

The First Romanian Spectrum Auction for Mobile Electronic Communications

Bogdan IANA
ANCOM Director

A Timely Needed Auction

Expiring licences

- 2 "GSM" licences (900 + 1800 MHz) end-2012
- 1 "GSM" licence (900 + 1800 MHz) April 2014

New frequencies available

- following release by Ministry of Defence (800 MHz, 1800 MHz, 2600 MHz)
- amendments to TNABF (800 MHz, 2600 MHz)
- appropriate for LTE, higher bandwidths

Increasing data traffic on the mobile networks

- ever-increasing data volume at mobile locations (more than 200 MB/active SIM card/month)
- day by day, ever more smartphones, tablets etc. use more and more applications, mobile internet, social networks
- increased network capacity

New technologies in mobile communications

- HSPA+ and LTE (4G)

Competitive Selection (auction)

❑ a transparent and objective procedure

- ✓ developed internally by ANCOM's own experts in frequency management, economical & technical regulations, legal, and IT
- ✓ based on the models confirmed by international practice
- ✓ adapted to the circumstances of the Romanian market

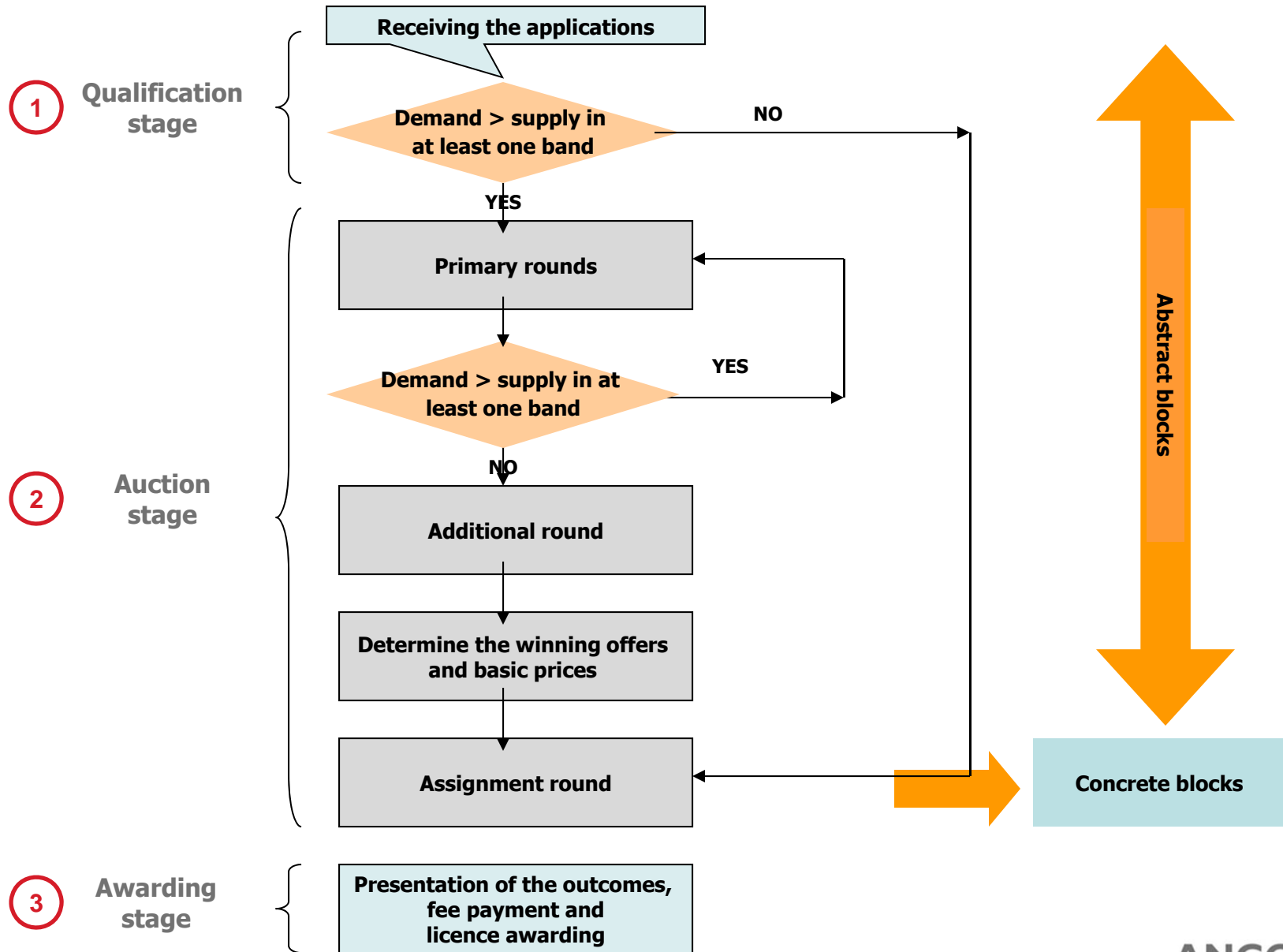
❑ the market decides the allocation & distribution of frequencies (not the Authority)

