

Sounds familiar?

- Our shipment is stuck in customs
- We only have IEC 62368-1 2nd Edition CB report but...
- The PSU used in our product doesn't have its own certification for xxx
- Our Engineering team wants to introduce a new configuration for a certified product
- Our vendor said their product is exempt from xxx certification
- Our customer in that country said our product needs to get another certification
- Our corporate policy doesn't allow me to send samples to that country for testing
- Our certificate expired last month without notification from our service provider in advance
- Our service provider asks for another \$3000 for the follow-up surveillance audit
- Our local dealer said they must see the certificate next Friday otherwise...
- The CAB who issued the certificate to us last year lost its accreditations recently
- Our Sales team wants to introduce a new local distributor for our product in xxx
- We don't have a local representative in that country
- •



Agenda

- 1. GMA Roadmap Products used for Ordinary Locations
 - Acceptance of FCC/EU RED reports worldwide
 - The importance of EU RED TEC
 - IECEE CB scheme and Key GMA markets
- 2. GMA Roadmap Products used for Hazardous Locations
 - Landscape of the global Ex markets
- 3. Best Practices for GMA Preparation
- 4. What Nemko Can Help





GMA Roadmap

- Products used for Ordinary Locations

Radio Approval

Model A3089 EMC 8428

United States

FCC ID: BCG-E8428A

The satellite feature on this device must be turned off at all times while on board an aircraft by turning on

airplane mode

Canada IC: 579C-E8428A

CAN ICES-3 (B)/NMB-3(B)

Europe / UK

Apple's EU Representative Apple Distribution International Ltd., Hollyhill, Cork, Ireland.



Apple UK Ltd., 2 Furzeground Way Stockley Park, Middlesex, UB11 1BB



Australia / New Zealand

R-NZ

See https://www.apple.com/au/ legal/online-safety/ for online safety resources

Japan

5GHz (W52, W53): Indoor use only, except connecting to 5.2GHz high power radio station.



