

Pupils in the Blue Economy

Lernwerft *and* UNITED

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THEME: **Blue Economy, Goteborg**

Who are we?

- Pupils from Germany



LERNWERFT

CLUB OF ROME SCHULE KIEL

What is our connection to UNITED?

- Research project for the larger initiative UNITED

What is UNITED?

- Addresses current bottlenecks in large-scale installation of ocean multi-use activities
- Demonstrates business synergies and benefits
- Provides a roadmap for future deployment and addresses scaling barriers through best practices and lessons learned.



What is our project about?

Do different materials and structures differ in terms of settling success and growth of *Saccharina latissima* ?

- Testing different types of materials and structures
- Investigating the growth of "*Saccharina latissima*"
- Trying to fill knowledge gap

School-project duration: **5 months**



Growth on different material / structure

Which setup works the best?

Material

- Polyamide
- Polyester

Structures

- Nets with different mesh sizes
- Ropes with different strengths and weaving techniques



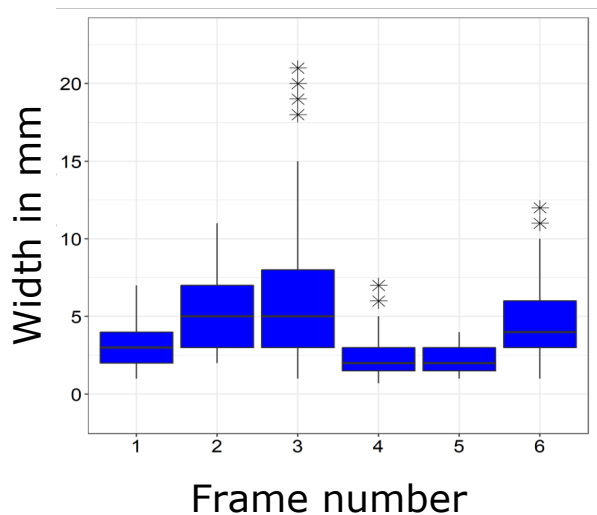
Our Setups

6 different frames (3 shown)

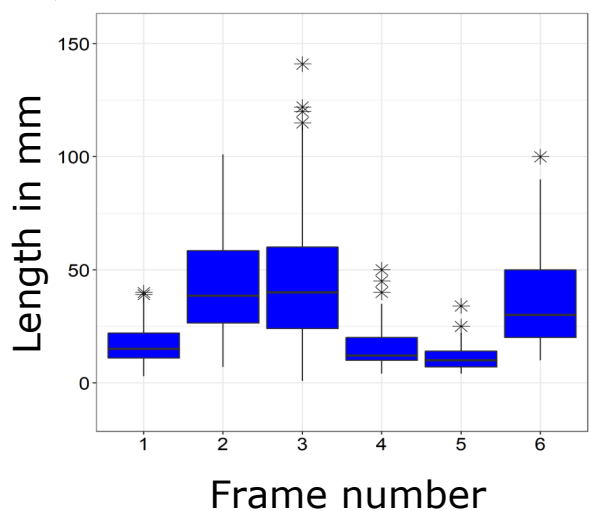


Findings

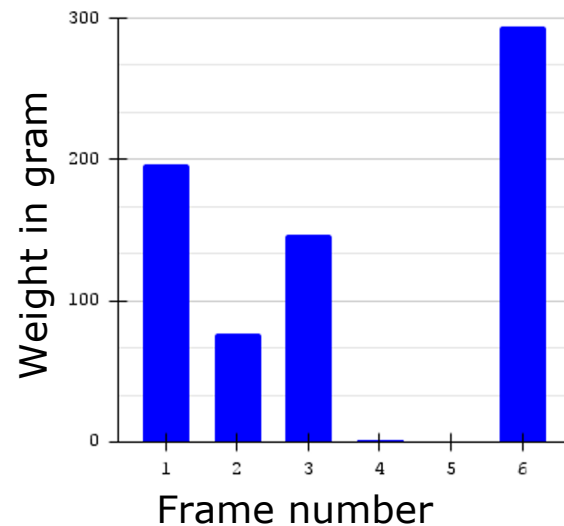
Width of algae



Length of algae



Weight of algae



Best setup

- Polyamide
- Net structure



Benefits for the pupils and the project

Generating interest

- Blue economy
- Scientific researches

Development of scientific thinking

- What mistakes might occur, and how to prevent them?
- What amount of samples per material ?
- What is the control (do we need one ?)
- How to treat algae identically in each sample ?
- How to do data analysis and conclusion ?



