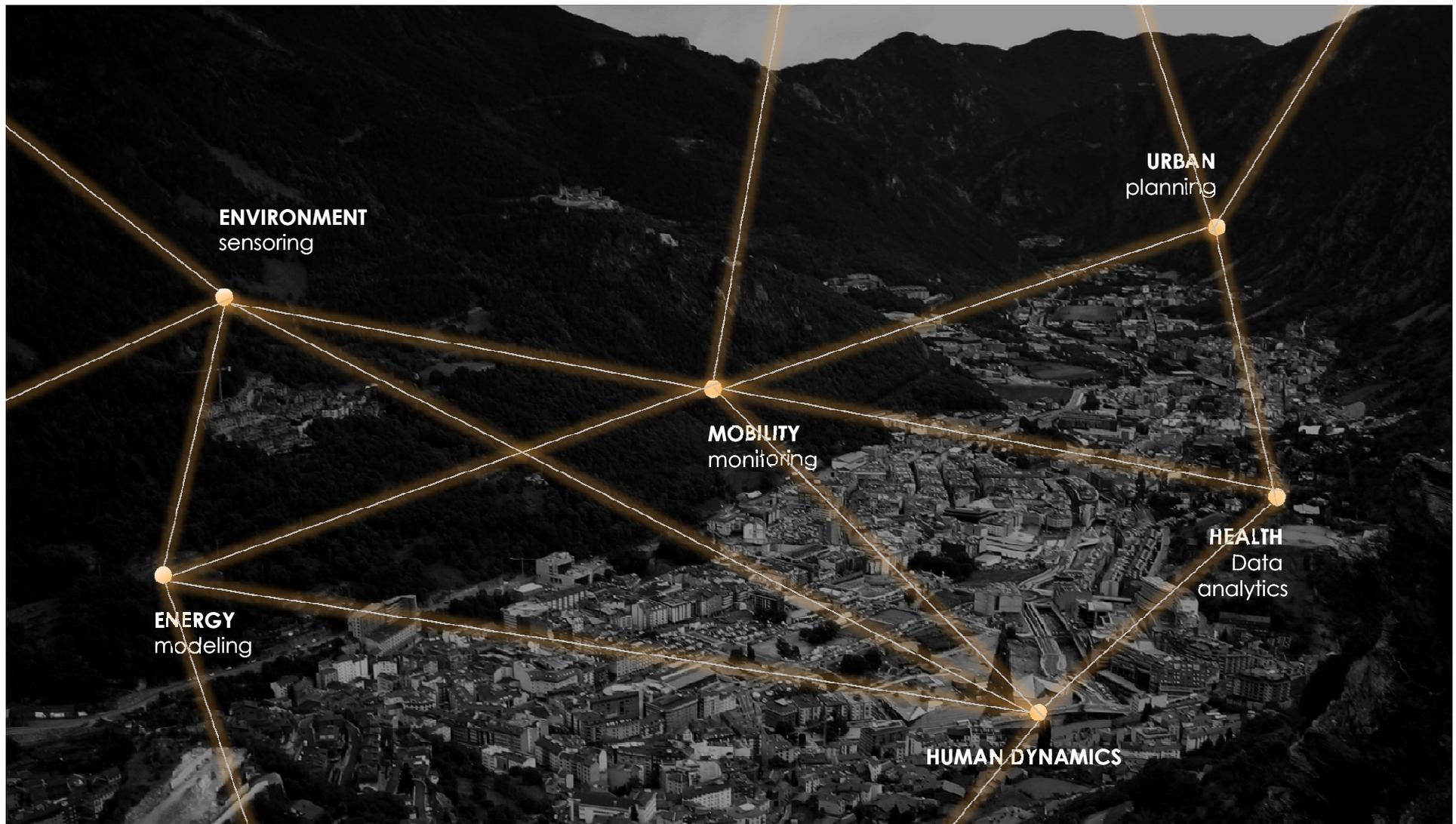




TerMITes

FOR  
ELECTRO  
NAUTES

Escola Andorrana de Maternal i 1a ensenyança  
d'Andorra la Vella



# ANDORRA LIVING LAB

**ENVIRONMENT**  
sensing

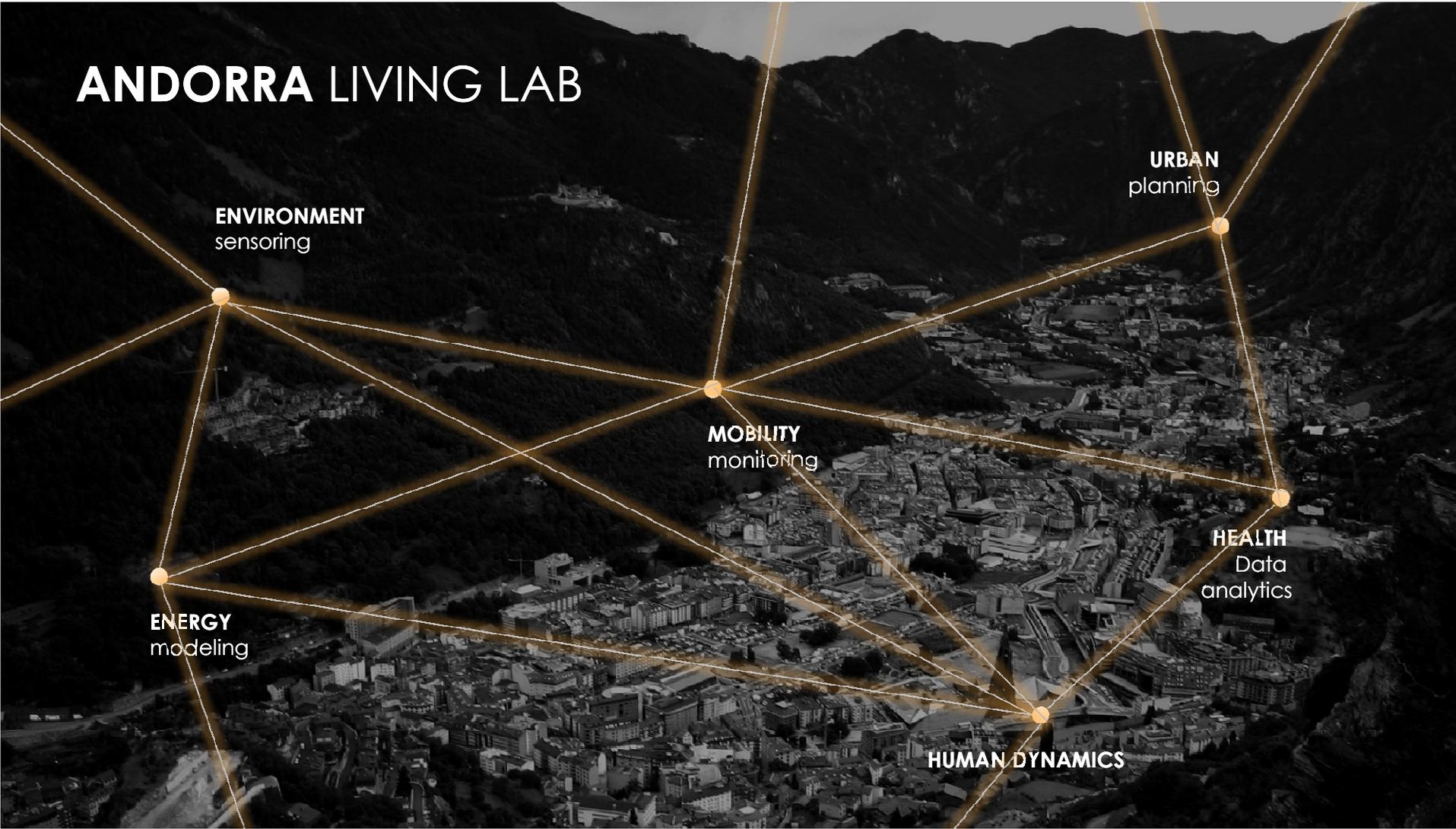
**URBAN**  
planning

**MOBILITY**  
monitoring

**HEALTH**  
Data  
analytics

**ENERGY**  
modeling

