

# 5G in Smart Manufacturing

Welcome &

NETworld  
Setting the stage

**RUI L. AGUIAR**

Networld2020 SB Chair

# What is Networld2020?

- ETP (European Technology Platform) for communications networks and services.
- Volunteer organization, no funding
  - Open to everyone, Industry/SMEs/Academia
  - Several working groups: Expert, satellite, SME, vertical technology
- Managed by a Steering Board
- Responsible for the organization of the SRIA
  - Plus events, and white papers

..... And we have changed the name (NetworldEurope) but still organizing the image...

# Program for today: packed!

9h30-10h00	<b>Overview / Key Challenges for Smart Factory</b> <ul style="list-style-type: none"> <li>· <i>European views, Rui Aguiar, Networld2020</i></li> <li>· <i>Chinese views, Zemin Yang, CCSA</i></li> </ul>
10h00 - 11h00	<b>Smart Factory - What have we achieved</b> <ul style="list-style-type: none"> <li><i>ABB use cases in 5G-SMART , Krister Landernas, ABB Sweden.</i></li> <li><i>Bosch use cases in 5G-Clarity, Miguel Granda Trigo, Bosch Spain</i></li> <li><i>TCL use-cases in SmartManufacturing, Yan Cheng, China</i></li> <li><i>ForwardX use-cases in SmartManufacturing, Shuo Zhang, China</i></li> </ul>
11h00 - 11h15	Comments and discussion
11h15 - 11h20	Break
11h20 - 12h00	<b>Future Requirements - What will need to be done</b> <ul style="list-style-type: none"> <li><i>Vision from 5GDNA, Jisheng Dai, 5GDNA</i></li> <li><i>Vision from Networld2020, Jyrki Huusko, Networld2020</i></li> <li><i>5G-ACIA challenges, Xueli An, 5G-ACIA</i></li> <li><i>Challenges in standards, David Boswarthick, ETSI</i></li> </ul>
12h00 - 12h10	Comments and discussion
12h10 - 12h30	<b>How can we progress 5G for SmartManufacturing / Closing Words</b> <ul style="list-style-type: none"> <li><i>CCSA, Zemin Yang</i></li> <li><i>Networld2020, Rui Aguiar</i></li> </ul>



# Rules of the webinar



- Many persons attending
  - Please be patient
    - Delays in communication are expectable with long distance connections
    - Please keep the camera off if not talking, and on if talking
- Lots of interesting talks, in too little time
  - Please be patient
    - people will not disappear and will always be available later
- Too short time for discussions
  - Please be patient,
    - and follow the rules
- Managing time and questions
  - Please be patient
    - Questions to be made via chat and will be moderated in the interest of time
    - Time permitting, more general comments from the audience will be taken
    - We will produce a summary document (and will tape this for internal purposes)



# What bring us here

## 1 – Manufacturing is changing



©autodesk





# What bring us here

## 2 – *Communication is central*



©siemens



# What bring us here

*3 – A diverse – but small world*



©facebook



# How to move from here?



- 5G is being rolled out across the world
  - eMBB still, though
- Manufacturing is in urgent need of answers
  - LAN evolutions will not solve everything
    - Not sufficient flexible KPIs
    - No coverage of full logistic chain
    - No service concept
  - Industry has been developing 5G solutions
    - Large number of use cases trialed in Europe and China
- What have you learned?
- Where do we need to continue to innovate?

