



Company Overview

Engineering
that rocks ... !



MicroFuzzy combine experience with latest technologies and creativity.

For solutions that rock!

www.microfuzzy.com



Between Genius
and Insanity



... there is just a thin line. We at MicroFuzzy try to stay
to develop solutions for our customers' de

www.microfuzzy.com



ng for
miracles ... ?

on't have a magic stick - but a highly skilled team of
in Europe and Asia to make things happen!

www.microfuzzy.com



Out of the box



You need innovative solutions? That's why we
think out of the box.

www.microfuzzy.com



We Are

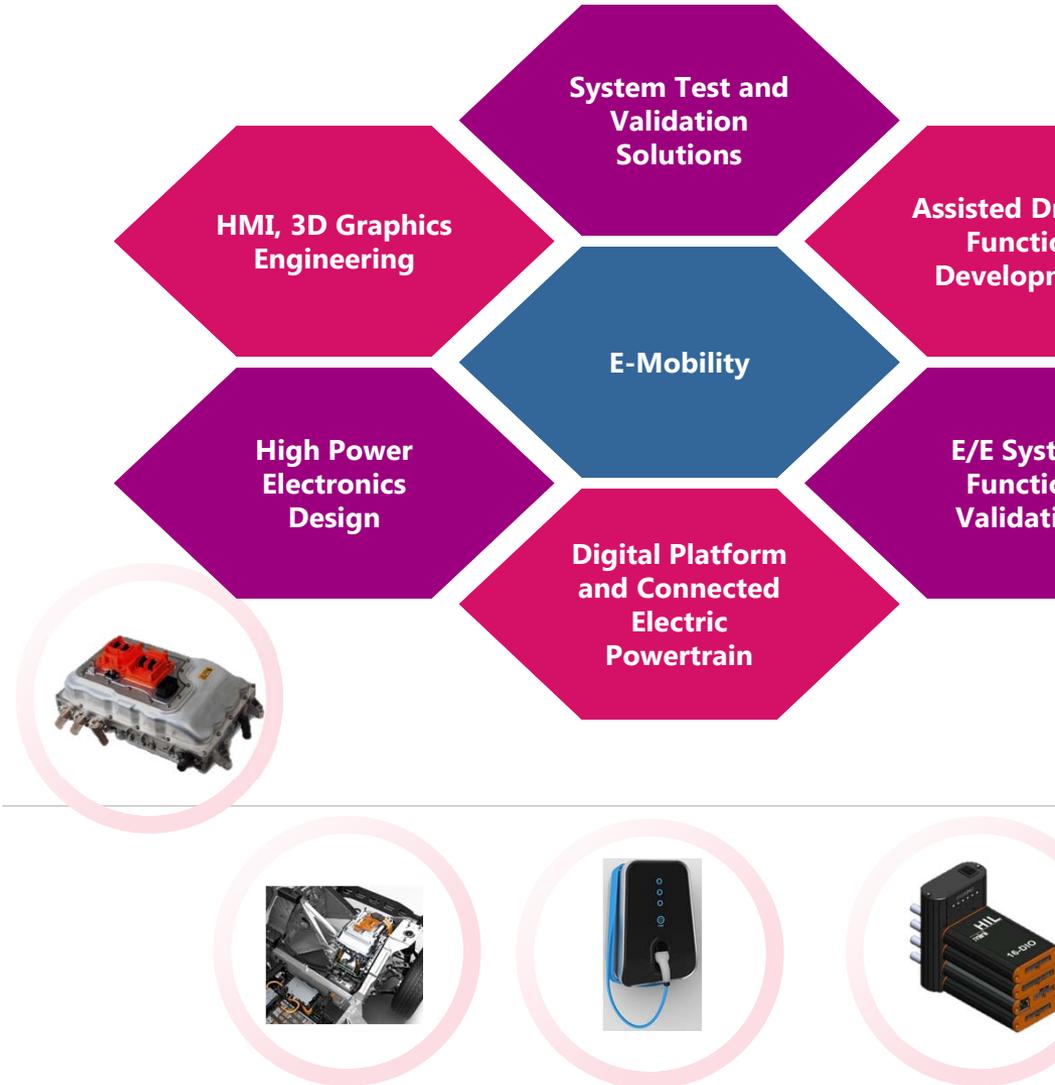
10+ years of Powertrain and HMI engineering experience

