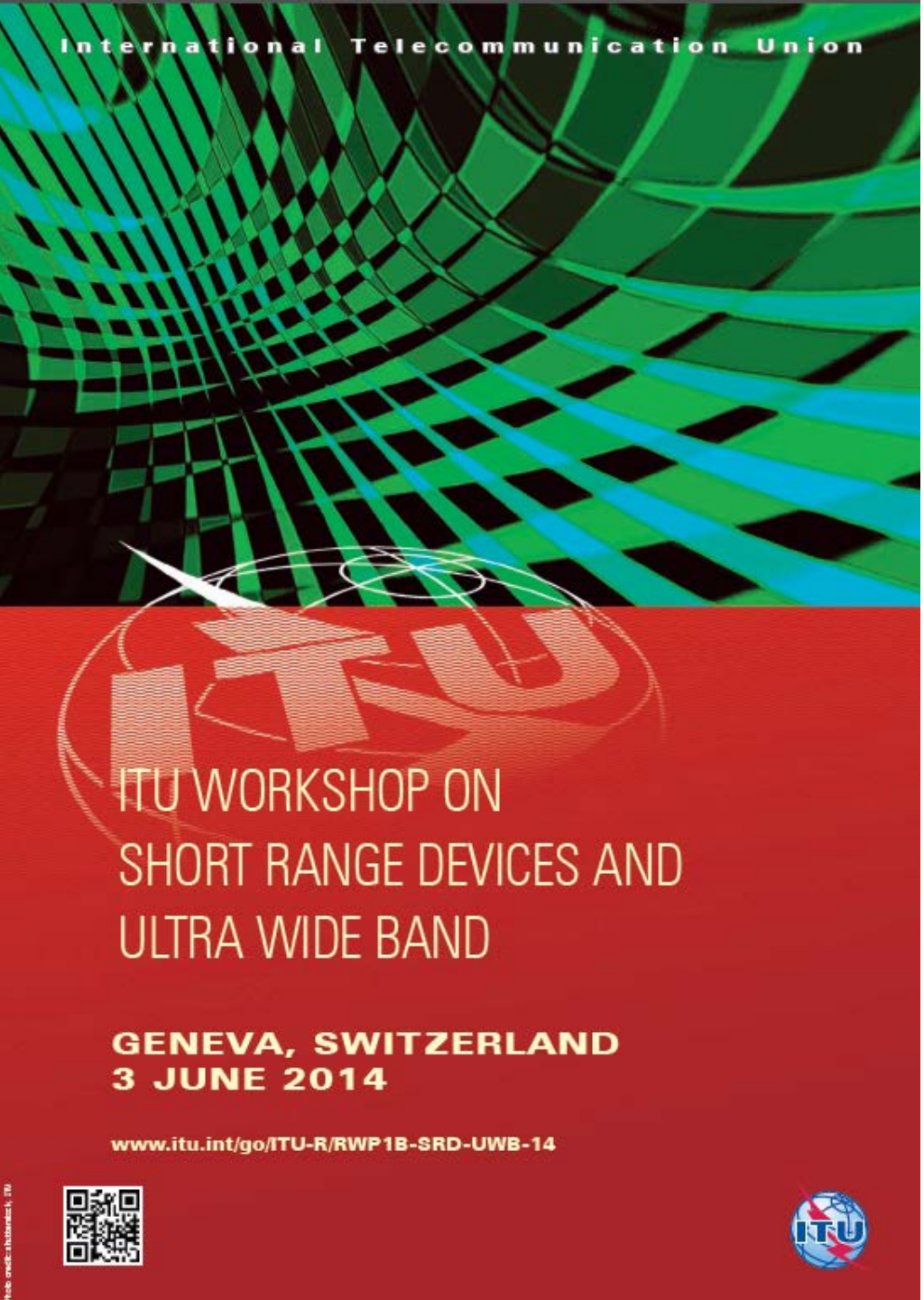


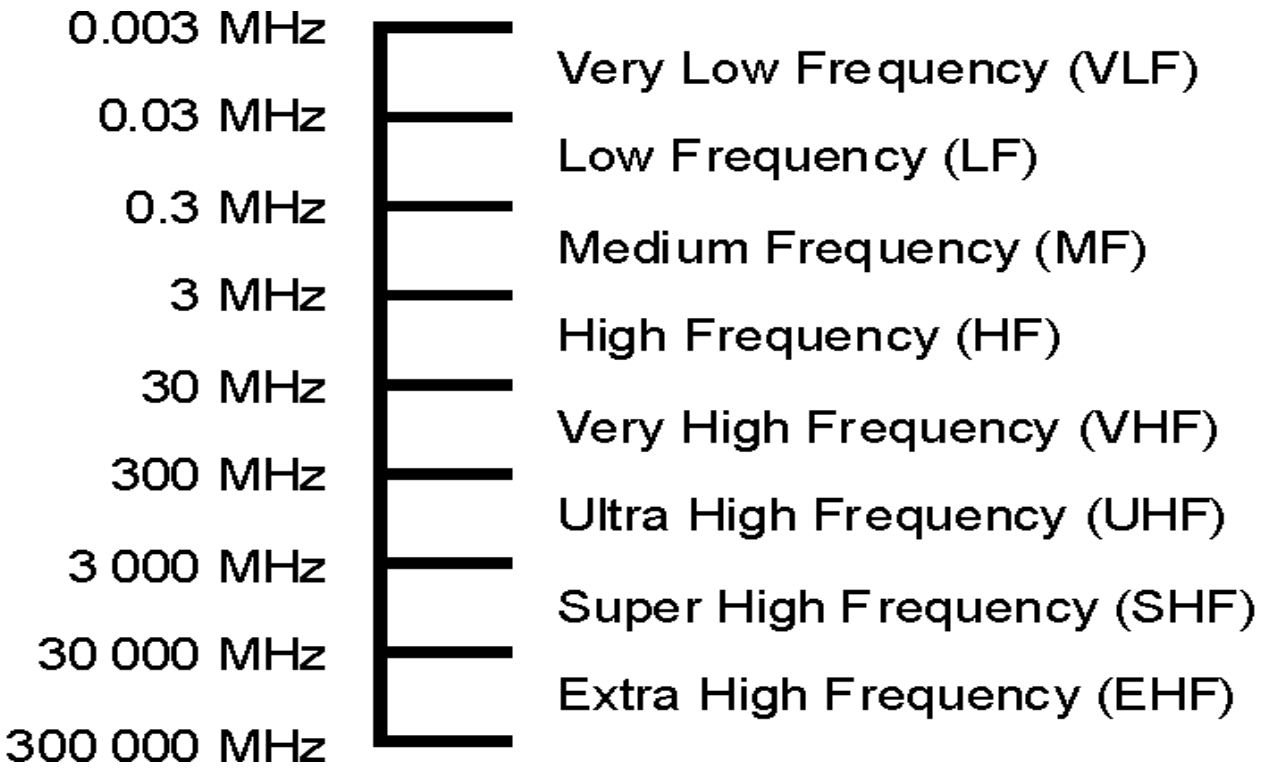
ITU WORKSHOP on
SHORT RANGE DEVICES (SRDs)
AND ULTRA WIDE BAND (UWB)
(Geneva, 3 June 2014*)

