



...maximum performance at minimum space

Bluetechnix – Laboratories

EMC Vienna

10/31/2011



BLUETECHNIX MECHATRONISCHE SYSTEME GMBH

www.bluetechnix.com

About EMC - Vienna

- Accredited EMC lab
 - ISO/IEC 17025 ICS classes 33.100.10/33.100.20
- Cooperation with TÜV Austria
- Continuous quality improvement
- EMC services in every phase of development
- Design services for EMC compatible developments

Service Portfolio

- EMC standardized measurements
 - Harmonized product standards
 - Automotive measurements
 - Military standards Mil. Std. 461E/F
- EMC know how by
 - Technicians in EMC measurement technology
 - Hardware developer with EMC expertise
- EMC development service
 - Development equipment & tools

Accredited standards scope

| | |
|--------------------------|---|
| Product standards | EN 55022, EN 55024, EN 55011, EN 55014-1, EN 55014-2 |
| Generic standards | EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4 |
| Basic standards | EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11 |

Together with our cooperation partner we can cover a broad list of harmonized standards, e.g. R&TTE; Medical devices, EMC 2004/108 directive, Automotive 72/245 directive.....

Measurement Environment I

- Semi – anechoic chamber

- Frequency range: 30MHz – 18GHz
- Meas. Distance: 3 meter
- Entrance door: 1.2m width, 2m height with loading platform
- Rotary disk: load max 500kg, max diameter 1.5m
- Antenna height: 1-4 meter
- Power supply: 400/230V – 32A
- Interfaces: Telephone and DSL filters, isolated interfaces for LAN, CAN, LIN, USB, RS232
- Measurement SW: Manual and fully automatic

Measurement Environment II

- ESD laboratory
 - ESD measurements up to 30kV
 - Surge pulses up to 10kV
 - Fast transients up to 4,4kV
 - Voltage fluctuations and interruptions
 - Harmonics & flicker single phase up to 1000VA
 - Power magnetic fields up to 200 A/m
 - One Helmholtz coil with 2m diameter
 - One Helmholtz coil with 1m diameter

Measurement Environment III

- Shielded chamber
 - Conducted RF emission
 - LISN, CDN
 - Current probes
 - Conducted RF immunity
 - Direct injection methods
 - Bulk current injection methods
 - Stripline (coming soon)
 - One for Emission 80cm x 80 cm
 - One for Immunity up to 400V/m

