ATTENTION!

The first global approach to detecting trade-based money laundering

The AI Call 2021 project ATTENTION! (ArTificial InTelligENce for the deTectIon of trade-based mOney lauNdering!) will develop artificial intelligence (AI) and machine learning (ML) models to uncover patterns of Trade-Based Money Laundering (TBML). Insights will be made available in an application to reduce costs and increase accuracy in detecting illicit trade.

Addressing the challenge

The global trade finance market is expected to grow to USD 10.4 trillion by 2026, with around 80-90% of world trade dependent on this, yet a gap of USD 8.7 trillion in reported trade between developing and advanced economies was uncovered from 2008-2017. Tactics such as mis-invoicing, under/over-shipping and ghost shipping are used to evade customs duties, VAT taxes and currency controls, enabling illicit activities ranging from counterfeiting to narcotics. However, few tools exist to detect largescale TBML, resulting in a reliance on case-by-case investigations (taking up to six months) or continuous monitoring and surveillance systems (which return 95% false positives).

Proposed solutions

ATTENTION! will use AI/ML models to analyse the trade activity of over 40 countries using the largest trade database of imports and exports available globally. This approach will employ both supervised and unsupervised ML to train these models. Supervised approaches will generalise from known cases, using existing patterns, cases and rules to recognise if previously unseen transactions are illicit. Unsupervised learning, meanwhile, will use ML models to detect patterns in a company's import/export digital footprint and transactions with a focus on detecting suspicious outliers among observed transactions.
The successful models will be integrated into a usable data analytics platform with

an application for performing checks on trade transactions. By receiving a risk rating and confidence level, end-users will be able to identify leakages in their supply chain, judge whether a container

