

HighTec EDV-Systeme GmbH

Automotive Grade Toolchain Vendor

2019 ST Automotive MCU Technical Day--Shanghai/Beijing/ Shenzhen

Zhang Zixian (Head of Sales & Marketing In China)



Partnership

Long term “Master Agreement” in place with STMicroelectronics



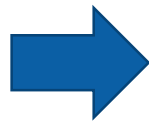
Ensure continued tool availability and support for

- Existing automotive MCU platforms
- Future (next generation) automotive platforms

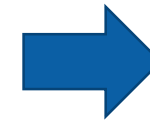
HighTec EDV Systeme GmbH

Automotive Graded Toolchain Vendor

State of the art C/C++ standards compliance



Target optimized cross compilation



Automotive Graded Toolchain



- ✓ ANSI/ISO C99, C++11, C++14
- ✓ Supports parallel compilation
- ✓ Multiple performance levels to optimize speed and code size
- ✓ Multi-level optimization process
- ✓ Global optimizer

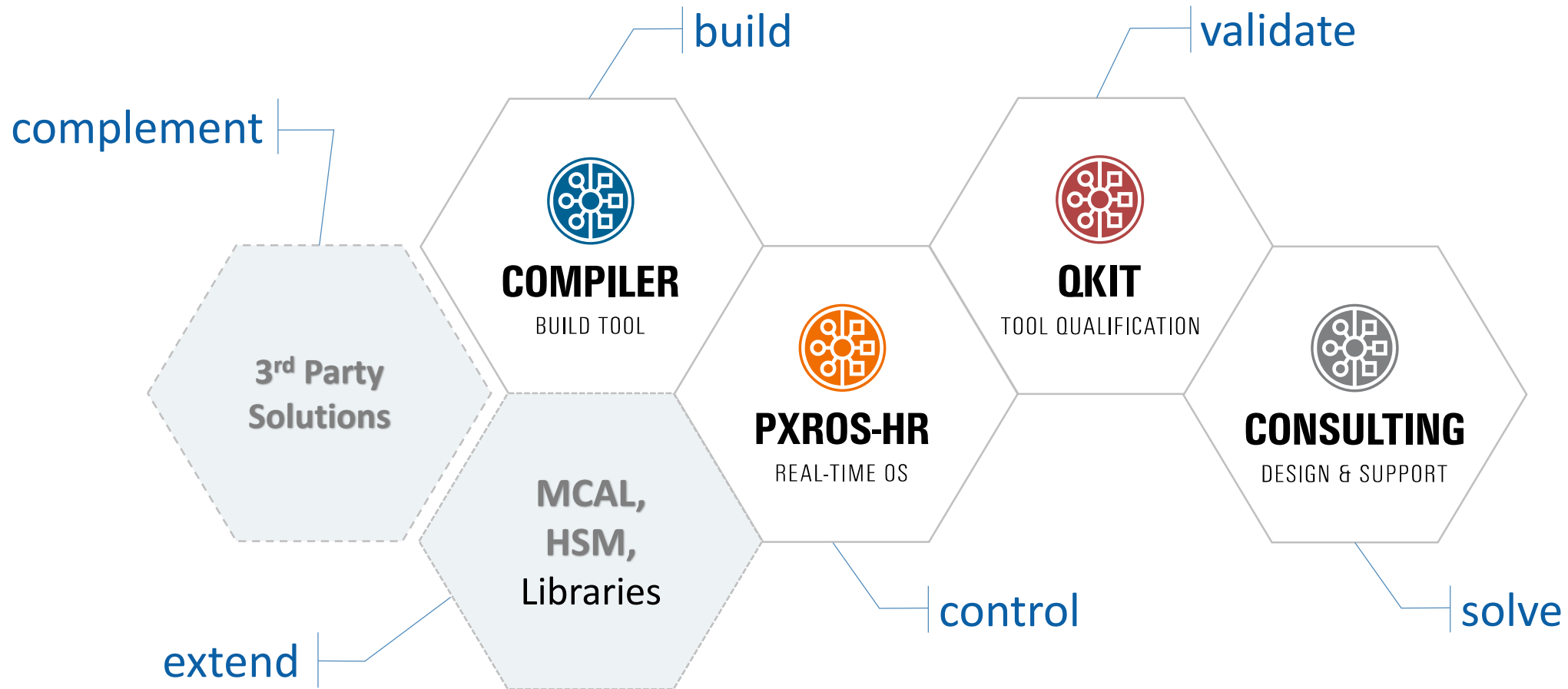
- ✓ SPC56x
- ✓ SPC57x
- ✓ SPC58x
- ✓ GTM/MCS
- ✓ ARM Cortex M/A/R
- ✓ Target specific optimizer

