ISA 100 WIRELESS COMPLIANCE INSTITUTE™

Your webinar time:
10am Houston, Chicago, Mexico City
11am New York, Santiago
12am Rio de Janeiro, Buenos Aires
4pm London, Dublin, Edinburgh, Lisbon
5pm Paris, Amsterdam, Berlin, Rome, Stockholm, Vienna
6pm Athens, Bucharest
7pm Abu Dhabi, Muscat

ISA100 WCI Webinar

Webinar date & time:
Wednesday 20 October 2021 at 11am ET

Wireless Steam trap Monitoring using ISA100

Presenter: **spirax sarco**

Christian Mallinson
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Agenda

1. The need to monitor steam traps

2. Why Wireless

3. Introduction to STAPS ISA100 Wireless

4. Q&A

Christian Mallinson is Product line manager for Spirax Sarco and is responsible for a wide range of energy monitoring and management products including metering, boiler-house and steam trap monitoring.

Christian has over 18 years of steam system experience working in a number of positions including technical support and internal sales as well as three years managing a range of wireless devices for Spirax Sarco.

Industry pressures

- Energy costs

- Focus on digitalization

- Global need for water conservation

- Global initiatives to reduce carbon emissions

- Drive to reduce costs and increase productivity

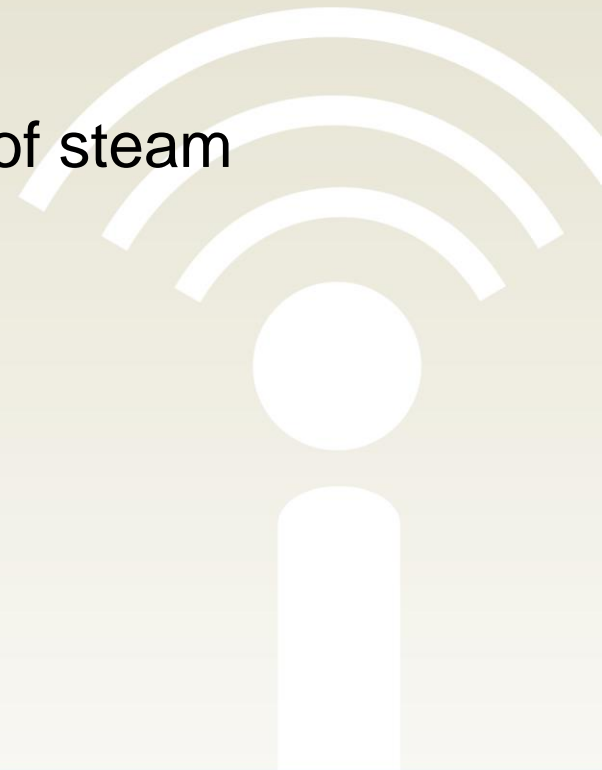- Reduction in resources for maintenance and process improvement
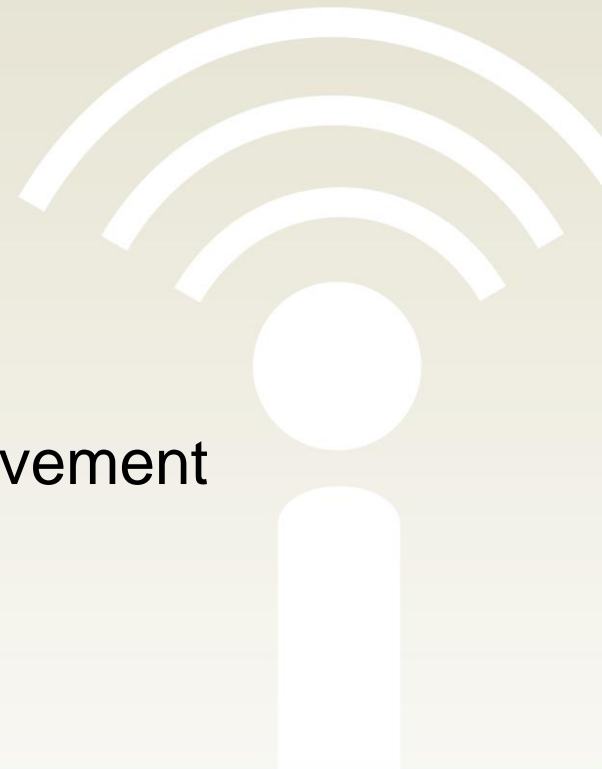
Steam trap surveys

