



Emerald Circuit Organ Transplant Solutions: From Container To Blockchain

“Beating the clock becomes more important than ever when there are human lives on the line, and real-time visibility also goes from being a routine offering to life-saving necessity. Doctors need to know where the organ is located in order to prepare for the procedure and deal with any potential delays. Often, it can be difficult and time-consuming to nail down the location of the shipment throughout the process.” - [FreightWaves](#)

Organ Transplantation: The process in which an organ donor, upon death, has their organs removed from their body and transported to a medical facility and implanted inside of a patient in need of that specific type of organ. On average, only 3 out of every 1,000 organ donors are eligible to donate upon death.

Problems to be Fixed

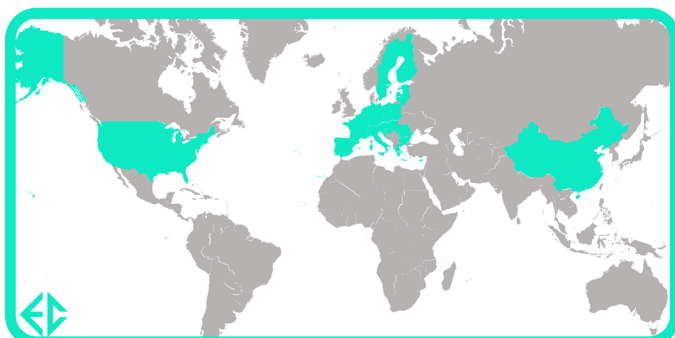
To successfully ensure an organ transplant, the preservation and transportation time must be efficient and with no external interference. Current organ management systems are analogue based, with organs being transported without real-time insight, alerts, or security. Organ verification and journey is essential in the short time frame to the patient.

Emerald Circuit Solutions

Networked Smart Containers with a Mobile App: For securely managing the status, temperature, humidity, and exposure conditions of these life saving organs. Each Organ box is uniquely identified, and tracked throughout its entire journey. Through a mobile application doctors and health care providers are able to stay connected with the timeframe of the organ.

Primary Value Provided

Real-time monitoring and conditions management of life-essential products. Secondary value is provided by digitizing and manageable the movement of the products from their donor to the patient.



Market Size and Geographical Hot Spots

The global transplantation market is estimated to be worth over \$9 billion dollars per year. Global hotspots include the United States, China, and the European Union.