- ✓ ISO26262 Qualification Kit
- ✓ Frozen Version Support
- ✓ Bug Scanning Compiler
- ✓ HEX Neutral Files
- ✓ Third party compatibility
- ✓ Long Term Commitment



HighTec Core Products

One-Stop-Shop for Embedded Tools and Development Services



C/C++ Compiler Overview

Core of the Safety Multicore Development Suite

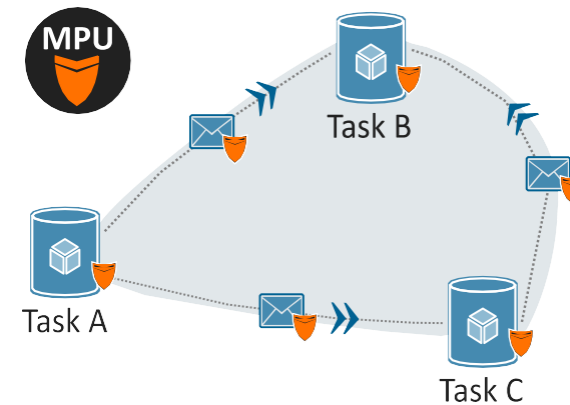


- ❑ HighTec leading optimization technology
- ❑ Advanced multicore support at linker level
- ❑ Customer-specific Frozen Versions
- ❑ Long-term maintenance & availability
- ❑ Advanced bug scanning support
- ❑ Certified quality management process

PXROS-HR RTOS Overview

Safety Multicore Real-time OS

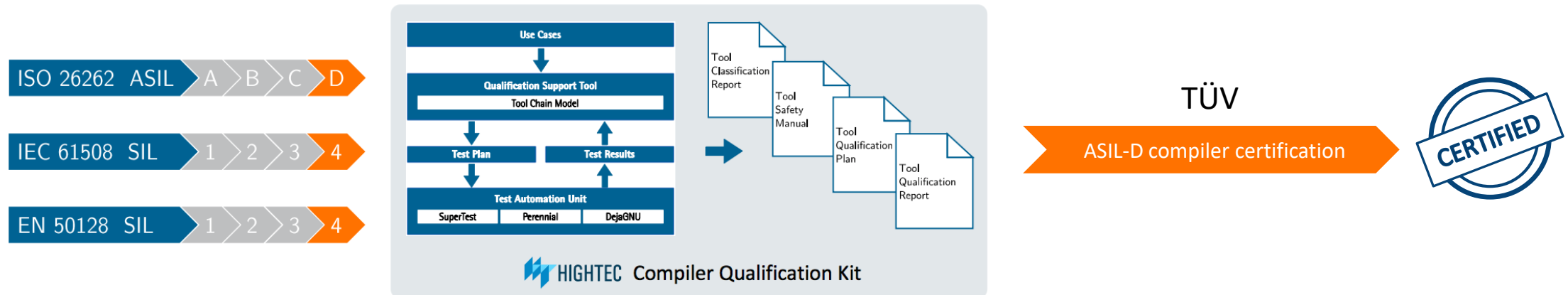
- ISO 61508 SIL3 and ISO26262 ASIL D certified RTOS
- Multicore real-time microkernel
- MPU protected data and code
- Interrupt lock-free
- Message-based inter-task communication
- Static and dynamic resource management



