

Analogue and **M**ixed-Signal **I**ntegrated **C**ircuits for **S**pace **A**pplications

AMICSA 2006

AMICSA 2008

AMICSA 2010

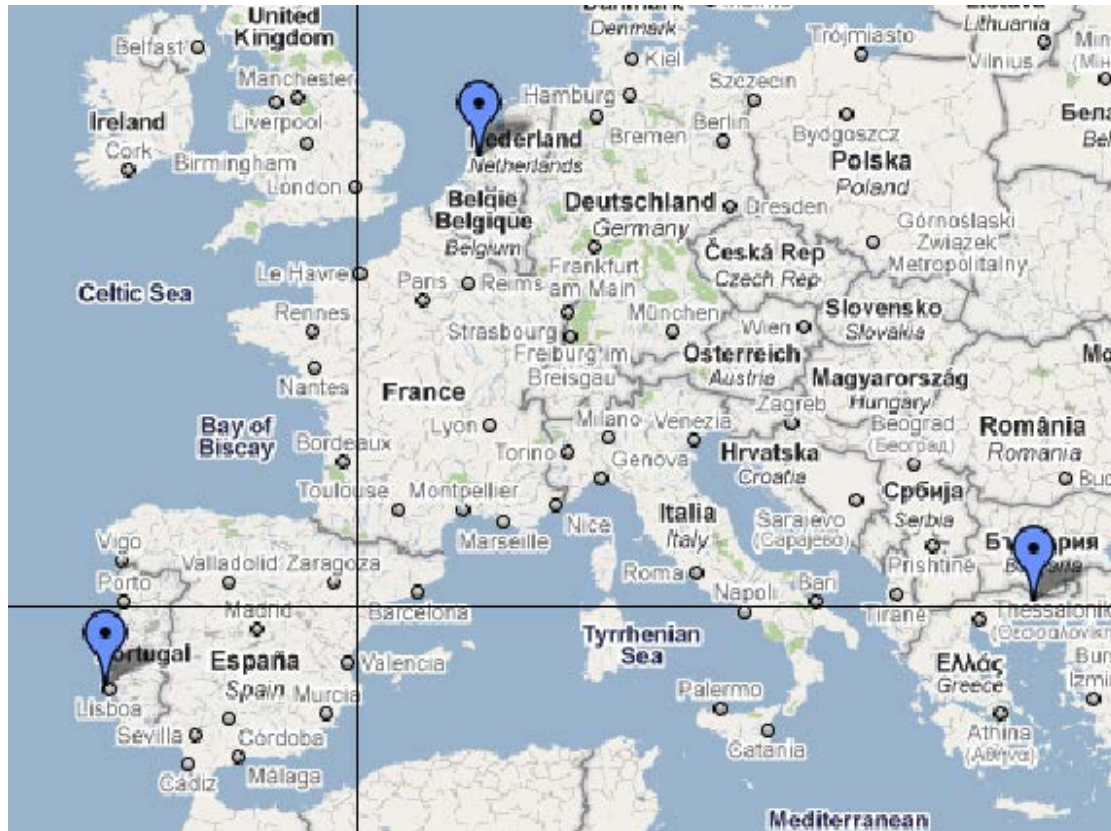
AMICSA 2012

History & Wrap – Up

