UK Spectrum Policy Forum - Plenary

# The role of spectrum policy in tackling the climate change issue

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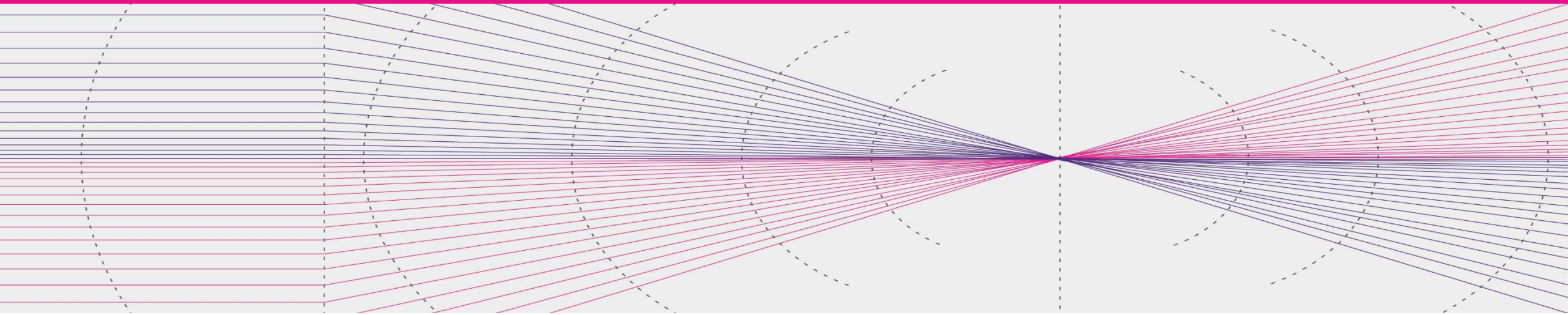


# Background of the study

- In June 2019, the UK Government passed legislation requiring the reduction of the UK's net emissions of greenhouse gases by 100% relative to 1990 levels by 2050.
- Operators and vendors have already undertaken climate change adjustments under CSR

- Study: **The role of radio spectrum policy in helping to combat climate change**
- Inspired by GSMA's response to Draft RSPG Opinion on a Radio Spectrum Policy Programme
- Our study looks at spectrum users as both enablers (reducing environments impacts) and polluters and draws a series of recommendations on how regulators and governments can adapt their spectrum policies to be more environmentally responsible.

# Structure of research

## Relationship between ICT sector and climate change

- Enabler of carbon emissions reduction
- Polluter
- Measuring & monitoring
- Other actions from industry players

## Role of spectrum policy in combating climate change

- Spectrum management issues
- Enabling flexibility and fostering self-regulation
- Spectrum provision issues
- Legacy network switch-off
- Network sharing
- Approach to specific systems that are key for the climate

# The relationship between the communications sector and climate change

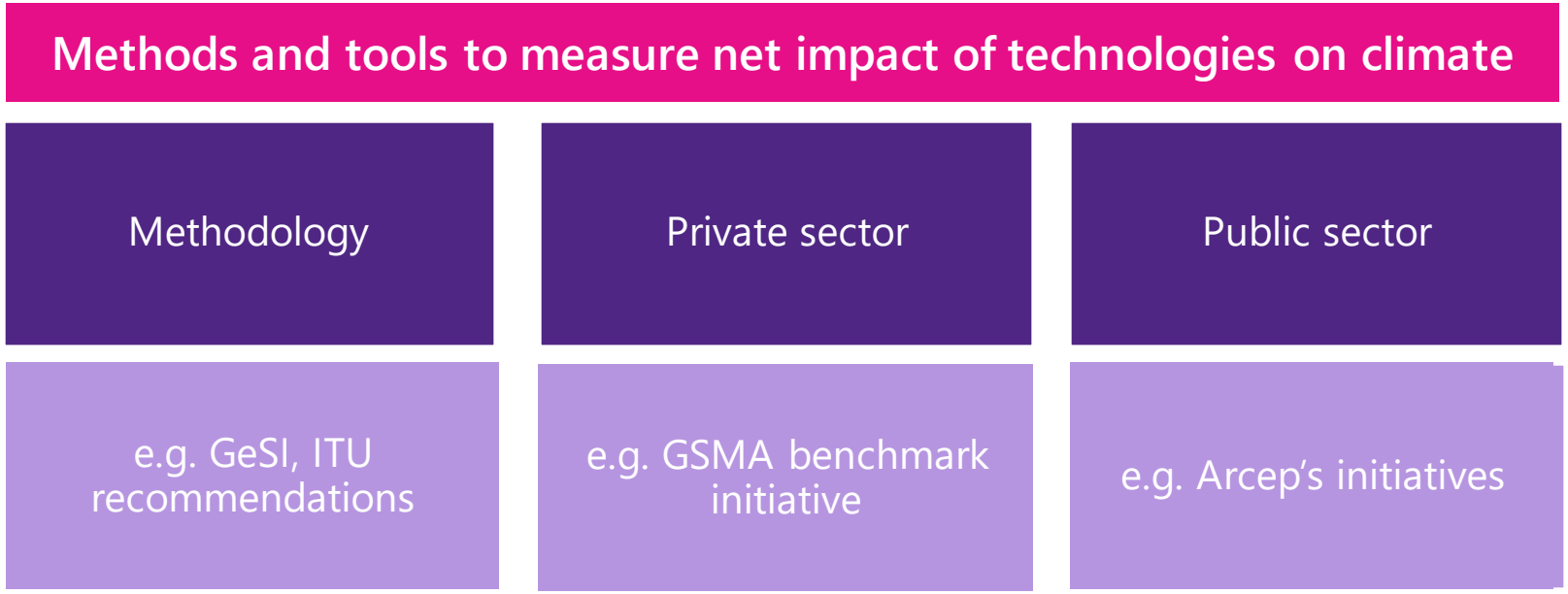
## Enabler (reducing carbon emissions)

