



Webinar BAT-EMC 3.20

New BAT-EMC Report - Fast and Powerful

Presenter: Greg Garza



//Rules

- Presentation/questions
- Webcam & micro switched off
- Use Chat for questions during presentation
- My colleagues can answer or ask me to answer



Since 2003: ELECTROMAGNETISM is our thing

As specialists in EMC and RF testing, NEXIO, Inc. has been serving EMC laboratories in the Commercial, Automotive, and Aerospace & Defense market sectors with an exclusive range of **Test Automation Software**, **EMC Test Engineering**, and **Simulation & Analysis Services**. (BAT-EMC was first created in 1995)

Since 2010, NEXIO's strategy has been reinforced by the creation of an internal R&D Unit and our growing presence internationally (Europe, UK, USA, Canada, Australia, Latin America, Asia). NEXIO's team of technicians, engineers, and PhDs are present in virtually every dimension of the EMC world.

INTERFERENCES

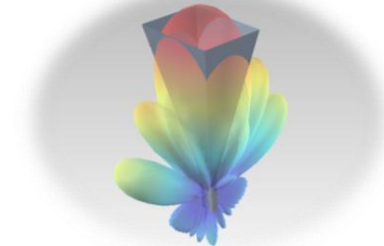
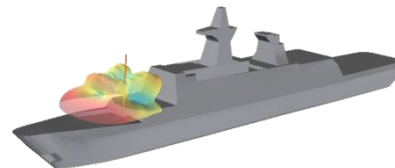
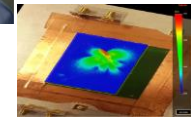
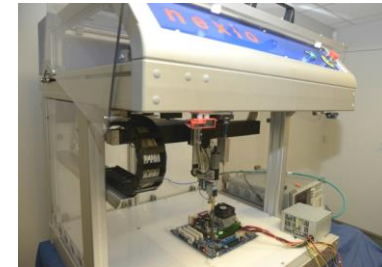
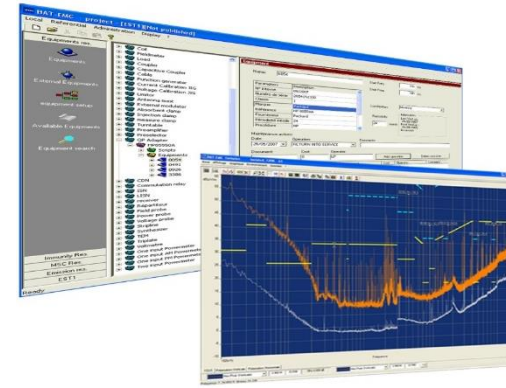
EMC
Lightning

PROPAGATION

Antenna
Radio Frequency
Radar Cross Section

NEXIO Software & Product

- **Test: BAT-EMC**
(Benchtop Automated Testing for EMC)
 - Qualification and EMC Certification test
 - Lab Management
 - Investigation Tool: BAT-SCANNER
- **Simulation: CAPITOLE-EM**
 - Simulation Software Electromagnetic Antenna Pattern and RCS



ENGINEERING

- **Performing Tests**

- Technicians, Engineers, PhDs
- Days, Nights, weekends, months,...
- Aerospace, Military, Automotive, commercial,...)

- **Laboratory Engineering**

- Help for certification (ISO 17025, COFRAC)
- Metrology
- Installations Optimization

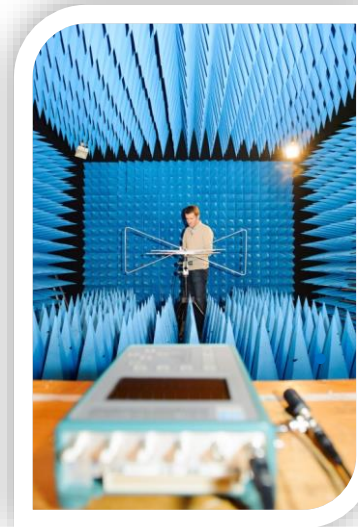
- **Management of Test Series**

- Bench preparation
- Organization
- Test follow-up



- **Conception**

- Conception Analyze et Follow-up
- Risk analysis
- Recommendation
- Methodologies guidelines