AMICSA Locations



ESTEC, Noordwijk, NL 2010, 2012



2008

Sintra/Cascais
Portugal

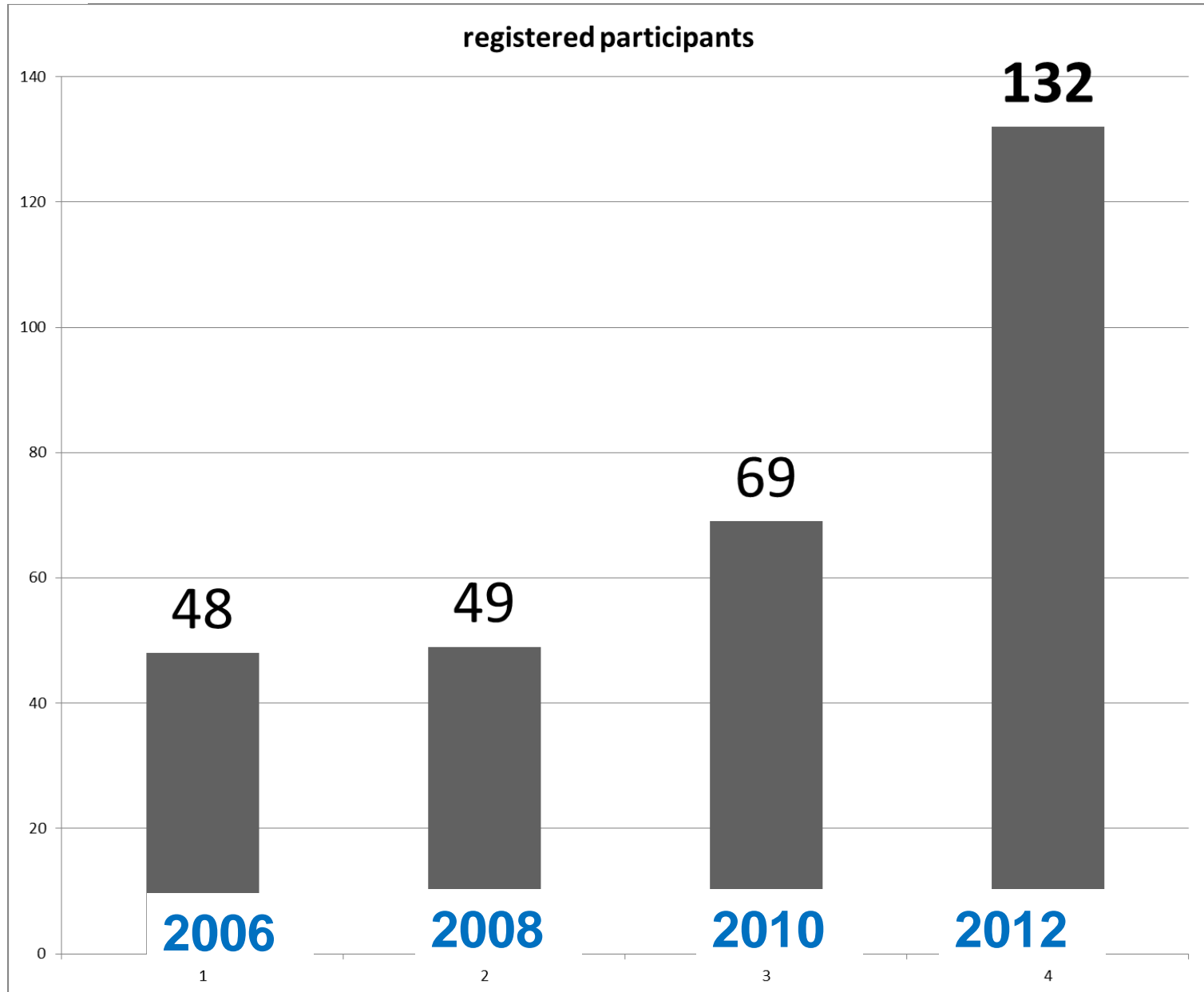


2006

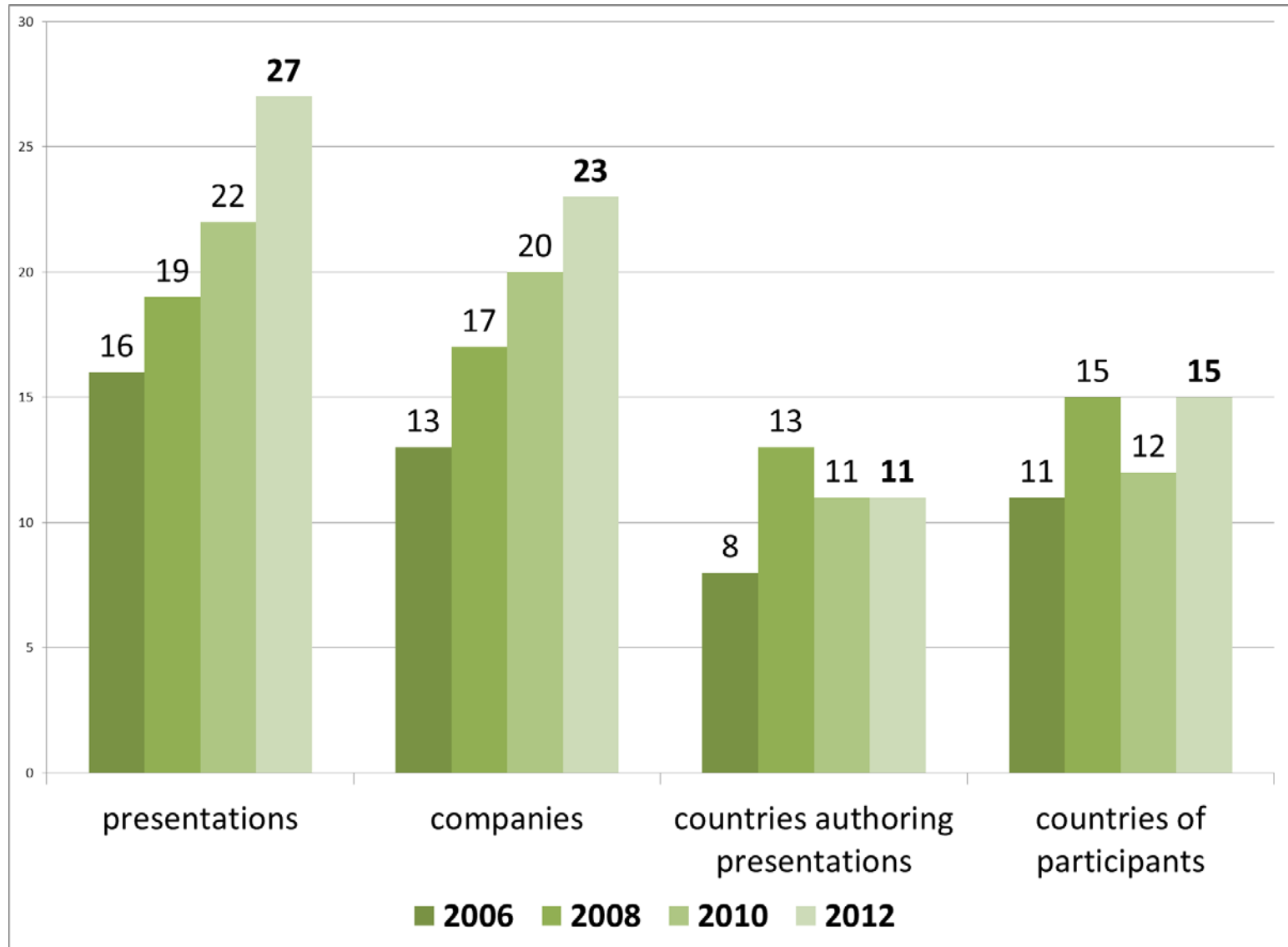
Ξάνθη (Xanthi)