- Annual checks by a specially trained engineer

- For non-critical applications a steam trap survey may be sufficient to ensure optimum performance
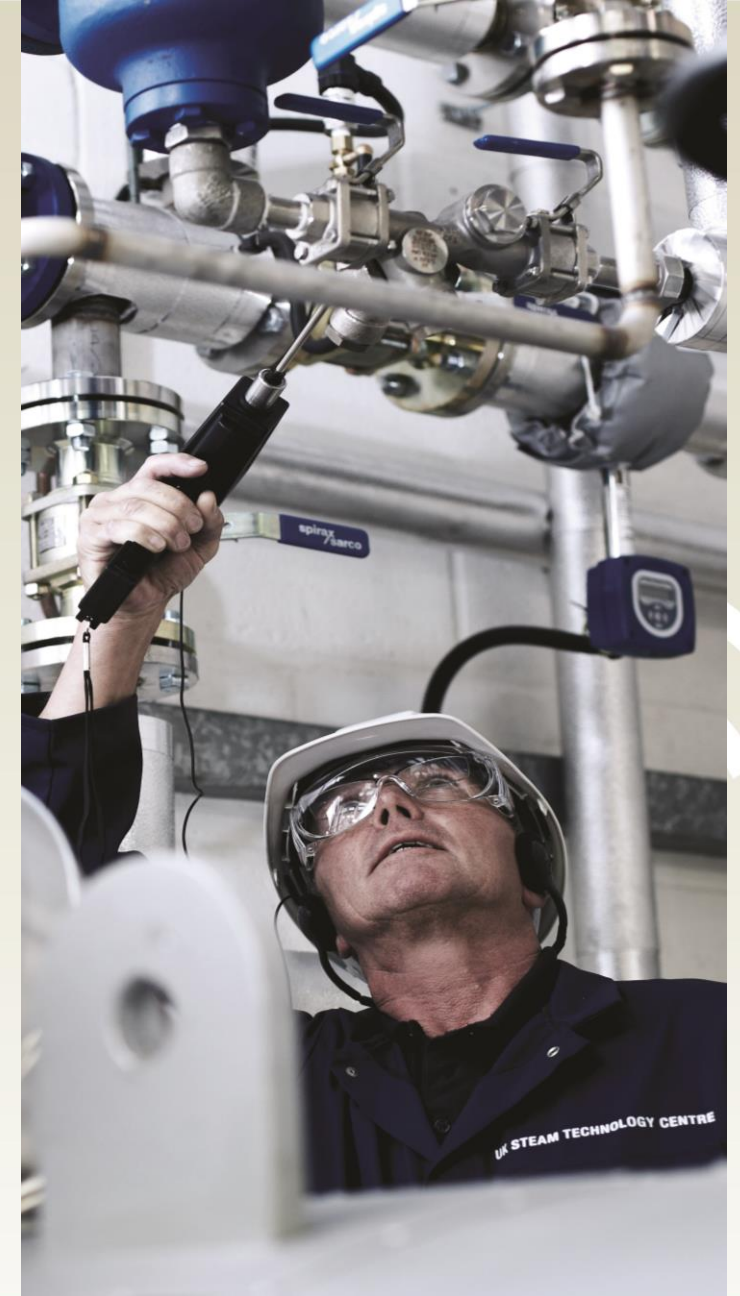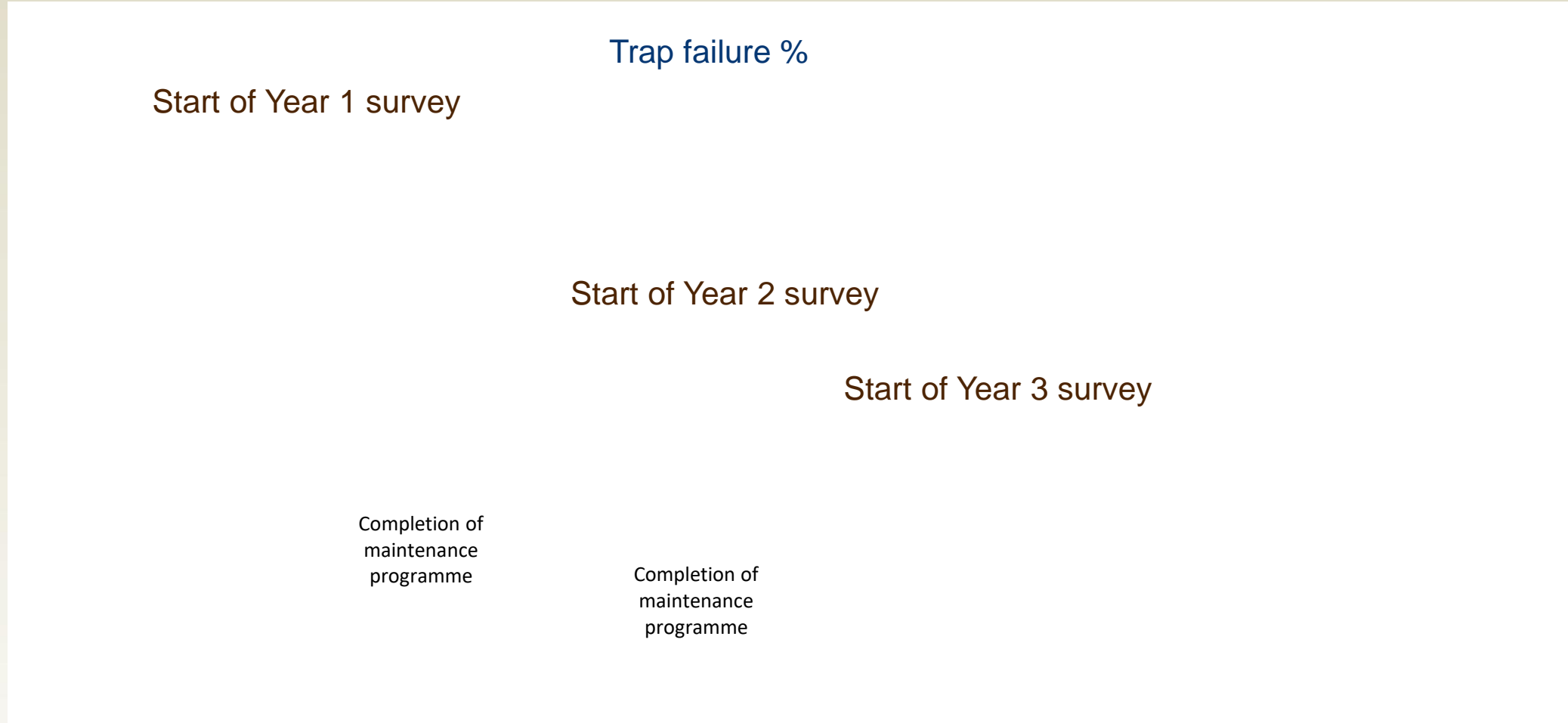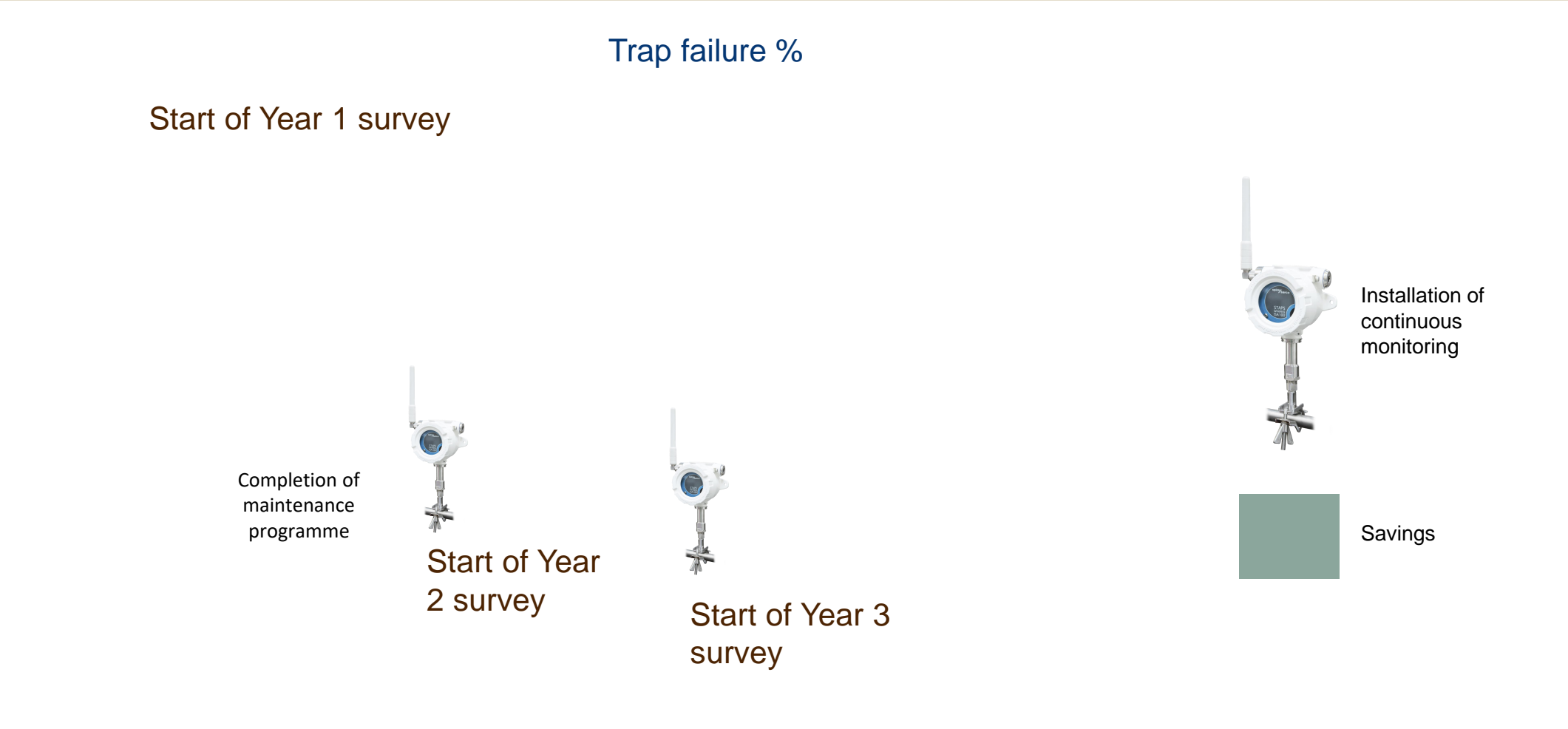
Why continuous monitoring?

