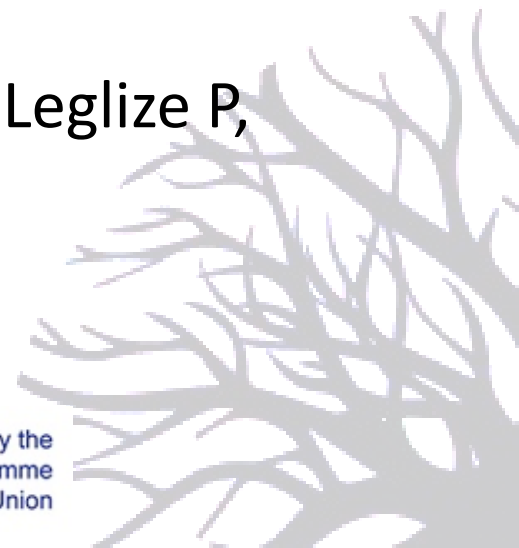





NBS Symposium I Nancy - France
1-3 October 2019

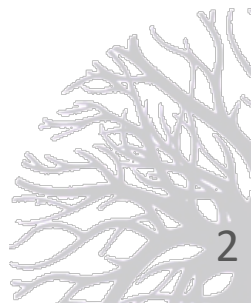
How to transfer knowledge on ecosystem functioning: from nature observation to implementation

Sirguey C, Auclerc A, Leglize P,
Séré G, Schwartz C



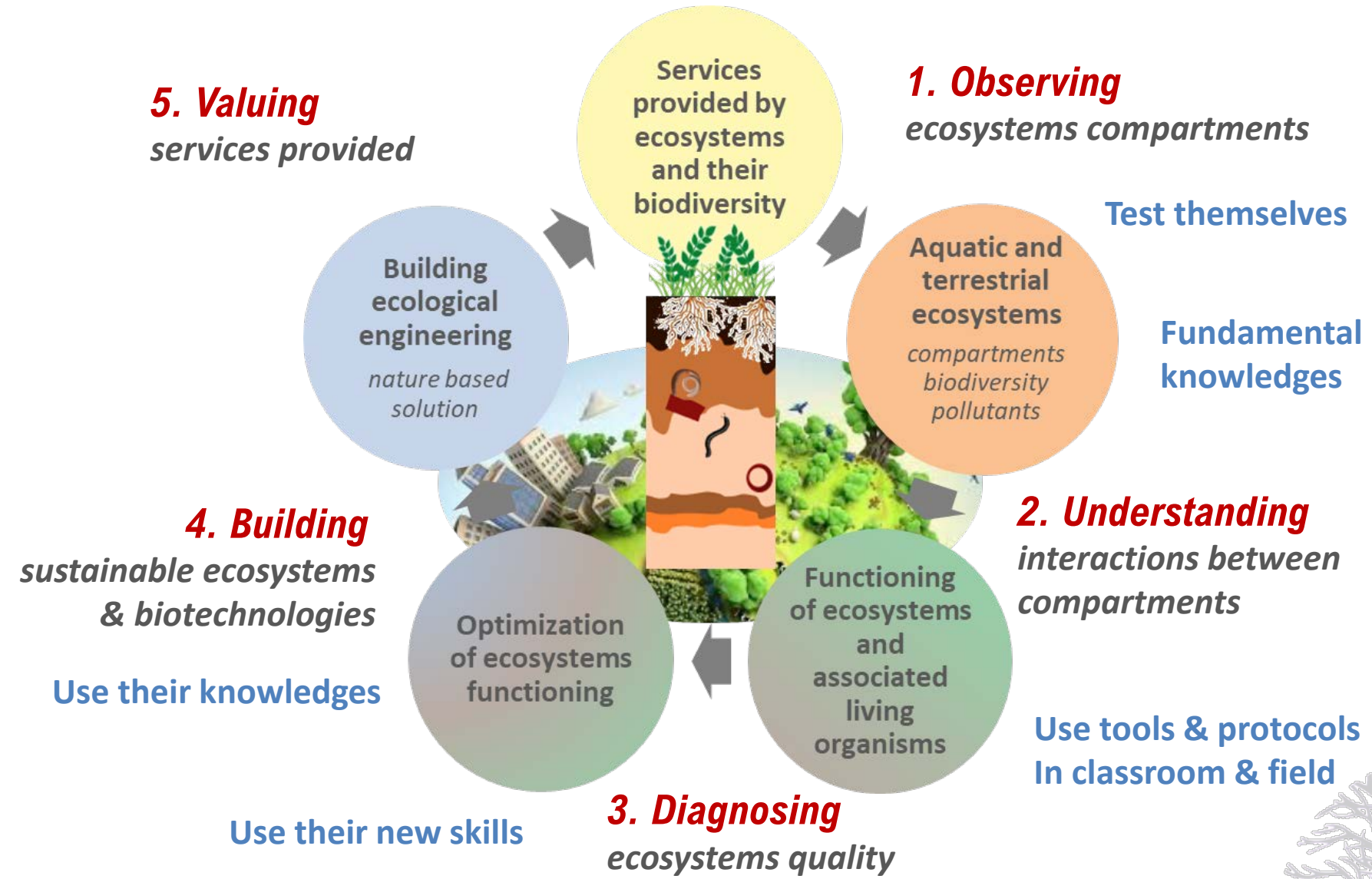
A two months BUILD compatible educational program for 2 years Ensaia (1 year master) students

