

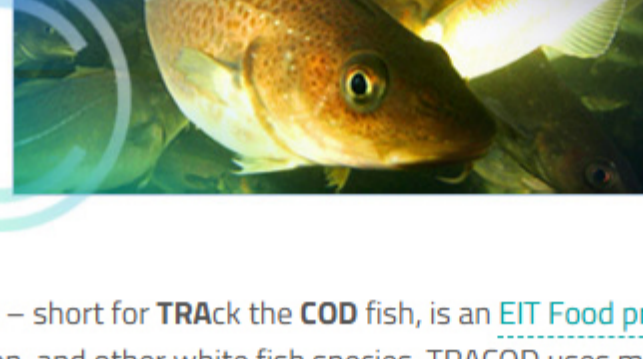
PARTNERSHIP

EIT Food is Europe's leading food innovation initiative, working to make the food system more sustainable, healthy and trusted. Technion, MATIS & Xpectrum are partners in TRACOD Project:



[VIEW FULL INFO](#)

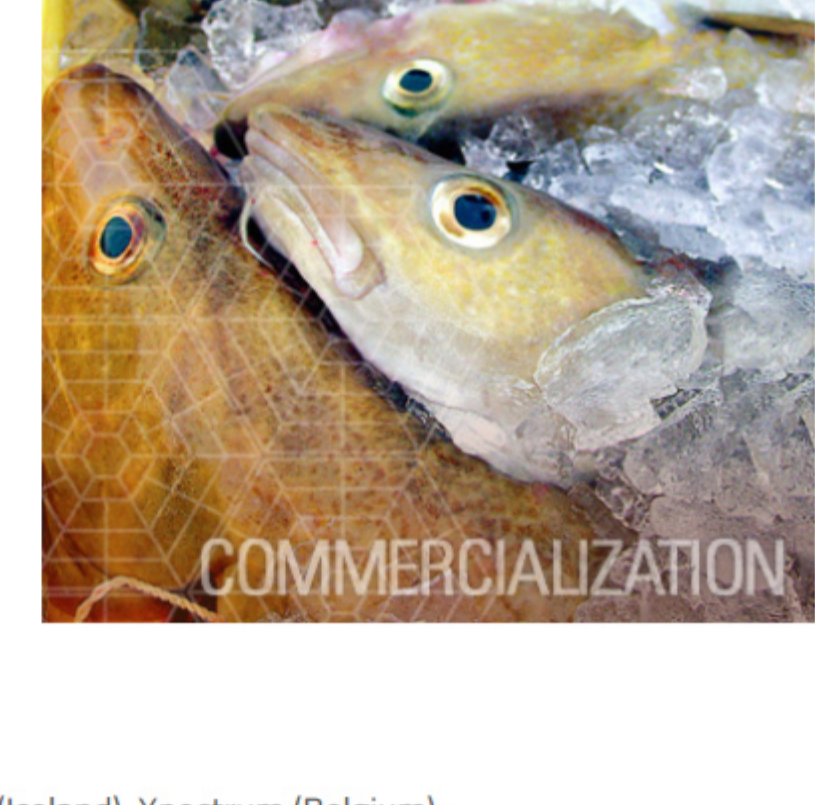
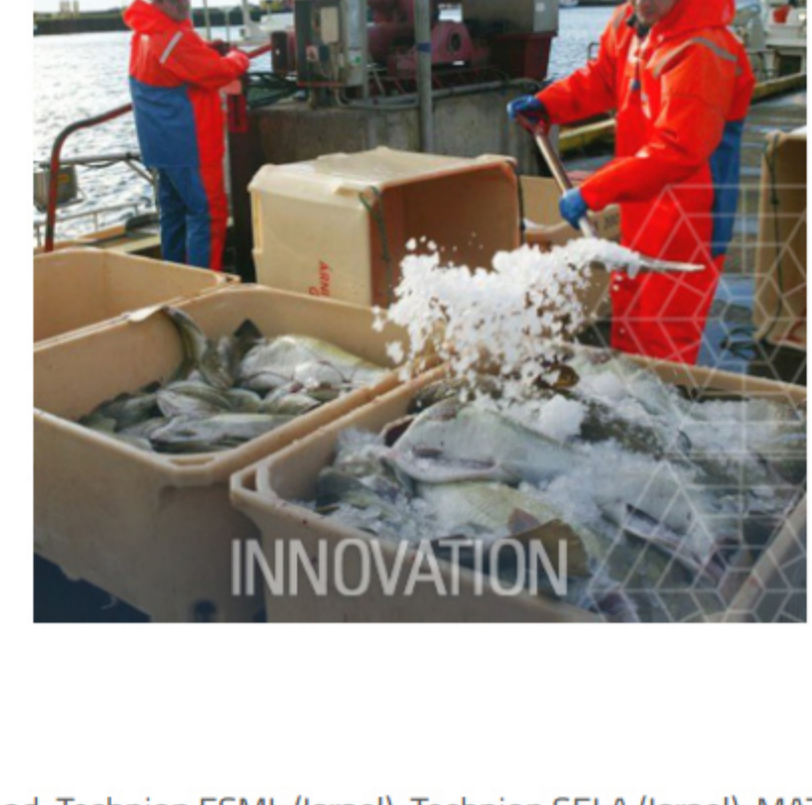
TRACOD is an EIT Food Transparency Trailblazer



