



# Technology neutral auctions

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- With shift to technology neutral licensing, it is increasingly common to have different uses competing for the same spectrum
- However, some uses still need to be kept apart so as to avoid wasting spectrum on guard blocks
  - e.g. TDD / FDD, P2P / PMP
- DotEcon Ltd have been working with European regulators to develop two types of auctions that determine allocation as well as assignment:

Format	What for?	Where used?
Combinatorial clock auction (CCA)	Higher value spectrum Bidders want price discovery to define valuations	UK 2.6GHz Dutch 2.6GHz
Sealed bid combinatorial	Low/mid value spectrum No strong common value concerns	Irish 26GHz

- First stage 'allocation round' determines the winning bidders and the band plan for the different users
- Second stage 'assignment round' determines which frequencies are awarded to the winning bidders

# Irish 26GHz auction - an example of an auction that determines the band plan as well as the winning bidders

- Two stage sealed bid with package bidding
  - First stage *Allocation round* determined winning bidders and allocation of lots to point-to-multipoint (PMP) and point-to-point (P2P)
  - Second stage *Assignment round* assigned specific frequencies to lots won by winning bidders
- 'Second price' rule - no bidder pays more than necessary to win their lots