Greece



AMICSA – growing in numbers

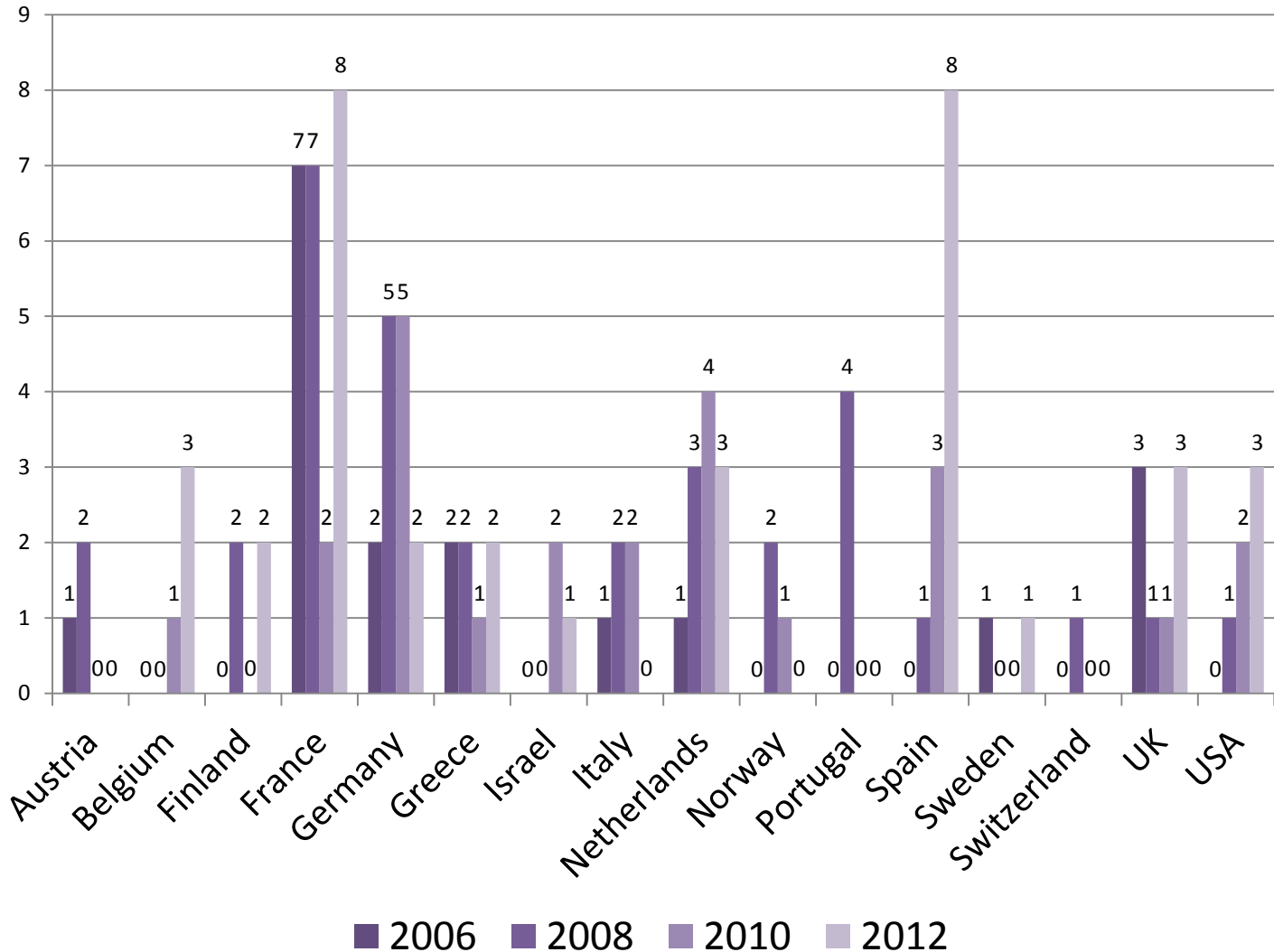


AMICSA – growing in numbers



AMICSA – Which countries presented?

number of presentations





AMICSA'06-12 – More Applications

CMOS Image sensors & CCD readouts

Video processing chain

ADC/DAC/HSSL high speed low power telecom processors (mobile & broadband) & direct down/up conversion from/to RF or IF