- ✓ sufficiently small blocks (for flexibility of choice) and sufficiently large blocks (for technological neutrality = 2G, 3G, 4G): 5 MHz FDD, 15 MHz TDD
- ✓ independent frequency blocks (one from another)
- ✓ the operators can obtain frequency portfolios that best answer their needs and their business models

❑ non-discriminatory treatment

- ✓ the same participation conditions for all the interested parties, new entrants or existing operators
- ✓ the only differences: closer deadlines for coverage obligations in case of existing operators

The Auction Was Open, Ascending, Multi-band and Multi-round



Auction Calendar 2012

- | | | |
|---------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ➤ 27 December 2011 | adoption GO 111/2011 | |
| ➤ 28 December 2011 | decision of extending the "GSM" licences | |
| ➤ 14 March 2012 | public consultation – document package | |
| ➤ 2 July 2012 | invitation to the auction | |
| ➤ 14 August 2012 | 5 candidatures submitted | [<ul style="list-style-type: none">• COSMOTE RMT• ORANGE ROMANIA• RCS & RDS• VODAFONE ROMANIA• 2K TELECOM] |
| ➤ 20 August 2012 | all candidatures validated | |
| ➤ 10 September 2012 | 2 primary rounds | |
| ➤ 11 September 2012 | 1 primary round | |
| ➤ 14 September 2012 | additional round 1 | |
| ➤ 17 September 2012 | additional round 2 | |
| ➤ 21 September 2012 | 4 allocation rounds | |
| ➤ 24 September 2012 | 3 allocation rounds | |

Auction Outcomes = All Objectives Fulfilled

- ✓ **Substantial increase in the amount of spectrum available for mobile communications**
 - some additional 210 MHz (**+77%**)
- ✓ **Advantages for the users**
 - technological innovation => new high-speed services
 - more spectrum => higher quality and better coverage
 - **676 new rural localities** (outside 3G coverage) will benefit from HSPA/HSPA+/LTE
- ✓ **Stimulate technological development**
 - the operators were free to choose the technologies to be used
 - foster the commercial launch of **LTE/4G** (urban from 2013, national from April 2014)
- ✓ **Sustainable development of the competition environment**
 - **4 national coverage networks**, more efficient distribution of the 900 MHz band
 - Cosmote, RCS & RDS and 2K Telecom undertook to host **MVNOs**
- ✓ **Secure long-term planning and investments**
 - the operators may plan their network development and **investments up to 2029**
 - transitional **national roaming**, for the first time in Romania
- ✓ **An auction with efficient results**
 - no significant differences between the licence fees for substitutable bands
 - ensuring **continuous, homogeneous/unbroken portfolios**

