

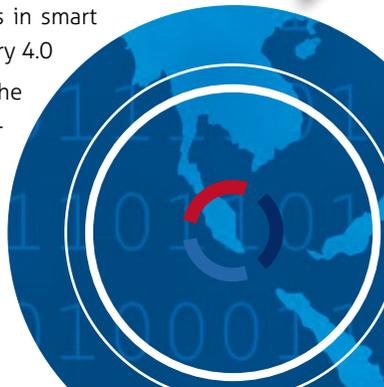


SERVICES FOR SINGAPOREAN PARTNERS

- Strengthen your international network with the help of partner enterprises, Software-Cluster research institutions and network
- Acquire knowledge and be at the cutting edge of the latest trends
- Gain visibility in Germany and beyond: Become a project or networking partner
- Access to cutting-edge smart factory testing facilities in the Software-Cluster
- Access knowledge and expertise: Transform these into enterprise roadmaps or national programmes

SERVICES FOR GERMAN PARTNERS

- Facilitate German-Singaporean cooperation in the field of Industry 4.0
- Support to Software-Cluster members to find R&D partners in Singapore
- Organize events and delegation trips to Singapore
- Identify funding opportunities for R&D projects
- Provide information on R&D, markets and innovation through reports on the Singaporean innovation system and trends in smart digital services for Industry 4.0
- Provide news through the SCIKE website and newsletters



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Software-Cluster



German Expertise for Smart Solutions in Singapore



SOFTWARE-CLUSTER: EUROPE'S SILICON VALLEY FOR ENTERPRISE SOFTWARE

- Germany's #1 software region
- Birthplace of enterprise software
- The highest turnover in European software clusters: € 25 bn annual turnover
- 11,000+ software companies with 134,000 employees in the region
- Leading-edge cluster acknowledged by the German Federal Government
- Software-Cluster cities Karlsruhe and Darmstadt are among the Top 10 European ICT hubs
- Software industry ecosystem at eye-level with London and Paris
- Headquarters of SAP SE and Software AG: Europe's largest and 4th largest software companies
- Prestigious computer science faculties and research institutions such as the Fraunhofer Institutes, the German Research Centre for Artificial Intelligence and Technische Universität Darmstadt
- Innovation Leader: concepts such as "Industry 4.0" (Industrial Internet) or "Smart Services" originate from the Software-Cluster

SCIKE PROJECT: INNOVATION THROUGH INTERNATIONALIZATION

The German Federal Ministry of Education and Research funds the SCIKE project through the internationalization of the Leading-Edge Clusters funding program. The aim of SCIKE is to enable cooperation between the Software-Cluster and Singapore focusing on smart digital services for Industry 4.0 using a highly mobile IT infrastructure.

SPONSORED BY THE



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Step 1: Identification and location of machine errors leading to an enhanced support for maintenance tasks and technical support.

Step 2: Health check on the machine status and adjacent components – prediction of future failures are reported and transferred to ...

Step 3: ... machine or production management enable faster decision processes and proactive prevention.

FACTS & FIGURES GERMANY	
GDP (3rd quarter 2016)	EUR 794.220 billion
Value added by the manufacturing sector of global GDP (2015)	22.57 % (7 th)
R&D spending by industry (2014)	1,95 %
Internal R&D expenditure (2014)	EUR 57 billion
R&D personnel (2014)	371.000

List of sources: Statistisches Bundesamt, www.TheGlobalEconomy.com, www.research-in-germany.org

GERMANY: A WORLD LEADER IN TECHNOLOGY AND INNOVATION

As a world leader in industrial production Germany has one of the world's most competitive and innovative manufacturing industry sectors. Germany is the centre of future-oriented applied research with specific expertise in Industry 4.0, Smart Services, Digital Economy and Intelligent Mobility. Within only a few years' time, the term Industry 4.0 which originated from the Software-Cluster, has developed to an international brand. Collaboration with the Software-Cluster – the hub for smart solutions "Made in Germany" – involves gaining access to a wider network and specific expertise which accelerates Singapore's transition to a Smart Nation.

SCIKE-SINGAPORE@PINPOINT

A case study of German-Singaporean Cooperation	
Project	SCIKE-Singapore@PINPOINT
Duration	3,5 years 2016 – 2019
Funding	The Federal Ministry of Education and Research
Objectives	Investigate, research and deliver new solutions for an ecosystem of mobile smart services that are able to analyse, pre-/post-process. Provide value-added services for advanced technical documentation within predictive maintenance tasks based on new IoT-enabled mobile platforms.
Result	Industrial solution for advanced predictive maintenance in production and training

MOTIVATION

Industry 4.0 (I4.0) as a main revolutionary driver for ICT in manufacturing, combines Cyber-Physical Systems (CPS) and the Internet of Things (IoT) to allow new and innovative ways to connect resources, processes and networks. Catching up with the ever growing trend of mobile solutions, mobility will also play a fundamental role in the I4.0 enabled workplace of the future by providing both workers and supervisors with critical data at the touch of a button (on-demand, in time, at the right place). Here, Singapore as a high-quality manufacturing location with its advanced and highly available mobile infrastructure provides a living lab for industrial solutions. By applying the use of additional sensors for environment perception it is possible to capture the as-is state of any product, process, or even the digital factory and its manufacturing processes.

The SCIKE Singapore project combines the advantages of I4.0 solutions "Made in Germany" with a highly innovative ecosystem and sophisticated mobile IT infrastructure in Singapore.



GERMAN PROJECT PARTNERS

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Fraunhofer IGD is one the worldwide leading research institutions for industry applied visual computing. >> www.igd.fraunhofer.de

intelligent views gmbh is a leading vendor of semantic technology with 20 years of experiences in building semantic models for industry applications. >> <http://i-views.com>

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Software AG offers the first end-to-end digital business platform to help customers build their digital futures today. >> www.softwareag.com



SINGAPOREAN PROJECT PARTNERS

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