Qkit - Compiler Qualification Kit

For Safety Critical Applications

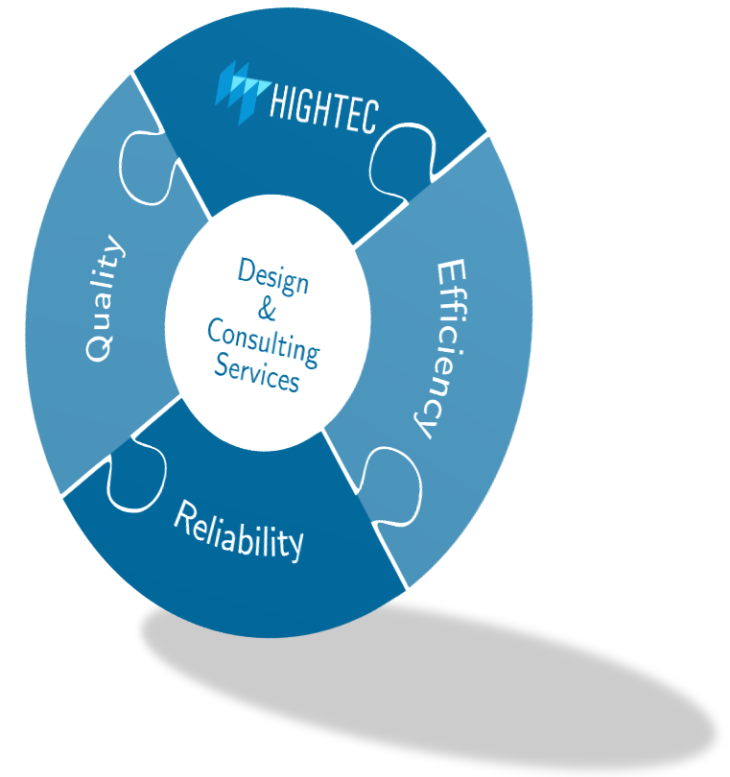
- Automated qualification process and document generation
- Minimal effort in compiler certification at customer



Consulting Services

Design & Support

- ❑ Architecture migration
- ❑ Single to multi-core transition
- ❑ Driver and platform development (e.g. MCAL)
- ❑ Customer integration of MCAL drivers
- ❑ Real-time OS and performance optimizations
- ❑ Safety concepts, Qkit deployment
- ❑ Trainings and Workshops



IDE: Content Manager (Easy to use)