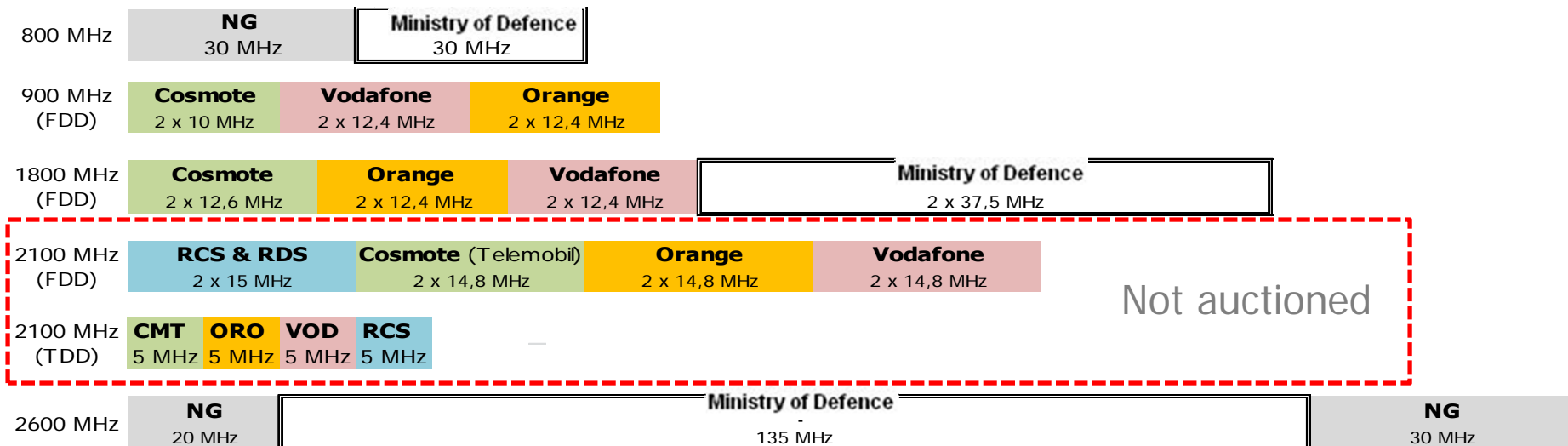
Licence Winners & Licence Fees

Category	Band	Validity	Cosmote RMT	Orange	RCS & RDS	Vodafone	2K Telecom
A	800 MHz	06.04.2014 – 05.04.2029	2 x 5 MHz	2 x 10 MHz	-	2 x 10 MHz	-
B	900 MHz	01.01.2013 – 05.04.2014	-	2 x 12,5 MHz	-	2 x 12,5 MHz	-
C	900 MHz	06.04.2014 – 05.04.2029	2 x 10 MHz	2 x 10 MHz	2 x 5 MHz	2 x 10 MHz	-
D	1800 MHz	01.01.2013 – 05.04.2014	-	2 x 15 MHz	-	2 x 15 MHz	-
E	1800 MHz	06.04.2014 – 05.04.2029	2 x 25 MHz	2 x 20 MHz	-	2 x 30 MHz	-
F	2600 MHz	06.04.2014 – 05.04.2029	2 x 10 MHz	2 x 20 MHz	-	-	-
G	2600 MHz	06.04.2014 – 05.04.2029	-	-	-	1 x 15 MHz	1 x 30 MHz
awarding price (EURO)			179.880.000 €	227.135.002 €	40.000.000 €	228.520.034 €	6.601.000 €

