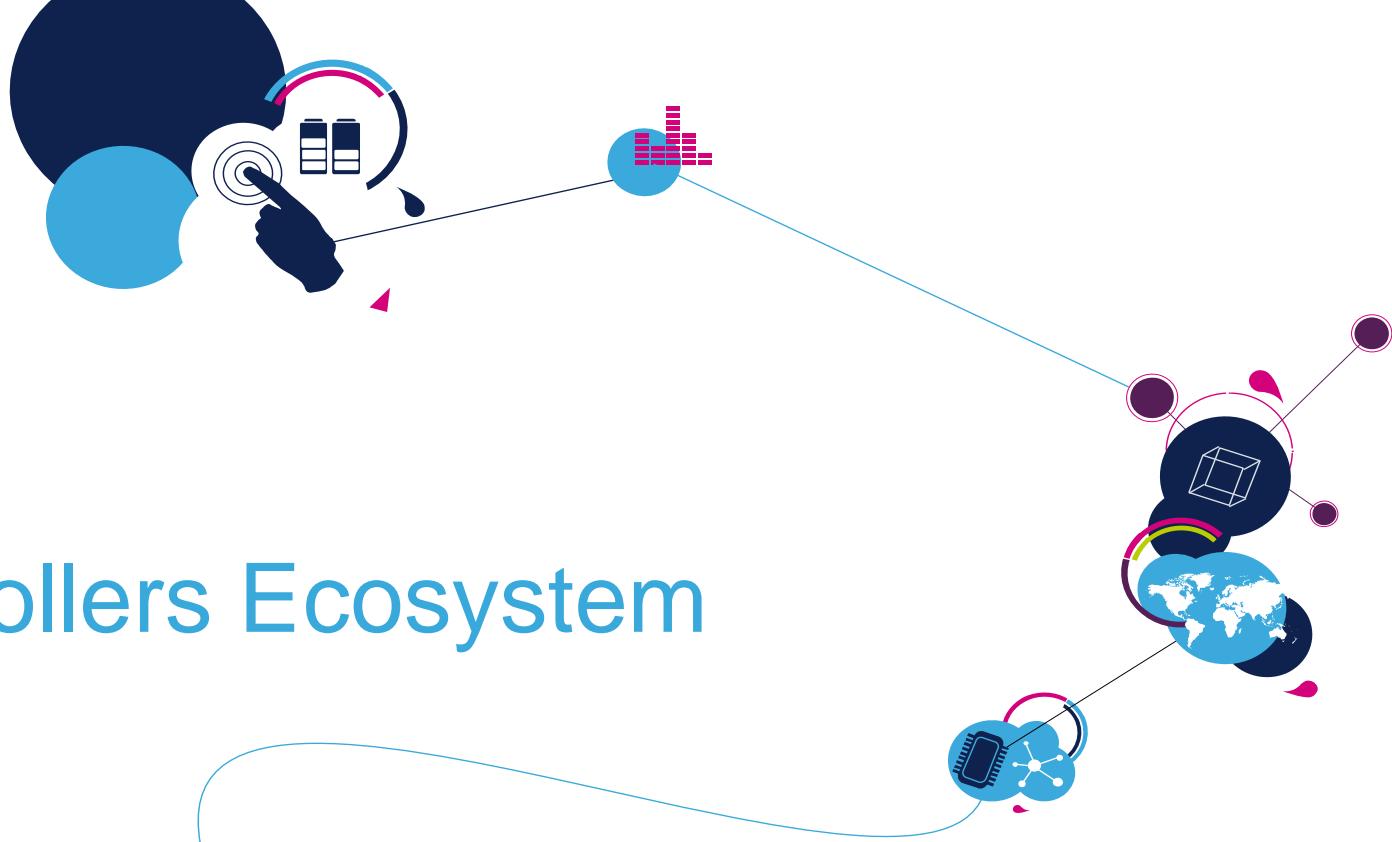


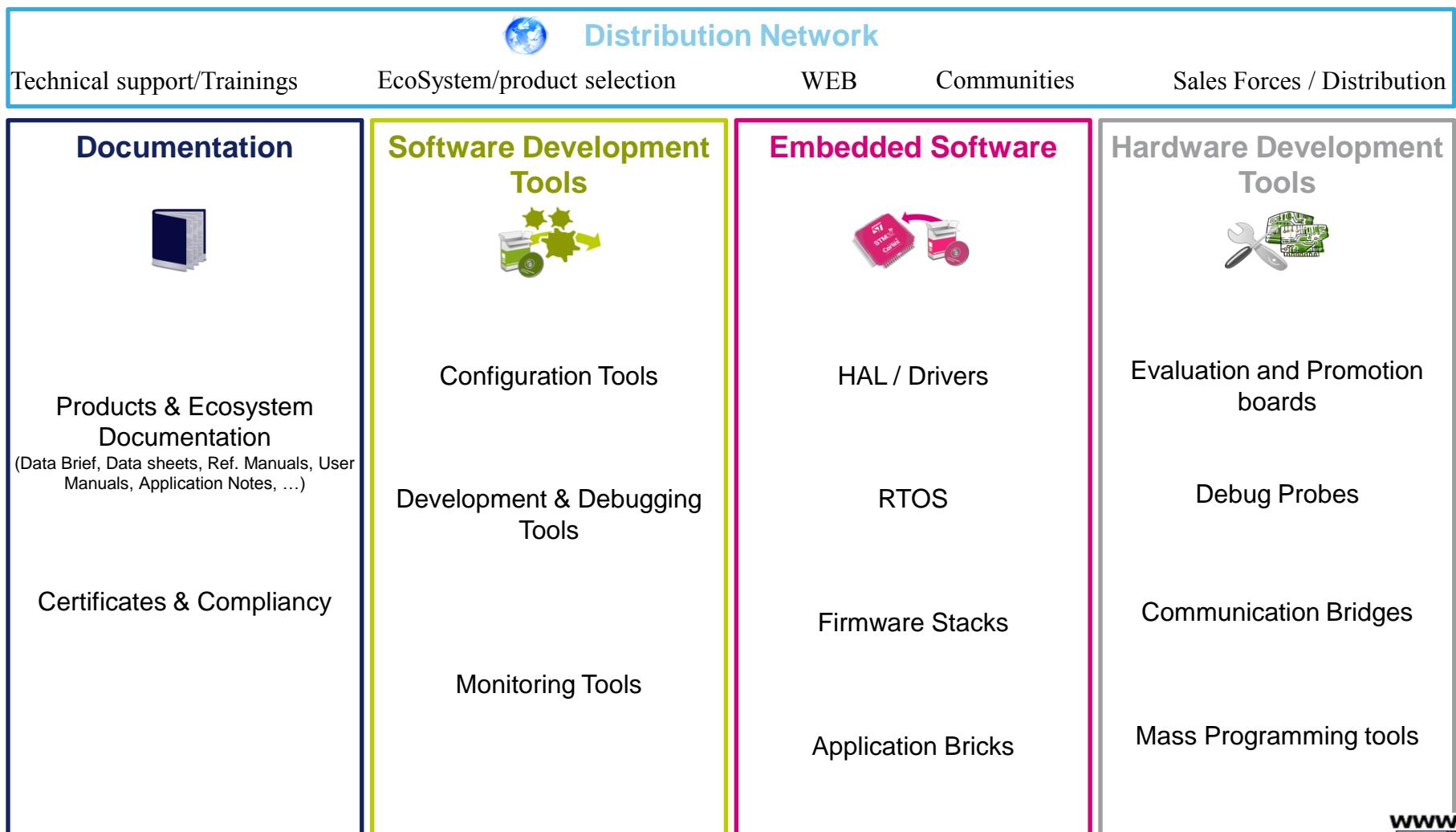
Microcontrollers Ecosystem



How to find SW and HW in STM website
<http://www.emcu.it/FindSWHW/FindSWHW.html>

What is Ecosystem ?

2



Ecosystem Content Types

Open source

- Proposed by community or partners
- Source code, from BSD or GPL licenses to commercial products
- Supported by open source community or partners

Partners

- Generic solutions proposed by many companies, portable to/from other platforms
- Source code or binaries
- Supported by partners

ST-designed

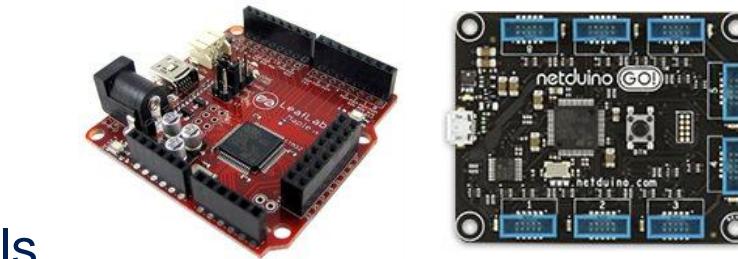
- Built in-house, making the most of the STM32 and STM8
- Source code or binaries
- Supported by ST