Identifying the areas of spectrum usage that could benefit new UWB applications

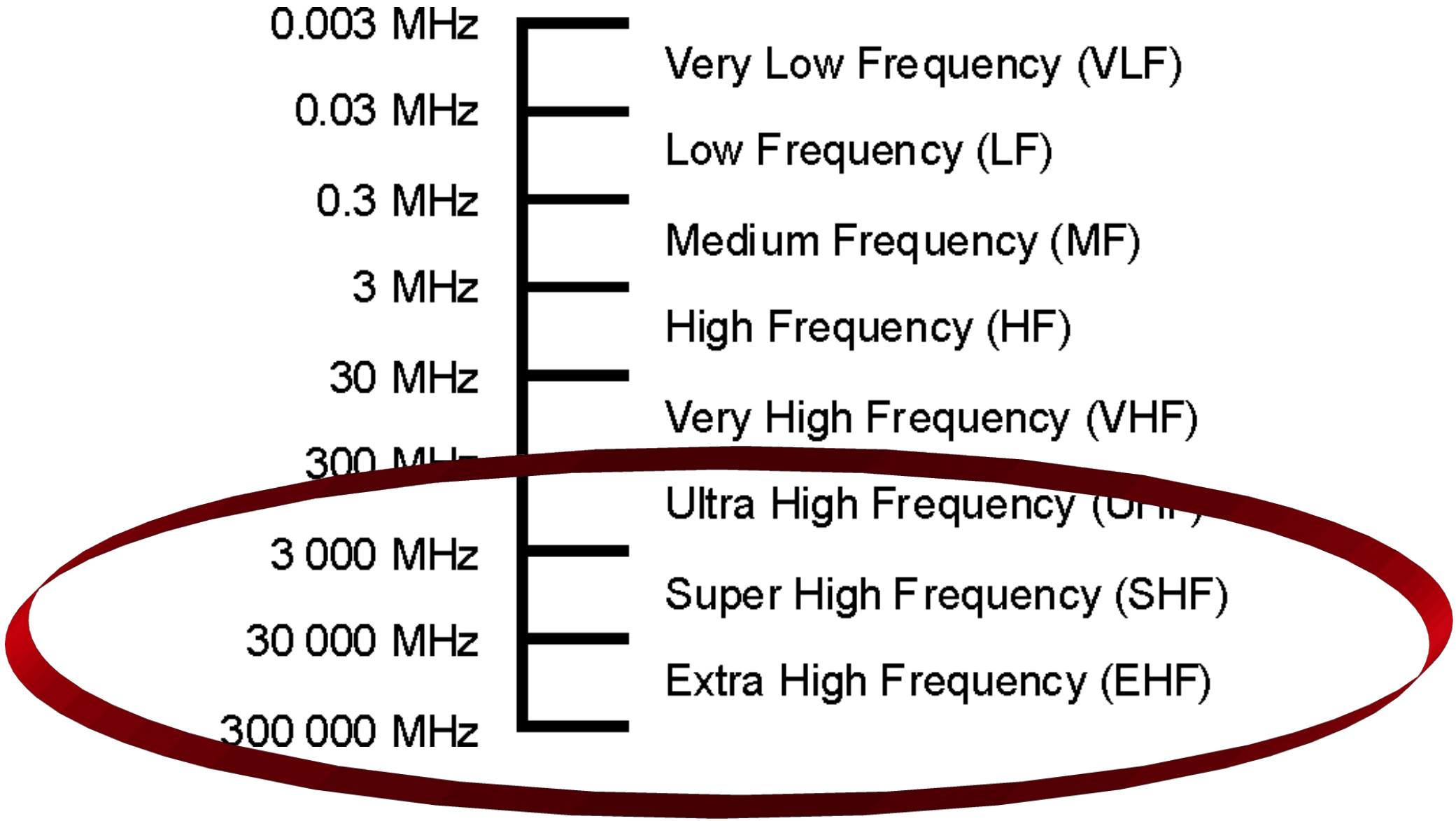
Gary Smith Anderson,
Uraxs Communications

** in conjunction with the June 2014 block of meetings of ITU-R Study Group 1*

Identifying areas of spectrum usage that could benefit new UWB applications



Identified...areas of spectrum usage that could benefit new UWB applications!



I'm the UWB Crash Test Dummy!

Biography: *“I'm an adaptable modulation capable of occupying multiple frequencies. I have to wear a black mask because I fly at the speed of light in the unlicensed spectrum and I must be discreet. My time of flight and time of arrival has been precisely calculated, although my successful reception has yet to be realized. Let's do it!”* #UWBCTD

UNITED STATES FREQUENCY ALLOCATIONS

THE RADIO SPECTRUM

UWB has changed the world, but it hasn't come overnight...

“It takes about 3 months to build a UWB transmitter, and more than 3 years to build a receiver.”

-Kai Siwiak

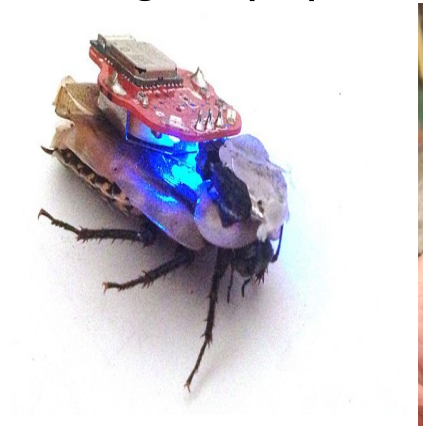
"In theory, there is no difference between theory and practice. But, in practice, there is.”

