# Project One Page Description

# Project Overview

## Rationale of the Project

### Problem statement, solution and challenges

Each use case providers (Germany, Turkey, Spain and Sweden) should come up with at least 2 (preferably 3) problems about their pilots. The problem statement should answer three main questions:

1. What is the problem?
2. Why blockchain/DLT/IDelta is the solution for that problem
3. If blockchain/DLT/IDelta is the solution for that problem, what are the challenges.

After having all problems, solutions and challenges, we should also focus on further problems beyond the use cases.

***Input of German consortium from DLT in Industry 4.0 Use Case:***

Today, supply chain processes within and between European companies are often still paper-based and depend on a number of different documents. Historically grown processes and inhomogeneous system landscapes are increasingly unable to meet the requirements of growingly complex and intertwined markets. Supply chain transactions are typically individually handled via e-mail and data interfaces, transferring the relevant data in and out of ERP systems. This faces companies with three main challenges. First, the process is inefficient. As it’s mainly e-mails and transaction-related documents, it can hardly be automated and takes up a lot of time and personnel resources. Second, it cannot be integrated across a company or a supply chain, as communications always happen between two partners. So, even if one company introduced their own solution, it could only be used by their direct partners. Third, supply chain processes are completely non-transparent this way. None of the partners can oversee the entire transaction history, leading to potential errors and compliance violations (e.g. regarding taxation). A decentral DLT-based platform could address all three problems:

Through existing templates and data interfaces, transaction data can be stored on the platform. Hence, there is less need for continued e-mail traffic. Because it’s a decentral system that does not belong to one company, it can be used by different companies across multiple supply chains. It stores all the supply-chain-related data from one company, making the processes more transparent, therefore less erroneous and also enabling automated compliance checks. However, such a solution would require not only the adaptation of DLT technology to supply chain logic, including secure, but efficient consensus mechanisms facilitated by way of a private permissioned DLT environment. For companies to actually adopt it, it would also require a sophisticated data protection mechanism, such that only transaction metadata would be included in the consensus mechanism, but sensitive internal data could only be seen by the involved partners.

### Project Innovations and Technological Value Chains

I will propose a Technological Value chain based on our definition from Stockholm. Also, I am expecting from Yuhong, Patrick and JuanMi as initial proposers and from Franz-Joseph and Mustafa (T2 Software) as pilot providers to define innovations according to their perspective with 2-3 paragraphs.

***Input of German consortium from DLT in Industry 4.0 Use Case:***

The proposed platform technology holds potential for innovation for every partner along the value chain. It will first and foremost completely overturn the way the involved application companies manage their supply chains. Having all relevant data in an integrated, but secure and decentralized platform can significantly lower the resources required for supply chain management, lowering the cost and increasing the efficiency. At the other end of the value chain, the platform provider is able to design a new technology that is adapted to the needs of supply chain companies, but also performant, efficient, and secure.

Even more innovation potential lies in the opportunities to extend the platform technologies with additional services, such as IoT integration or AI-based process analytics. Such services, which do not yet exist for either a DLT platform or a supply chain solution, enable the companies in the middle of the value chain to offer innovative ideas to their own and to potentially new customers.

## Targeted Impact

### Market Analysis and Market Value Chain

### Consortium Market Access

## Technology

### State of the Art (SotA) Analysis

### Proposed technological innovation and novelty in relation to the SotA

### Expected Project Outputs

### Quantified objectives and quantification criteria

## Consortium Overview

### Cooperation added value: Business level

### Cooperation added value: Technological level

# Work Description

## Project Structure

## Main Milestones

# Rationale for Public Funding