

**PUBLIC SELECTION BASED ON QUALIFICATIONS AND INTERVIEW FOR THE AWARDING OF NO. 1  
EARLY STAGE GRANT LASTING 12 MONTHS FOR CONDUCTING RESEARCH PURSUANT TO ART. 22  
OF LAW NO. 240/2010 AT THE DEPARTMENT OF MANAGEMENT, INFORMATION AND PRODUCTION  
ENGINEERING (SC 09/B2 – INDUSTRIAL MECHANICAL SYSTEMS ENGINEERING – SSD ING-IND/17 –  
INDUSTRIAL MECHANICAL SYSTEMS ENGINEERING) TYPE B  
PICA CODE: 20AR010**

*announced with decree of the Chancellor Rep. no. 84/2020 of 11.02.2020 and posted on the official  
registry of the University on 20.02.2020*

**RESEARCH PROJECT**

**“The role of digital technologies in the operational processes of logistics chains”**

**Research structure:** Department of Management, information and production engineering

**Duration of the grant:** 12 months

**Scientific Area:** 09 – Industrial and information engineering

**Academic recruitment field:** 09/B2 – Industrial mechanical systems engineering

**Academic discipline:** ING-IND/17 – Industrial mechanical systems engineering

**Scientific Director:** Prof. Sergio Cavalieri

The development and continuous growth of the e-commerce sector at national and international level produces significant effects on the logistics and distribution chains. The trade-off between service levels (in terms of delivery times on the last mile, for example) and the costs of distribution logistics is exacerbated by a competitive market in which large operators dictate the "rules of the game" in their own image.

The objective of this research is to study this evolution and the level of penetration of technology in the logistics supply chains through the development of the following macro-research questions:

- what are the technologies and solutions that support the development and operation of a logistics supply chain?
- which decision-making processes are affected - and in what way - by the introduction of digital technologies?
- what are the enabling factors for the introduction of digital technologies in logistics chains?
- what are the environmental sustainability impacts of the adoption of digital technologies in logistics chains?

From a methodological point of view, a set of qualitative and quantitative approaches are expected to be used: literature analysis, case studies, interviews with companies.

At the organizational level, the activities are set according to the following outline project:

- Phase 1 – identification and definition of the reference context.
- Phase 2 – analysis of available technologies and applications in logistics.
- Phase 3 – analysis of potential and actual impacts of the application of digital technologies in logistics supply chains.
- Phase 4 – synthesis and consolidation of evidence.

The different phases are partially overlapping each other and will be accompanied by a transversal phase dedicated, where possible, to dissemination.