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## Conference Paper

# How to create a national spectrum strategy in harmony with EU requirement

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## **How to create a national spectrum strategy in harmony with EU requirement**

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Country study

### **Abstract:**

The radio spectrum is a scarce resource for many different services (TV and radio broadcasting, navigation, mobile, wireless and satellite communications, radio location) and is used by many other commercial or scientific applications (alarms, remote controls, microphones, medical equipment, etc.). It is also used by public services (defense, security, safety and scientific activities (meteorology, Earth observation, radio astronomy and space research, etc.)).

Our goal is to use the spectrum the most effective and coherent way in order to stimulate growth, competitiveness and employment. All this can create higher costs, lead to wasted opportunities for business and reduce the take-up of innovative services to the detriment of consumers.

Spectrum management has a strong cross-border dimension. The global unified markets are based on radio-communications services like GSM services but we have to avoid harmful interference. A coordinated spectrum policy can create only a genuine single market for radio services and equipment.

### **Introduction:**

The importance of the spectrum management has been continuously growing in the last 5 years but the EU regulatory side wishes a more harmonized spectrum. But in a country like Hungary (a lot of radio navigation and other equipment inherited from the previous regime) quick harmonization would be very costly. The question is to find the right balance between these contradictory requirements.

### **Focus areas:**

The main areas of the strategy:

- Mobile broadband coverage
- Balance between the civil and non-civil usage of the spectrum
- Switchover to Digital Broadcasting and DD
- Secondary Trading of spectrum

- A Common Flexible Approach for e-Comms
- License-free Spectrum use

#### **Instruments which help to achieve the goals:**

- Public policy instruments
- Regulatory instruments
- Fiscal instruments

#### **Evaluation of the current status**

The Hungarian Communication Authority prepares the spectrum strategy every five years. Since the last issue significant changes have occurred in the area of public administration and the market too and they are represented in the evaluation of “Spectrum strategy `2006”, which evaluates the impact of the rapid changes of market demands, technology, economy and the impact of the crisis. In 2010, the communications media authorities merged into a convergent authority and the task of civil and non-civil spectrum management was transferred here. These changes are forcing us to re-think the spectrum strategy, along with the usage of the spectrum.

#### **The methodology of preparation:**

In order to be consistent with other strategies, we used the methodology called KSaK, which is a target-based methodology used in public administration. Based on the pillars which are defined by methodology we can describe the regulation of spectrum, and the most important relationships between the institutional system and the spectrum users.

The main chapters of draft strategy are the following:

- a) Identifying the main pillars
- b) analysis of the present situation
- c) SWOT analysis by identified characteristics and processes
- d) wanted position
- e) the value-based (quantitative) vision
- f) the target-based (qualitative) vision
- g) designation of the strategic directions and alternatives
- h) develop a strategic conditionality
- i) implementation and monitoring
- j) financial plan
- k) consistency and coherence analysis of the strategy.

#### **a) Identifying the main pillars**

The most important and at the same time the most difficult task is to determine the main pillars. The incorrect determination of the pillars could sidetrack the entire strategy. The experts of the Authority and the communication between the service providers determined the pillars following a lengthy discussion. The logical links between the pillars are based on a value-chain.

- 1) Radio Spectrum as a natural resource
- 2) System of Institutions
- 3) Users

All of them are very important and we try to outline how the national resource mentioned in Point 1 could be transformed to the users in Point 3 through Point 2. These pillars are independent of each other but there are interactions between them. It is to be mentioned that these pillars dynamically alter in time but the time requirements of these elements significantly differ. Point 1 is the most stable and the third one changes by the day. The point is to operate the three pillars creating an absolute social and economic value.

#### **b) Analysis of the present situation**

The Authority had a spectrum strategy earlier too. We have analyzed what objectives were realized and which failed to do so. We have also examined the external and internal reasons.

Making the regulations of spectrum usage has been a long process than we calculated earlier. Some international rules were implemented with a delay. Nor did we take into account the world economic crisis. I also meant that new technologies could not appear and the existing processes slowed down. (see Digital Switchover) The main goals of the former strategy were performed and some of them will continue in the next years.

In order to have a full overview about the situation we needed to become familiar with the opinions of the users. We invited the main frequency users (service providers) to a workshop where they presented their opinions and debated them. One of the results of this discussion was that we understood that they have to know the „roll-out’ of the frequency sales. In order to be able to become prepared for sales, the consent and decision of their Board is also required, which takes almost a year. (Financial planning) The present draft strategy in formation at the moment will contain this roll-out plan.

The formation of strategy started at the beginning of this year and is still in progress. In our lecture we would like to present the main milestones of creating the strategy and the provisional results. We would like to describe the critical and important decision points which we have had to face in our work. Accepting the conditions of international regulations, it can be seen that the formation of national strategy can have several ways leading to the solution. It is of the highest importance that we should make our decisions knowing the national market while shaping the strategy. Let’s not forget that strategy needs to be implemented not only created and we have to consider market players as partners.

Keywords: strategy methodology, spectrum management, country study

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