- Monitor traps in potentially hazardous areas

- Protects high value assets and processes

- Enables proactive and preventative action

- Large traps that have potential to leak pass large amounts of steam

Why continuous monitoring?

Trap failure %

Start of Year 1 survey

Start of Year 2 survey

Start of Year 3 survey

Completion of maintenance programme

Completion of maintenance programme

Why continuous monitoring?

Trap failure %

Start of Year 1 survey

Installation of continuous monitoring

Completion of maintenance programme

Start of Year 2 survey

Start of Year 3 survey

Savings

Technology influences

- IoT (Internet of things)

- System reliability

- Focus on cyber security

- Reduced Maintenance

- Interoperability

ISA100 Wireless Fast Facts

- International standard IEC 62734 since 2014

- Complies with ETSI EN 300 320 v2.2.2 (LBT)

- End-User Driven Standard - meeting all current and future industrial needs

- Sensor routing or field routers for best performance – Freedom of choice

- Broad Multi-Vendor Portfolio of ISA100 Wireless Devices

- ISA100 Wireless enables SIL-2 Certification

- Ensured Interoperability - best-in-class solutions from best-in-class suppliers

- Readily available ISA100 Wireless Modules and Stacks

- Enable fast-track development and go to market

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Benefits of ISA100 Wireless Instrumentation

Cost Savings	• Up to 90% of installed cos of conventional measurement technology can be for cable conduit and related construction • Typically: 1/2 the costs, 1/5 of the time • New and scaled applications are now economically feasible
Improved Reliability	• Wired sensors may be prone to failure in difficult environment • Wireless can add redundancy to a wired solution
Improved Visibility	• Condition monitoring of secondary and remote equipment • Process monitoring, fast additional data for trouble shooting
Improved Control	• Add wireless to existing processes for more optimal control
Improved Safety	• Safety related alarms - end to end SIL2 certifiable

STAPS ISA100 Wireless

Features

Head assembly
- Including ISA100 approved 2.4Ghz wireless communication
- Long-life Lithium Battery
- Copper free aluminium housing
- NEMA 4X rated housing
- Stainless Steel Glands
- External antenna

Sensor assembly
- Including vibro-acoustic sensor, temperature sensor

Clamp assembly
- For mounting to condensate lines up to 4"

STAPS ISA100 Wireless

- Accurate and rapid leak detection – no need for manual inspection, saving you time and money.