→ TADF230088003 P003-230328



総務省指定 第 EC-23014 号

Mexico



5V==3A/9V==2.22A IFT APAPA323-29491

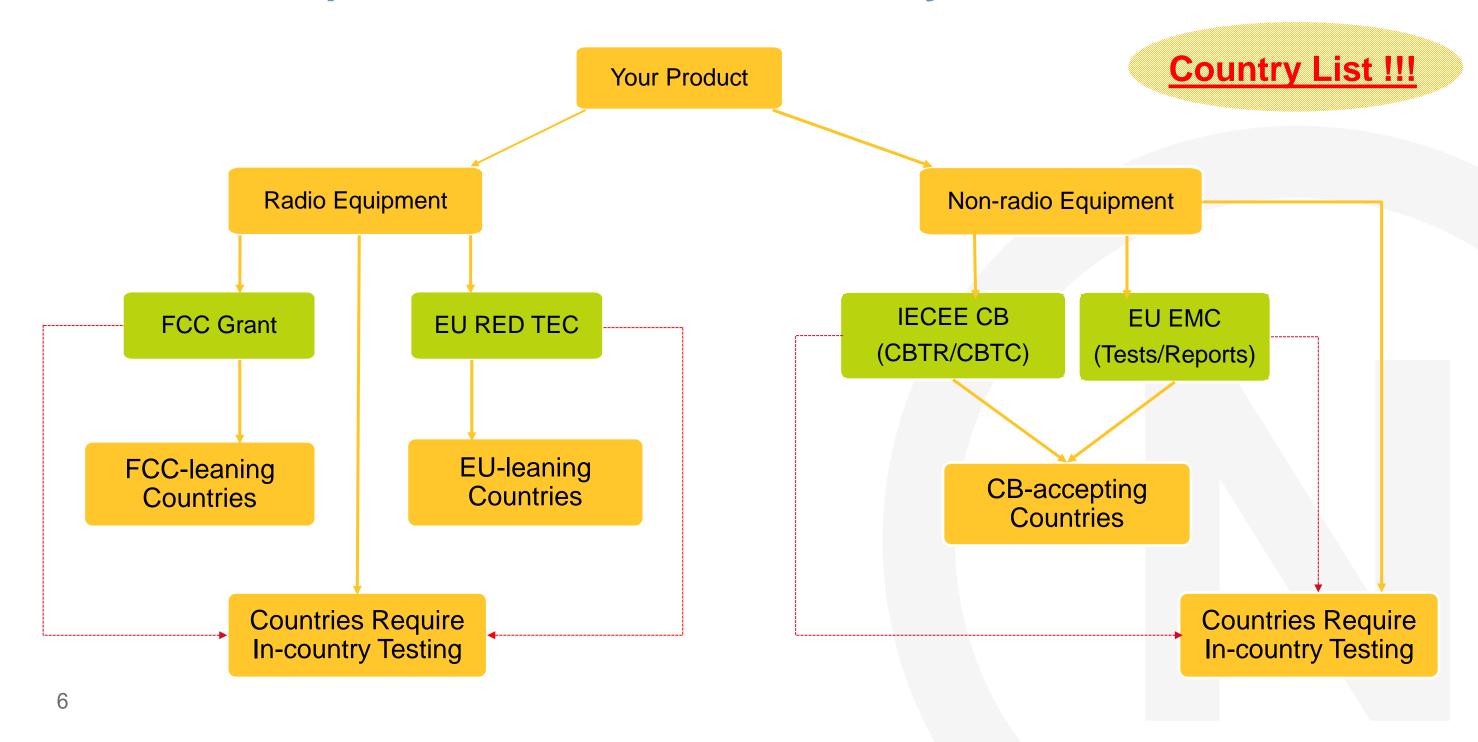
Kingdom of Saudi Arabia

CST TA 2023-1938

Safety Approval

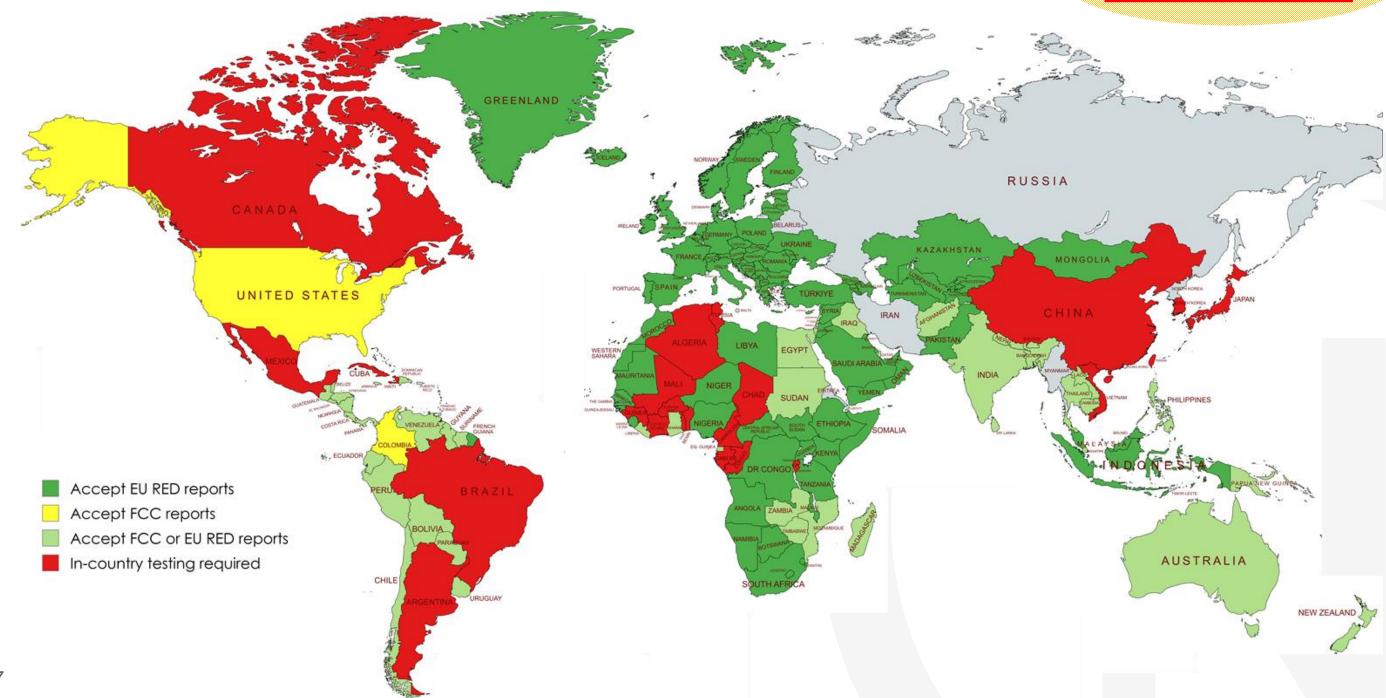


GMA Roadmap - Products Used for Ordinary Locations



Acceptance of FCC/EU RED Reports Worldwide

Country List !!!



EU RED Type Examination Certification (TEC)

Why TEC when I can self-declare conformity?

- Certainty that the product meets all the essential requirements (legal requirements) of the EU RED Great for GMA as well!!
- Market surveillance activities in the EU have been increasing
- Mandatory on-going compliance with Current published Harmonized Standards

What is needed for TEC?

- Test Reports: Electrical Safety, EMC, Radio (RF), RF Exposure
- EU Declaration of Conformity (DoC)
- External and Internal Photos
- Hardware and Software Versions
- Block Diagram (for the whole product)
- Circuit Diagrams (for the whole product)
- PCB Layout (for the whole product)
- Bill of Materials (Part List for the whole product)
- Product Label
- User Guide
- Description of Product
- **EU Economic Operator Info** (Name, Registered trade name/mark, Postal address)



Nemko North America (Canada)

EU Notified Body 1622

UK Approved Body 1622

Nemko AS (Norway)

EU Notified Body 0470

Nemko Spa (Italy)

EU Notified Body 2051

IECEE CB Scheme & Key GMA Markets

54 member bodies and widely accepted by the rest of the world

Country List !!!

