout scale.**

ACACIA Model

- **Dropout issues and diversity of students define the ACACIA Project**
  - **ACACIA represents** an organizational unit focused on **Empowering, Innovating, Educating, Supporting, Monitoring and leveraging institutions in dealing with dropout and diversity**.
  - **CADEP** (*Centros de Apoyo y Desarrollo Educativo Profesional*) **builds the required infrastructure to tackle those issues** and covering both face-to-face and eLearning educational settings.

CADEP - ACACIA Organization model

Empodera / **Empower**: **Providing training in areas of eLearning standards, accessibility and Usability**

Innova / **Innovate**: Uphold the **development of innovative solutions supporting emotional state and student attention** – to avoid student dropout; Apply innovation to the development of accessible teaching solutions – teaching eLearning contents; Innovative technology validation and evaluation methodology; **Support the transformation of possible innovative ideas in order to generate entrepreneurship businesses**

Cultiva / **Educate**: Training faculty through **innovative programs to promote educational development of vulnerable populations** from the perspective of a Community of Welfare.

Apoya / **Support**: **Detecting, tracking and supporting emotions of students with disabilities and critical family situations through both regular and advanced techniques** (e.g. Automatic emotion detection systems) **to improve academic performance and avoid abandonment**.

Convoca / **Convenes: Organizing and controlling the activities in the establishment of the different Centers CADEP**

THE ISSUE

- **approach should be as minimally invasive as possible**, even non-invasive at all, **there is the problem of collecting and dealing with sensitive data** such as psychological and physiological information.
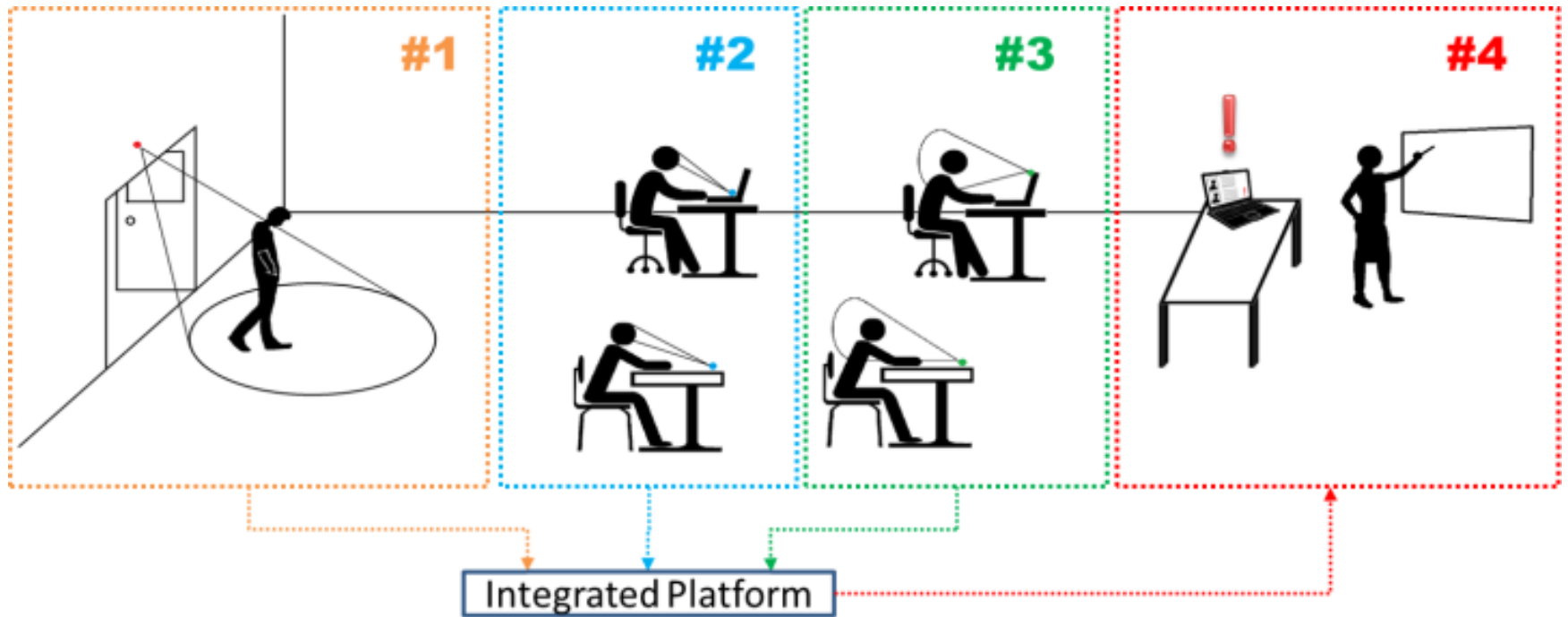
ACACIA

- A framework that:
  - Technologically support, allows the deploying of **variable configurations for e-Learning or teaching classes**
    - **supports a wide range of source contents** including Laboratorial apparatus
  - **Technology allows emotional assessment**
    - An **emotional assessment** of students using different possibilities like; **facial expression assessment, eye tracking, and vital signals.**