- Accurate diagnostic algorithm provides users with trap performance information and steam loss data

- All data is sent directly to the DCS removing the need for costly IT equipment and third party licensed software

- Lower installation costs than a wired solution

- Long-life battery – trap requires little maintenance.

- Supports both IR and over air provisioning methods

STAPS ISA100 Wireless

Yokogawa ISA100 network testing - No Leakage

STAPS ISA100 Wireless

Yokogawa ISA100 network testing – Steam Leak

ISA100 Wireless Product Portfolio

Infrastructure

Independent Gateway
- Honeywell, Yokogawa

Access Point (AP)
- Honeywell, Yokogawa

Integrated Gateway/AP
- Honeywell, Yokogawa, CDS, Nexcom

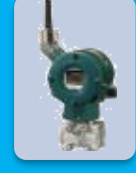## GW/AP + Recorder
- Yokogawa

Adapter (HART, etc.)
- Honeywell, Yokogawa

Measurement & Control

Temperature
- Honeywell, Yokogawa

Pressure / Flow
- Honeywell, Yokogawa

Level
- Honeywell, Yokogawa

DI/DO, AI
- Honeywell, Yokogawa

Valve Position
- Eltav, Flowserve, Honeywell

HSE + Life cycle

Corrosion
- RCS , Honeywell

Steam Trap
Spirax Sarco, TLV, Armstrong, Bitherm

Vibration
- GE's Bently Nevada, Divigraph

Gas
- GasSecure, Scott Safety, New Cosmos, Riken Keiki

pH
- Honeywell, Yokogawa

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Online resources

www.isa100wci.org

- Learning Center with White Papers
- Articles, End-user stories, Forum
- Receiving over 20,000 web views per month
- Full list of certified/registered ISA100 Wireless devices
- And more useful content for you and your business

Linked in **ISA100 Wireless Interest Group**

- Latest news, end-user and expert discussions, insights
- 1200 members and growing; please join and invite your peers to join as well !
- Receiving over 5,000 web views per month
- Limited Time Offer: Join the group and you will be entered in a prize draw to win a new iPad
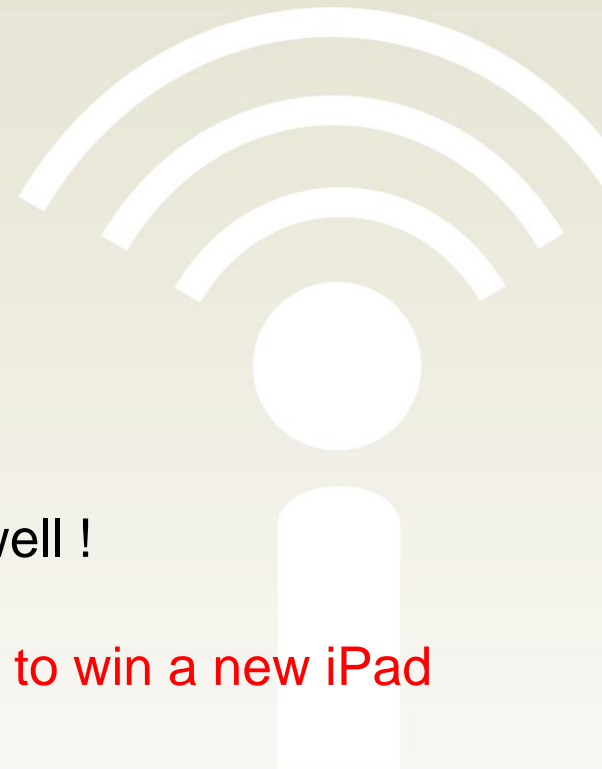
ISA100 Wireless **Linked** in Interest group

Limited Time Promotion

Scan the QR code and join the ISA100 Wireless Linkedin group. **If you join during our limited time offer**, you will be entered in a prize draw to win a new iPad!

SCAN ME

Questions?

www.isa100wci.org

ISA100 Wireless Interest Group

1200+ members and growing; please join and invite your peers to join as well !

Christian Mallinson

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