Staff in 5 continents (170+ in Electric Powertrain, 50 Engineers in Infotainment)

Offices in Munich, Germany and Offices in US, Japan, India, Thailand, Egypt, Brazil

ISO 27001:2005 and DIN EN ISO 9001:2008 Certification

Strategic Partnership with **KPIT**



ering HQ and "Right-shoring"

Germany



our Customers:

neers (Electric Powertrain)

T Infrastructure, Certified BMW Project Office

imbH
e 38
ch





erTec, Bangkok



2005

(Powertrain)

Central Bangkok

er for an Asian OEMs, Thai Government

ering Hub of MicroFuzzy

Ltd.

2 Soi Sukhumvit 22

toey

THAILAND



	<i>Thai European Business Association Founder member of European Business Organisation (EBO)</i>
	Deutsch-Thaiändische Handelskammer German-Thai Chamber of Commerce
	Electric Vehicle Association of Thailand
	Thai Embedded Systems Association Developer's Network for Electronic Design Industry For Developers, By Developers



Fuzzy Leadership



Herr Lederle

er

s of Experience in
Engineering and
Transmission Control
Hybrid Systems



Herr Markus Waidelich

CEO, Co-Founder

Over 20+ years of experience in
Automotive and Semiconductor
Industry with very strong
Hardware Design Engineering
experience



Herr Oliver Mangold

CEO

Over 15+ years of R&D
Engineering Services experience
in Automotive Industry both in
Sales and Operations



Herr Vijay Prasad

Business Head

Over 17+ years of D
Engineering Services
in Automotive Industry
and Operations



Fuzzy Leadership



ler

ember, Advisor

- 1: University of Mannheim, Diploma-Kaufmann
- 8: Droege and Company Consulting, Düsseldorf
- 9: Various positions at BMW AG
- 1: BMW M GmbH, Vorsitzender der Geschäftsführung
- 5: Senior Vice President Special Projects ASIA



Tero Sarkkinen

Head of Infotainment and ADAS Solutions

- **Founder of Rightware**, a company renowned for its solution now shipping in over **25 million cars** global
- 18 years of experience in real-time computer graphics
- **Founder of Basemark**, a company dedicated in graphics performance and power consumption
- **Ex-CEO of Futuremark**
- M.Sc. from Helsinki School of Economics, eMBA course from Stanford Business School