Please contribute to food value awareness by responding to this five-minute questionnaire

A central goal of TRACOD is raising consumers' confidence in fish freshness, nutritional value, and authenticity. To this end, we ask you to take a few minutes to respond to the questionnaire which is accessible by clicking on the banner to the left. The TRACOD team thanks you for your contribution to this socially important effort.

TRACOD – short for TRAcK the COD fish, is an EIT Food project aimed at improving the ability of producers and consumers to track freshness and nutritional values of fresh fish, including cod, salmon, and other white fish species. TRACOD uses models implemented in an app for interacting with stakeholders and includes an education component for endowing food engineers with a systems approach. TRACOD also engages future food engineers in conceptual modeling as part of model-based systems engineering of food production and supply systems.



The project partners are: EIT Food, Technion ESML (Israel), Technion SELA (Israel), MATIS (Iceland), Xpectrum (Belgium):



EDUCATION: JOIN TRACOD

TRACOD aims to prepare the future generation of food engineers by providing them with systems thinking and conceptual modeling capabilities.



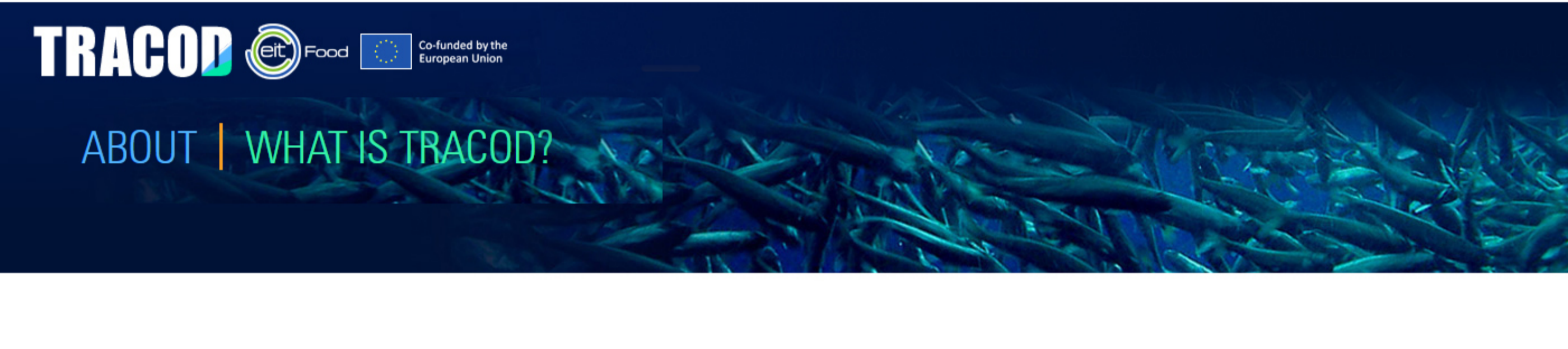
INNOVATION: OUR MISSION

The benefit of TRACOD is to transparently expose all the stakeholders in the food chain, from the fishermen ships and food engineers to the customers and sources.



