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www.sdsnitalia.it
www.feem.it

Logistics of the future in Sustainable Smart Ports

What is the real meaning of "localization"?
What is a "partnership for the goals"?

Public-Private-Partnership initiative develops an "SDGs-Smart Port" model and analysis, whose aim is to point out the potential correlation between the port operations empowered by the digital transformation through 5G technologies, the city port and the SDGs.

How to be concrete while scaling down the SDGs

Early on we proposed a tool for policy makers: the SDSN Italia SDGs city index. We allowed majors to know more about the Agenda 2030 and to know where they are on the path toward sustainability.
We localize!
Is this enough? We have so much heterogeneity in Italy! How can a port city be more sustainable? Help the surrounded area to meet the Agenda 2030?

5 for 1

5 ENTITIES , ONE GOAL: LOCALIZE

1. FEEM: non profit international research center
2. AdSP: Livorno public port authority
3. ERICSSON: private company, 5G technology
4. CNIT: non profit Inter-University Consortium for Telecommunications
5. TIM: private company, telecom operator

Five different bodies, one common aim.

169*38

THE COMPLEXITY

The number of target of the Agenda 2030 to be matched with the harbour process for the port-city sustainability

- 74% of goods entering or leaving Europe go by sea
- 1.5 million workers are employed in EU ports
- 147 million tons of CO_2eq is the impact of the maritime transport in EU in 2018: (16% of the total)

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5G BENEFITS FOR THE PORT RELATED TO THE 2030 AGENDA

5G technology is a key-driver.
In a direct and indirect way it helps cities and communities reaching the target of the Agenda 2030.

ICT and digital transformation have the potential to save 15% CO_2eq in all the sectors, including Logistics and Transport (*)

(*) ref. Exponential Climate Action Roadmap 1.5, 2019

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"Coming together is a beginning, staying together is progress, and working together is success."

HENRY FORD (1863-1947)

Results

SDGS-SMART PORT MODEL

Developed model with a set of innovative KPIs for the port which consider the digital transformation enabled by 5G as main lever for the port performance evaluation and SD

Impact: reference model to govern and make decisions for sustainable development of port-city area

SDGS-SMART PORT ANALYSIS

Analysis of enabling power of 5G technologies to evolve port's processes with respect to the UN Sustainable Development Goals Agenda 2030

Impact: Authority Port empowerment and leadership to evolve towards innovation and sustainability actions with 5G

SDGS-SMART PORT AND 5G POSITIVE IMPACTS

Impact:
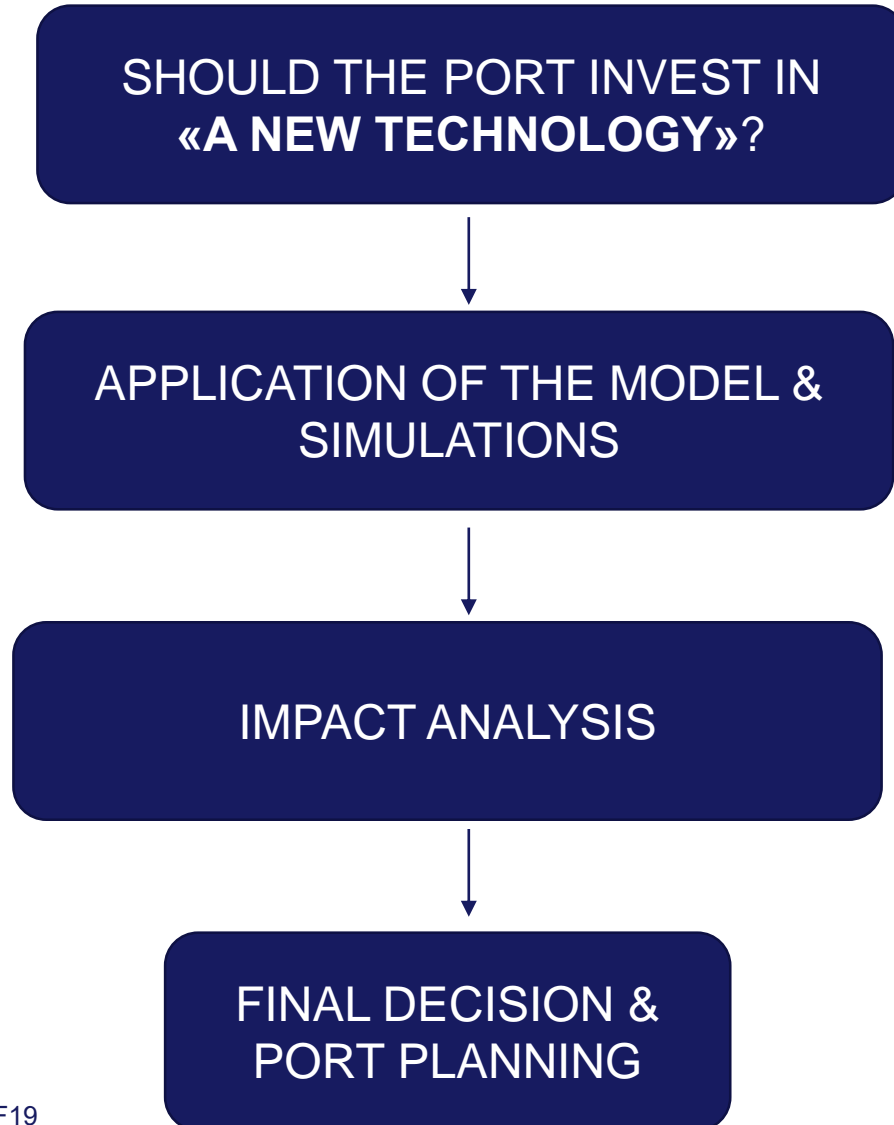SDG 8: Competitiveness and more safety for workers
SDG 11: Sustainable growth for the port-city
SDG 12: responsible business in logistics
SDG 13: estimated environmental 8,2% CO_2e saving* **

