Wir stehen für Wettbewerb und Medienvielfalt
BEREC report

Awards and coverage obligations

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Starting point – RSPG Report on efficient awards

- Consulted with industry and with academics
- Possible award mechanisms
- There is no one-size-fits-all
- Design depend on objectives and should be tailored to the national circumstances
- Important principles such as transparency, consultations, minimise uncertainties and the risk of an inefficient assignment, avoid collusion and strategic bidding, etc.
- Different types of auctions formats (sealed bid, SMRA, SCA, CCA, etc.)
- Risks in an auction (substitution risk, aggregation risk, fragmentation risk, threshold risk, common value uncertainty, bid shading, complexity, budget-constrained bidders, gaming, tacit collusion, price-driving, strategic-demand reduction, eligibility parking, etc.)
- Assessment and development of formats
- Further issues: packaging, lot sizes, multiple bands, reserve prices, deposits, anti-collusion rules, license duration, fees, competition measures, coverage obligations, wholesale access, trading and leasing, UIOLI, sharing, etc
- Analytical framework and process
BEREC report

• General
  • Title: “BEREC report on practices on spectrum authorization, award procedures and coverage obligations with a view to considering their suitability to 5G”
  • No replication of RSPG report – stronger focus on practices of NRAs/CAs (LTE auctions) and suitability for 5G

• Structure
  • Award regimes for ECS bands
  • Choice and design of award mechanisms (what matters?)
  • Competition measures
  • Band-bundling and band structure (lot sizes, etc.)
  • License scope and characteristics (duration, geographical, type of RoU)
  • Coverage obligations
  • Basis: 283/131 award procedures and bands
  • Future awards (suitability to 5G)
Authorisation regimes

- Auctions
- Beauty contents
- First come first serve
- Hybrid form
What are the design objectives of award procedures?

- Competition
- Efficiency
- Coverage
- Innovation
- Other objectives
What matters for the choice of the auction format?

Objectives  
Market circumstances

Efficiency considerations  
Acceptance and practical considerations
What matters for the choice of the auction format?

- **Market circumstances**
  - Amount of spectrum, number of blocks
  - The homogeneity of blocks (substitutes or not?)
  - Participants, competition on the market, heterogeneity of demand
  - Market and technology development

- **Efficiency**
  - Setup market mechanism; flexibility with maximum freedom of choice
  - Aggregation risks and substitution risks
  - Common value uncertainties (Winner's curse risk)
  - Fragmentation risks
  - Pro-competitive bidding incentives (avoid collusion, strategic bidding, strategic demand reduction, etc.)
  - Price transparency and discovery

- **Acceptance and practical considerations**
  - Acceptance
  - Transparency
  - Easy to understand, clarity and low complexity
  - Quick and simple solution
  - Fairness (equal opportunity by each bidder)
  - Result of public consultations
Factors to consider in designing the award procedure

- **Measures to safeguard competition**
  - Spectrum Caps
  - Reserved spectrum for certain bidders or group of bidders (e.g. new entrants)
  - Wholesale access obligations

- **Reasons for band-bundling**
  - Facilitate market entry (access to an appropriate set of bands)
  - Allow for more flexibility (substitution,...)
  - Provide opportunity to be awarded spectrum in bands that allow to provide appropriate coverage and capacity
  - Reasons against: release the spectrum as soon as it becomes available
Factors to consider in designing the award

Licence durations

Coverage Obligations
Awards and coverage obligations for 5G

**Spectrum Authorisation for 5G**
- Mix of bands used:
  - 700 MHz (coverage)
  - 3.4-3.8 GHz (capacity and FWA)
  - 26 GHz (high capacity and very low latency)
- Different bands will require different authorisation regimes
- Innovative ways of authorising spectrum may be necessary (26 GHz)

**Coverage obligations and targets for 5G**
- 5G Action plan
  - Focus on road and railway seem to increase
  - Remote area obligations
  - Specific locations obligations
- Area coverage
- Enhanced mobile broadband
- Specific quality of service requirements
- Needs of verticals?

Too early for concrete conclusions!
Which type of coverage obligations are foreseen for the awards of the 5G candidate bands?
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Auf Wiedersehen!