ADAPT

ADaptive and Autonomous data Performance connectivity and decentralized Transport decision-making Network

Project Period: March 2021 - February 2023



The ADAPT project started during the most critical phase of the COVID-19 outbreak in Europe when the demand for Personal Protective Equipment (PPE) from each country's healthcare system surpassed national stock amounts. Due to national shutdowns, reduced transport logistics, and containment measures on the federal and provincial level, the authorities face new challenges to meet the quickly rising demands from national health care systems. As the PPE production capacities in China have regained and expanded the available capabilities, Austria can now order the PPE demand needed to protect its citizens. ADAPT supports the international PPE supply chain through an open, blockchain-based ICT solution capable of optimizing PPE production and transport logistics with national demand orders in real-time.

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THE MOTIVATION

- Optimize medical logistic supply chain
- Standardized certification of PPE equipment/products
- Save and protect human lives
- High CO2 emissions in the transport sector
- Bottlenecks in the supply chain

THE OBJECTIVES

- Homogeneous calibration of Chinese PPE certificates with European certification standards for optimized quality control
- Decentralizing PPE transport and supply chain platform using blockchain
- Match Chinese production capacity and Austrian PPE equipment demand with minimized transport costs
- Optimize global transport capacity and route selection
- Real-time PPE certificates verification
- Minimize CO2 emissions and transport capacity losses
- Increase delivery speed

THE SOLUTION

- Decentralized PPE supply chain network
- Real-time certification checks
- Intelligent decision-making capabilities
- Autonomous and adaptive PPE transportation
- Identify ecologically beneficial supply chain

THE IMPACT

- Time and costs reduction of PPE delivery and the verification of standards, norms, and quality
- Improved international PPE supply chain operation
- Faster & cheaper PPE delivery
- More trust in PPE equipment/products
- Global financial savings
- Reduced CO2 emissions caused by transport systems
- Increased resilience of PPE delivery

Consortium Partners

Chinese Academy of Sciences
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Universität Klagenfurt
Department of Information Technology

Johannes-Kepler-Universität Linz
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