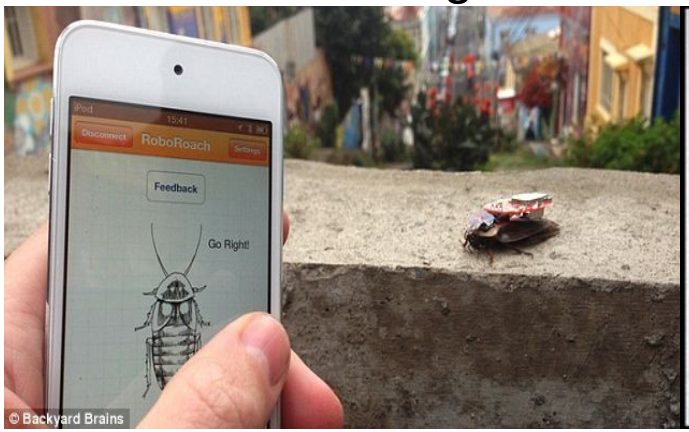
-Yogi Berra

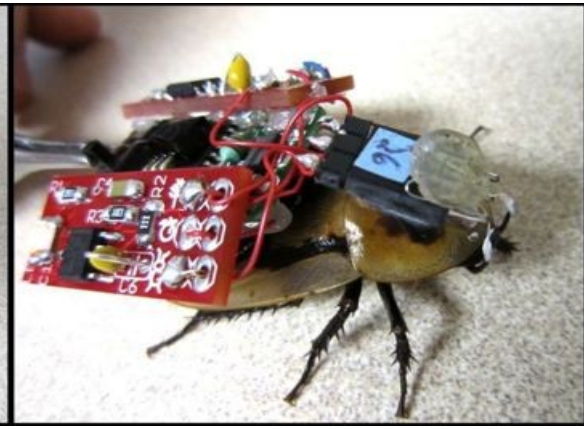
So we have plenty of time, right? Another 10/ 15 years perhaps?

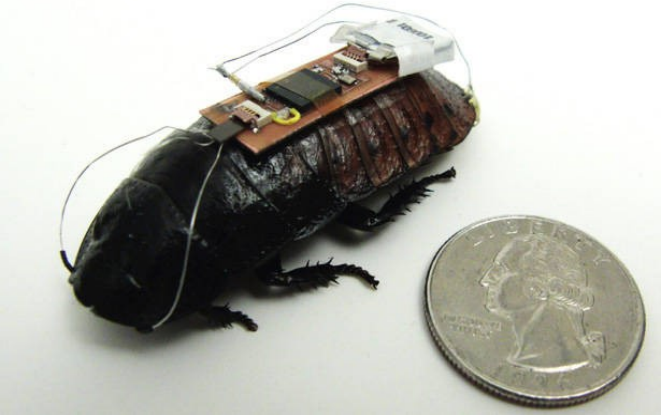
NO, WE DON'T!

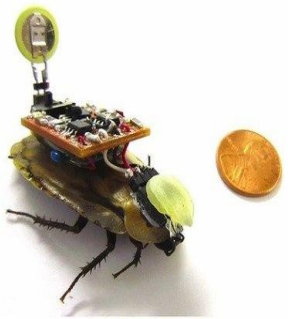
Did you know that we're just 2-3 product cycles (12-24 months) away from UWB SRD's being as populous as “Palmetto Bugs in the Florida Panhandle”?!!!