Online example

HighTec Content Manager

Enter search query (click for hints)
example Clear query Send query

<input type="checkbox"/>	Resource Name	Size ...	Modified	Device	Versi...	Description	Tags	Status
<input type="checkbox"/>	SPC584B70 c-startup example	203	2019-4-9 16:41:26	SPC584B70,	1.0	A c-startup example is a small functiona	BSP, EXAM	ACTIVE
<input type="checkbox"/>	SPC58NN84 MCS example	310	2018-12-11 23:34:34	SPC58NN84	1.0	A `SPC58NN84 MCS example` is a small	EXAMPLE,	ACTIVE
<input type="checkbox"/>	MCS project management user	234	2018-12-11 23:27:59	SPC58XX, A	2.0	This user guide describes a project struc	AURIX2G,	ACTIVE
<input type="checkbox"/>	SPC560P50 c-startup example	187	2018-12-11 23:27:52	SPC560P50,	1.0	A `SPC560P50 c-startup example` is a s	BSP, EXAM	ACTIVE
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<input type="checkbox"/>	SPC574K72 Multi-Build exampl	762	2018-12-11 23:27:10	SPC574K72,	1.0	A `SPC574K72 Multi-Build example` is a	EXAMPLE,	ACTIVE
<input type="checkbox"/>	SPC58NN84 Multi-Build exampl	265	2018-12-11 23:26:17	SPC58NN84	1.0	A `SPC58NN84 Multi-Build example` is	EXAMPLE,	ACTIVE
<input type="checkbox"/>	SPC MCAL project managemen	523	2018-12-11 23:25:57	SPC5X	1.0	This user guide describes the project str	DOC, IDE,	ACTIVE
<input type="checkbox"/>	SPC58NN84 c-startup example	244	2018-12-11 15:50:24	SPC58NN84	2.1	A `SPC58NN84 c-startup example` is a s	BSP, EXAM	ACTIVE
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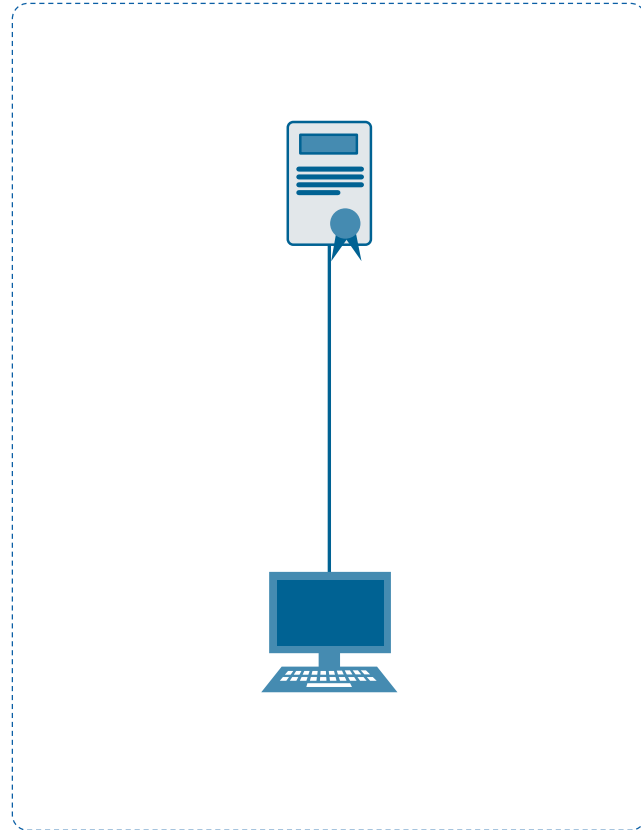
Description Copy resources to the Workspace port proje Save files Share link iew conten