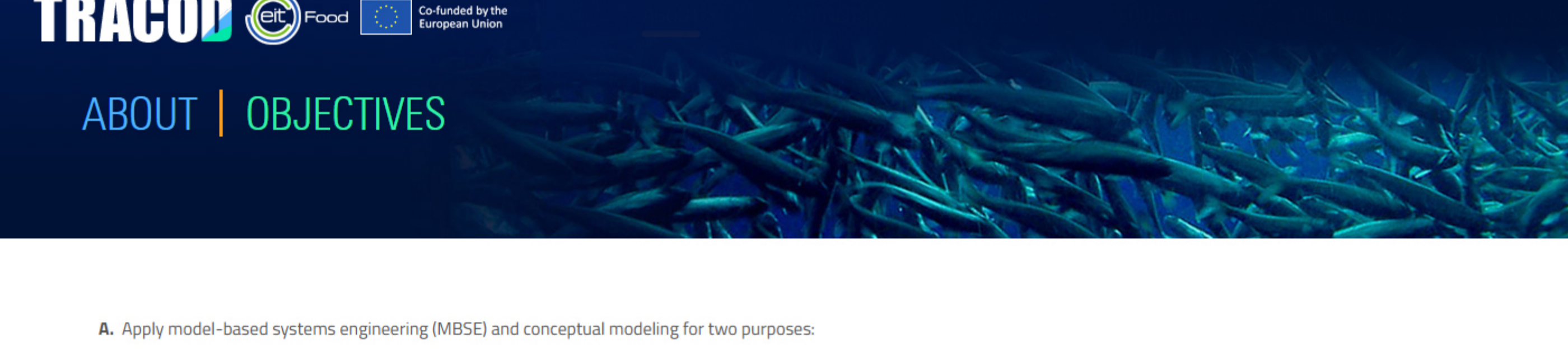
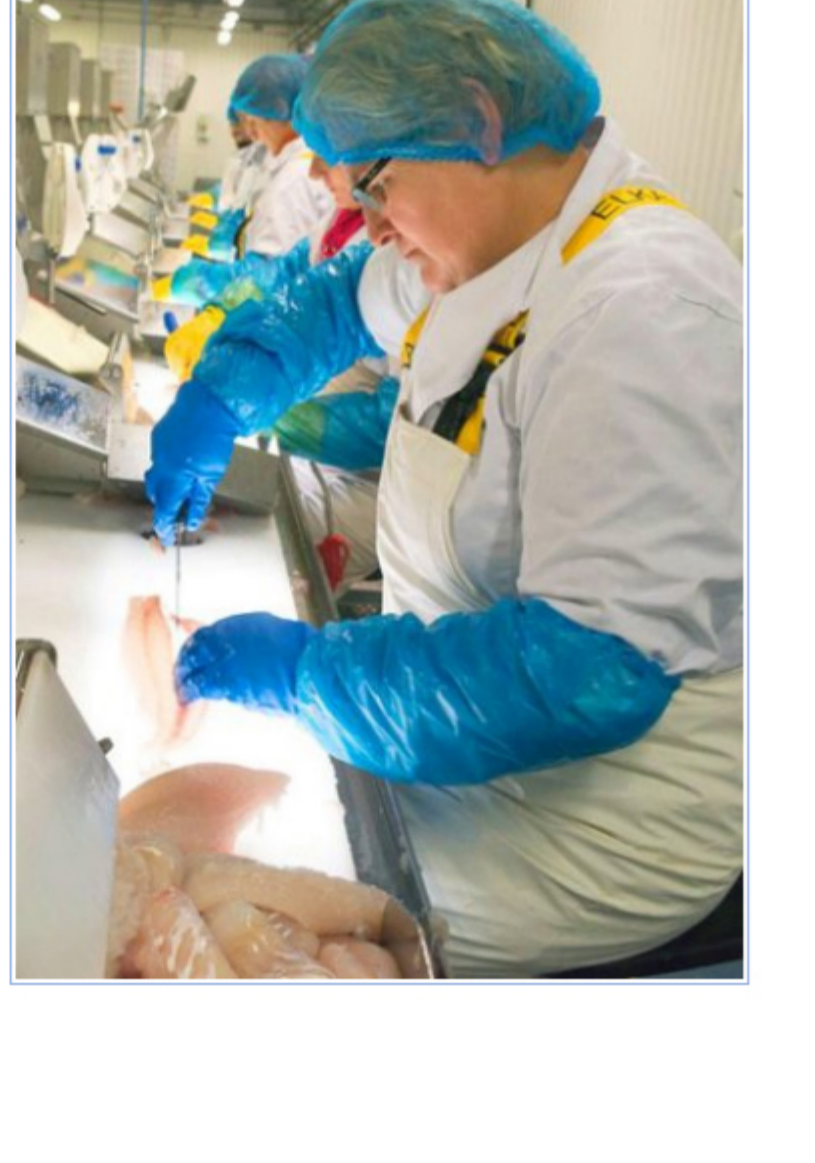
COMMERCE: CHOOSE US