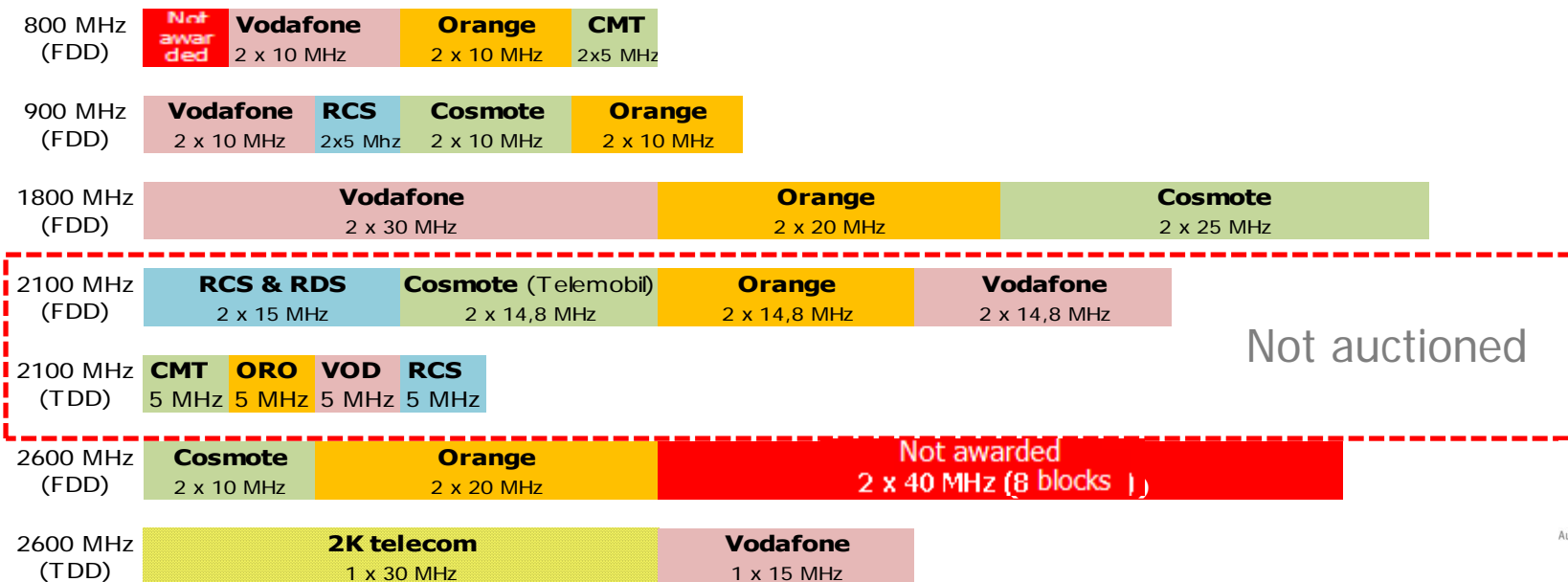
Total: 682,136,036 €

- **prices paid/MHz/population - in range with EU averages after discounted for ARPU differential**

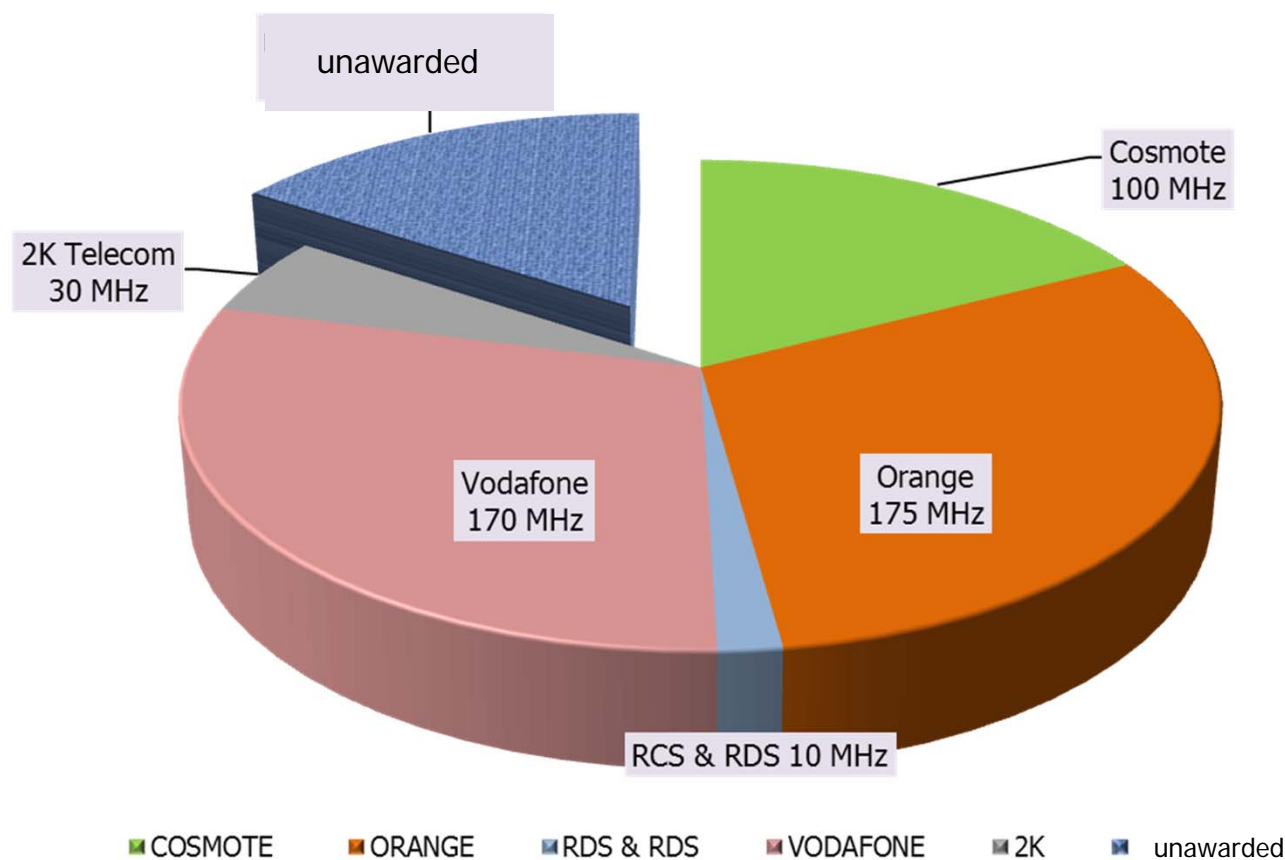
Allocation of the auctioned spectrum by bands & holders BEFORE THE AUCTION