A large community of partners



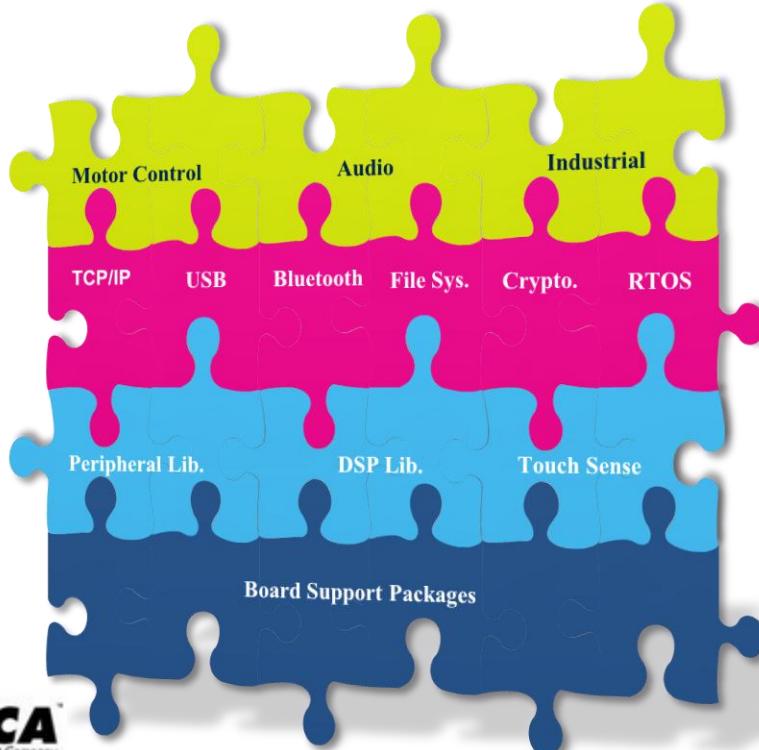
Hardware Development Tools

- Promotion Kits
 - Discovery Kits
- Evaluation Boards
- Open Hardware Boards
 - Leaflabs Maple, Olimexino-STM32
 - SecretLabs Netduino, Mountaineer, GHI...
- Debug Probes and Programming Tools
 - ST-Link
 - J-Link
 - Ulink



Embedded Software (Firmware)

- HAL / Drivers
 - ST Boards Support Packages (BSP)
 - Peripheral Libraries (Drivers)
 - DSP Library
- RTOS / Firmware Stacks
 - RTOS
 - Cryptographic
 - USB
 - TCP/IP
 - File Systems
 - BlueTooth
 - Zigbee
 - Graphism
 - Touch sensing
- Application Bricks
 - Audio
 - Industrial
 - Motor Control
- High Level Frameworks
 - Java
 - Microsoft .Net Micro Framework
 - Matlab

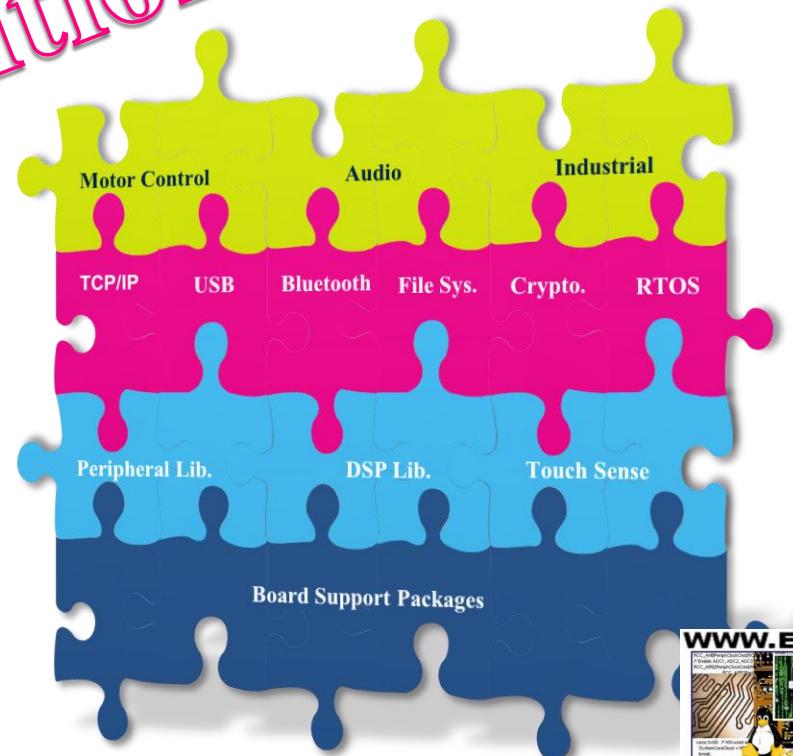


Embedded Software (Firmware)