- **Modelling & Simulation**

- Conception Optimization
- Predictive Analysis
- Minimize test numbers

BAT-EMC

(Benchtop Automated Testing – Electromagnetic Compliance)

Modular design

<p>Radiated Immunity Magnetic field, electric/power/RF voltage/Stripline/TEM/Triplate Transmitter testing</p>	<p>Radiated Emissions Electric, Open Space, Magnetic Field, Spurious, TEM/GTEM, Stripline, Triplate</p>
<p>Conducted Immunity BCI/DPI Current/voltage/power</p>	<p>Conducted Emissions Antenna base, Voltage, Current,</p>
<p>Reverberation Immunity & Emission</p>	<p>Transient Burst Surge</p>
<p>Monitoring Voltmeter, oscilloscope, data logger, spectrum, NI card,...</p>	<p>Monitoring CAN bus, Video, dynamometer, Customized tool, ...</p>
<p>Near Field Scanner Hardware and software</p>	<p>Metrology with Oscilloscope or VNA Cable loss, CDN, coupler, LISN, ESD gun, transient Gen, ...</p>
<p>CISPR25 HV-LV Hybrid</p>	<p>Radiation Patterns</p>
<p>NSA & SVSWR</p>	<p>Radio ETSI 300 220/330</p>

BAT-EMC Key Numbers

~250 Customers

~300 sites

~ 20 countries

~ 1000 users

~ 1600 licenses

14 representatives