Our Proposal

Ambient Intelligence Context-aware Affective Recommender Platform (UNED)
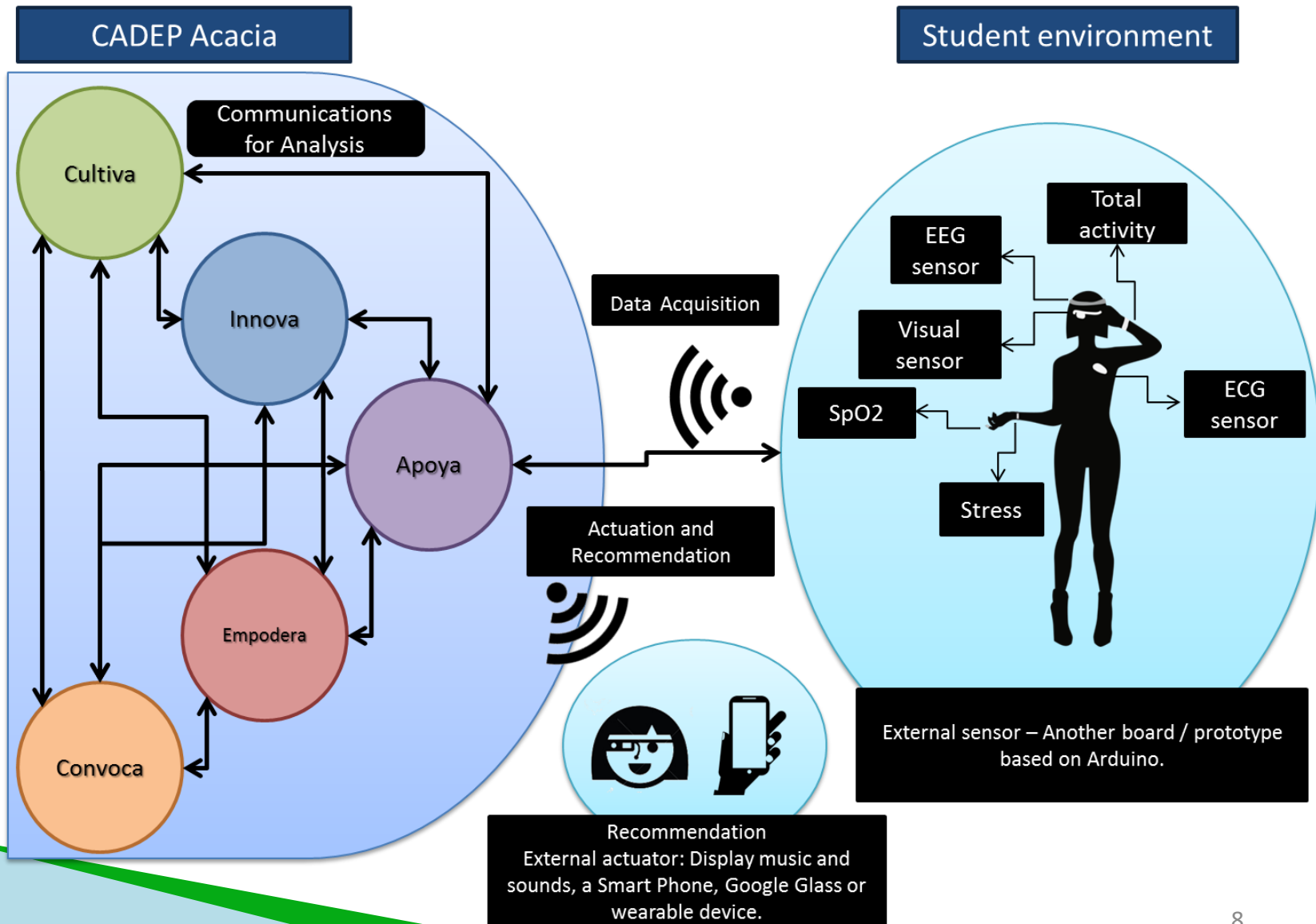
A Potential Scenario - @ classrooms

Particularities and challenges

ACACIA

- Brasil
- Colombia
- Chile
- Nicaragua
- Peru

CREDIT

- China
- India
- Mongolia
- Nepal
- Russia

Particularities and synergies

ACACIA

Spoken languages:

Spanish (Colombia, Chile, Nicaragua, Peru)

Portugese (Brasil)

CREDIT

Spoken languages:

Russian

Mandarine

Nepalese

Mongolian

Hindu

Particularities and synergies

ACACIA: Centros de Cooperación para el Fomento, Fortalecimiento y Transferencia de Buenas Prácticas que Apoyan, Cultivan, Adaptan, Comunican, Innovan y Acogen a la comunidad universitaria

Centres for Emotional, Educational and Professional Development in Fighting Dropout and Incrementing the Academic Level / CREDIT

Conclusions

- Students **can have different attitudes about learning contents depending on feelings and emotions**

- It is desirable that **teacher's can detect and overcome student's emotional** binding troubles with the subjects of study

- **The proposed technology provides**

    - **means for supporting teachers with emotional assessment solutions for helping students dropout prevention**