



5G Workshop: setting the scene

Caroline Gabriel, Research Director
Rethink Technology Research



Path to 5G

Long survival for LTE

NTT Docomo

Deutsch Telekom

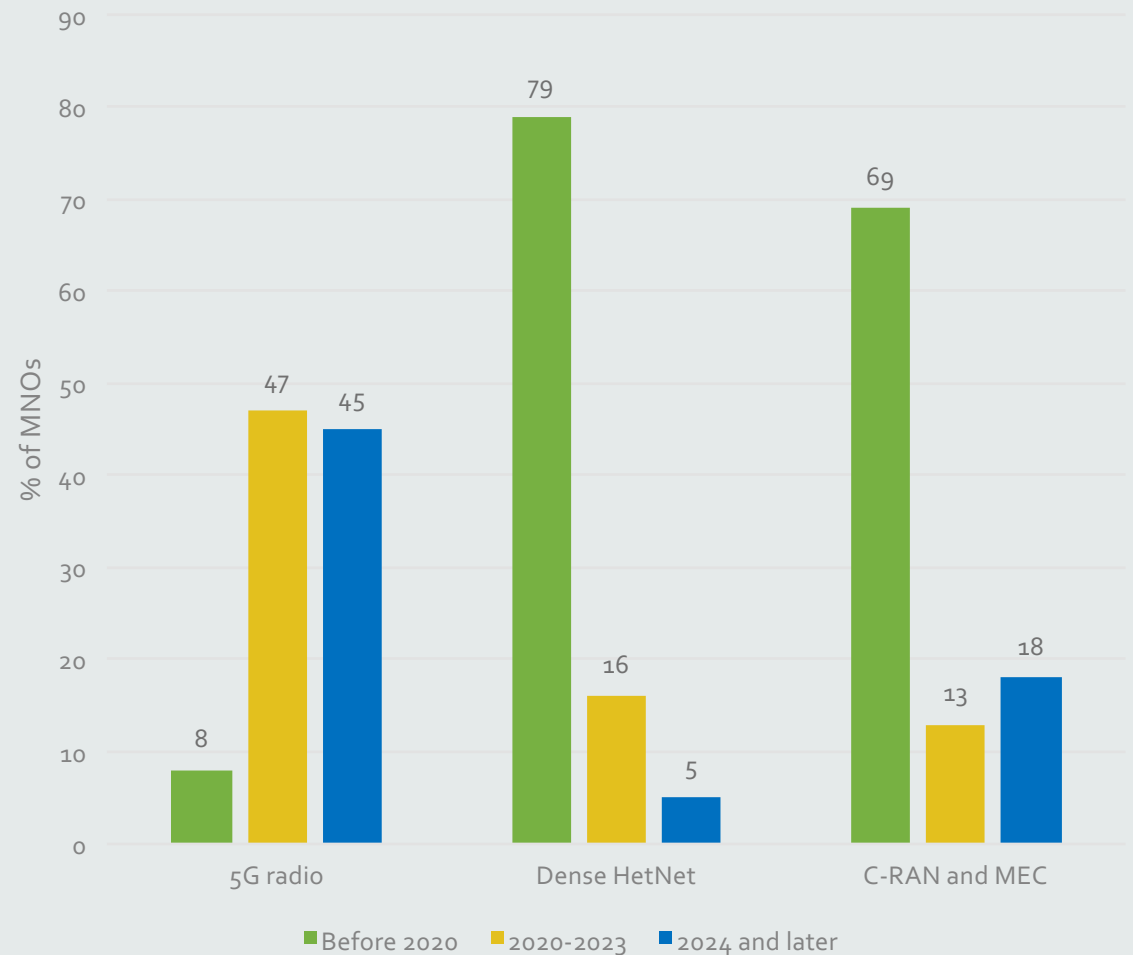
Variable timescales for 5G

Leading use cases – fixed wireless, large events

45% of MNOs will wait after 2023 to make first moves

But definitive 5G elements will start earlier – C-RAN, density, MEC

Many of these start in small cell layer, and will reshape it



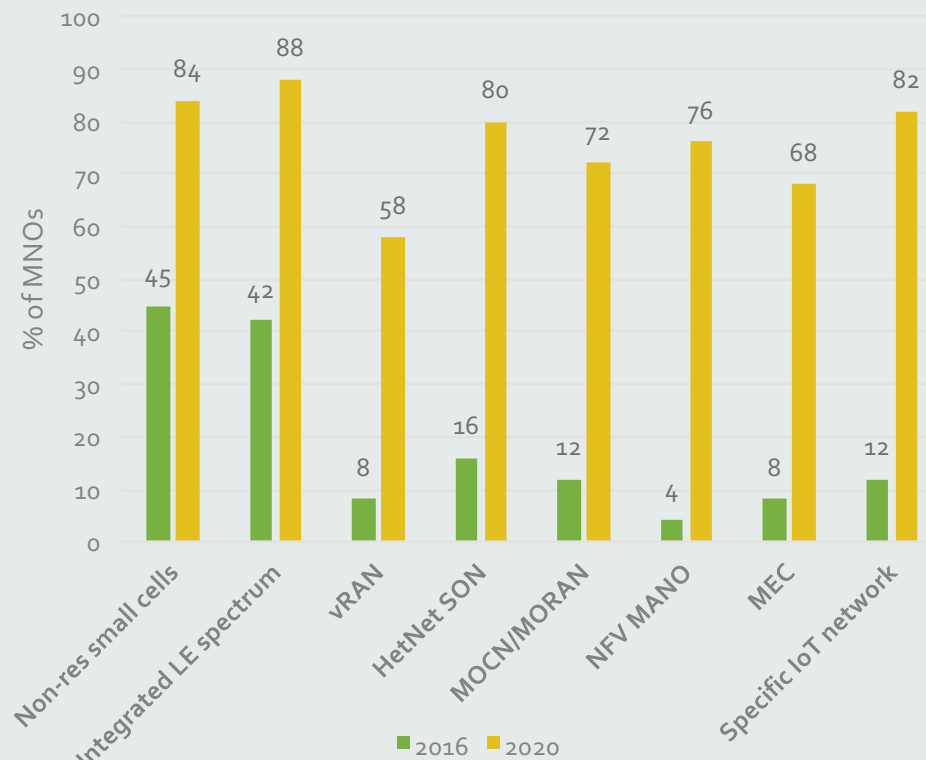
% of MNOs planning to embark on 5G and HetNet. Source: Rethink



Operator priorities

- **Densification**
 - Effective way to address data surge
 - Efficient use of spectrum
 - New services and revenues