Key Customers



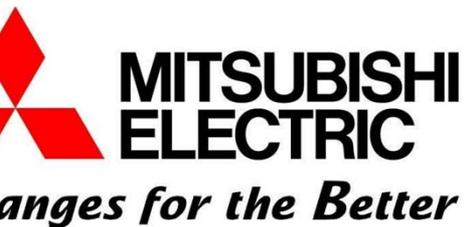
BOSCH



SIEMENS

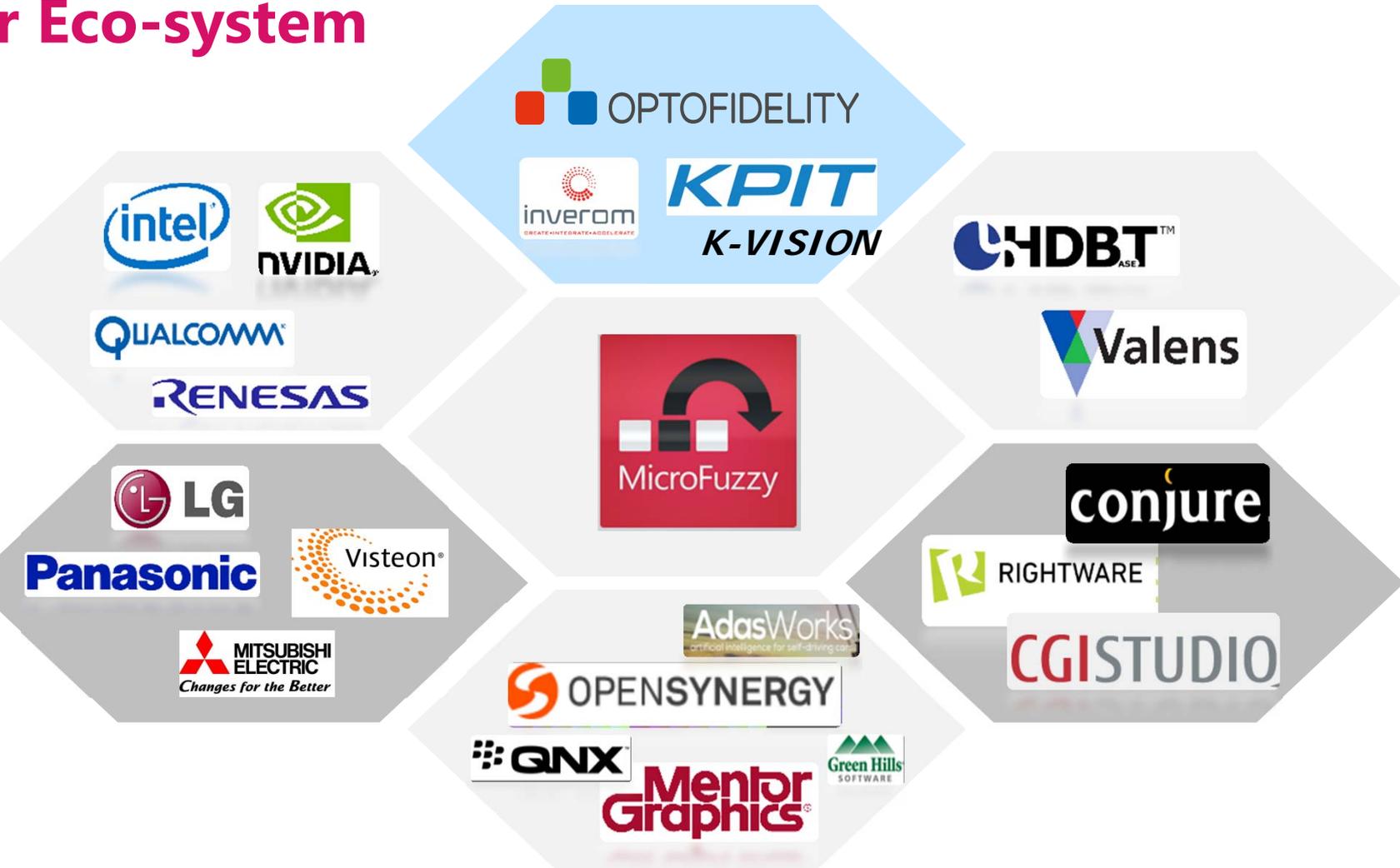


SCHAEFFLER GROUP



Panasonic

Auto Eco-system



Engineering Experience on "Electric Powertrain"

Requirements (QM, Safety)

on, Requirements
ing Co.req, ISO26262
Supplier management)

on and FuSi E-Drive

M, DC-DC, CSF, TORQUE,
charging,

for Powertrain Generic Digital

DIGITAL Platform for Powertrain
, MENTOR and built by

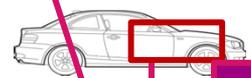
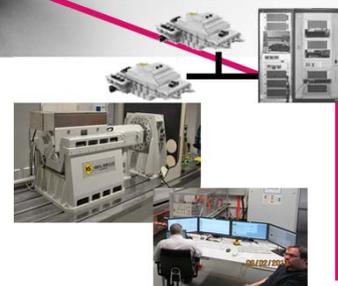
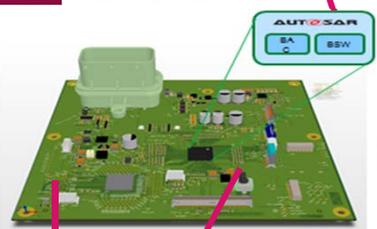
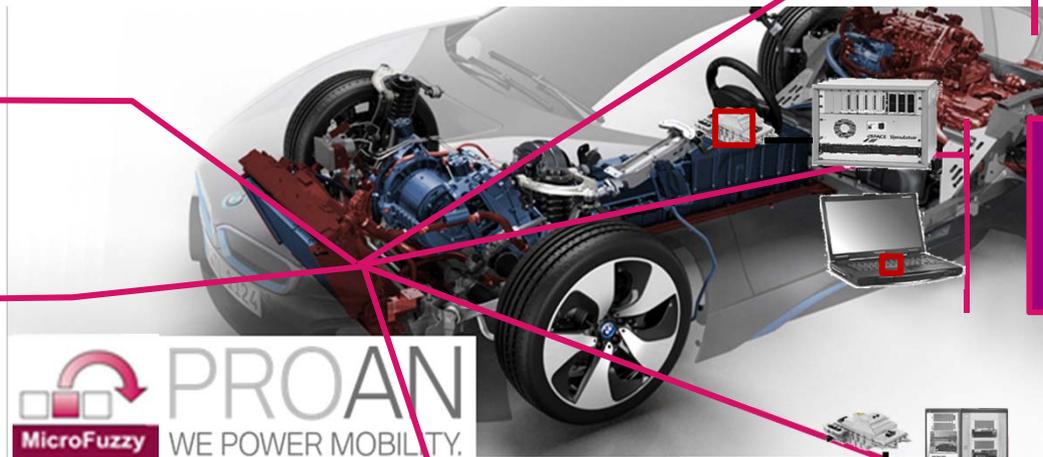
ISO 26262