(*) Corealis project who received funding from the European Union's Horizon 2020 research & innovation programme under grant agreement No 768994
(**) To be validated following the *on the* field trial

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SHOULD THE PORT INVEST IN
«A NEW TECHNOLOGY»?

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APPLICATION OF THE MODEL &
SIMULATIONS

↓

IMPACT ANALYSIS

↓

FINAL DECISION &
PORT PLANNING

Livorno Port's testimony

"The *SDGs-Smart Port model* enables to address the Port Strategy, by supporting the mid-term choices in terms of technology assessment.

Nowadays, identifying the right technology is important as well as investing in the right facility.

Ports as the other nodes of transport have to provide themselves with a common measurement framework to be more competitive and to improve their port planning, over medium-term horizons.

This is what the Port of Livorno has done, by contributing to this initiative"
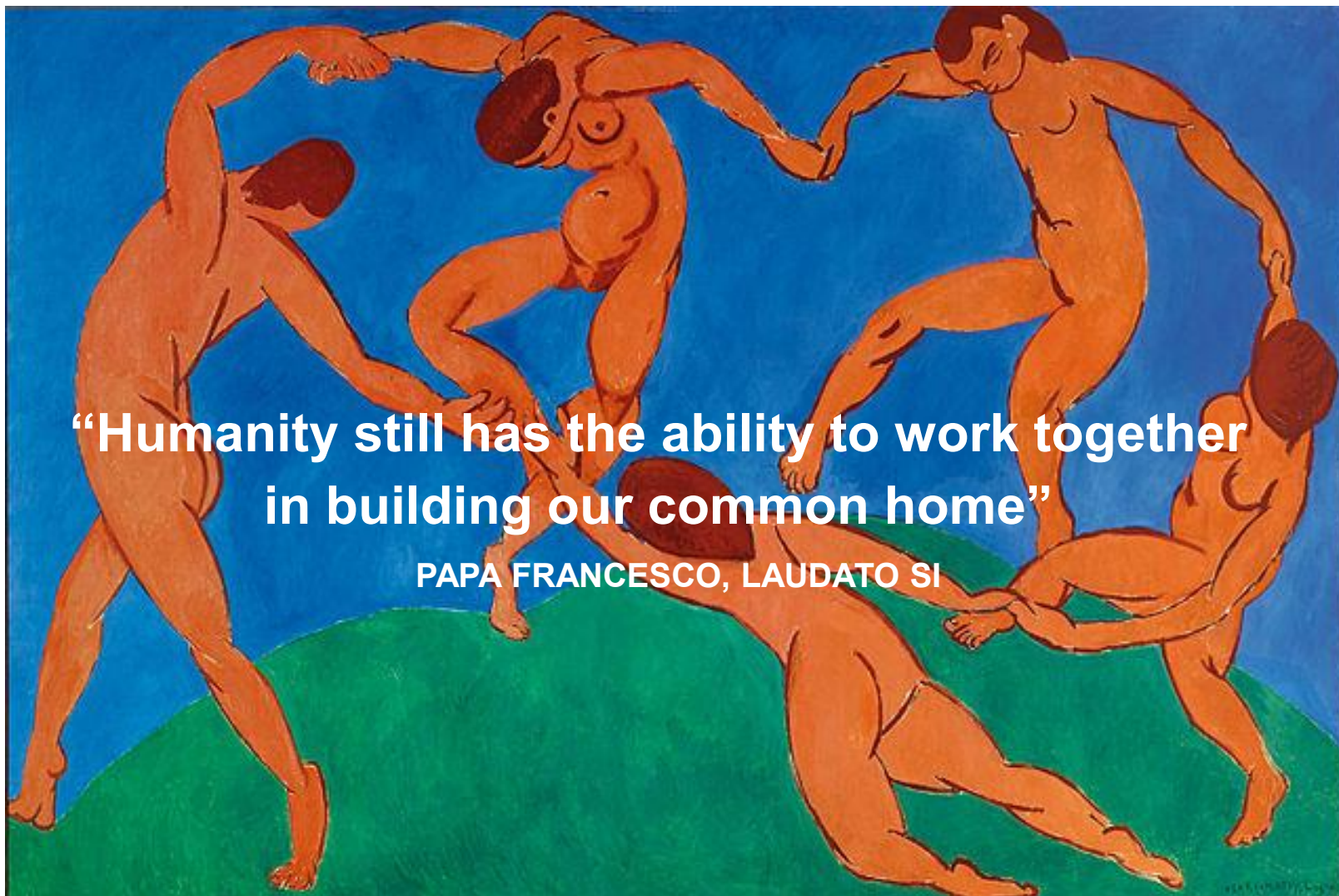
"Humanity still has the ability to work together in building our common home"

PAPA FRANCESCO, LAUDATO SI