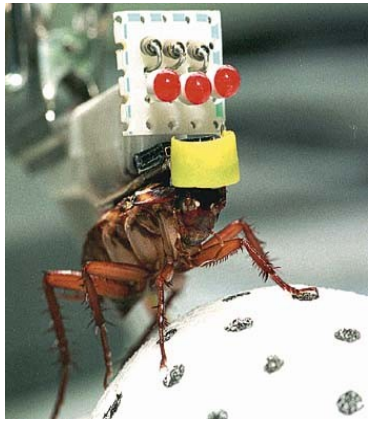


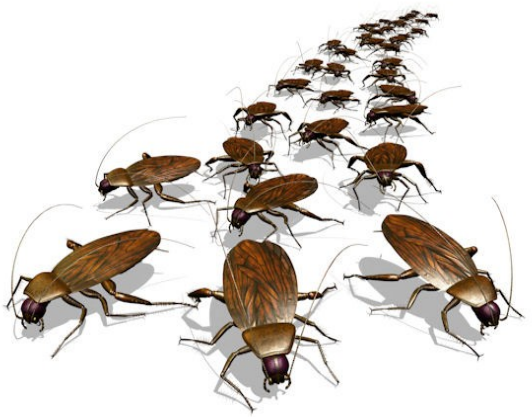












We need to be ready because they're already on the way!

This shipment is going to developers and early adopters.....that's a lot of UWB chips!