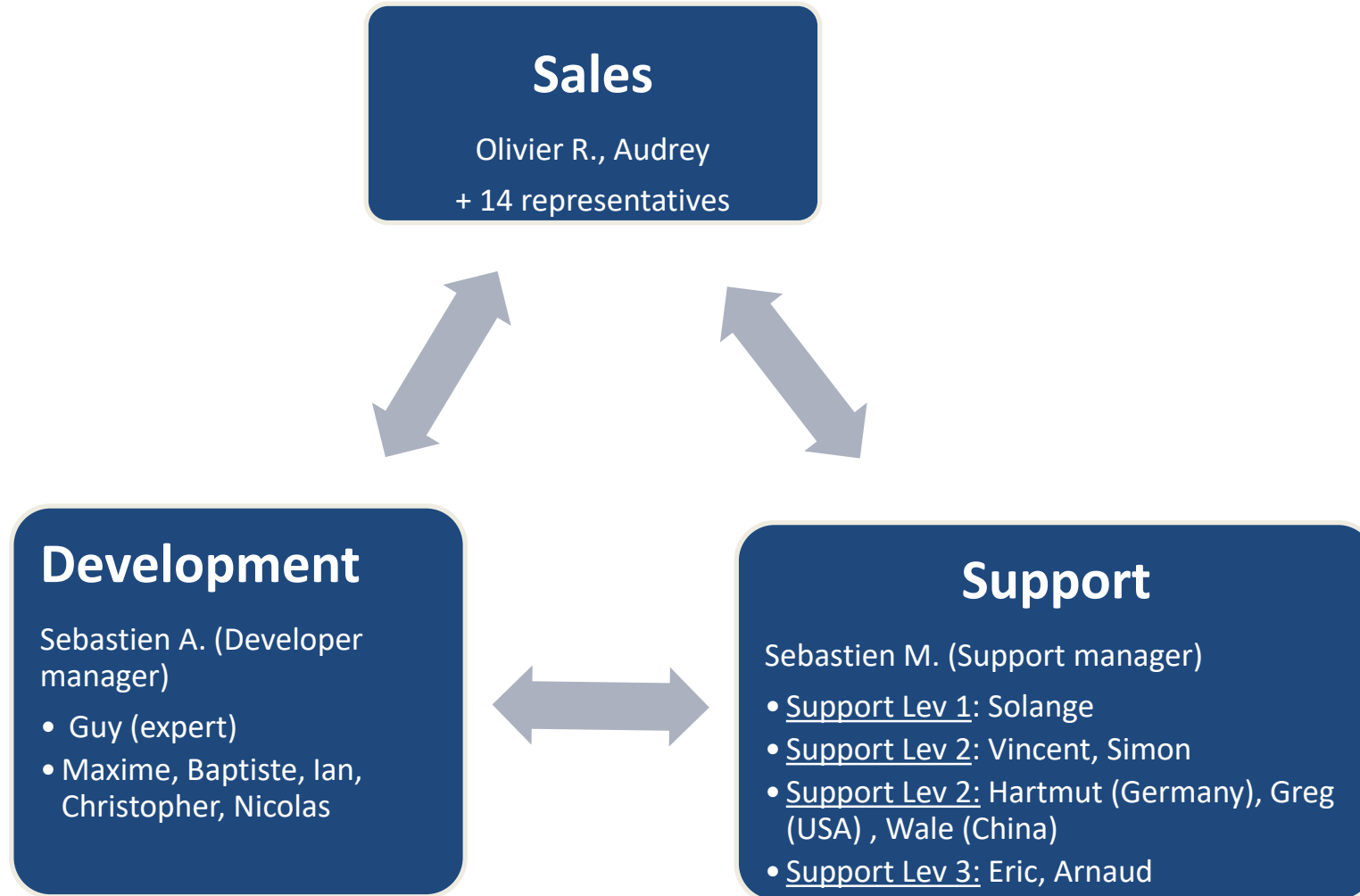


Customers by countries:

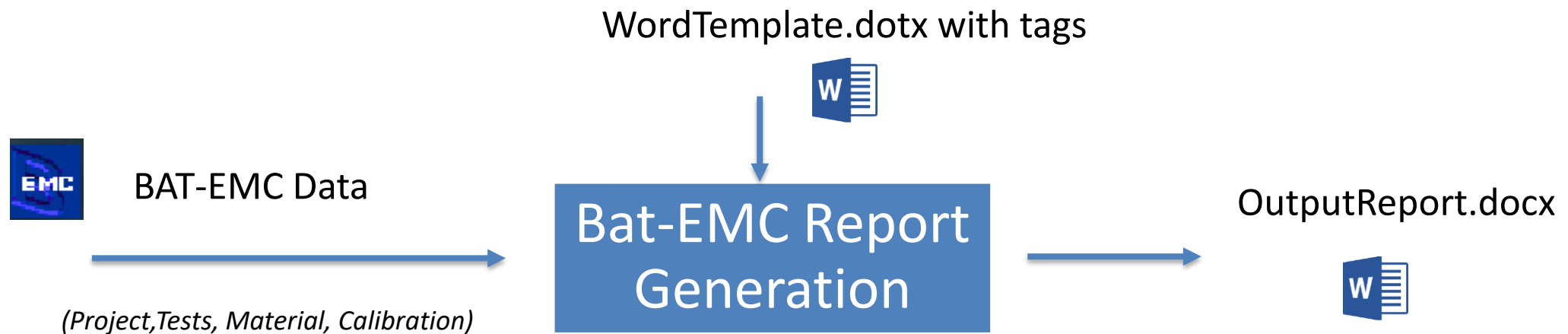
- 70 France
- 60 Germany
- 60 USA,
- 24 China,
- 15 Italia
- <10 others



BAT-EMC Team in 2020



//Report Overview (Same as before)



Template is built according to BAT-EMC project structure (Project/Campaign/EUT/Tests)



//New Report: What is better ?

Flexibility

Different Template Syntax

Performance

x20, 100 pages/min

Based on External
Word Framework

Aspose

No Microsoft
Word Automation

No need for Microsoft Word installed



// Your Use Case - Questions

1. How many report templates for BAT-EMC do you have or currently use?
 - a. 0
 - b. 1 or 2
 - c. 2 to 10
 - d. More than 10
2. If I would like to add improvement to the old BAT-EMC Report template?
 - a. The speed
 - b. The method for creating report templates
 - c. The graph
 - d. The table
 - e. The layout
3. Is the demand of your use case high enough to require?
 - a. In-depth training for report template creation
 - b. Customized reports to be created for you

“This will help you to determine your migration path forward from old to new”