**HUMAN DYNAMICS**

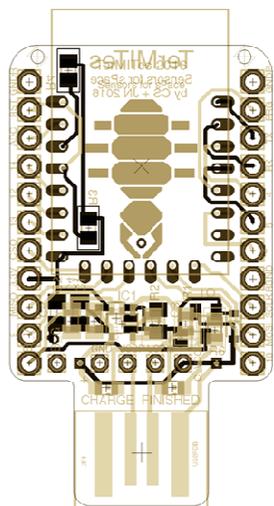




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d'Andorra la Vella



TerMITes



Escola Andorrana de Maternal i 1a ensenyança  
d'Andorra la Vella

# //TEAM

//ACTUATECH



Núria Macià

//OBSA



Marc Vilella



Guillem  
Francisco



Oriol Travesset

//UDA



Cristina Yáñez



Florenci Pla



Aleix Dorca

//FEDA



Xavier Forné

//MIT



Juanita Devis



Jason Nawyn



Carson Smuts



Luis Alonso

//ESCOLA ANDORRANA



Bruno Bartolomé



Albert Maluquer

//FP

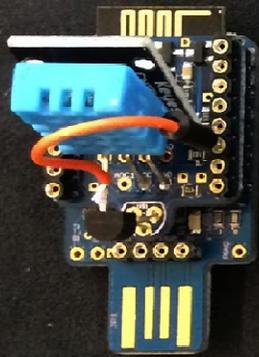


Josep Ribó



Pau Gaillard





Humidity  
+  
Temperature



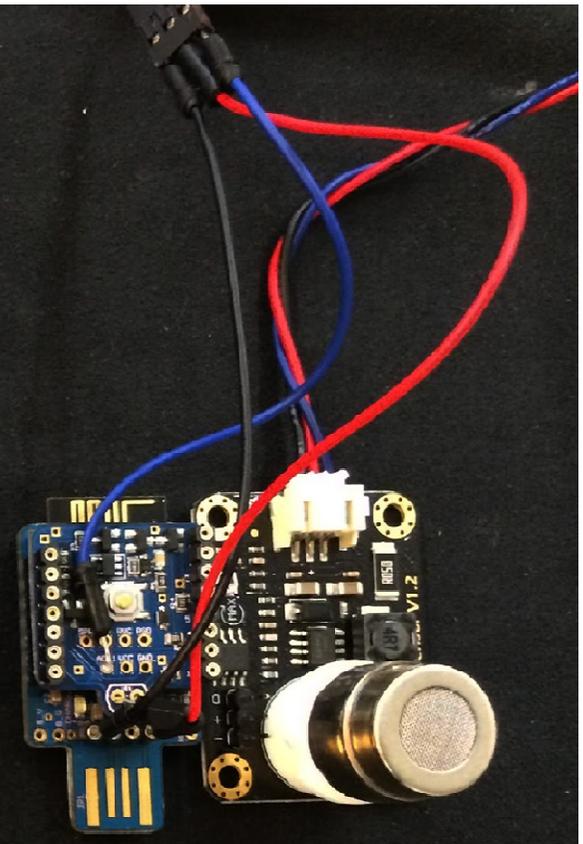