Complete Functional Safe
C(D)" implementation and
GEN5 and Series Development
components

Component Level
HiL Testing (Software Integratio
Acceptance Tests, Software Unit
Function Testing)

High Voltage, Tests, Charging
up and running the complete
Integration Testing)

Vehicle Testing :
Manging Dynamic HiL's, Regression Tests
Responsible for Co-ordination of tests in the
Vehicle (Summer, Winter Trips)





Fuzzy Products

Breakout Box

“Intelligent Switch Box” is a Breakout Box designed to support integration tests, and streamline the debugging phase of ECUs. Fully controlled via ECU-test/equivalent to regulate power. Includes a 106 pins connector to connect/open bus connection between ECU’s and RestBus simulation tools



Hardware-in-Loop

Low Cost Hardware-in-Loop system for Electric Powertrain Systems and is developed with a purpose that every software developer is provided with a small, flexible and affordable simulation hardware to test and verify ECUs. The new hardware-in-Loop system will be able to execute almost all tests and simulations which are currently implemented on big HIL systems like Dspace. It features a multi-core platform and is built with an OPEN architecture that can be customized easily to suit every OEM needs



Charger for ASIA Market

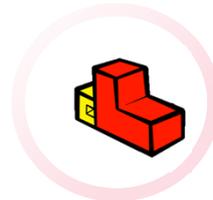
Most 22KW DC Wall Box Charger for the ASIAN Market with the first prototype to be released in April 2017. Supports multiple AC Voltage (EU, US, China, Japan Range) with Output : 250-900V DC, 55A, 22KW@400V. Features: Remote Software Updates, LTE/Wi-Fi Communication with e-Payment model



- Traceability tool for development data
- Over 100+ licenses sold to BMW Group



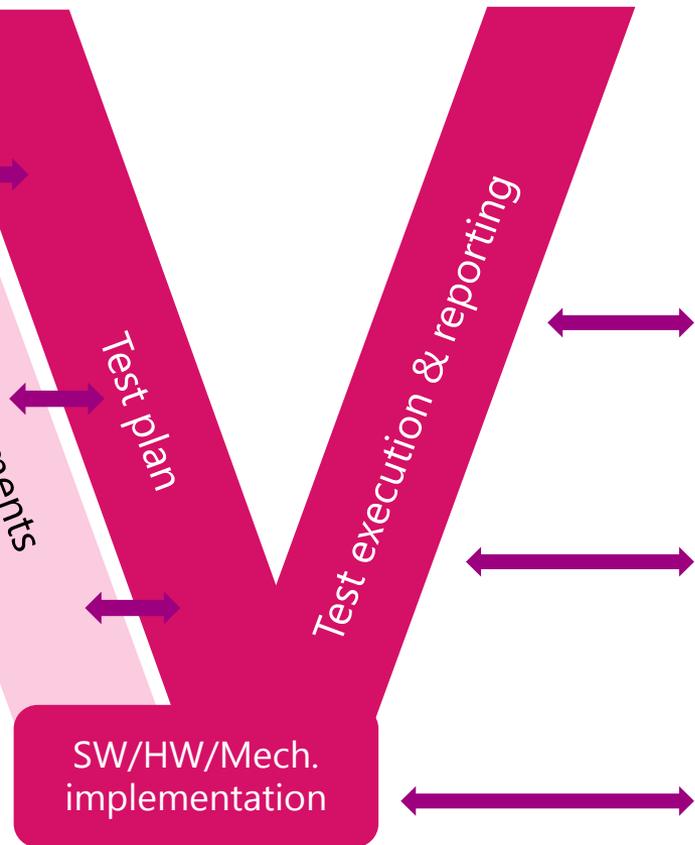
BUS FISH: A innovative concept for an ODX-based reprogramming and diagnostic tool