We will approach relevant companies to use our system as beta testers as early as we have a working module that can be beneficial to the user.



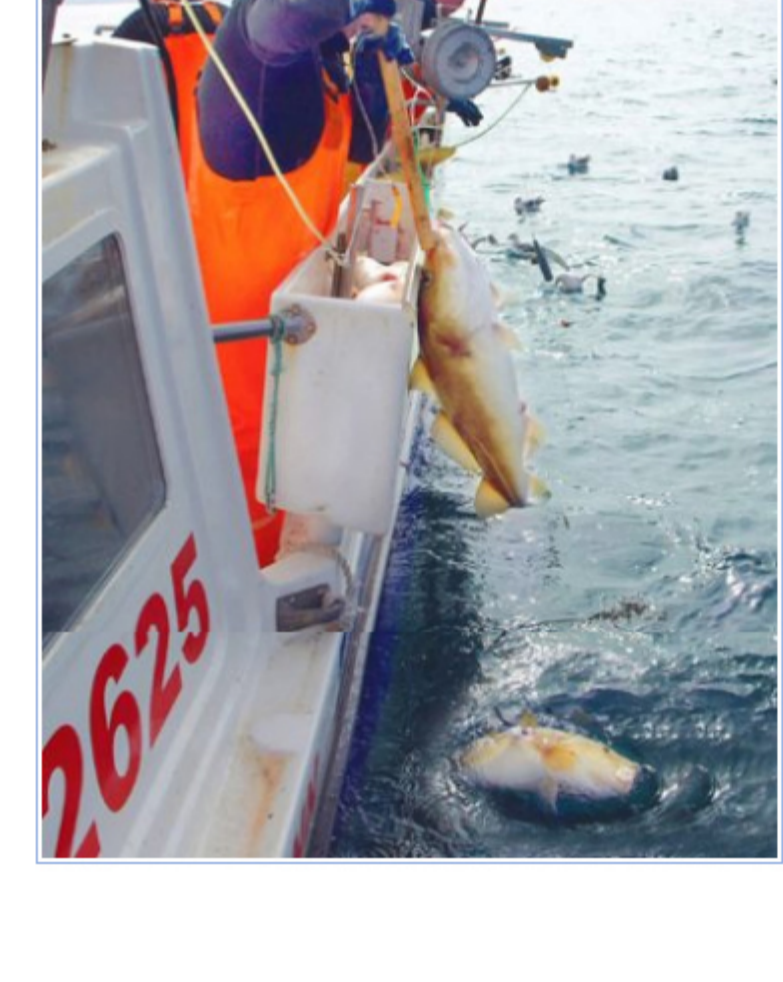
ABOUT | WHAT IS TRACOD?