- Change in behaviours (for example, through reduced travel, or through more efficient working practices)
- Use of digital technologies in different sectors: e.g. telecommunications, broadcasting, energy, industry
- Importance of science services

## Polluter (emitting carbon emissions)

- User devices : biggest part of chain in terms of carbon emissions (electricity consumption).
- Mobile networks (greener energy, energy-efficient equipment)
- Fixed networks
- Others

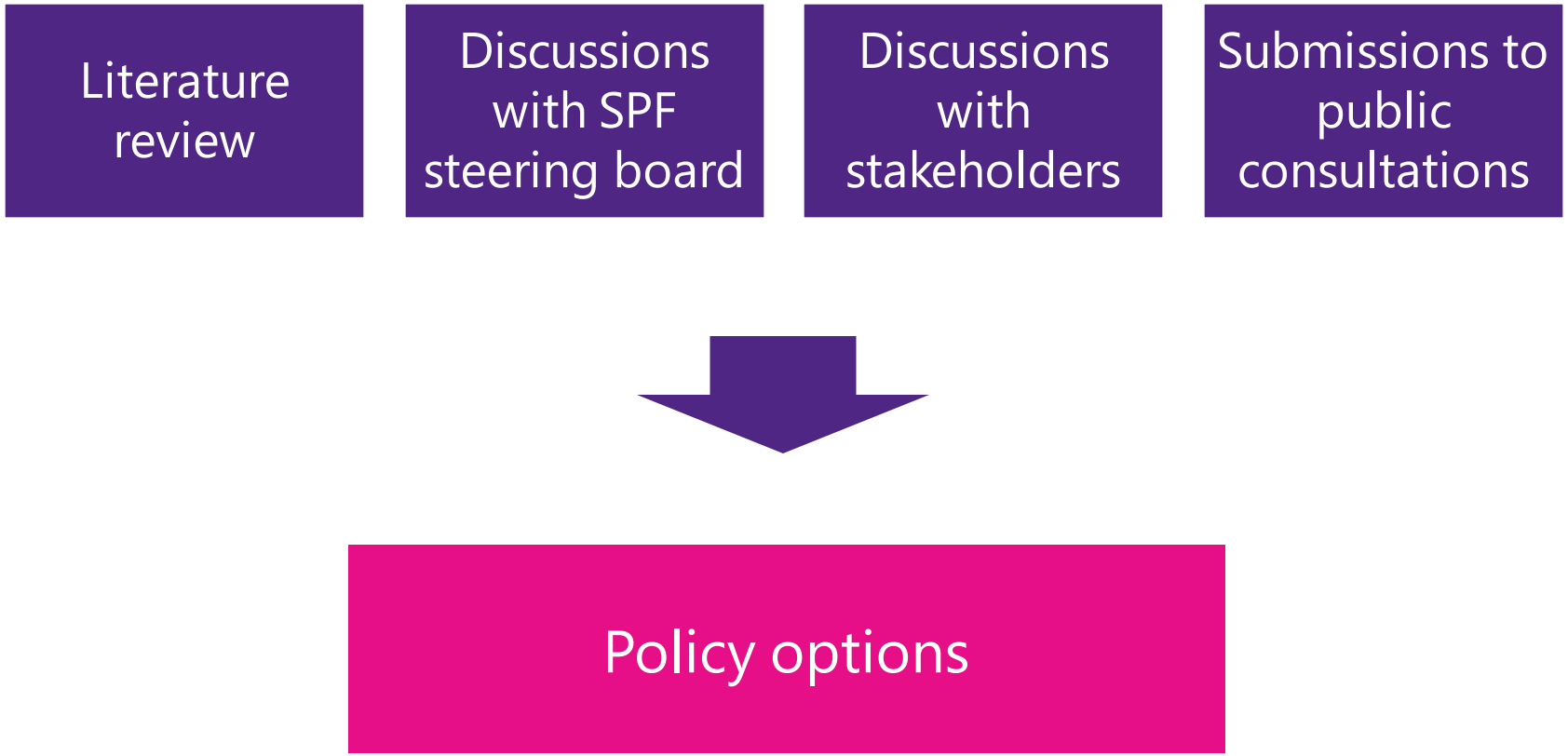
# Measuring and monitoring



# The role of spectrum policy in combating climate change

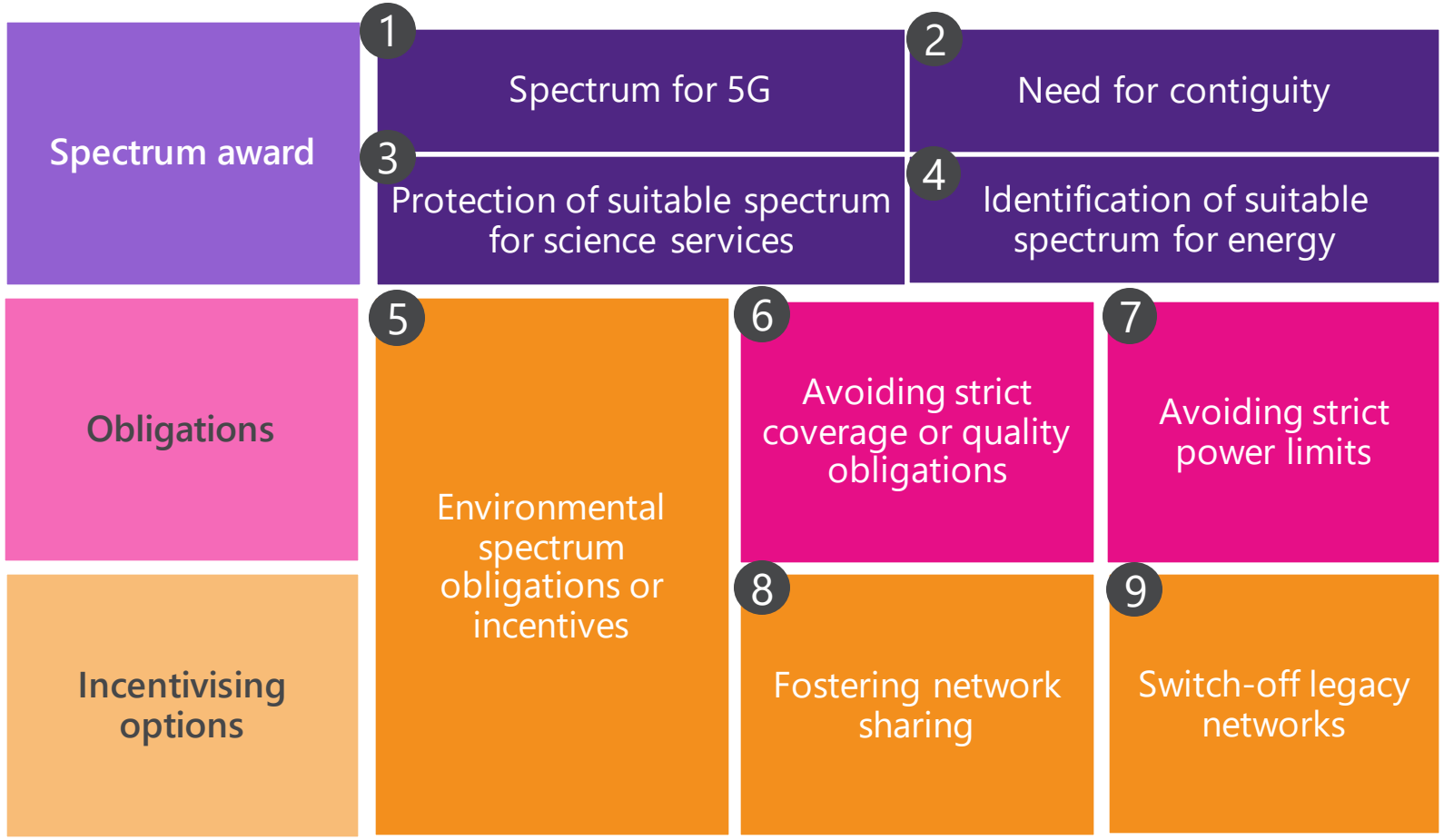
- Existing gap in research and existing literature
- Strong interest in the subject
- Positions/propositions of spectrum policies made by organizations (ITU, RSPG; ETNO; GSMA; GeSI)
- On the spectrum policy matter, most of the literature is about mobile networks.
- Approach by sector/vertical: Energy sector has the most information publicly available.
- National Infrastructure Commission recommendation: Ofcom, Ofgem and Ofwat should have new duties to "promote the achievement of net zero by 2050 and improve resilience".

# A summary of research




Discussions with: Joint Radio Company, Met Office, OFCOM, 450MHz Alliance, Digital UK

# Proposed spectrum policy options



# Classification methodology

| | |
|---|---|
| Potential impact on climate change |  low medium high very high |
| Assessed timeline | Short Medium Long |

# Recommendations

- The regulator must have environmental impact responsibilities
- A measurement and monitoring regime is required to help with regulation
- Science services spectrum must be protected
- Spectrum users should be compelled to use green sources of energy
- Legacy networks should be switched off when feasible
- Suitable spectrum for energy should be identified
- Sufficient spectrum should be provided to keep the number of mobile sites low
- Spectrum should be awarded in contiguous blocks

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