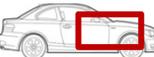
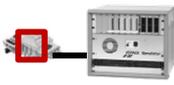


CANIBESSA – BUS Network Display

- Display all signals and their values on the CAN or Flex Ray Network
- Simulate CAN & Flex-Ray network

Validation



Testing activities	Test environment	Level
Vehicle dynamic tests	Vehicle 	Vehicle P
Customer acceptance tests	HiL	Vehicle P
Vehicle tests	Vehicle 	E-Powertr
System Integration tests: High voltage tests Dynamic tests	System Integration Dynamic test bench 	E-Powertr
System Integration tests – High voltage	Pre-Integration test bench 	E-Powertr
System Integration tests - Low voltage	System Integration HiL 	E-Powertr
Component validation Functional test Environmental tests	HiL, HV-Lab Computer	Compon
SW Integration test	Micro HiL iSB14 	SW
SW Unit and Module testing	Computer 	SW

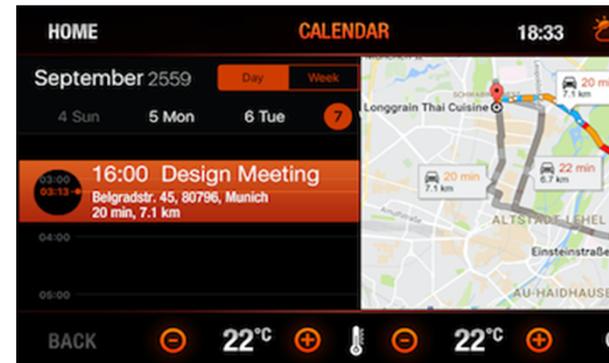
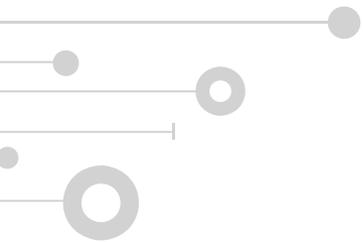


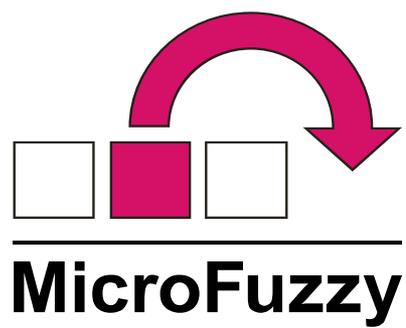
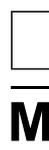
Expertise

experienced HMI engineers to work with head unit, instrument cluster, HUD, RSE and other HMI projects

Completed numerous successful Automotive, Industrial, and other **production series HMI projects** involving development, integration and testing

g experience in **integrating the complete head unit** are stack





KPIT

Strategic Partnership



KPIT

Expand European Engineering footprint

Strengthening E-Powertrain practice

Complimentary Customer and Technology base



MicroFuzzy

- MicroFuzzy looking at increasing customer base
- Additional Competencies for growth
- Complimentary Customers and Technologies

Mutual respect for each other's work and culture



MicroFuzzy Come together to form a strategic Partner

Strengthen each others strategic customer relationships

Global E-Powertrain Practice and Leadership

Improve the ability to scale Global Engineering Footprint for customer

Maintain focus, agility and creativity to increase value for customers

Increase investments to create differentiators and scaling up of MicroFuzzy portfolio