Presence Detection  
+  
Temperature



Ambient Light  
+  
Temperature



Motion  
+  
Temperature

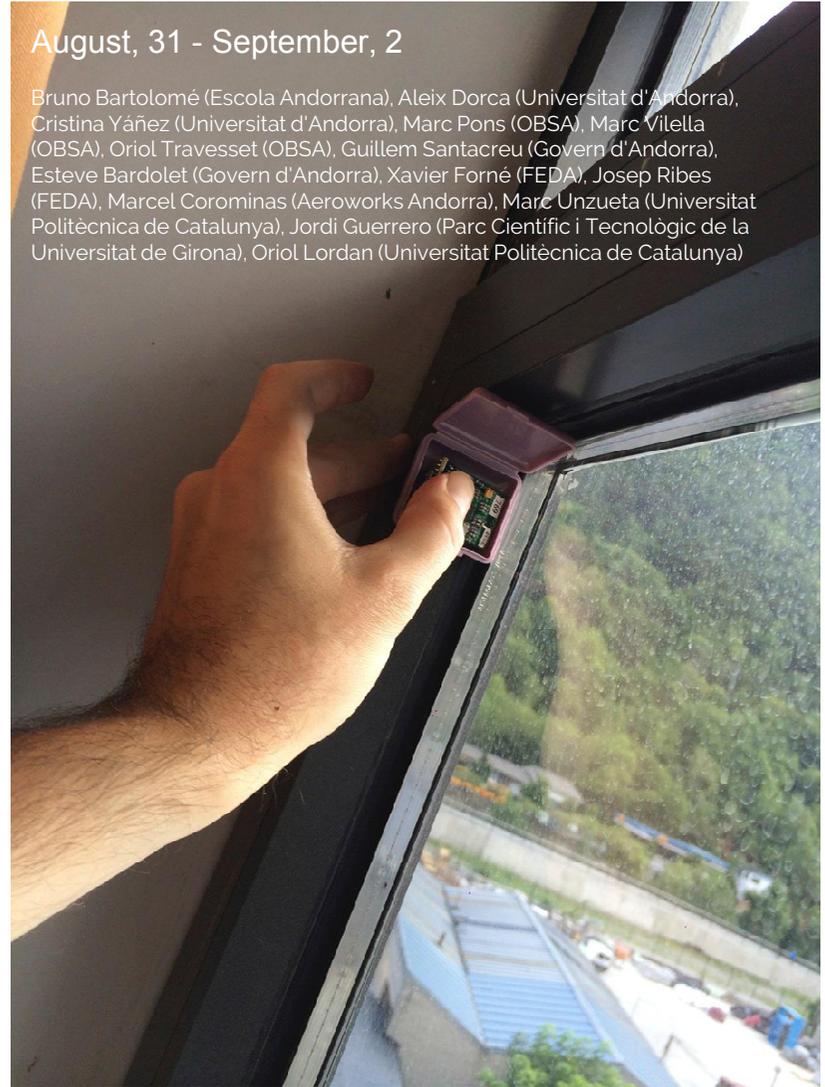


Carbon Dioxide (Occupancy)  
+  
Temperature

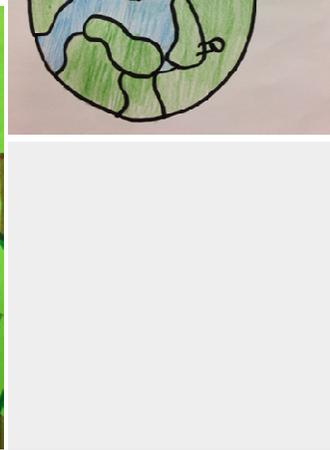
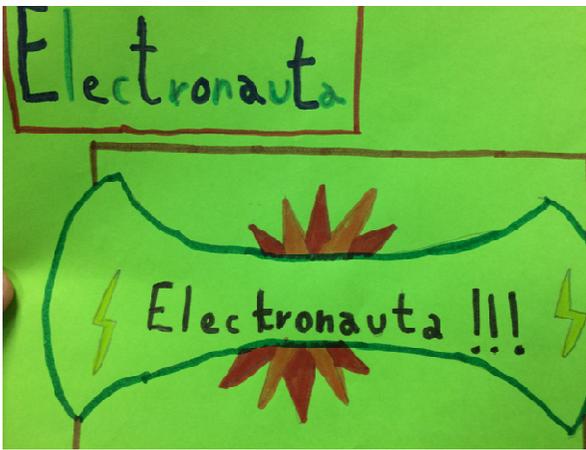
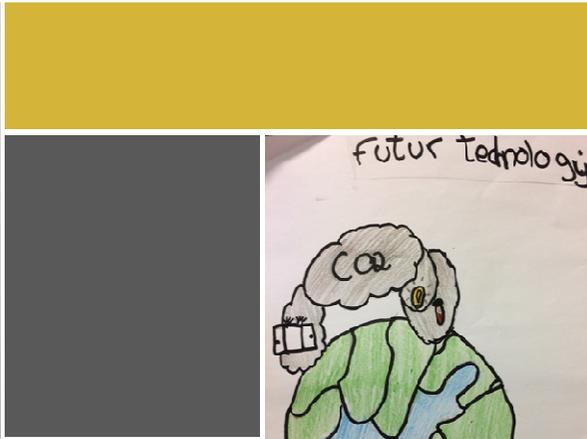