// New Report in BAT-EMC

- All BAT-EMC tests: Emission by band, Metrology, Immunity, Materials, Bat-FT, Transient Emission, Bat-Click, NSA, Bat-Elec...
- Free of charge
 - Generic Report Template examples installed with BAT-EMC setup
 - Manual descriptions: how to use report templates, all tags, etc.
- Quotation first, then charged accordingly
 - New Report In-depth Training: Bat3 New Report
 - Customized Report Template Creation by Nexio
 - Case-by-case basis



// Aspose Syntax

- Display a tag: <<[tagName]>>
- Iterate on a list: <<foreach [list]>> <</foreach>>
(loop for all EUTs do this, for all Conducted tests do that, etc.)
- Condition: <<if>> <</if>>
- Display an image: <<image [imagePath]>>
- Sub templates: <<doc [SubTemplatePath] -build>>
- Filter: `list.Where(Conditions)`
- Format (Date/Number), background color
- And more (sum, avg, group by, variables, and charts that can be used for things like global overviews and statistics)



// Template Building Example

Project : <<[Project.Name]>>

<<foreach [test in Project.EmiConductedVoltageTestList]>>

Test Name: <<[test.Name]>>

<<foreach [subrange in test.SubRangeList]>>

SubRange <<[subrange.Number]>> (<<[subrange.Name]>>)

<</foreach //SubRangeList>>

<</foreach //EmiConductedVoltageTestList>>



Test Name : AC 150kHz-30MHz_PMM

Subrange 1 (150kHz-30MHz)

Subrange 2 (150kHz-30MHz)

Subrange 3 (150kHz-30MHz)

Subrange 4 (150kHz-30MHz)