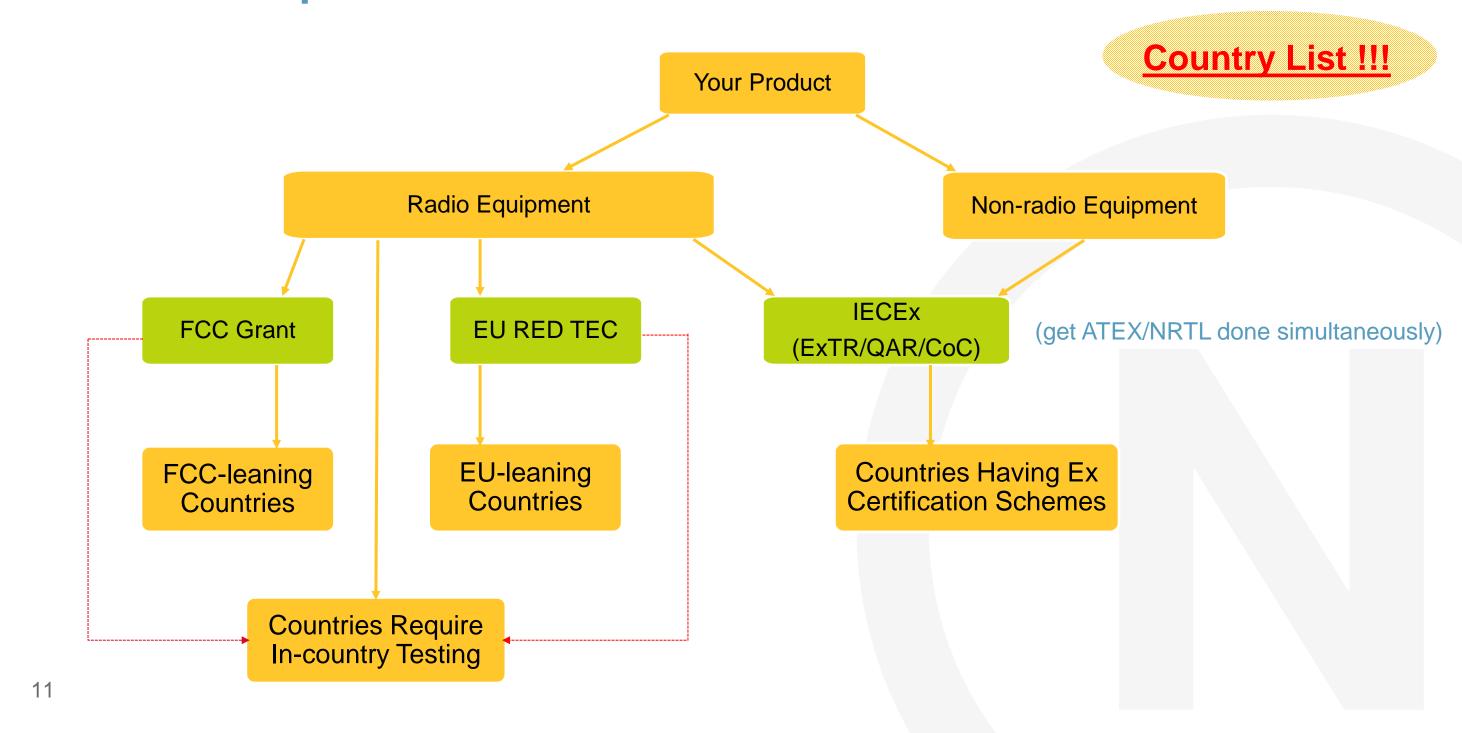




GMA Roadmap

- Products used for Hazardous Locations

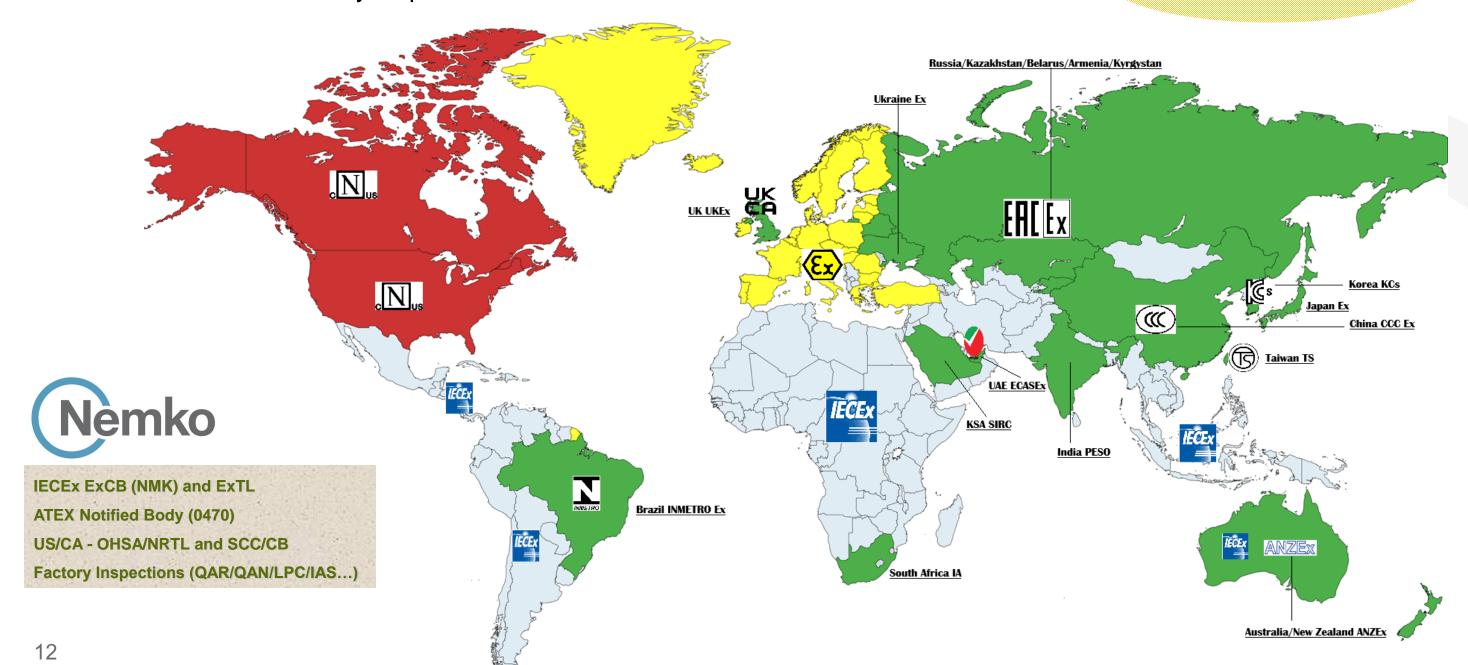
GMA Roadmap - Products Used for Hazardous Locations