August, 31 - September, 2

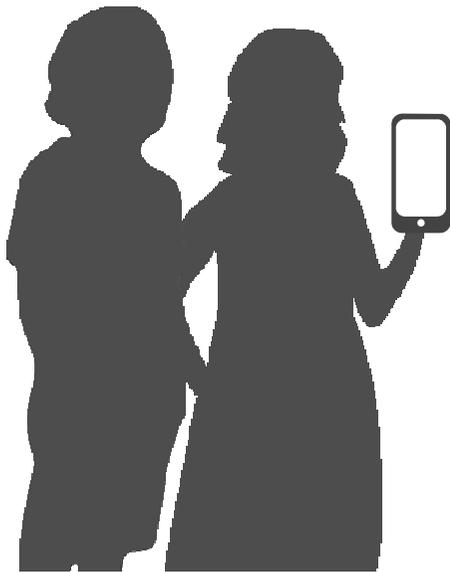
Bruno Bartolomé (Escola Andorrana), Aleix Dorca (Universitat d'Andorra), Cristina Yáñez (Universitat d'Andorra), Marc Pons (OBSA), Marc Vilella (OBSA), Oriol Traveset (OBSA), Guillem Santacreu (Govern d'Andorra), Esteve Bardolet (Govern d'Andorra), Xavier Forné (FEDA), Josep Ribes (FEDA), Marcel Corominas (Aeroworks Andorra), Marc Unzueta (Universitat Politècnica de Catalunya), Jordi Guerrero (Parc Científic i Tecnològic de la Universitat de Girona), Oriol Lordan (Universitat Politècnica de Catalunya)







Drawings from the students from Escola Andorrana



Empoderar als estudiants a ser actors,  
pensadors i inventors

//EDUCACIÓ

//TECNOLOGIA

Construir una  
plataforma per  
intruder als  
estudiants al  
mon dels  
senyors i les  
dades

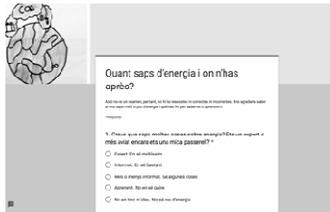


//SOSTENIBILITAT

Utilitzar sensors per recollir informació real  
per analitzar l'impacte de l'activitat a  
l'escola en el consum energètic de l'edifici

# //FULL DE RUTA

## //ENQUESTA PER APRENENTATGE



TEAM: Cristina Yáñez, Núria Macià

From March, 7 to March, 17, 93 students from the school took the survey on energy literacy.

## //FORMAR ALS FORMADORS



TEAM: Cristina Yáñez, Florenci Pla, Bruno Bartolomé and teachers

Ud'A would be in charge of the training for teachers. Based on the materials created by Ud'A and after training the teachers, teachers will introduce students to data and sensors.

## //INTERCANVI AMB INVESTIGADORS



TEAM: Jason Nawyn, Carson Smuts, English teachers

The researchers will Skype with the students and tell them all the ins and outs of MITs and terMITes.

## //UNIVERSITAT DELS INFANTS



TEAM: Pepito, Pepita, Tizio, Caio e Sempronio

Platform—friendly and easy-to-use—where teachers and students can access the data measured by the sensors. Students will have to behave as young researchers where they will start collecting data and reach conclusions based on facts.

## //ESDEVENIR UN ANALISTA DE DADES



TEAM: Jason Nawyn, Juanita Devis, Núria Macià

Platform—friendly and easy-to-use—where teachers and students can access the data measured by the sensors. Students will have to behave as young researchers where they will start collecting data and reach conclusions based on facts.

## Diapositiva 13

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1

Team? +cyanez@uda.ad  
Juanita Devis; 21/06/2017

# //ENQUESTA



<https://goo.gl/forms/xyRktMVBnOcvFAIa2>

## Quant saps d'energia i on n'has après?

Això no és un examen, per tant, no hi ha respostes ni correctes ni incorrectes. Ens agradaria saber si ens saps molt o poc d'energia i què has fet per saber-ne o aprendre'n.