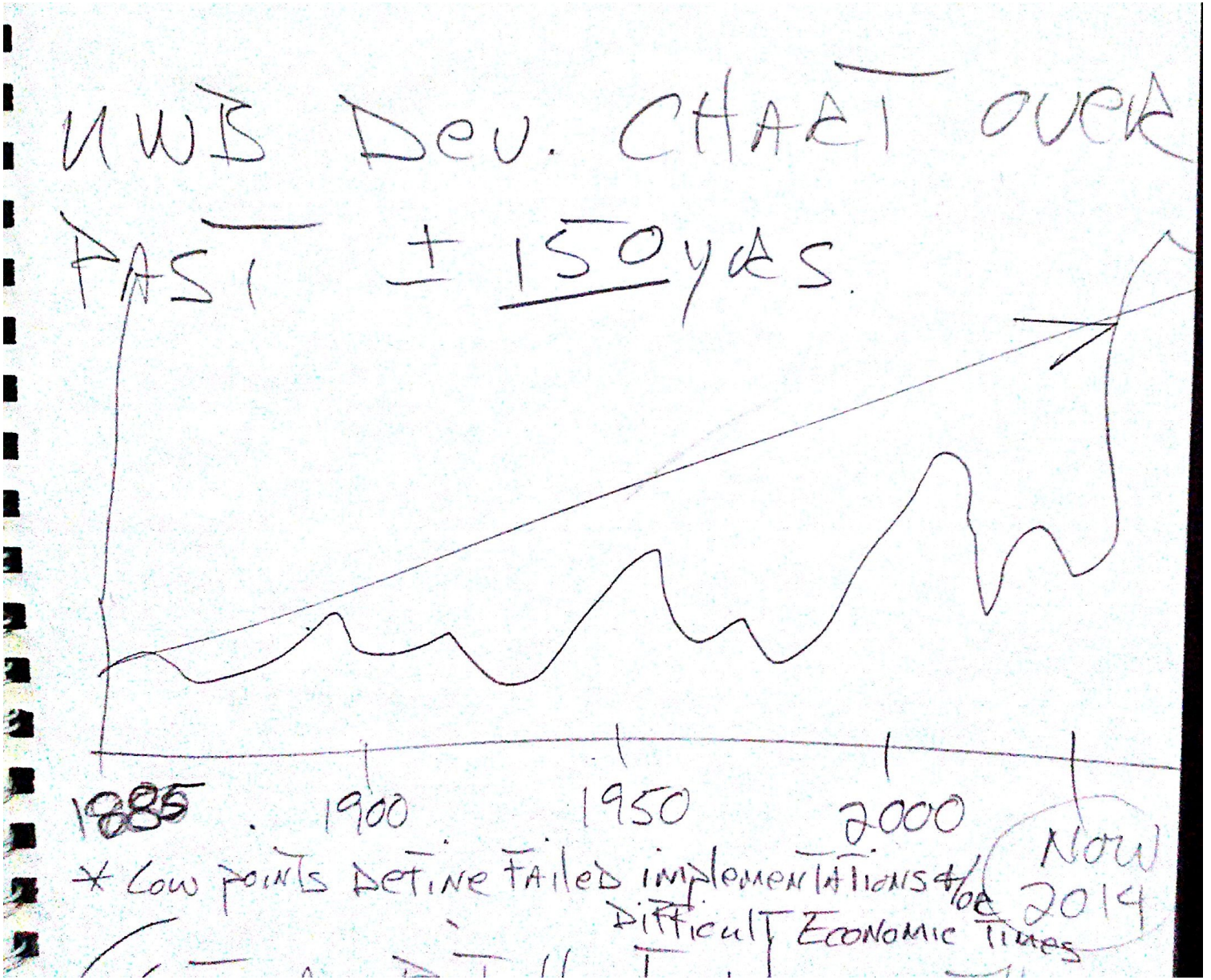
Harmonization

Harmonization- Business Definition

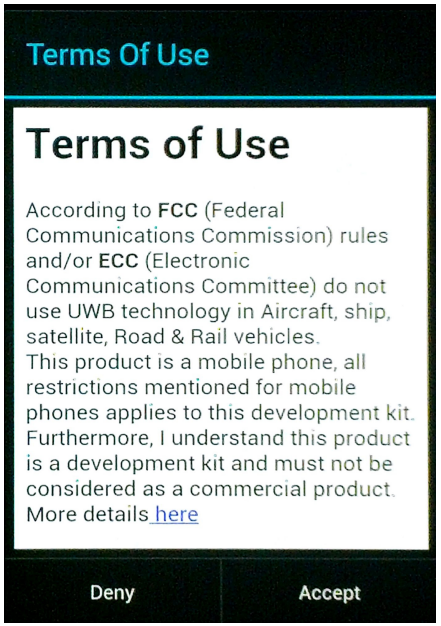
- **Adjustment of differences and inconsistencies among different measurements, methods, procedures, schedules, specifications, regulations or systems to make them uniform or mutually compatible and adoptable.**