Landscape of the Global Ex Market (HazLoc)

18 Ex GMA markets normally require IECEx certification as the basis

Country List !!!



Example of Required Safety and Wireless Approvals

Market	Ordinary Locations (OrdLoc)			Hazardous Locations (HazLoc)			Radio/Wireless/Telecom		
	Certification scheme	Mark	Initial Services	Certification scheme	Mark	Initial Services	Certification scheme	Mark	Initial Services
Brazil	INMETRO	<u></u>	Safety/EMC testing	INMETRO	NAME THO		ANATEL	ANATEL	N/A
China	ссс	(11)	Safety testing	CCC/China Ex	(W)		SRRC / NAL	CMIIT ID	N/A
India	BIS	8	Safety testing	PESO	N/A		WPC / TEC	7 = 5	RF/EMC testing
Russia							FAC / FSS	N/A	RF/EMC testing
Armenia							CoC	N/A	RF/EMC testing
Belarus	EAC	EAC	Safety/EMC testing	EAC	EAC	IECEX/ATEX Testing IECEX/ATEX Certification IECEX/ATEX Unit Verification QAR/QAN Audit	BY TR / STB	N/A	RF/EMC testing
Kazahkstan							N/A	N/A	N/A
Kyrgykstan							KG CoC	N/A	RF/EMC testing
Ukraine	UkrSEPRO	€	Safety/EMC testing	UkrSEPRO	€		UA CoC/DoC	€	RF/EMC testing
South Africa	SABS EMC/NRCS LOA	N/A	Safety/EMC testing	IA	N/A		ICASA	100.50	RF/EMC testing
South Korea	кс		Safety/EMC testing	KCs	S s		кс	Ø	RF/EMC testing
Taiwan	BSMI	Э	Safety/EMC testing	TS	®		NCC	(())	RF/EMC testing
Saudi Arabia	SASO	N/A	Safety/EMC testing	SIRC	N/A		CST	N/A	RF/EMC testing
UAE	ECAS	2	Safety/EMC testing	ECASEx	2		TDRA	TDRA	RF/EMC testing
Japan	PSE	PS	Safety/EMC testing	JPEx	N/A		MIC	€	RF/EMC testing
AUS/NZ	RCM	<u>&</u>	Safety/EMC testing	ANZEx	N/A		RCM	&	RF/EMC testing
UK	UKCA/CE	CA	Safety/EMC testing	UKEx/ATEX	ŠĢ		UK RER/CE RED	ΩŘ	RF/EMC testing



Best Practices for GMA Preparation



Begin With The End In Mind

End - Global Market Access

Target Markets

(Country List, HS Codes, Applications, Lead Time, etc.)

