

Spectrum looks For a New Design

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CHALLENGES

- **Neutrality has technical limitations.** Must be agreed in a common framework to avoid interference. There **IS** room for more than one EU mobile solution. Attention: more than one solution may lead to limited roaming and higher prices of the terminal. A pan-European wideband allotment must be considered when experiments are concluded. (e.g. Zapp-CDMA, IMT 2000)
- **Technology overwhelms business.** Businesses need to re-think their models to catch up with latest technologies. Authorities need to be flexible in accepting new technologies in older spectrum allotments as technology evolves. Compromise between gathering spectrum resources vs. spectrum free usage. Piling up spectrum resources may lead to passive operators, a too easy spectrum allocation may lead to a market segmentation generating more interferences that could make the authority's job harder (e.g. Romania: 3,5 GHz licenses issued in early 2000 are being re-evaluated)
- **Spectrum re-farming.** From command and control to market-driven policies. Authorities need to be aware of the market trends (e.g. Romania's IGCTI is consulting operators when putting up for sale spectrum resources)

OPPORTUNITIES

- **Concentration of producers and operators:** cheaper networks and terminals, cheaper services and extended coverage: accessible communications everywhere and for everyone
- **Increased integration of the EU market:** the single market brings Universal service everywhere- authorities should insist on lowering roaming prices!
- **Addiction to the mobility businesses:** mostly business area will add value to the communication sector through extension of services and availability
- **Technology gets speed:** authorities are pushed to take into account flexibility in service allotments as well as in radio interfaces
- **When services and technologies converge...** the efficiency of spectrum usage is increasing. Convergence will point out a longer term and a more stable solution than today's fast evolution changes.

CONCLUSIONS

- **Digital era demands a new spectrum philosophy:** National tables of Frequency Allocations are based on a scheme which is more than 50 years old. Digital era demands a new order in the spectrum to fit new technologies and services. This can become a reality once the software defined radio becomes universal and must be done at a global scale. We expect WRC07 to make new steps in this direction.
- **Convergence stimulates efficient usage of spectrum:** Due to the fact that communication services tend to be provided on multiple radio interfaces and on the same terminal, efficiency of spectrum usage is increasing. Convergence means more mobility.
- **Management of interferences- the key of spectrum liberalization and trading:** New wave mobile and digital applications increase demand for a complex management of interferences. “Keep things simple” doesn’t work every time. In order to keep the spectrum clean, management of interferences becomes a key step for every decision.
- **Shorten the life time of a license:** Spectrum decisions generate long term effects. Long time licensing can stop usage of new technologies. Authorities must keep the step with technology evolutions and avoid licensing on long periods.

Thank you!

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