UUID: copy Cache size: 0 kB clear Close

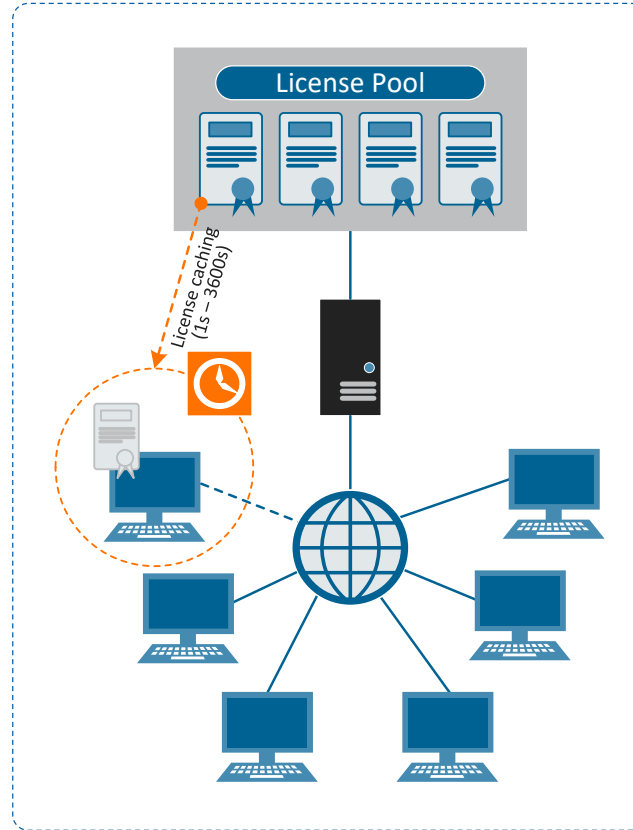


Licensing Overview

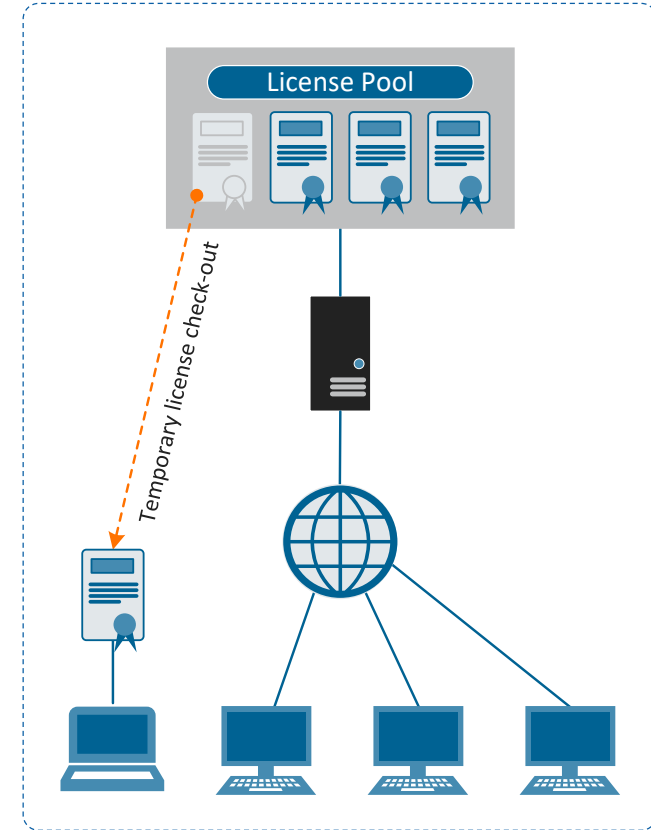
Flexible Licensing Scheme



Node Locked



Floating-Cached

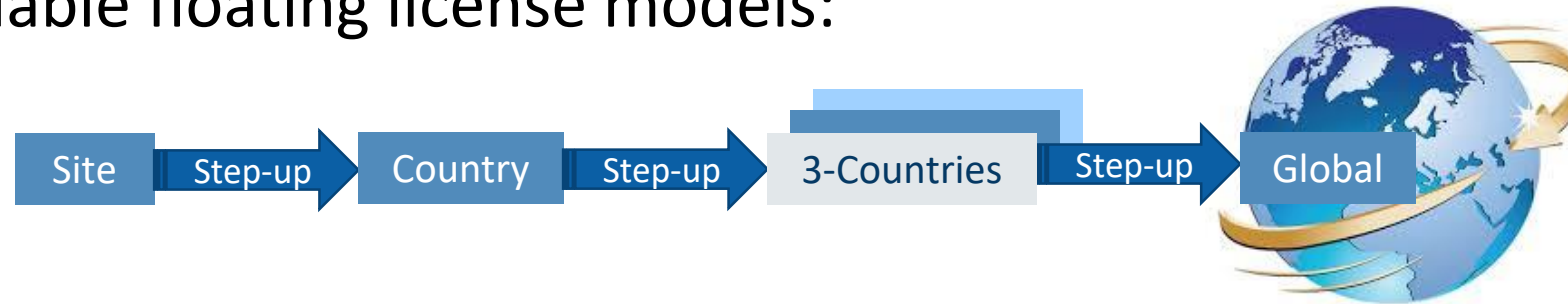


Roaming

Customer-focused Licensing Models

Serving global Enterprises to single user needs

- “All-inclusive” subscription model for well-balanced budgeting
- Scalable floating license models:



- License caching, roaming and absence of lingering time enable efficiency and flexibility
- Node-locked licenses are available for individual users