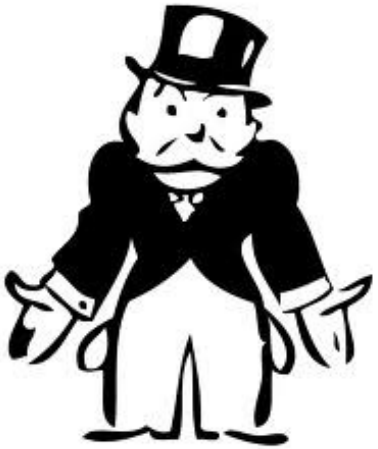
- **We look at all the various spectrum rules and regulations around the world and we see that if we can all cooperate, compromise and coordinate *just a little* more, the benefits will be HUGE!**

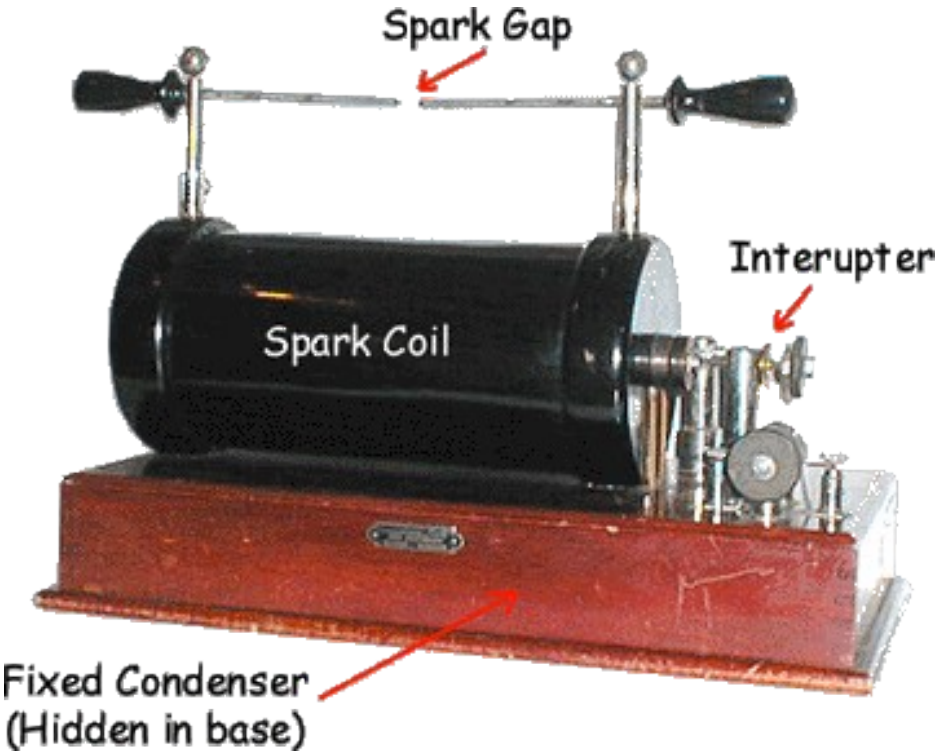
There are no failures, just lost time and investment.