approximately one million annual deaths caused by fake medicine.
Governments will also be able to use the application to increase their tax revenue; ATTENTION! estimates that this could be by as much as USD 150 million for Singapore and USD 1 billion for Germany. On a smaller scale, the application will automate time-consuming and labour-intensive transaction checks, meaning that law enforcement or companies will no longer require costly investments in training or hiring to detect illicit patterns
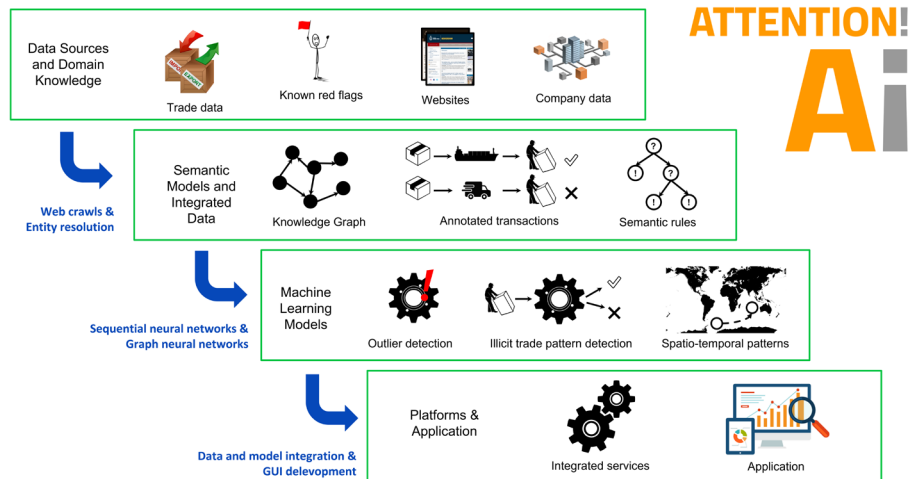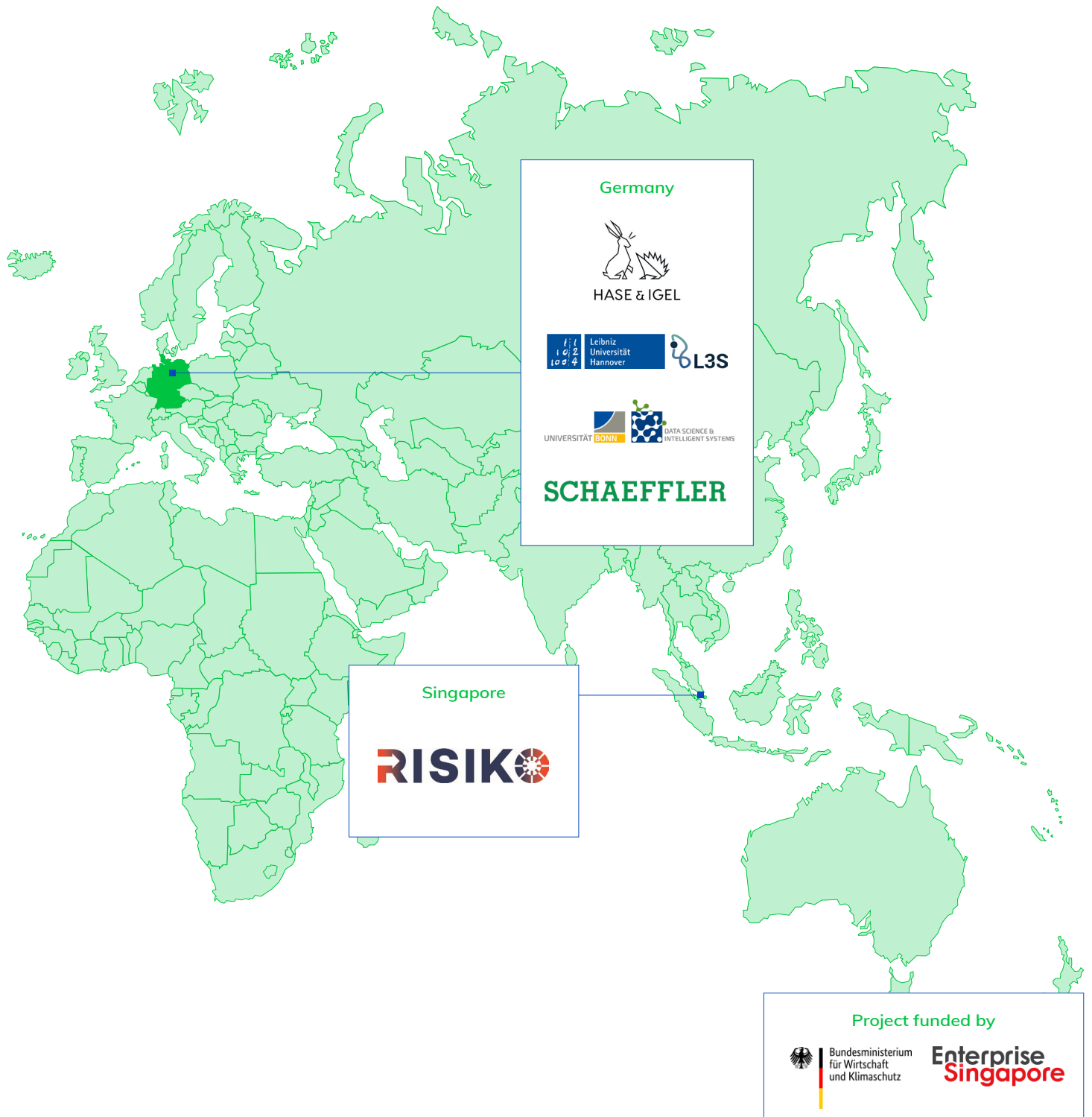

↑ Components in the envisioned solutions

should be opened, detect potential money laundering and understand if goods may be compromised.

Projected results and impact

As the detection rate for state-of-the-art methods is just 1%, ATTENTION! aims to make a big impact on TBML by bringing its ML models to a 10% prediction accuracy. By combatting counterfeiting, for instance, the project can help reclaim 10% of the market share for legitimate manufacturers and reduce the

and can gain savings by retiring old systems. As the project's global approach has never been attempted, the insights provided can potentially revolutionise the fight against TBML in domains as diverse as customs, law enforcement, banking, manufacturing and healthcare.

Project partners

Germany

HASE & IGEL

Leibniz Universität Hannover | L3S

UNIVERSITÄT BONN | DATA SCIENCE & INTELLIGENT SYSTEMS

SCHAEFFLER

Singapore

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https://attention-project.eu/

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