CAN 1553 transceivers

TM acquisition & data handling IO control

Magnetometer front end

Slow sampling high resolution

Power converters

LASER interferometer

AOCS

Environmental (T, wind, humidity) monitoring

X,Gamma ray spectroscopy readout

GNSS receivers Front End

Rad hard libs and DLLs for SoCs

Low speed regulated biasing

low speed high resolution DAC for control and calibration

High Power commands management

ISM radar receivers Front ends

Local oscillator MMIC for Ka-band down conversion in satcom

Optical wireless links

Reconfigurable multi-instrument detector FE

Charged particle detection FE

SAR RX / converter for L, C, X bands

Comparator for cross-correlator for SAR

Actuators drivers

LDVS drivers

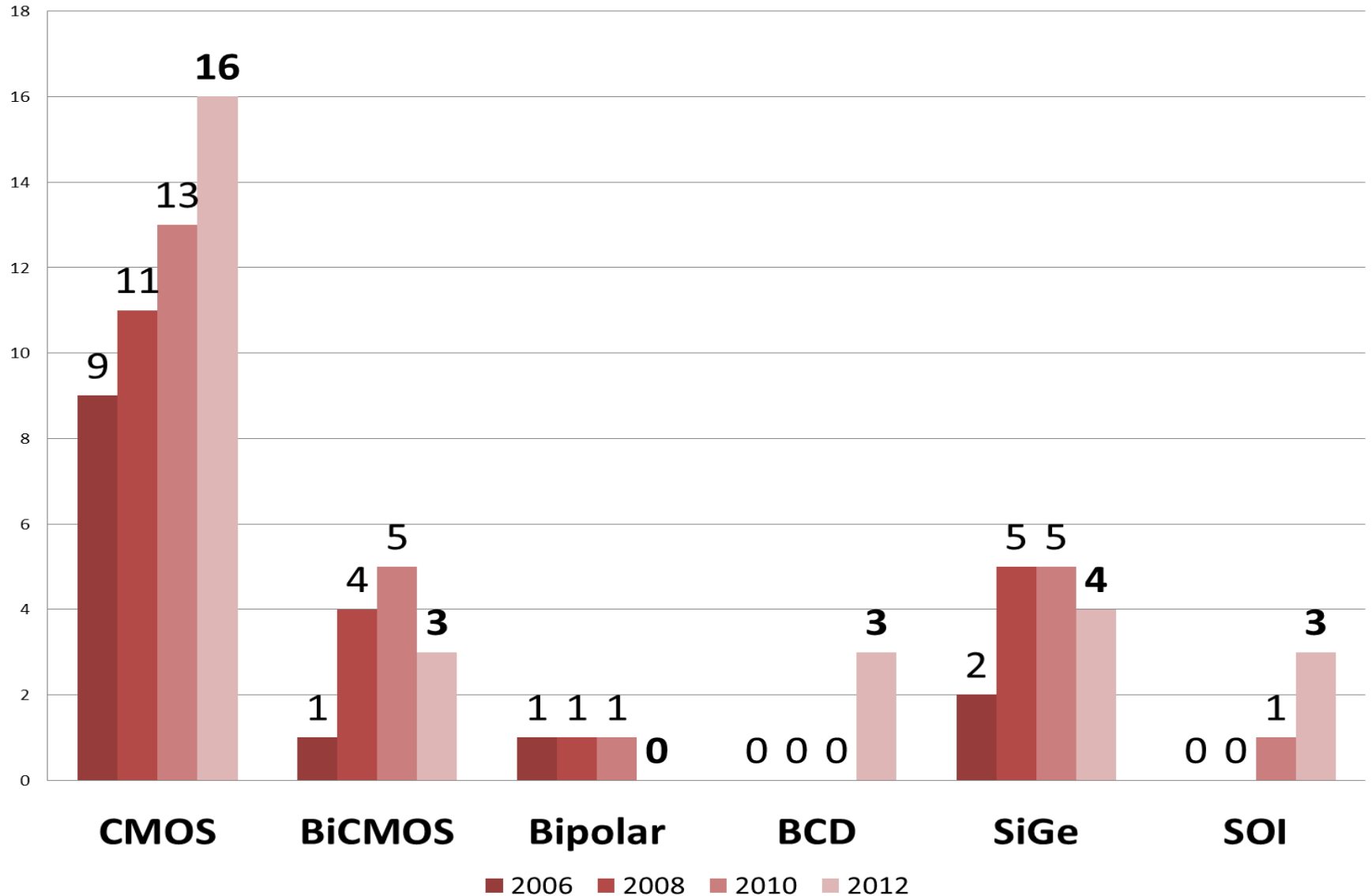
Decentralised power & env. Management

“micronodes”