-  BUILD SOLUTIONS project aims to boost innovation, entrepreneurship and subsequent market uptake of **intelligent living, biotech and biomimicry solutions** to help green cities
-  BIO-TECH DIMENSION (ENSAIA-UL) gives the **scientific ground** to develop biotechnologies for urban re-naturalisation and resilience
-  OUR GOAL is to develop new educational practices for students to
 - **open** their minds
 - **share** their skills with BUILD people (students, teachers, workers) from other disciplines (architects & economists),
 - **implement** their knowledge in new contexts



Studying ecosystems for a better environmental management

quality - functions - ecosystem services - ecological engineering



Observing

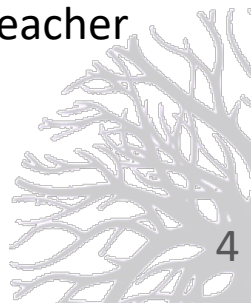
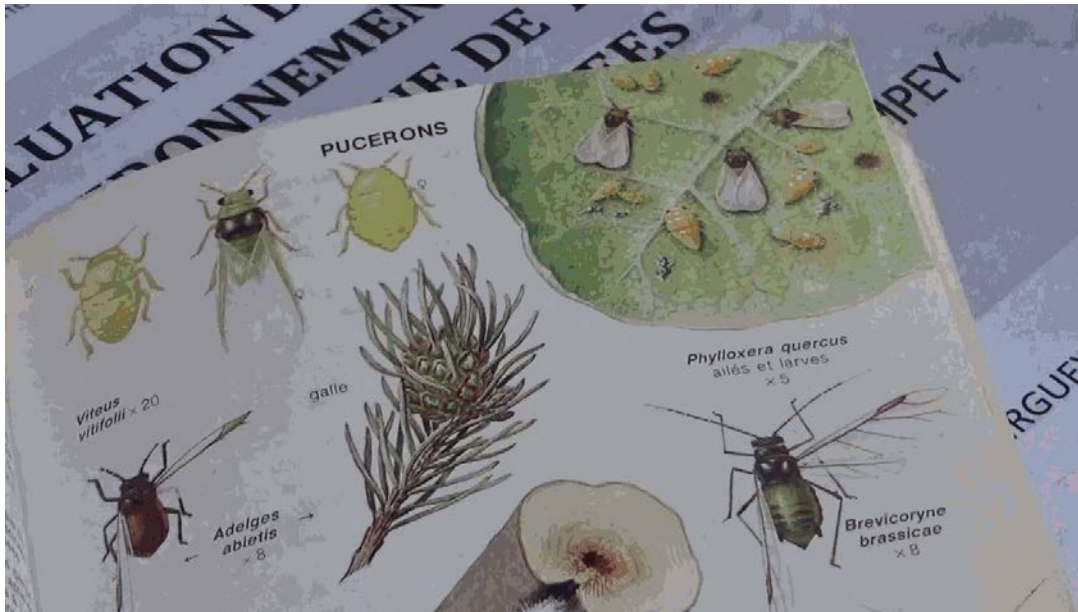
Opening up of students to observation

