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Next-gen STM32 MCUs based on the Arm® Cortex®-M33: a journey from low-power to high-performance and wireless MCUs

Introduction and agenda



# Team Introduction

## Sales



### **Paul PORTER**– ST Johannesburg, SA

Paul joined ST in 2007 as a Field Application Engineer covering digital video products before moving into technical sales in 2012. Previous experience was Satellite based Set-Top Boxes with a focus on video recording and playback. In 2018 Paul took responsibility for all Sub-Saharan African sales. Paul earned his B.Sc in Electronics from the University of KwaZulu Natal

# Team Introduction

## Marketing



### **Paolo SCANNIFFIO – ST Milan, Italy**

Paolo joined STMicroelectronics in 2020 as a member of the team supporting the development of STM32 and STM8. He previously worked as Principal Digital FAE & Wireless Connectivity Solution Expert for 8 years for the EMEA region, and 12 years as hardware and software engineer on wireless networks. He is an expert in digital and radio front-end layout, high-level radio protocols, Linux-based OS/MPU, bare metal- or OS-based MCU C programming. Paolo holds a Master's engineering degree in Telecommunications from the Polytechnic of Milan with a specialization in Radio Communication PHY & Protocols.

### **Manuel MARCIAS – ST Milan, Italy**



Manuel joined ST in May 2021 as Field Application Engineer specialized in low power microcontrollers and wireless connectivity products. He comes with previous experience as Staff FAE for MCU and Wifi/BT product lines, covering Italy Israel and Iberia, supporting customers on both industrial and automotive markets. Manuel earned his B.Sc and M.Sc. from Polytechnic of Milan in 2013 and 2015, respectively.

# Purpose of the workshop

- Learn about the latest news and extended portfolio of STM32 series and its dedicated STM32Cube design ecosystem
- Discover the capabilities of STM32 MCU series based on Arm Cortex-M33 processor
- Hands-on workshop to use new STM32H5 and STM32WBA MCUs based on Arm Cortex-M33 core and learn about their performance, communication, and security features
- Build a Bluetooth Low Energy application in under 10 minutes using the industry-leading STM32Cube software and hardware ecosystem

**Meet in person again!** 😊 😊 😊

# Agenda

## Morning session (8:00 – 12:30)

1 HW and Tools Startup 30mins

2 Session introduction & its agenda 10mins



3 STM32 Portfolio 20mins



4 Arm Cortex-M33 in STM32 15mins



5 STM32H5 Presentation 30 mins



6 STM32H5 Hands on practice 150 mins





# Agenda

## Afternoon session (13:30 – 16:00)

1

STM32WBA wireless updates  
30mins



3

Coffee break 15mins



2

STM32WBA Hands-on1  
practice 30mins



4

STM32WBA Hands-on 2  
practice 60mins



5

Q&A and Wrap-up 15mins



# Prerequisites – STM32H5

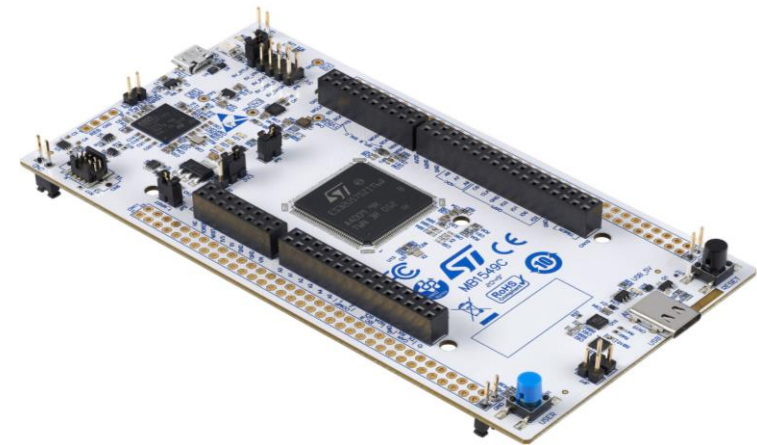
## SW prerequisites

- STM32CubeIDE+STM32H5 Cube lib



## HW prerequisites

- NUCLEO-H563ZI board Based on ARM Cortex M33 core (Provided by ST)
- 1x Type C USB cable (Provided By ST)
- 3x Male-Male Jumper cables ( Provided By ST)
- Any terminal application (i.e. TeraTerm)
- [Click here to access the workshop materials](#)

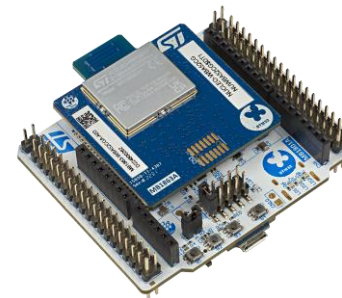




# Prerequisites – STM32WBA

## SW prerequisites

- STM32CubeMX software (v6.9.0 or up)
- STM32CubeWBA MCU package (v1.1.0 or up)
- IDE: STM32CubeIDE
- A serial terminal (e.g. TeraTerm)
- ST BLE ToolBox Smartphone application



ST BLE Toolbox



## HW prerequisites

- NUCLEO-WBA52 (Provided by ST)
- USB A to Micro-B Cable (Provided by ST)
- [Click here to access the workshop materials](#)

# Payoff of the workshop

- Have overall understanding of STM32H5 and STM32WBA series.
- Learn and practice usage of STM32H5 and STM32WBA new features
- Know where and how to continue exploring STM32 portfolio.
- Get answer(s) to any other question(s) talking directly with STM32 experts.

# LET'S START!!!



Find out more at [www.st.com/STM32](http://www.st.com/STM32)

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