Measurement Environment IV



Shielded room for debugging and conducted RF measurements



ESD laboratory for conducted immunity measurements



Semi-anechoic chamber for radiated RF measurements

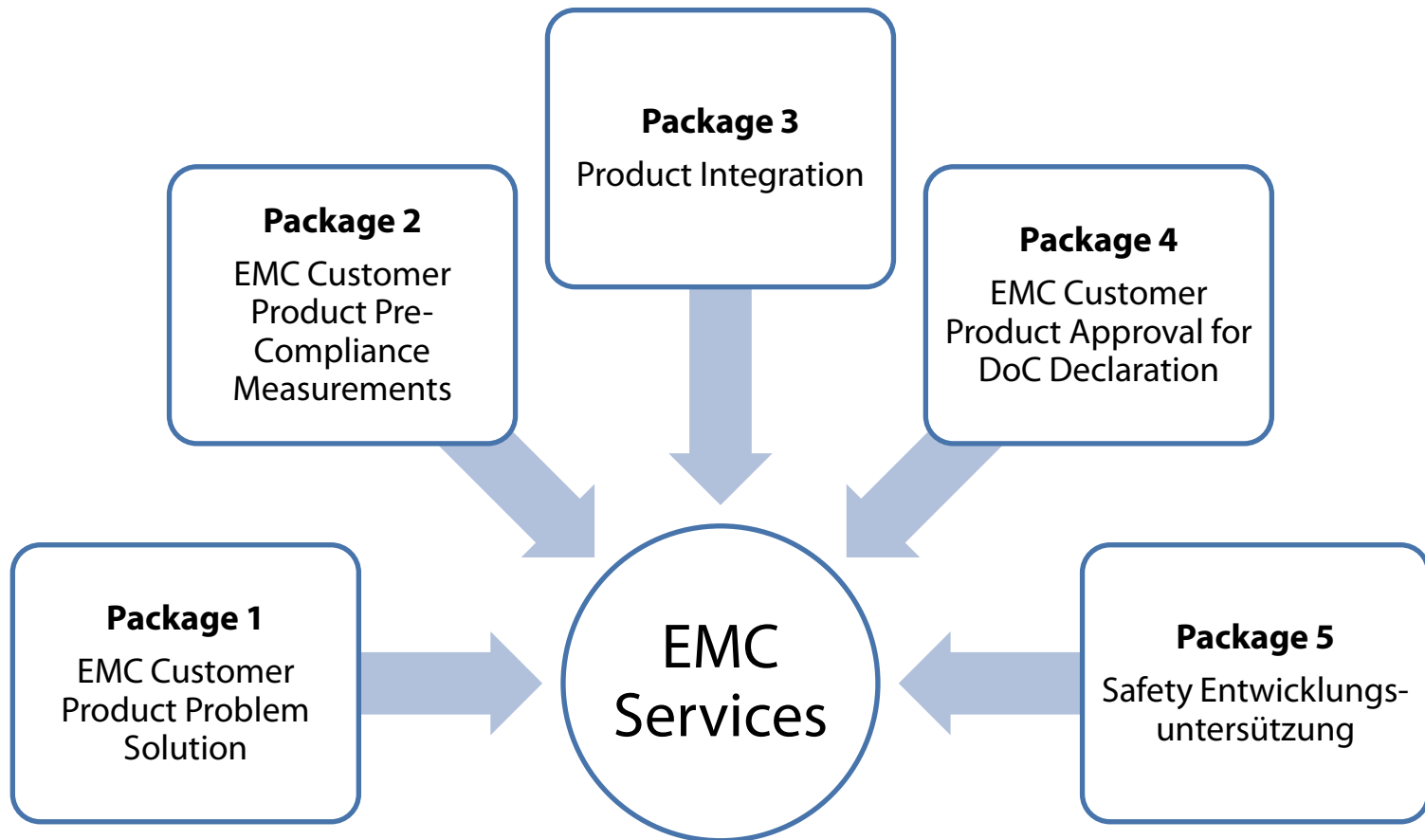
EMC services I

- EMC services in the development phase
 - EMC design support and/or consulting
 - Status verifications
 - Problem solution finding
 - Problem solution supporting
 - Pre-development key components (IC) verifications
- EMC services for approval
 - Approvals acc. harmonized product standards
 - Approvals acc. basic standards

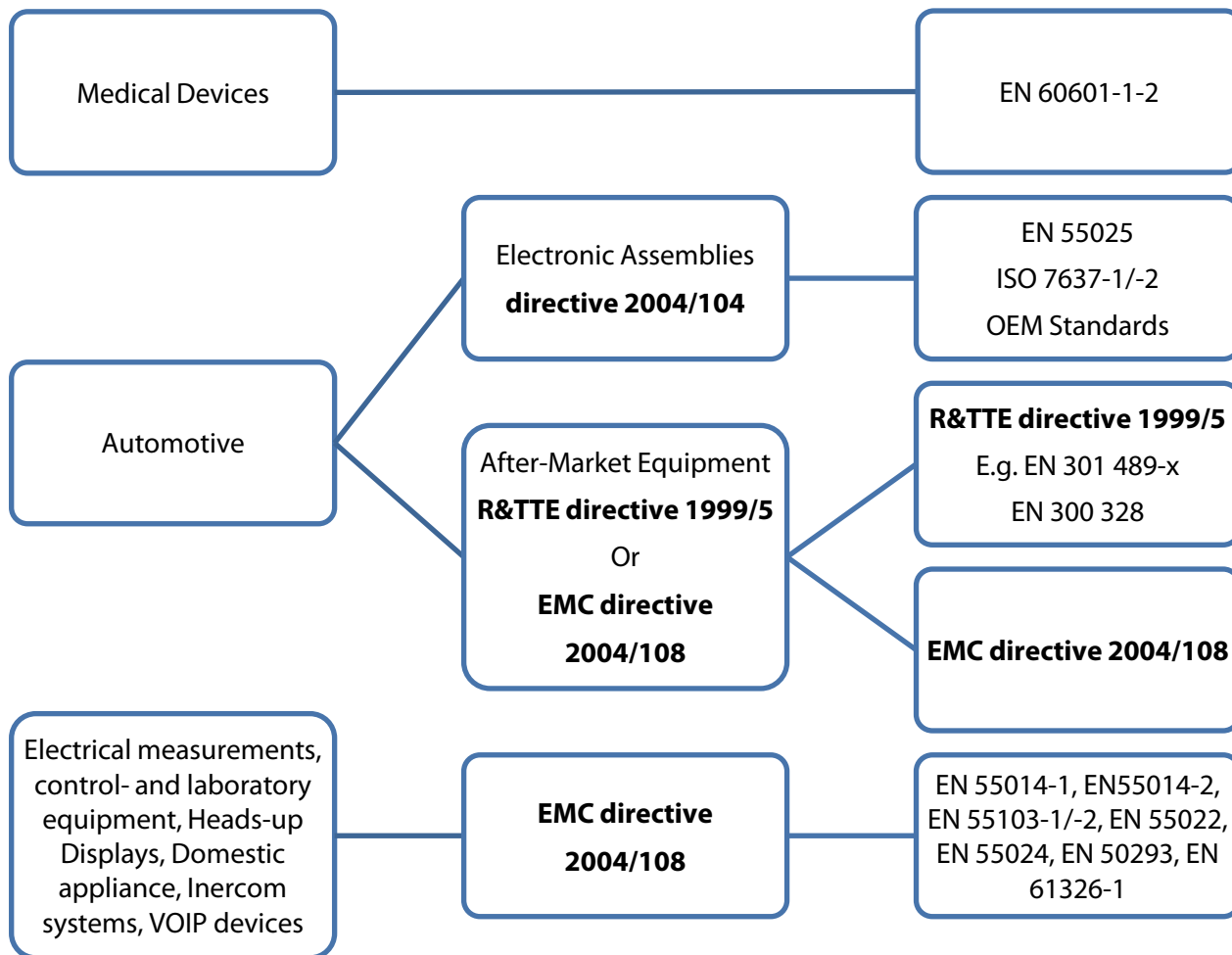
EMC services II

- Quality insurance
 - Mass production
 - e.g. RF emission
 - Fixed installations
 - e.g. RF susceptibility
- EMC Lifecycle release
 - Alternative components
 - Replacement of components

EMC services III



EMC application fields



Benefits

- Experience in EMC development for years
- EMC support in every phase of development
- Cooperation with TÜV Austria
- Customer specific solutions
- Expertise on EMC standards

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