Customers want more products and solutions - not pure play services



Technology Company Specializing in Select Verticals



Incorporated in 1990

Publically traded company in India since 2001

~ USD Half Billion in size

11,000+ Employees

Development Centers in India, US, Germany and Brazil

34 global offices across countries

6% of revenue invested in R&D, 6 Patents

Automotive, Energy- Utilities and Life Sciences

We have been relentless in our building efforts

10 years of sustained growth @ **32% CAGR**

Global reach

Relevant in our **focused areas**

Investing in Technology

USD revenues
\$500 Million FY'15

Employees worldwide
10,000+ FY'15

10 Development centers
34 Offices in **16** Countries

Employees represented
25 Nations

75 Automotive OEMs & Tier1s
50+ Manufacturing companies as long standing clients

Global organizations benefiting from our services and technology
150+

50+ Patents filed in less than 5 years

6% of Revenues invested in R&D of Automotive Business

Winner of Innovation Awards for 10+ years

What we do : Comprehensive Solutions and Products for Automot

Solutions

Embedded software across subsystems



Body Electronics



Chassis, Safety and Driver Assistance



Functional Safety
ISO 26262



Infotainment



Powertrain



Vehicle Diagnostics

Over 1500+ programs to make embedded software work across automotive subsystems

ANALYTICS
FOR SUCCESS

Products

Connectivity

KIVI
In-Vehicle
Infotainment

KONNECT

Telematics

On-Bus ITS
Intelligent Transport
System

Diag

In2Soft Di

Standardization Platforms

K-SAR
AUTOSAR Suite



Functional Safety Tool Chain

Green

REVOLO
hybrid solution for everyone

Certifications



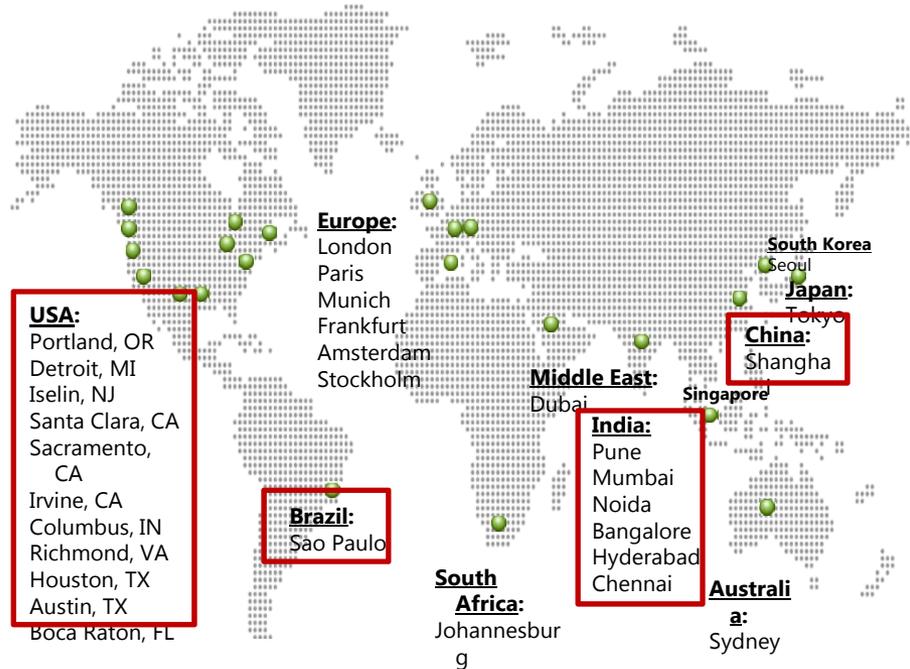
Specialists in Product Engineering & one of **Worlds' Leading Automotive software**