A field work into an unknown forest ecosystem developed on a contaminated soil

Testing themselves

What to study to understand the functioning of ecosystems

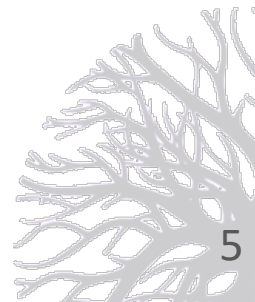
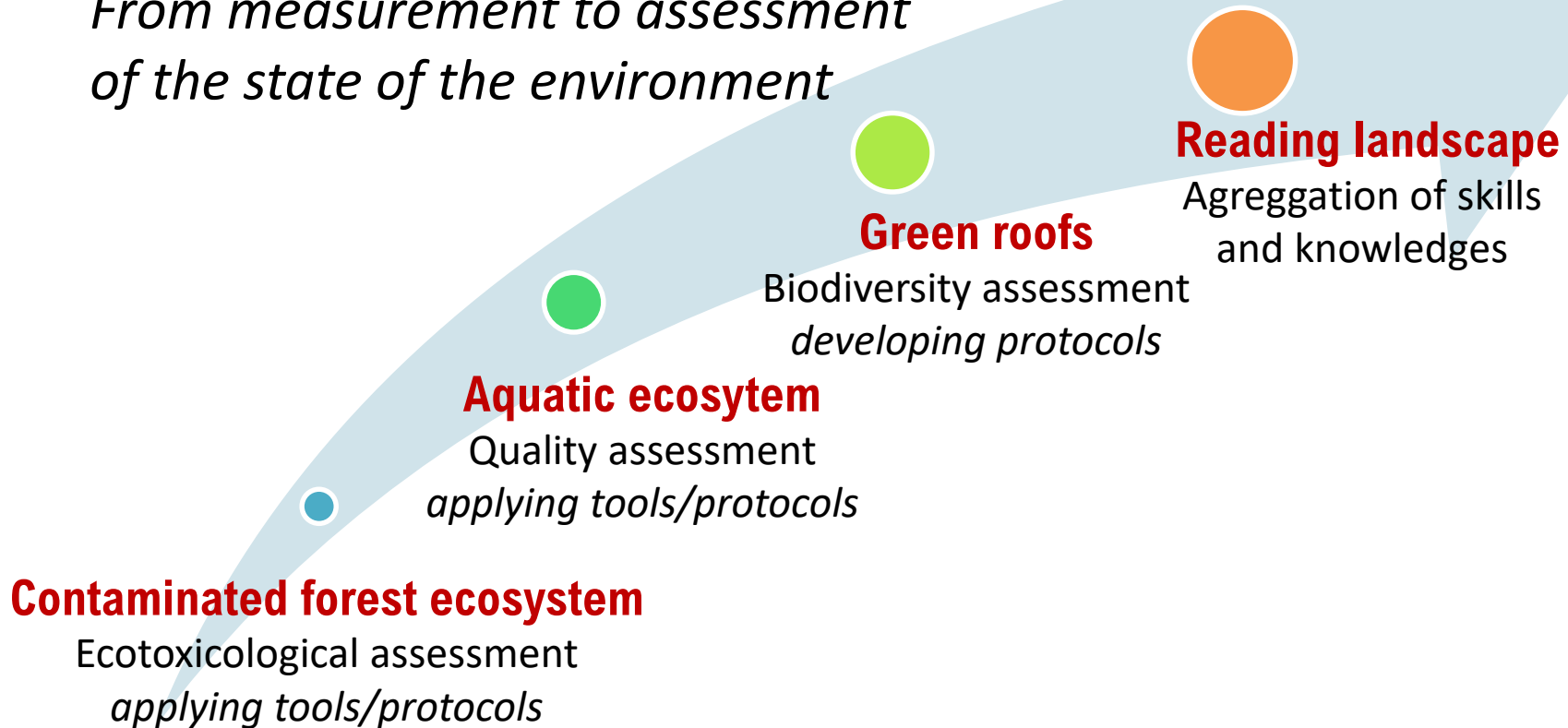
- Three compartments (soil / fauna-litter / plants)
- Each group of students draw a scheme of what they see
- Each compartment is filmed and/or photographed
- Synthesis in a simple educational film or how the learner becomes the teacher (in process)



