

Development of innovative AI based solution for a Blockchain technology in Maritime Supply chain (ABMarSupply)

SMART4ALL: Bilateral Knowledge Transfer Experiment (KTE)

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Project goals: As an innovative application model that integrates multiple technologies, such as databases, cryptography and network technology, blockchain (BC) has become one of the game changers in the supply chain management. The most significant impact of BC technology in maritime supply chain is its traceability where attention must be paid to process optimization issues. This KTE aims to find the AI based BC solution in maritime supply chain with the following data sets: types of the ships, their routes, cargo/passenger information. Those data sets will be used for planning of optimized supply chain routes within a PoUW protocol. BSN will send a staff to MISANU which has a theoretical expertise and recently implemented AI in BC. MISANU will transfer a knowledge to BSN on how to develop an innovative AI based BC solution. BSN will provide a knowledge about maritime market and investigate how proposed BC solution could be implemented in their customers' cargo and passenger fleet.

Project results: The proposed KTE will result with AI based BC solution for a maritime supply chain. Maritime supply chain represents connected series of activities pertaining to shipping services which is concerned with planning, coordinating and controlling containerized cargoes from the point of origin to the point of destination. Having in mind that 80% of a global trade is transported via maritime supply chain and that BC technology significantly improves the effectiveness of the transportation, reduces cargo delays and operational costs, proposed KTE solution has a huge impact on sensitive social groups. Elderly population, people with disabilities, health problems and children that need a humanitarian aid, medical equipment, orthopedic aids, medicaments and vaccines will benefit from this KTE, because it will focus on transportation time and costs reduction, minimization of delivery delays, maintenance of retail prices and availability of those products in every moment for target social groups.