How to: Getting started at your local school



Definition of your project

Project scope

- Understandable by pupils
- Limited by equipment (partner/sponsor?)

Time frame

- Everyone should be rewarded by the result
- More time equals more data to compare and analyse

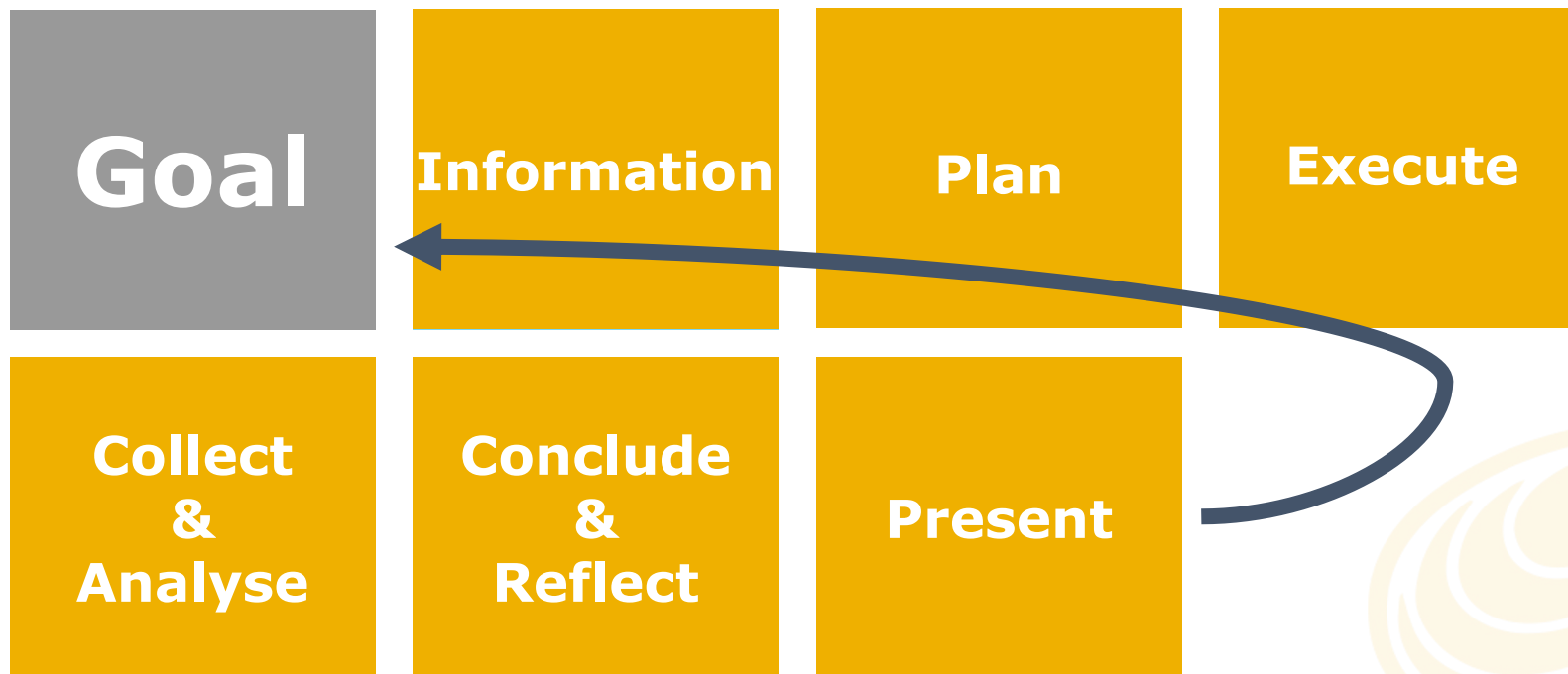
Type of project

- Give pupils room for small errors
- Allow the use and integration of more math and statistic related science



Turning theory into action

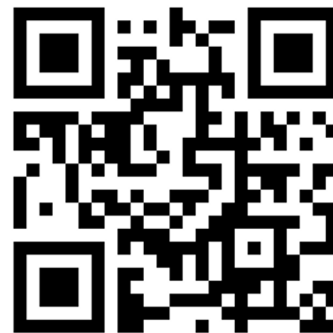
A step-by-step guide



Thank you for your time!



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www.H2020UNITED.eu