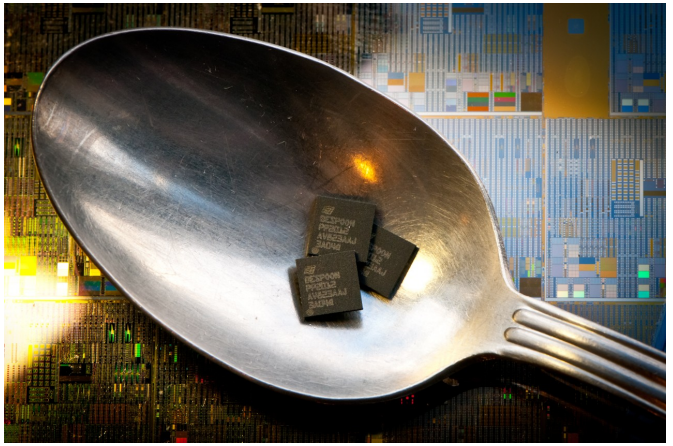
Restrictive Regulation, Unsuccessful Implementation, Imprudent Investment = FAILURE







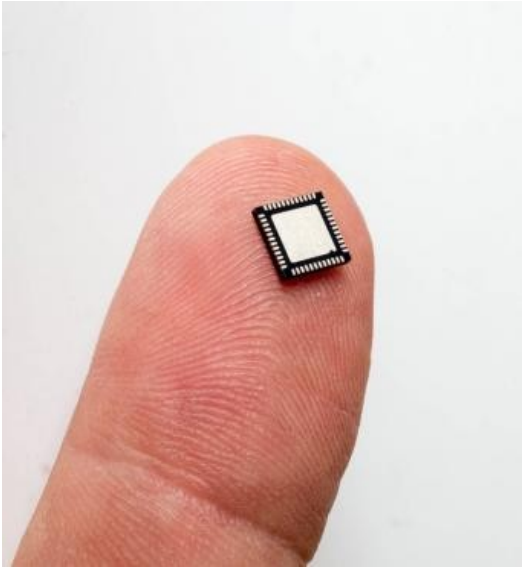
These are just two of the many small companies doing some very big things with UWB!



BeSpoon we position

"World Premiere: BeSpoon launches the first smartphone able to track tags within a few inches accuracy."

The SpoonPhone



decaWave

"2014 is the first full-year revenue with forecast in excess of 3M parts to be shipped."

A conservative estimate is that these various UWB RTLS & Sensor Industries will be worth $4 billion in just 5 years!

Automotive
Secure Passive Entry/Start

Building Control & Smart Lighting
Wireless lighting control.

Healthcare
Tagging babies and Mothers

ePOS
Secure way of authenticating. DW1000 used for geo-fencing and data communication.

Factory Automation
Real time view of all operations, stock and component levels

Robotics
Warehouse automation robots. Drones. Home Robots.

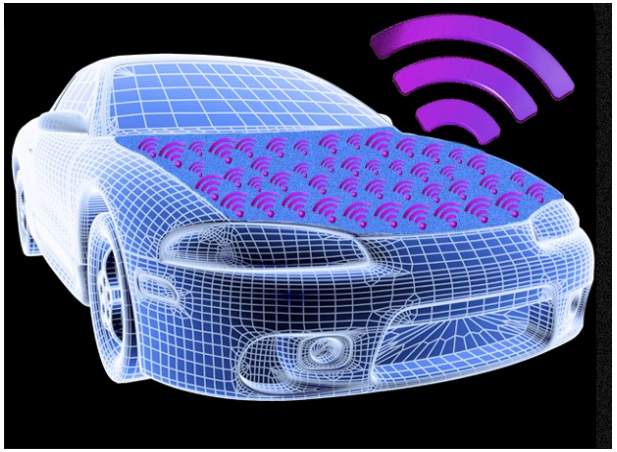
Sports
Real time Sports statistics.