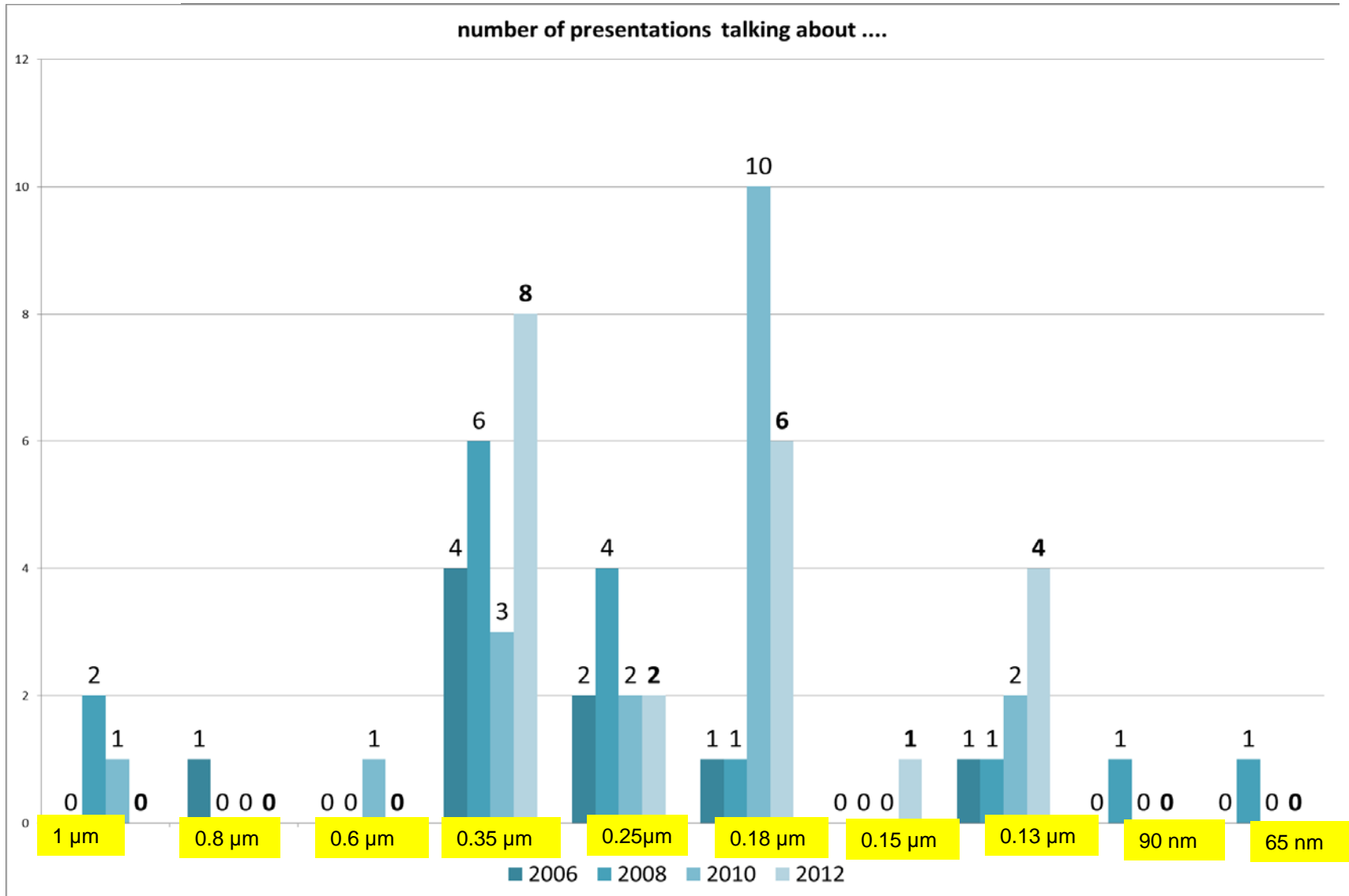
Microwave MS ICs

AMICSA – Which technology types?

number of presentations talking about...



AMICSA – Which technology NODES?





Europactice + CMP

Foundries used for space mixed-signal ASICs

TI (NS)