Testing

(Standards, Deviations, In-Country Testing, PSU, etc.)

Inspection

(Initial Factory Inspection, Follow-up Audits, Pre-Shipment Inspection, etc.)

Documentation

(Labels, Manuals, Photos, Application Forms, etc.)

Local Representation

(Certificate Holder, Agreement, PoA, Training, etc.)

Certificate Management

(Validity, Maintenance, Recurring Costs, etc.)

Begin - Where We Are Now

How to get there...



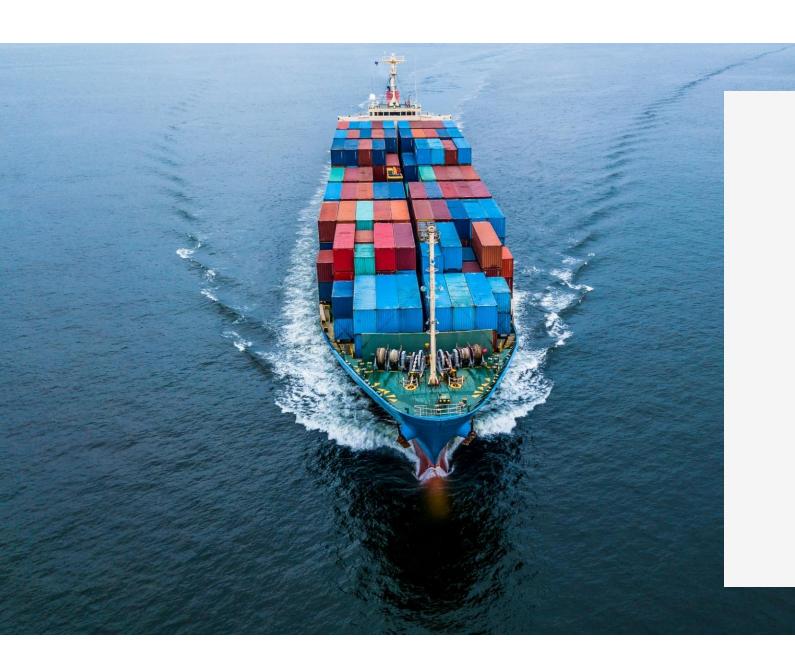


Set Expectations...time and money

Understanding what it's going to cost to obtain certifications in your target markets is key and can help to focus the country list

Things to consider

- Expected sales in each target country vs. cost
- Not over-promising on delivery dates for products
- Timelines for GMA vary greatly depending on country and often change throughout the process
- Unexpected costs not built into quotes such as sample shipment fees needed for in-country testing



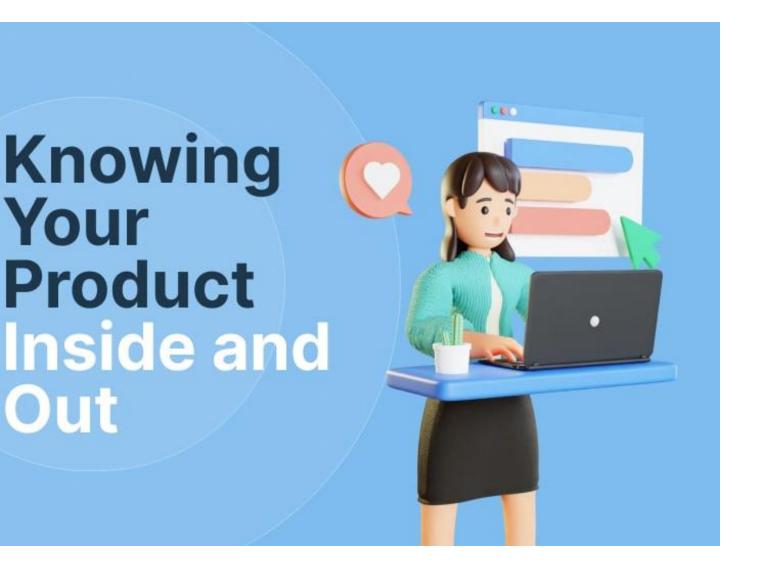
Prioritize Your Target Markets

It's easy to say we want to sell our product everywhere!!!