Retail
Geofencing & micro-location for context aware services.

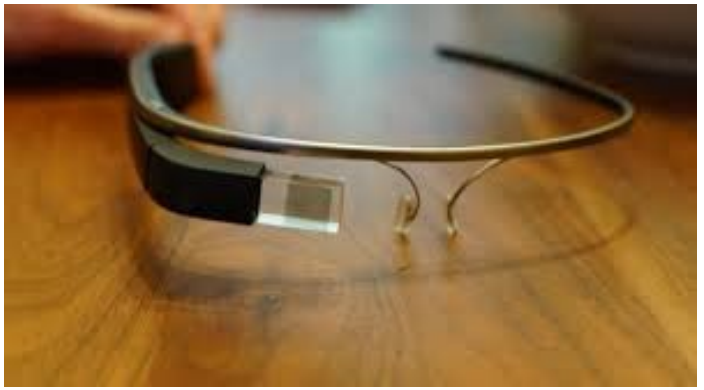
Where is UWB going?

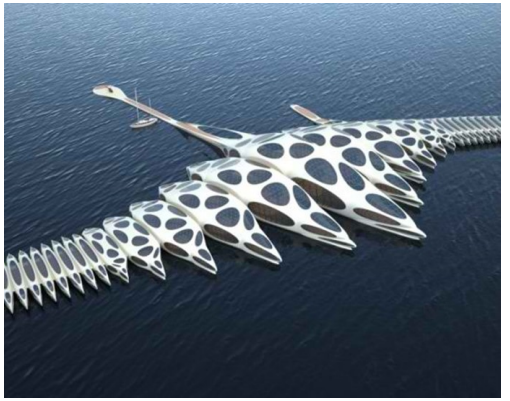
- This is a fairly optimistic trend chart but what it doesn't take into account is the added value of new applications, better technologies, more capital infusion, and harmonization of spectrum usage which will create greater efficiencies, thus fueling the global adoption of UWB.

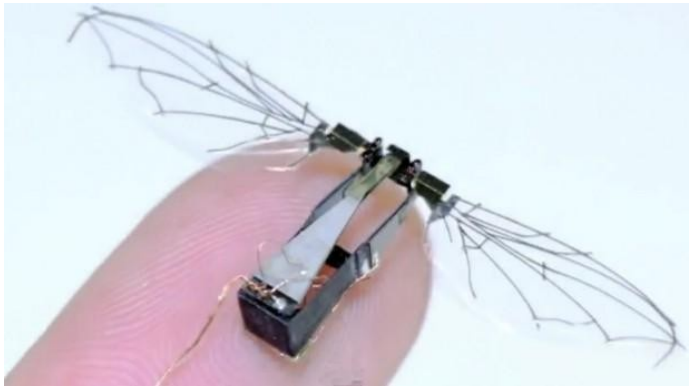
Let's consider what's possible now and what's needed to achieve these things using UWB...

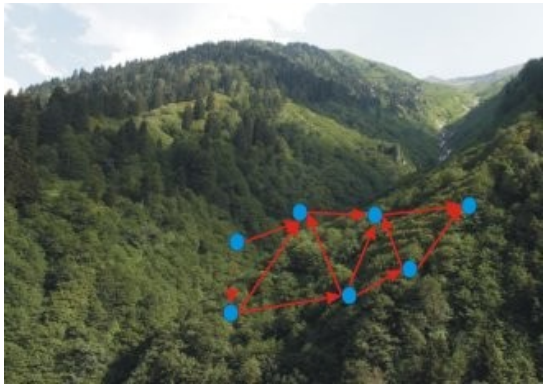


The future is here early!









To Boldly Go Where No UWB Signal Has Gone Before.....

Thank you very much!