\*Required

1. Creus que saps moltes coses sobre energia? Ets un expert o més aviat encara ets una mica passerell? \*

- Expert. En sé moltíssim
- Informat. En sé bastant
- Més o menys informat. Sé algunes coses
- Aprenent. No en sé gaire
- No en tinc ni idea. No sé res d'energia

Ud'A will conduct a research study on both learning experience and values. This would require students to take a survey before and after the exposure to the sensor experience.

A. Learning curve: What did student learn on data and sensors?

B. Values: What is their awareness and literacy on energy consumption?

TEAM: Cristina Yáñez, Núria Macià, Oriol Travesset

WORKING DOCUMENT;

[https://docs.google.com/presentation/d/1YYIU6p\\_54VnIhi7-0ZzfZCNikLyMnWaRSCJ-cbU8pME/edit?usp=sharing](https://docs.google.com/presentation/d/1YYIU6p_54VnIhi7-0ZzfZCNikLyMnWaRSCJ-cbU8pME/edit?usp=sharing)

## //FORMACIÓ ALS FORMADORS



TEAM: Cristina Yáñez, Florenci Pla, Bruno Bartolomé and teachers

Ud'A would be in charge of the training for teachers. Based on the materials created by Ud'A and after training the teachers, teachers will introduce students to data and sensors.



# //TROBADA AMB INVESTIGADORS DEL MIT

Students met Jason and Carson, who explained to them what sensors are and the use of the terMITes. The meeting was in English!

2017 — Meeting between English teachers and MIT researchers.

March 15, 2017 — The students meet the inventors



**SENSORS**

- Sensors give us extra sensory abilities, kind of like "super powers."