Tools for product lifecycle

Evaluate > Develop > Validate > Release > Maintain

Features

SPC5 Studio integration

ISO26262/IEC61508

Third party tool support

PPC compiler

MCS

HSM

Derivative support

Libraries

Support

Frozen Version support

License + use right

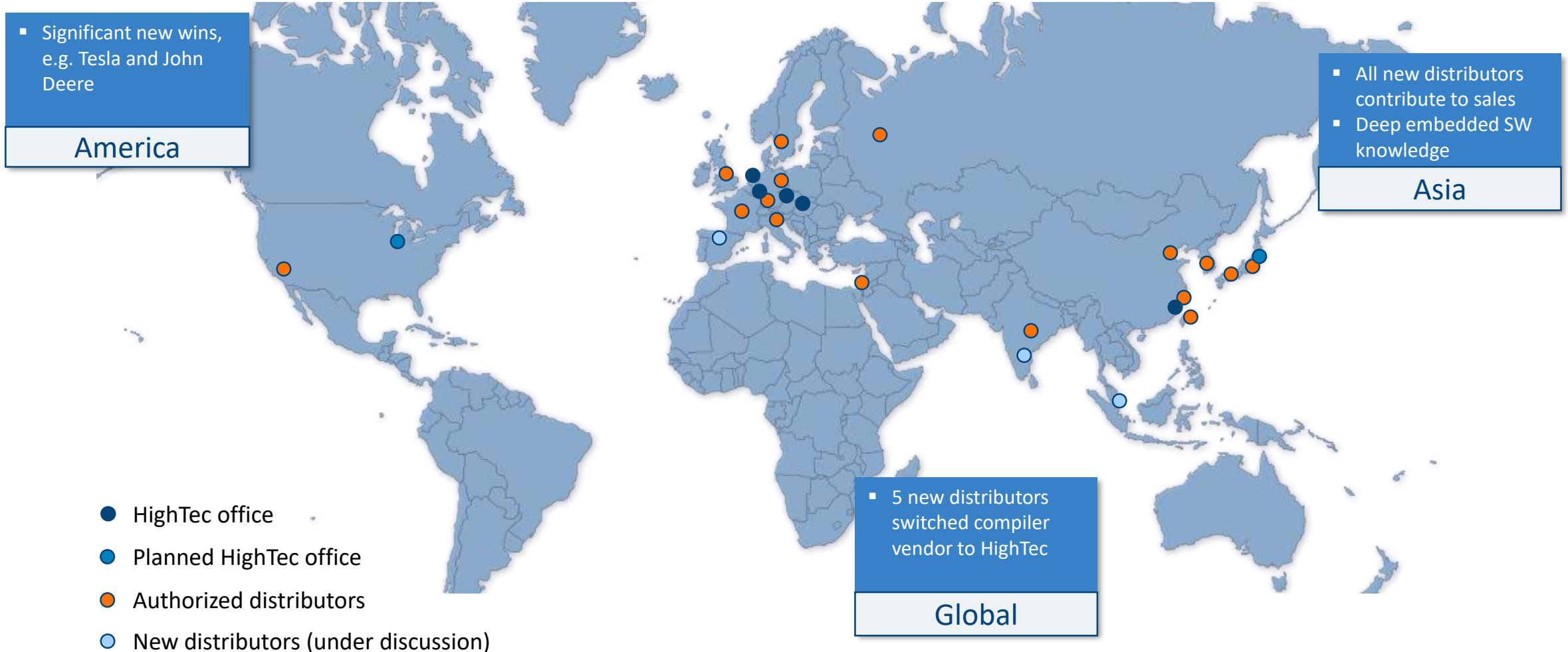
IDE

Evaluation Free Entry Toolset	HighTec Professional Toolset
Yes	Yes
Not supported	Qualification Kit, up to ASIL-D, etc.
No or limited compatibility	Full compatibility (incl. MCAL, CST)
GNU gcc	Automotive extensions
MCS assembler	MCS compiler
Not supported	Full compilers, attractive bundles
Pre-defined selection	All latest + Umbrella variants
GPL (OSS, application "infection")	Dinkumware, no OSS concerns
Limited (Installation Support)	Professional Support
Not available (only 1 version avail.)	Yes, incl. special services
Max. 1 year, not for production	Perpetual, subscription, etc., etc.
Eclipse	Eclipse with Multi-core extensions



Think Global Act Local

Expanding European company with widespread distributor network



HighTec Branch in China

Local support and services

HighTec EDV-Systeme GmbH In China

Address: Rm1405, Bldg 3, #695 Lingshi Road, Shanghai

Tel: +86 13817117679

Email: zixian.zhang@hightec-rt.cn

Website: <http://www.hightec-rt.com>

HighTec Local Partners in China

Local support and services

We also have local partners to provide close local services to meet customer's requirements:

Siener

北京西能电子科技发展有限公司
Beijing Siener Electronics Tech. Development Ltd.



