

## Session II: 5G Spectrum Policy

### 5G Awards: What have we learnt so far?

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Часть II:  
Политика по  
выделению  
спектра для 5G



Спектр для 5G: Что мы узнали на сегодняшний день?

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**Mobile360**  
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# Award Best Practice

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## 1. Use a Collaborative Approach

- The best connectivity and services is reliant on trust and good relationship between government and industry
- Creating the right environment for both network investment and network-based competition to thrive over the medium to long term is critical

## 2. Create and Maintain a Clear Spectrum Roadmap

- Setting out what spectrum bands are to be cleared and licensed over the coming years provides:
  - Visibility
  - Certainty
  - Predictability
- Sets the stage for future investments for the whole mobile ecosystem
- Helps incumbent spectrum users

### 3. Use awards only when appropriate and necessary

- Competitive awards should only be used when:
  - New spectrum is allocated or,
  - there is a significant market change
- Administrative renewal are best for spectrum already in the market
  - E.g. France and Portugal

## 4. The supply of spectrum should not be limited to create artificial scarcity

- The right amount of spectrum allows the industry to innovate and provide overall better quality of services
- For 5G operators need:
  - 80-100MHz per operator in the C-Band and,
  - 1GHz per operator in 26 GHz band
- Setting spectrum aside for any particular applicants risks “picking winners”

## 5. Award all spectrum in open, transparent and non-discriminatory processes

- Spectrum licences are assigned to those entities that will make the best economic use of the resource
- Transparency ensures clarity and visibility
- Allowing market forces to determine the best outcome
- E.g. Germany (2015) and Norway (2013)



## 6. Strike a balance between competing policy objectives

- Impossible to have everything, there are different trade-offs that need to be considered
- Balancing different policy priorities is critical to ensure a viable outcome

## 7. A clear and timely award process including a comprehensive and inclusive consultation(s)

- Set a timeline with clear a process e.g:
  - Initial consultation with stakeholders
  - Draft proposal
  - Second consultation
  - Final award rules
- Allow sufficient time for each mile stone

## 8. Spectrum pricing should aim to achieve greater connectivity and investment rather than revenue

- The long-term socioeconomic benefits are much higher than the short term gain from high spectrum proceeds
- Network impact of lower spectrum costs is:
  - Extensive coverage
  - Lower service costs
  - Higher capacity

## 9. Adopt an award design that can deliver an efficient outcome with minimal uncertainty

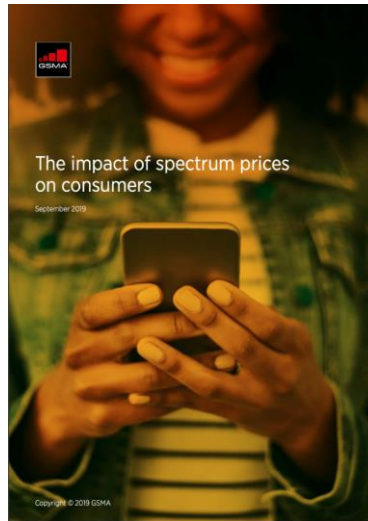
- There is no one size fits all for spectrum awards
- There are key principles that should be applied irrespective of the award format that collectively will lead to better outcomes

## 10. Offer spectrum in lots that allow the auction to function efficiently and the market to find optimal equilibrium

- Award formats need to allow bidders to find the optimal distribution of frequencies
- Offering spectrum in smaller packages to allow competition and market forces to determine the best outcome

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To Learn More: <https://www.gsma.com/spectrum/resources/>



	DEVELOPING COUNTRIES	DEVELOPED COUNTRIES
 <p><b>NETWORK COVERAGE</b></p>	 <p><b>Strong evidence</b> that higher spectrum prices had a persistent negative impact on 4G coverage as well as a negative impact on 3G coverage in the short and medium term.</p>	 <p><b>Strong evidence</b> that higher spectrum prices had a negative impact on 4G coverage.</p>
 <p><b>NETWORK QUALITY</b></p>	 <p><b>Strong evidence</b> that higher spectrum prices had a long-term negative impact on average network quality and 3G network quality, including download/upload speeds and latencies.</p> <p><b>Some evidence</b> of negative impact on 4G network quality, particularly upload speeds, though this is not conclusive.</p>	 <p><b>Strong evidence</b> that higher spectrum prices had a long-term negative impact on 4G download speeds.</p> <p><b>Some evidence</b> of a negative impact on 4G upload speeds.</p>



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