Diagnosing

Transferring teacher's diagnostic expertise through case studies

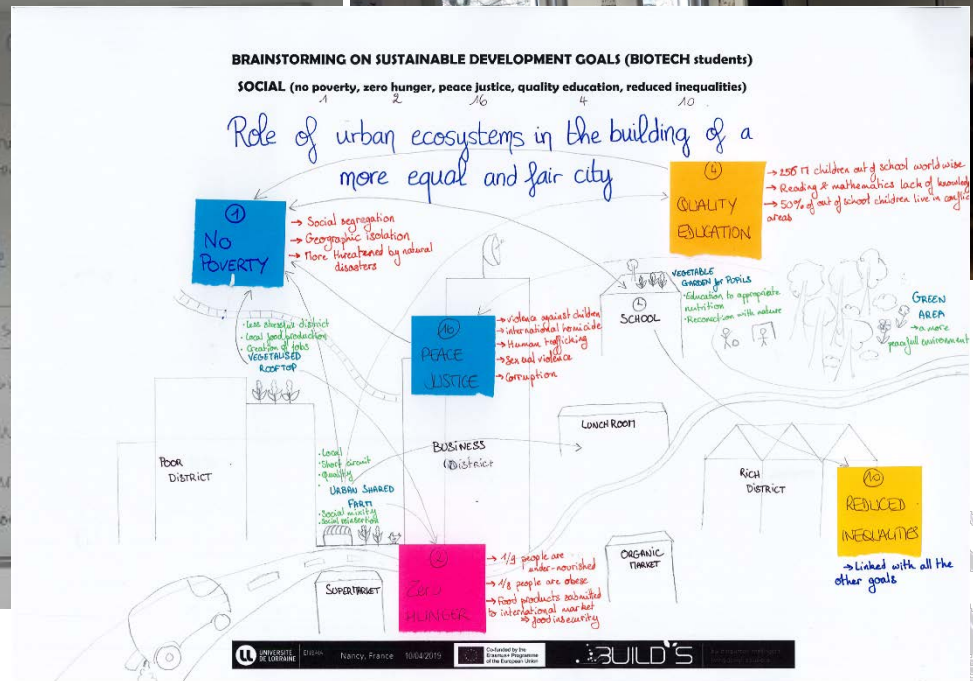
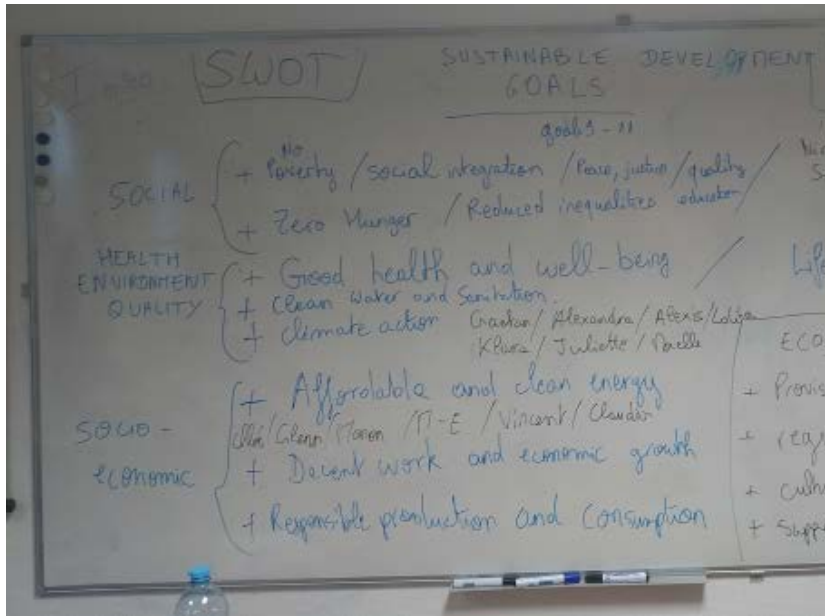
From measurement to assessment of the state of the environment