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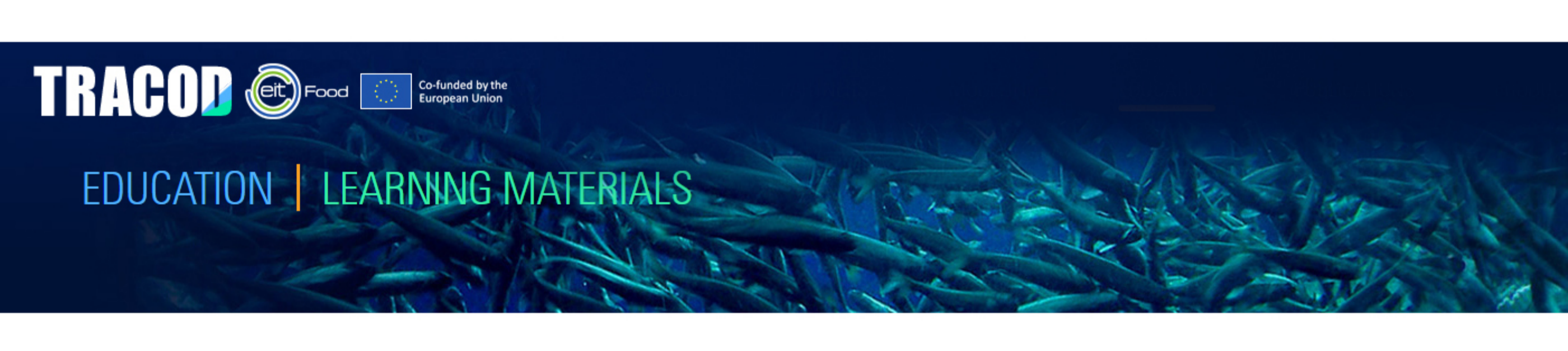


ABOUT | OBJECTIVES

- A. Apply model-based systems engineering (MBSE) and conceptual modeling for two purposes:
 - Model the function, structure, and behavior of the entire "farm-to-fork" food value chain, ultimately enabling real-time view of the physical objects and processes along the food chain at increasing levels of detail through their digital twins, as reported by sensors in key chain locations and controlled by a dedicated app.
 - Educate food engineers to use conceptual modeling using a dedicated online course.



- B. Develop a dedicated app to collect data from spectrometers and other sensors process it, and inform producers and consumers about fish freshness and nutritional value information.
- C. Prepare the next generation of food engineers and related professionals by endowing them with 21st century skills, specifically systems thinking and conceptual modeling.
- D. Investigate the awareness of and attitudes of the public, the fish consumers, towards food freshness and nutritional values, and how to monitor them.



EDUCATION | LEARNING MATERIALS

Based on edX Professional Program on Model-Based Systems Engineering (MBSE) we have developed an interactive online course on MBSE that is adapted to future food engineers and professionals in related fields.



The course is comprised of the following four learning units and included a questionnaire followed by a quiz.

First Unit

- Chocolate questionnaire: [Chocolate questionnaire – 1](#)
- Cod questionnaire: [Cod questionnaire – 1](#)
- Cod Quiz: [Quiz 1](#)

Second Unit

- Chocolate questionnaire: [Chocolate questionnaire – 2](#)
- Cod questionnaire: [Cod questionnaire – 2](#)
- Cod Quiz: [Quiz 2](#)

Third Unit

- Chocolate questionnaire: [Chocolate questionnaire – 3](#)
- Cod questionnaire: [Cod questionnaire – 3](#)
- Cod Quiz: [Quiz 3](#)

Fourth Unit

- Chocolate questionnaire: [Chocolate questionnaire – 4](#)
- Cod questionnaire: [Cod questionnaire – 4](#)
- Cod Quiz: [Quiz 4](#)

Fifth Unit: Olive oil production

Questionnaire – "Diving" into the depths of the olive oil production.

Quiz – Olive oil production: olive mills wastewater sustainable treatment.

Sixth Unit: Wine production

Questionnaire – Wine production: the wine production chain and environmental issues related to wine production.

Quiz – Wine Production and Sustainability.