Allocation of the auctioned spectrum by bands & holders AFTER THE AUCTION



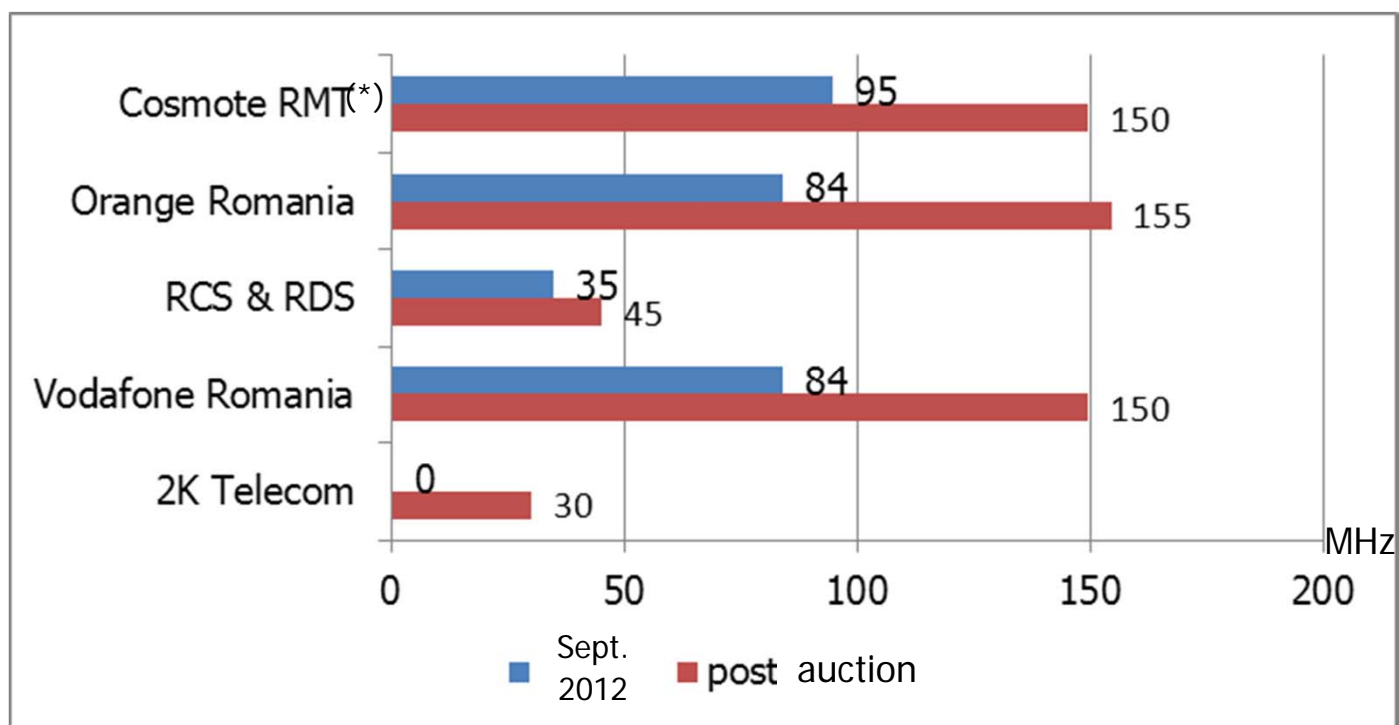
Distribution of the Auctioned Spectrum (MHz)



Cumulated figures, i.e.
long licences
+
short licences

485 MHz of the 575 MHz auctioned (85%) were awarded
The spectrum resources available for mobile communications increased by 77%

Distribution of Total Spectrum Portfolios (MHz)



(*) includes the spectrum portfolios of all the entities in the group

Administrative Issues

- ❑ **place of the auction: ANCOM's Regional Bucharest branch**
 - ✓ the entire top floor only for the auction
 - ✓ dedicated elevator for bidders and auction staff
 - ✓ security 24 hours per day

- ❑ **every bidder had standard facilities**
 - ✓ dedicated room for all the period
 - ✓ one desktop with auction software, one printer
 - ✓ one phone only with the auction commission
 - ✓ own equipment

- ❑ **common facilities**
 - ✓ internet wireless
 - ✓ video cameras in commission room and common spaces

Thank you!

Bogdan IANA
Executive Director
Spectrum Management & Numbering

bogdan.iana@ancom.org.ro