What are the priority countries? Identify these based on expected sales, existing presence in country, orders received, etc.

Common prioritization methods:

- Tier 1, Tier 2, Tier 3
- Initial, secondary, rest of world, etc.
- By region



Know Your Product

Ensure you have a product datasheet or technical specification as early as possible in the process

Have I created a product model number?

Do I have the correct HS Code for my product for each market?

- Many countries require this information to determine certification requirements
- Depending on country, these can be 8-digit, 10-digit, etc.

What is the application field of my product?

Does my product have a separate power supply?

Does the power supply have its own necessary certs for my target markets?

Where is my product made? Do I know the factory location(s)?



Identify and Engage Appropriate Teams Early

The Regulatory Compliance Engineer or PM may be the person managing the overall process for obtaining international approvals but input from many teams will be required so it's helpful to identify these contacts early in the process

And make sure they are aware of what contributions will be required.

- Engineering including HW, SW, Mech Design
- Sales
- Manufacturing Engineers and Supply Chain
- Logistics / Shipping
- Legal
- Management
- Authorized Signatories

Details, Details

The Importance of Being Correct – Casually often leads to Casualty



Global Market Access is a documentation heavy endeavor

The smallest details matter so it's imperative that documents are clear, concise and **consistent**

Pay special and close attention to the following - These should be **consistent across all documentation**, including test reports, application forms, ISO certs, Business Licenses, etc.

- Manufacturer Name and Address
- Factory Address
- Brand Name
- Applicant Name
- Product Model Number

Product photos must be high definition, high quality and properly labeled for easy identification

Take the time at the start to get quality photos to avoid rejection by regulatory bodies

Ensure User Manuals reference the exact Product Model Number and are available in the languages required for your target countries

Expect the Unexpected



While we may be used to doing certifications for the US, Canada and the EU, other countries have unique requirements and expectations that can come as a surprise. Here are a few to keep in mind:

Local Representative

- What's the role/responsibility of the local representative?
- Who can be a local representative?
- Some countries also require local importers to be certificate holders so ensure you have identified these entities up front

Document Signing and Stamping

- Ensure that you have identified the people that can sign documents Anyone? Top Management? Notarized?
- In addition to signatures, a company stamp or seal is often requested Stamps are not common practice in North America so make sure this is made known as early as possible in the process

Customs and Shipping

Expect delays when shipping samples or documents to some countries and build those delays into your project timelines

- Always send the shipping paperwork (pro forma invoice, packing list, etc.) to the recipient for review PRIOR to physically shipping the items
- Declaration letters may be requested in order to clear items from customs and will often require a signature and maybe a stamp

Certificate Management

So, you've received all of your certificates for the countries on your list, is that it? Are we done?

Not necessarily. Things to consider over the lifecycle of your product:

- Validity of certificates
- Activities to maintain certificate validity
 - Surveillance audit (follow-up inspection) China, Korea, Russia, Brazil, etc.
 - Government annual fees Taiwan, etc.
- Local rep annual fees (if applicable)
- Certificates required specifically for shipments
 - Saudi Arabia, Nigeria, etc.
- Update of certificates when technical changes occur





What Nemko Can Help

One-Stop GMA Services



Electrical Safety



EMC/EMI



Radio



Telecom



Hazardous Locations



Energy Efficiency



Environment



Others

Nemko as Accredited Certification Body





















Innovation, Science and Economic Development Canada



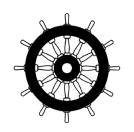


















Thank you!

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