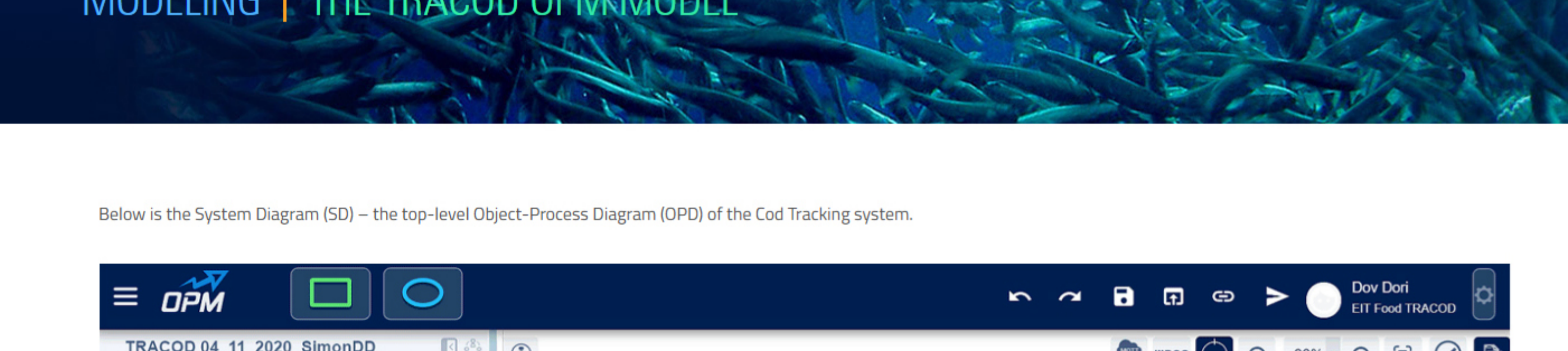
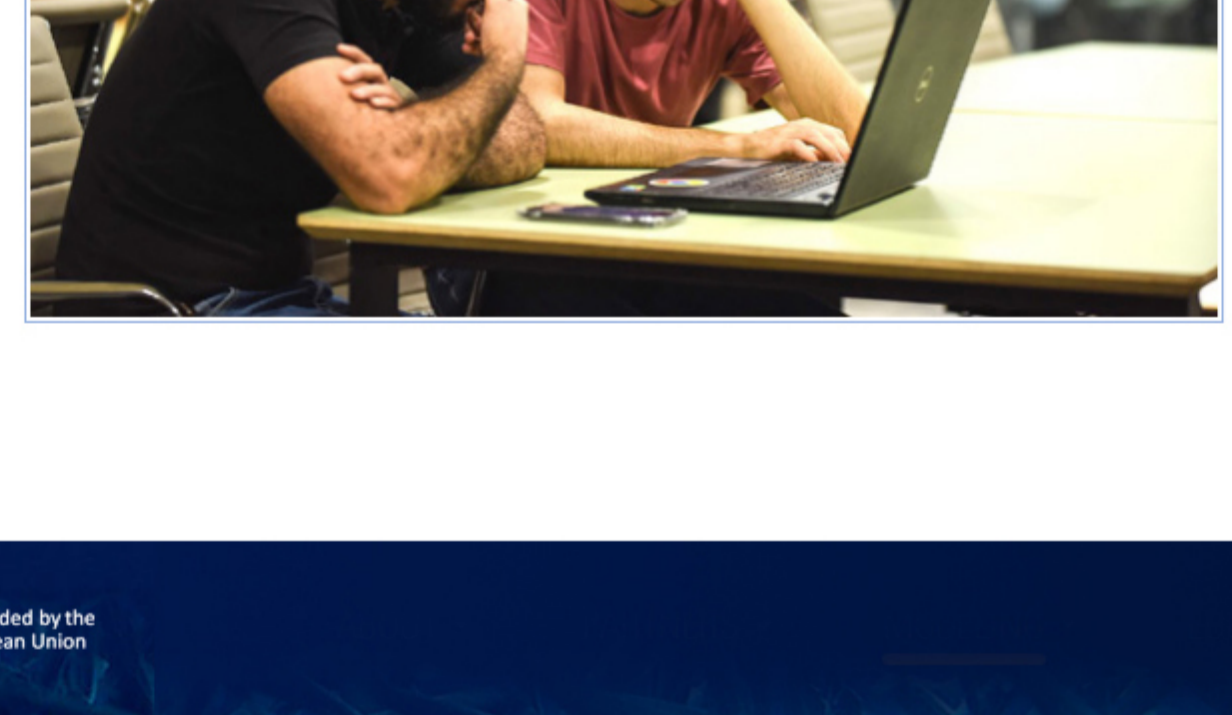
Seventh Unit: COVID-19 pandemic

Questionnaire – How vaccines are created – Coronavirus disease 2019 (COVID-19).

Quiz – The environmental toll of disposable masks.

Reflection

- A Reflection Questionnaire is administered at the end of the course.



MODELING | THE TRACOD OPM MODEL

Below is the System Diagram (SD) – the top-level Object-Process Diagram (OPD) of the Cod Tracking system.