XFab

**RHBD Digital
Libs exist**

IHP

ON

Infineon

TI

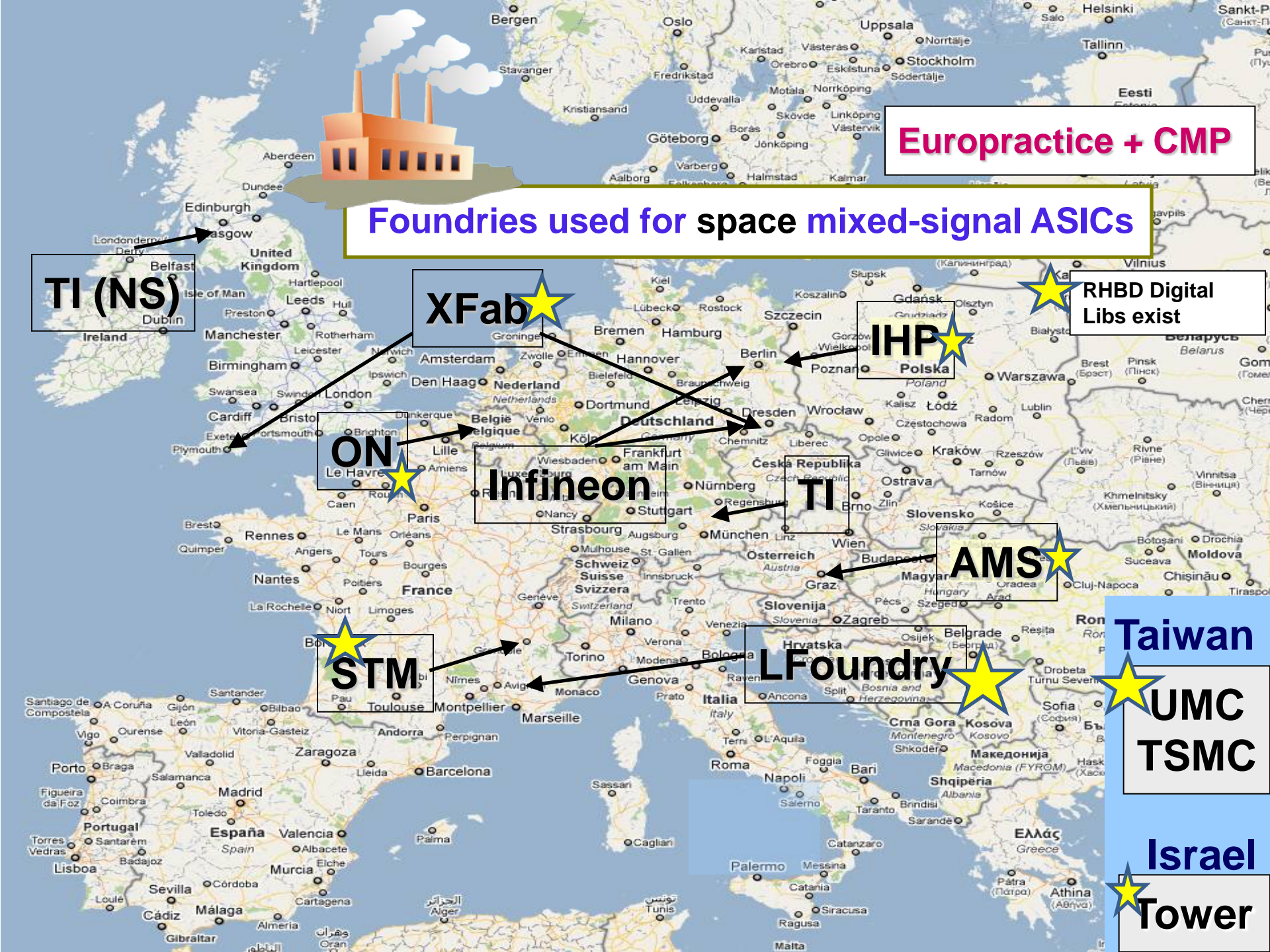
AMS

STM

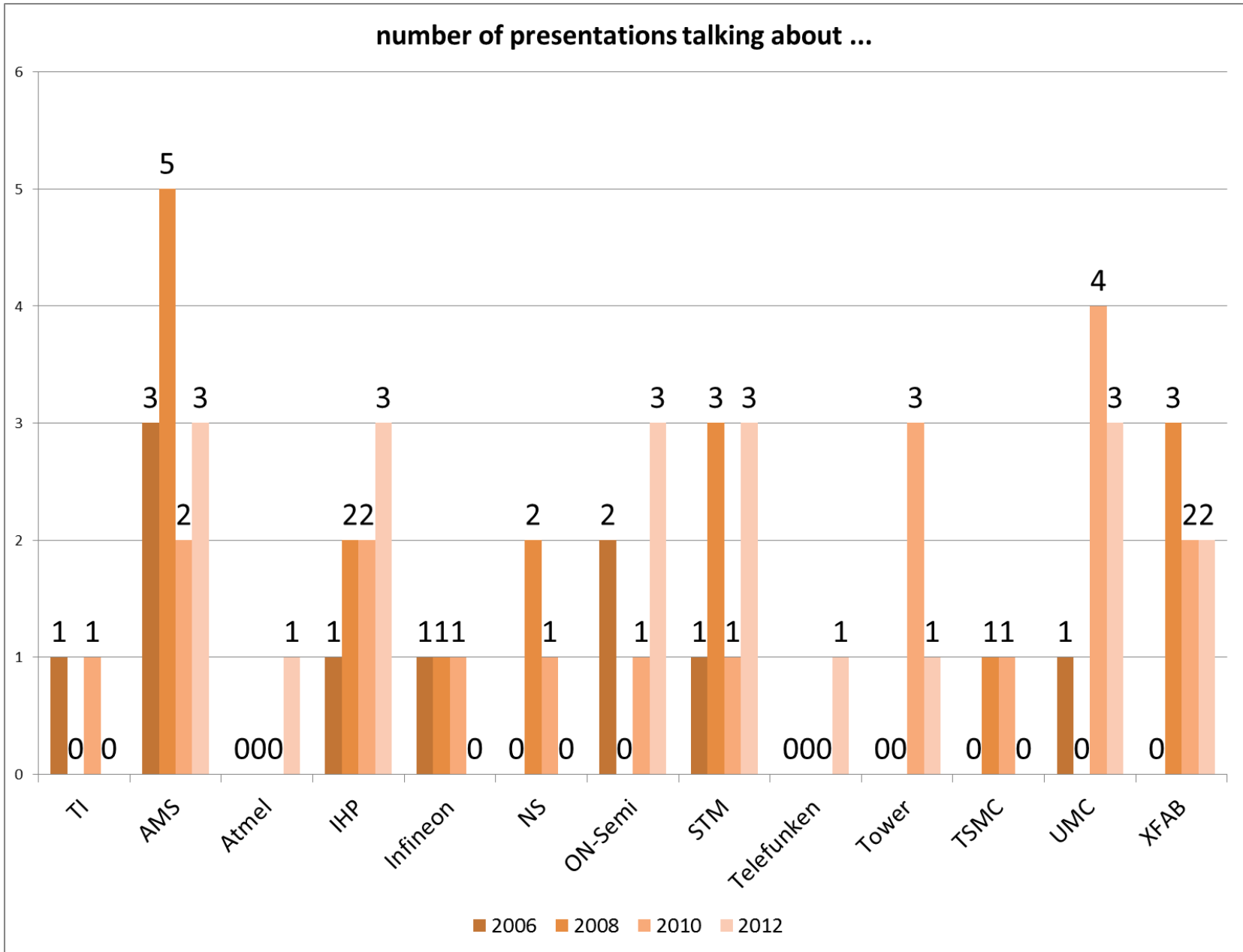
LFoundry

**Taiwan
UMC
TSMC**

**Israel
Tower**

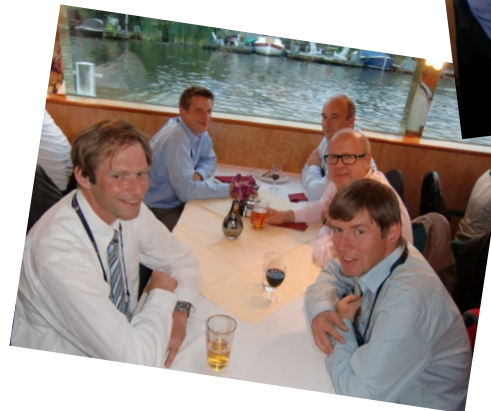
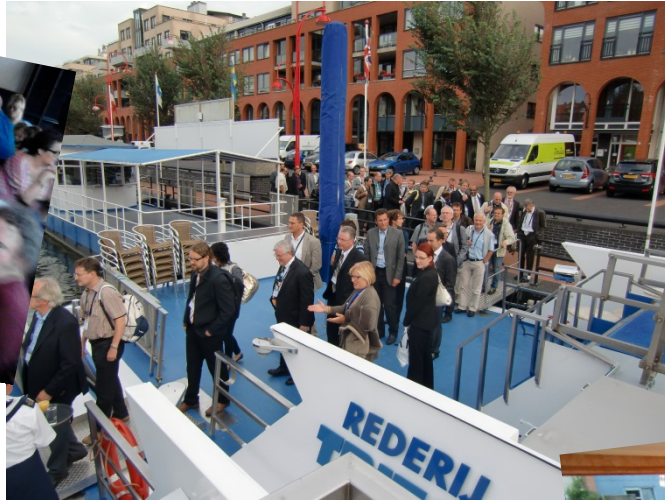


AMICSA – Which foundries?





Social Program



To conclude...

- AMICSA 2012 was successful and there is growing interest among A/MS for Space IC design community
- AMICSA is growing: more participants, talks, countries, companies, application domains and technology options!!!
- Great diversity of target technology types and fabs, application cases, supply chain combinations and qualification approaches
- More Analogue and Mixed Signal ASICs in our satellites, despite the barriers
- The interest to share experiences, know-how and do A/MS expert networking continues so

THANKS !

See you at **AMICSA 2014**