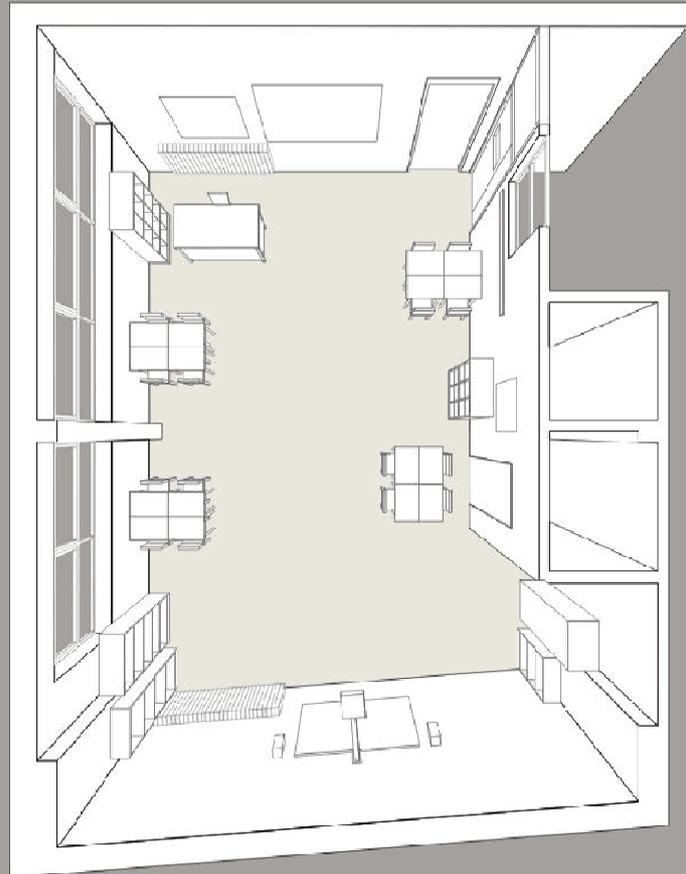
//UNIVERSITAT DELS INFANTS



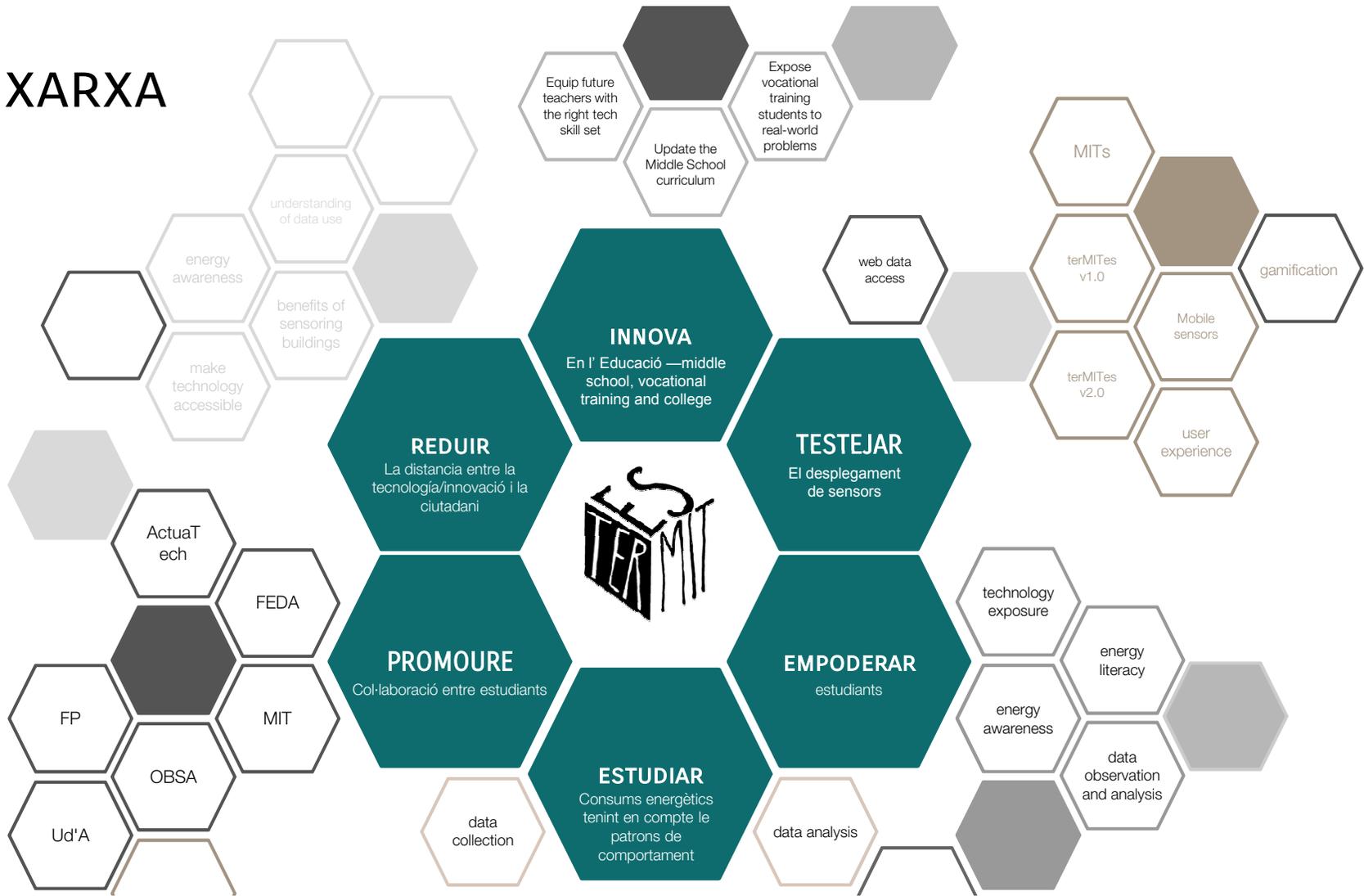




MONDAY MAY 29, 2017  
13°C CLOUDY  
SANTA CRUZ DE TENERIFE, IBERIA LA BELLA




# //LA XARXA



# //AGRAÏMENTS



# ANDORRA LIVING LAB

**ENVIRONMENT**  
sensing

**URBAN**  
planning

**MOBILITY**  
monitoring

**HEALTH**  
Data  
analytics

**ENERGY**  
modeling

**HUMAN DYNAMICS**