nEXIO

Demo

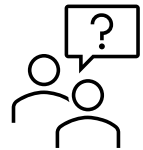


Thanks and Questions

Thank you for your time

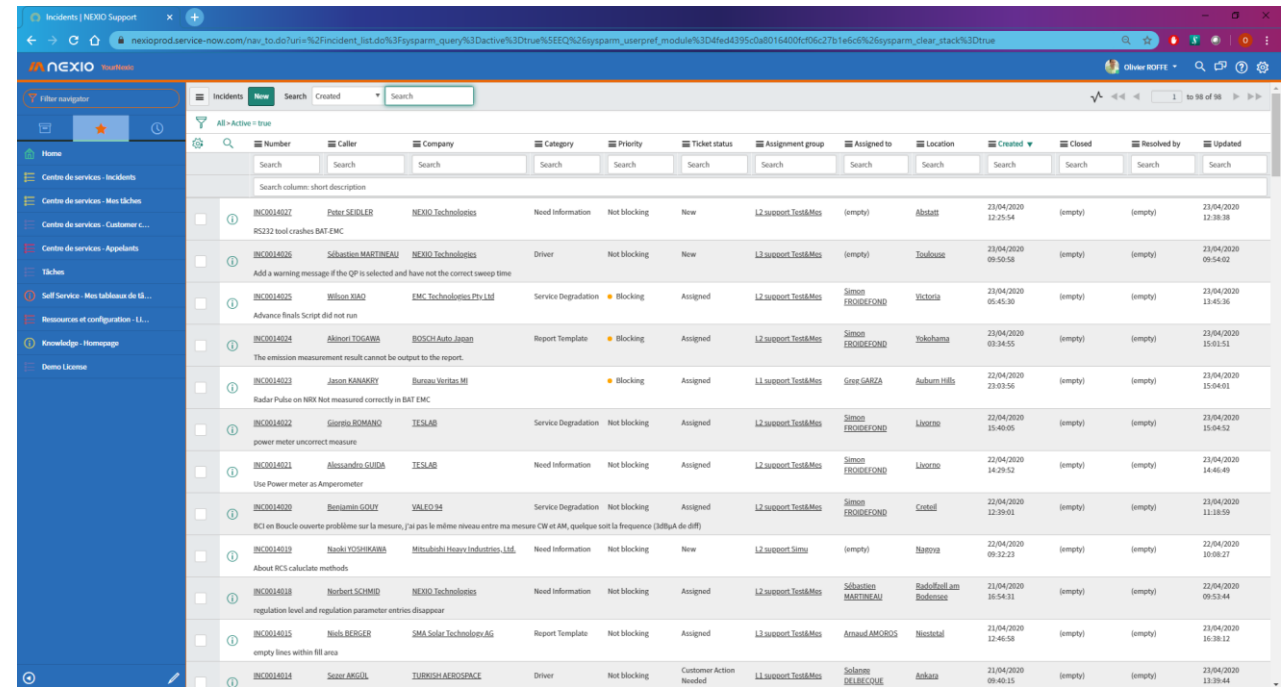


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Number	Caller	Company	Category	Priority	Ticket status	Assignment group	Assigned to	Location	Created	Closed	Resolved by	Updated
INC0014507	Peter SEIDLER	NEXIO Technologies	Need information	Not blocking	New	L2 support Test&Mts	(empty)	Abstatt	23/04/2020 12:25:54	(empty)	(empty)	23/04/2020 12:38:38
INC0014506	Sébastien MARTINEAU	NEXIO Technologies	Driver	Not blocking	New	L3 support Test&Mts	(empty)	Toulon	23/04/2020 09:50:58	(empty)	(empty)	23/04/2020 09:54:02
INC0014505	Wilson WAO	EMC Technologies Pty Ltd	Service Degradation	Blocking	Assigned	L2 support Test&Mts	Simon ERGODEFOND	Victoria	23/04/2020 05:45:30	(empty)	(empty)	23/04/2020 13:45:36
INC0014504	Aminori TOGAWA	BOSCH Auto Japan	Report Template	Blocking	Assigned	L2 support Test&Mts	Simon ERGODEFOND	Yokohama	23/04/2020 03:34:55	(empty)	(empty)	23/04/2020 16:01:51
INC0014503	Jason SANABRY	Bureau Veritas IM	Report Template	Blocking	Assigned	L1 support Test&Mts	Gene GARZA	Auburn Hills	22/04/2020 23:03:56	(empty)	(empty)	23/04/2020 15:04:01
INC0014502	Gianrico ROMANO	TESLAB	Service Degradation	Not blocking	Assigned	L2 support Test&Mts	Simon ERGODEFOND	Lisieux	22/04/2020 15:40:05	(empty)	(empty)	23/04/2020 15:04:52
INC0014501	Alessandro GUIDA	TESLAB	Need information	Not blocking	Assigned	L2 support Test&Mts	Simon ERGODEFOND	Lisieux	22/04/2020 14:29:52	(empty)	(empty)	23/04/2020 14:46:49
INC0014500	Benjamin GOUY	VALLO 34	Service Degradation	Not blocking	Assigned	L2 support Test&Mts	Simon ERGODEFOND	Crestel	22/04/2020 12:39:01	(empty)	(empty)	23/04/2020 11:18:59
INC0014499	Naoki YOSHIMAWA	Mitsubishi Heavy Industries, Ltd.	Need information	Not blocking	New	L2 support Simu	(empty)	Nariva	22/04/2020 09:32:23	(empty)	(empty)	22/04/2020 10:08:27
INC0014498	Norbert SCHMID	NEXIO Technologies	Need information	Not blocking	Assigned	L2 support Test&Mts	Sébastien MARTINEAU	Bodofell am Bodensee	21/04/2020 16:54:31	(empty)	(empty)	22/04/2020 09:53:44
INC0014495	Niels BEISER	SMA Solar Technology AG	Report Template	Not blocking	Assigned	L3 support Test&Mts	Arnaud AMOROS	Niestetal	21/04/2020 12:46:58	(empty)	(empty)	23/04/2020 16:38:12
INC0014494	Sagar ARSOL	TURKISH AEROSPACE	Driver	Not blocking	Customer Action Needed	L1 support Test&Mts	Solange DELBECQUE	Ankara	21/04/2020 09:40:15	(empty)	(empty)	23/04/2020 13:39:44



Next Webinar

Thursday May
14th

11AM USA Eastern
Time

- Automotive By Band
- CISPR25 Hybrid