- **Indoor and remote coverage**
 - Essential for enterprise and M2M
 - First mover advantage
- **Migration path to 5G**
 - Some MNOs want to focus on LTE for many years
 - But need smooth migration at the right time
- **Interoperability and future-proofing**

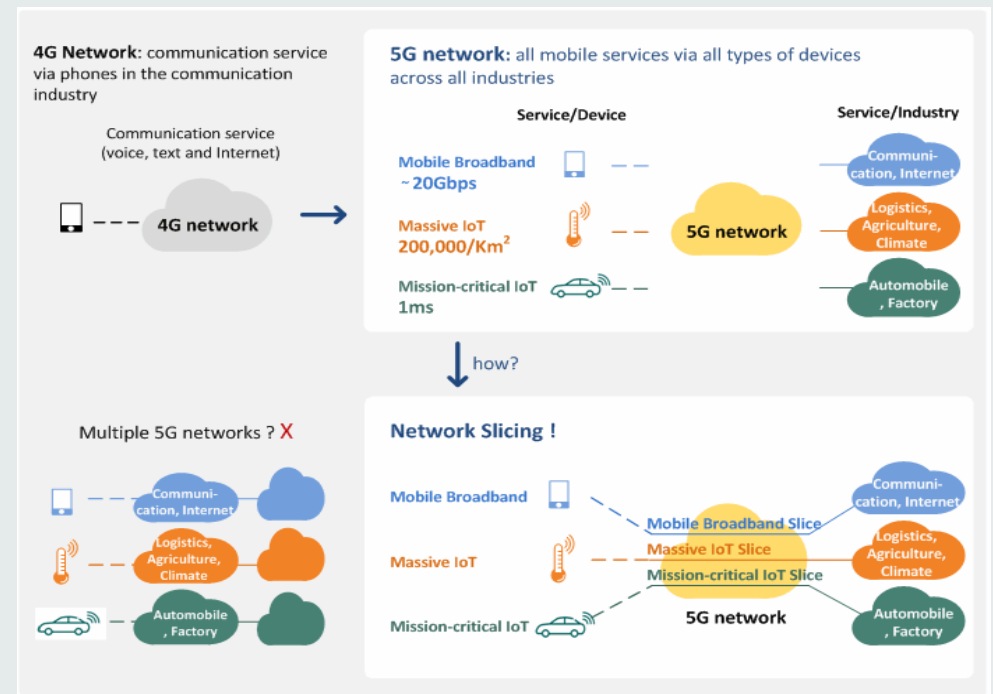
The answer: small cell HetNet



% of MNOs planning to deploy key HetNet enablers by 2016 and 2020. Source: Rethink

Who will be the operators?

- Virtualization, MEC and slicing
- Enterprise requirements
- Vertical market networks
 - Rail, auto, factory
- Web giants
- Convergence and other infrastructure owners
- MNO broadband models – opportunity or barrier?
- Flexible, interoperable HetNet is the answer



Source: Netmanias