

# WE ARE MAKING INDUSTRY 4.0 LEGALLY COMPLIANT



## »INDUSTRY 4.0 LEGAL TESTBED«

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We are looking forward to collaborating with you!

Visit our  
Website:



<https://legaltestbed.org/en/start/>

#### Our objective

LEGAL TESTBED, as an interdisciplinary research and development project, aims to systematically use the potentials of digitization of Germany as a business location by creating a legally watertight basis for negotiations and contracts concluded by machines. This year, our LEGAL TESTBED pilot project will develop a publicly accessible, digital testbed, which will enable companies to develop and carry out comprehensive tests on secure business processes in production and logistics systems. The project launched on 1 June 2019 and will run until 31 May 2023.

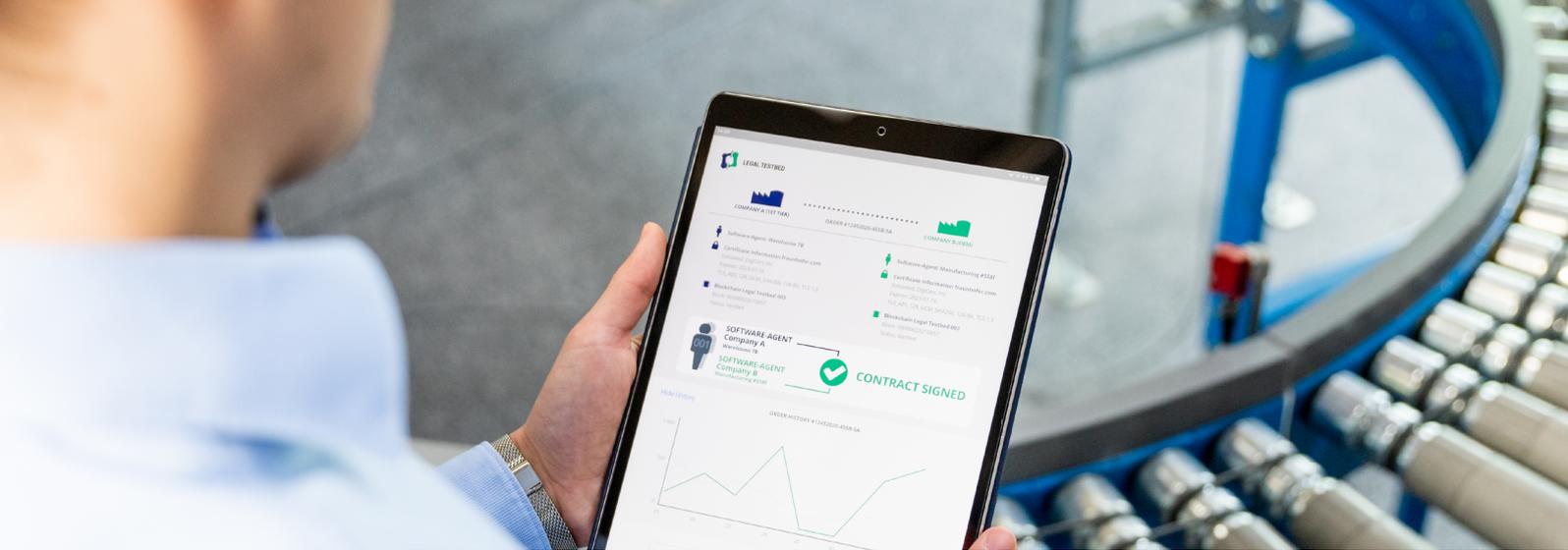
#### The challenge

At the moment contracts concluded by machines face severe safety-related and legal uncertainties that pose impediments, especially for small and medium-sized enterprises. There are various issues at hand regarding the conclusion and implementation

of contracts by machines, accountability, liability, IT-security, data protection as well as traceability. These issues need to be addressed to minimize risks for companies.

#### Our approach

Negotiations conducted by machines are carried out by using blockchain technologies, smart contracts and software agents so that legally secure contracts may be concluded. Therefore, LEGAL TESTBED also establishes a digital testbed for evaluating new business models concerning decentralized, heterogeneous ecosystems. To make it easier for companies, especially small and medium-sized enterprises, to enter Industry 4.0, LEGAL TESTBED supports them with concepts and tools for the IT- and legally compliant implementation of automated business processes.



## Our scenarios

The use cases in the LEGAL TESTBED depict typical business processes during transportation and production in Industry 4.0 and enable the project to be tested on tangible use cases:

In the transport use case, a transport contract is negotiated automatically, whereby the transport of goods within the EU is examined. The focus is on the analysis and evaluation of the digitally and automatically negotiated and executed contract of carriage.

The production use case focuses on automated contract negotiation for one or more products to be manufactured between a customer and supplier, with both parties represented by software agents during negotiation and execution.

In addition, the two use cases are supplemented with errors or malfunctions to create technical and legal implications.

## Automated trust management

For a contract to be concluded, mutually perceived trust must first be established. Since January 2021, an additional research topic of LEGAL TESTBED is the exploration of automated trust management, in the context of which business, legal, and security requirements for trust formation are being investigated. With the help of trust agents,

trustworthiness profiles and an evaluation model for trustworthiness, trust building is to be managed automatically.

## Your benefits

By providing a versatile set of tools, LEGAL TESTBED reduces risks and enables companies, in particular small and medium-sized businesses, to use Industry 4.0 technologies.

Your company is interested in benefitting from the numerous possibilities and chances that a collaboration with our project entails? Do not hesitate to contact us!

## Our consortium research partners



## Our cooperation partners



Gefördert durch:



aufgrund eines Beschlusses des Deutschen Bundestages