We reached a broad footprint globally

Manufacturers



Our Worldwide Presence

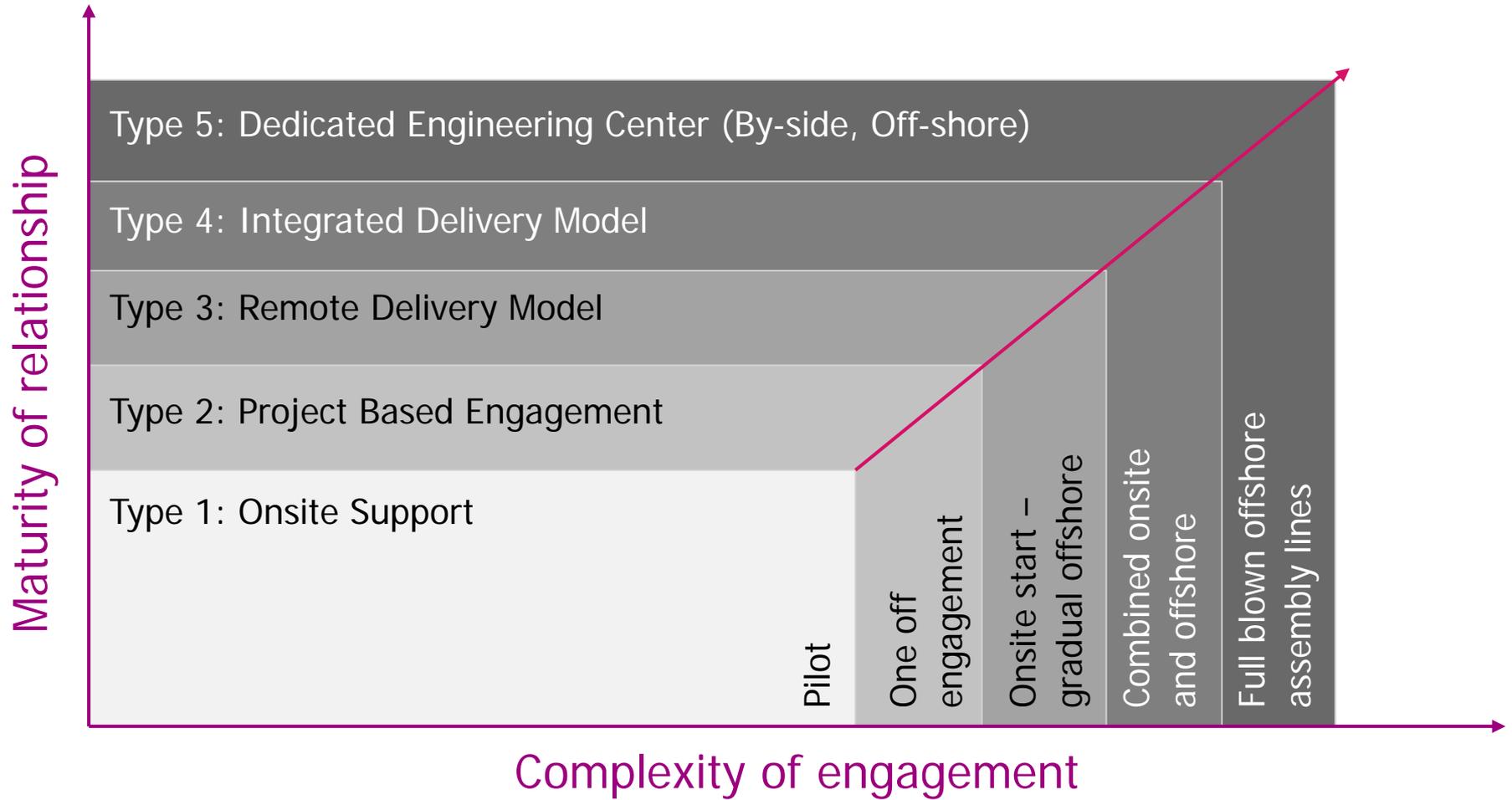


Tier 1





Engagement Models





Fuzzy Distributed Delivery Model

Cloud Systems Business requires customer intimacy
Optimal price points
Customers appreciate MicroFuzzy's capability to deliver
the work from both onshore and offshore locations.

Speak your language

Understand your culture

Have affinity with your business

Can react rapidly to changing demands

MicroFuzzy Distributed Delivery capabilities are highly
flexible and can be scaled according to your needs.





What are we looking for ?

Talented **E**ngineers who are willing to work in the following areas

Electric-Powertrain Area

Infotainment Development and Connectivity Solutions

Autonomous Driving Solutions



ts

Powertrain

High Power Electronics, Control Techniques, Electrical Machines, Inverters, DC-DC convertors back ground

Power Electronics hardware design experience

Software Development for Power Electronic Components, Low Level Driver Development

Functional Safety



ts

Environment and Connectivity

Testing of Head Units and Instrument Clusters

Android/Linux expertise

Graphics Development

System Testing Expertise of Head Units, Instrument Clusters

Software Development in C++

Agile Development Process



ts

Autonomous Driving

System Testing

Algorithm Development

Software Development in C++

Agile Development Process



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Thank you for your time!

www.microfuzzy.com