

manufacturing practice, transportation practice, product security to track & trace.

Let us assume you have brought in legislation which demands that pharmaceutical companies must know their supply chain i.e. we want the origin, history and interactions of every component that went into the drug. Let us also assume that some companies don't see the benefit of exposing their supply chain but instead see cost beyond a one up, one down approach i.e. they know the boundary of their suppliers — we bought this from them — and who they supplied their products to. From a regulatory viewpoint whether pharma, automotive, consumer goods or any other then this is not enough especially when the supply chain crosses an international boundary. We could attempt to introduce legislation that they must know about the entire supply chain but this will invoke potentially huge lobbying bodies against us. At this point, someone normally shouts a technological solution such as “use blockchain” to create a chain of custody. Beyond the issue of implementation, the idea of a public blockchain is normally faced with criticism that being public it would expose the sales of the company to competitors. Often, there is a push to modify the idea and make it private. Such a private chain would in itself create a new hurdle for new entrants trying to get into an industry and whilst barriers to entry might be welcomed by some companies to reduce competition, the purpose of regulators didn't include “protect incumbents from competition”. It's a thorny issue. How to protect the public but allow for competition?