7

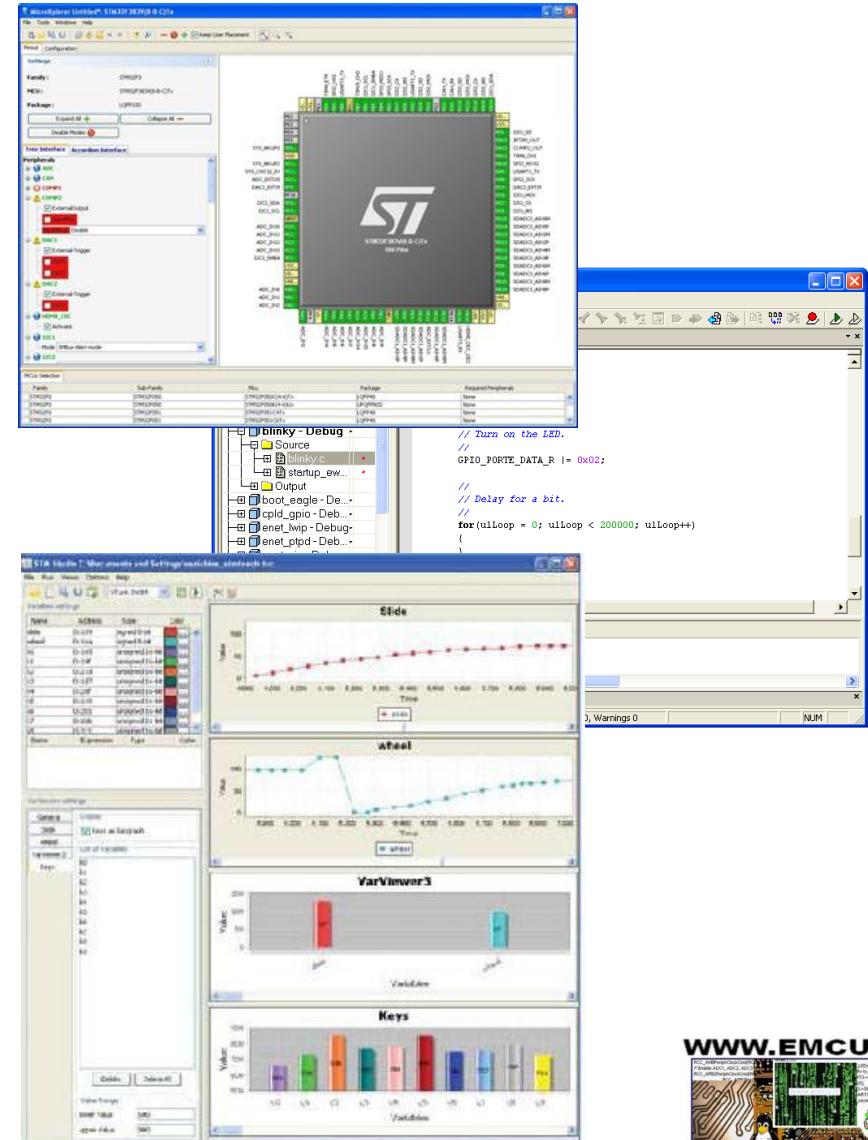
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Free Solutions



Software Development Tools

- Configuration Tools
 - **μXplorer**
- Development and Debugging Tools
 - IAR EWARM
 - Keil MDK
 - Atollic TrueStudio
 - Rowley CrossWorks
 - Embest CooCox
 - Segger emIDE
 - Code Red RedSuite
 - Raisonance Ride
 - Altium Tasking
 - Yagarto...
- Monitoring Tools
 - STMStudio



Software Development Tools

Free Solutions

- Configuration Tools

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- Monitoring Tools

- [STMStudio](#)

Toolchain	Conditions	Platform
IAR EWARM	<ul style="list-style-type: none"> • 30 day Full evaluation • 32k limited for Cortex-M3, M4 • 16k limited for Cortex-M0 	Windows
ARM MDK	<ul style="list-style-type: none"> • MDK-Lite: 32k limited 	Windows
Atollic TrueStudio	<ul style="list-style-type: none"> • 30 day Full evaluation • Free 32k limited 	Windows
Rowley CrossWorks	<ul style="list-style-type: none"> • 30 day Full evaluation 	Windows MacOS Linux
Embest CooCox	Fully Free. Many supported STM32 (missing STM32F2, STM32L1)	Windows
Segger emIDE	Open Source	Windows

What's next ?

10

- Firmware
 - New full consistent approach with portable APIs
- Software Tools
 - Initialization Code Generation Tool for all firmware modules
 - Widening free Toolchains offer

- You will find the ecosystem item you are looking for !
- ST is pushing for widening free offers

1. List at least 1 free tool chain for STM32
 - See Slide 9
2. Are there graphical stacks offering for STM32 ? Which ones ?
 - emWin with STemWin free offer for binary, from ST
 - μC/GUI
 - PEG
 - Altia
 - ...
3. What are the goals of μXplorer Tool ?
 - Product selector
 - Pin muxing solving
 - Initialization Code generator
 - Power consumption + Battery Life estimation
 -

Microcontrollers Ecosystem - End

For more info contact:
enrico.marinoni@silica.com

How to find SW and HW in STM website
<http://www.emcu.it/FindSWHW/FindSWHW.html>