One of the industries that can benefit from DeFi and blockchain **is transportation and logistics**. This industry involves the movement of goods and people across different locations and modes of transport. It also involves various stakeholders, such as suppliers, manufacturers, distributors, retailers, customers, carriers, drivers, regulators, and more.

The transportation and logistics industry faces many challenges, such as

- ✓ **data inconsistency,**
- ✓ **lack of transparency between stake holders,**
- ✓ **contractual disputes between stake holders**
- ✓ **fraud, theft, delays, inefficiencies, and high costs**

DeFi apps can help to overcome these challenges and improve the performance and profitability of the transportation and logistics industry.

Some of the benefits are:

- ✓ **Data transparency and accuracy of data**
- ✓ **Smart contracts for fulfilling agreements to speed up settlements**
- ✓ **Reduction of transaction costs**
- ✓ **Improve accountability between parties**
- ✓ **Security through decentralization**
- ✓ **Permissioned access**
- ✓ **Better asset management**
- ✓ **And most important Real-time tracking of assets (location component)**

DeFi apps can transform the transportation and logistics industry by providing new opportunities for innovation, efficiency, and value creation.

However, there are also some **challenges and limitations** that need to be addressed before DeFi apps can reach their full potential in transportation and supply chain industry.

Some of these challenges are:

- ✓ **Technical complexity**: DeFi and blockchain are complex technologies that require advanced skills and knowledge to develop, deploy, and maintain.

There are also **interoperability issues among different blockchain platforms** and systems. Moreover, there are scalability issues that limit the speed and capacity of system.

- ✓ **Regulatory uncertainty**: DeFi and blockchain are subject to various legal and regulatory frameworks that vary across different jurisdictions and sectors. There are also ethical and social implications of using DeFi and blockchain in the transportation and logistics industry.

- ✓ **Cultural resistance**: DeFi and blockchain require a paradigm shift in the way stakeholders interact and cooperate in the transportation and logistics industry. There may be reluctance or distrust among some stakeholders to adopt DeFi and blockchain due to lack of awareness, education, or incentives. There may also be conflicts or competition among existing intermediaries or incumbents who may lose their market share or influence due to DeFi

One Belt One Road (OBOR) is a global development strategy initiated by China that aims to improve connectivity and cooperation among countries and regions along the **ancient Silk Road** routes. OBOR consists of two main components: the land-based Silk Road Economic Belt and the ocean-based 21st Century Maritime Silk Road . OBOR covers more than 70 countries across Asia, Middle East, Europe, Africa, involving trade, transportation and finance.

China has initiated **a consortium of blockchain experts** to solve logistics problems.

The **consortium** is applying blockchain technology

- ✓ **to verify the identities of parties in a transaction,**
- ✓ **implementation of advance safety and security protocols,**
- ✓ **expedite customs settlement,**
- ✓ **manage intellectual property,**
- ✓ **and facilitate border controls**

- ✓ **and most important asset location , smart contracts ,**
- ✓ **management of data, including ownership, location, product specification and cost**

The BRICS consortium, comprising Brazil, Russia, India, China, and South Africa, signifies a potent economic force on the global stage**. Iran joining BRICS as of January 2024.**

In this hackathon we attempt to address **assets location data framework** to be used in DeFi apps in regard to logistics and transportation.