Building

Implementing student's knowledge in a new context: cities

- Brainstorming on the sustainable development goals of the United Nations
- Literature and online research
- Presentation of results to all groups

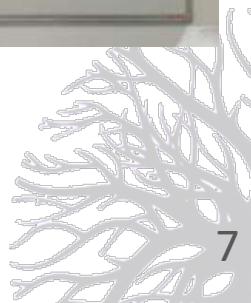
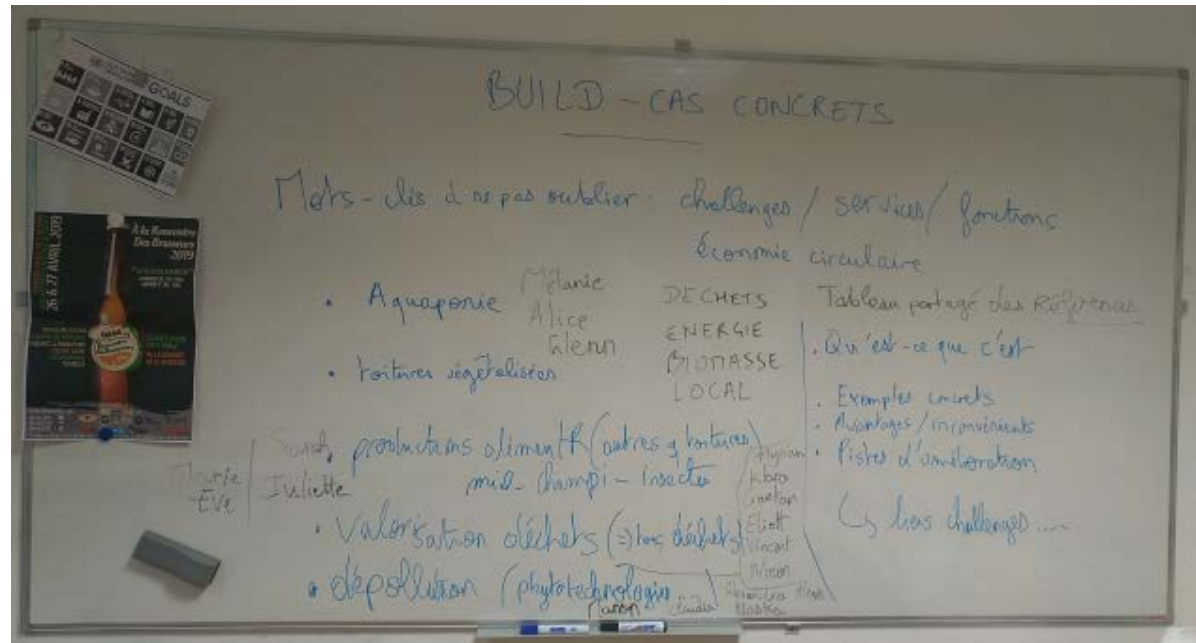


Building

Implementing student's knowledge in a new context: cities

☀ Deeper work on some biotechnologies for sustainable cities

- how does it respond to UN goals?
- how does it work?
- limits or gaps?
- what could be done to improve it?



Conclusion



Nature in town, how to face tomorrow's challenges ?

1



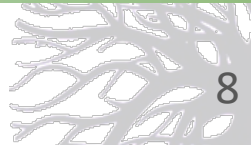
LSE



UNIVERSITÉ
DE LORRAINE



Co-funded by the
Erasmus+ Programme
of the European Union



8