THESE GRAPHICS ARE DRAWN FROM DATA PROVIDED BY 30 DCMS-SUPPORTED 5G PROJECTS

More projects are exploring applications outside, but some are doing both inside and outside

TOP 10
TECHNOLOGY PRIORITIES

16 OUTSIDE

14 INSIDE

Private Network Core **18**	eMBB **17**
5G New Radio SA **14**	MEC **14**
IoT **14**	Shared Access **13**
AR/VR **12**	Backhaul - fibre **12**
5G New Radio NSA **12**	Test/dev licence **11**

▲ THESE WERE THE TECHNOLOGIES THAT PROJECTS SAID WERE THEIR HIGHEST PRIORITY, AND SHOW HOW MANY PROJECTS GAVE THE CATEGORY A MAXIMUM SCORE OF EITHER 9 OR 10 POINTS.

5G SPECIFICATION

eMBB **83%**
uRLLC **70%**
mMTC **57%**

◄ 83% of all the projects focus on **enhanced mobile broadband [eMBB]**, 70% on **low latency [uRLLC]** and 57% on **mMTC**. Surprisingly 14 projects are focusing on the **location services** enabled through Rel.16.

BACK HAUL

Fibre **27**
Microwave Mesh **7**
Microwave Point to Point **12**

◄ The majority of projects (90%) are using **fibre for backhaul**. Only 7 are using **microwave mesh**, and 12 **microwave point to point**.

9 projects (30%) are using **satellite backhaul** - and 3 have identified this as a high priority. **9** / **3**

17 PROJECTS
◄ 17 projects (57%) identify **eMBB** as their highest priority

SPECTRUM LICENCES

▽ Only half of the projects are utilising **licensed mobile spectrum**. A higher proportion are using a **shared access licence** (19 projects) and 16 a **local licence**. 20 projects are making use of a **test & development licence** issued by Ofcom. Of course some projects are using a variety of licences.

Licensed Mobile Spectrum **17**
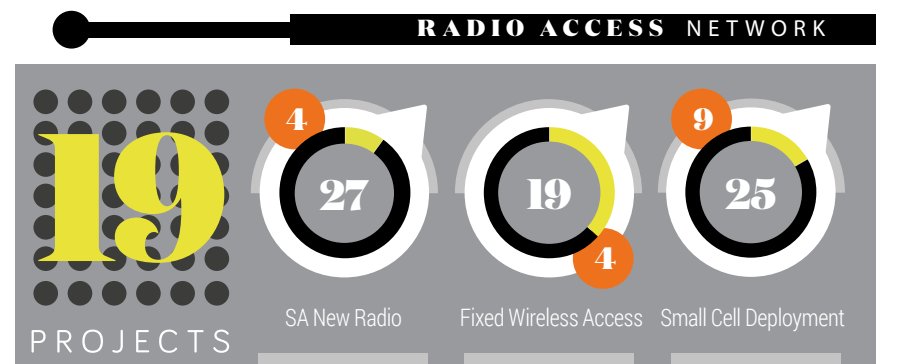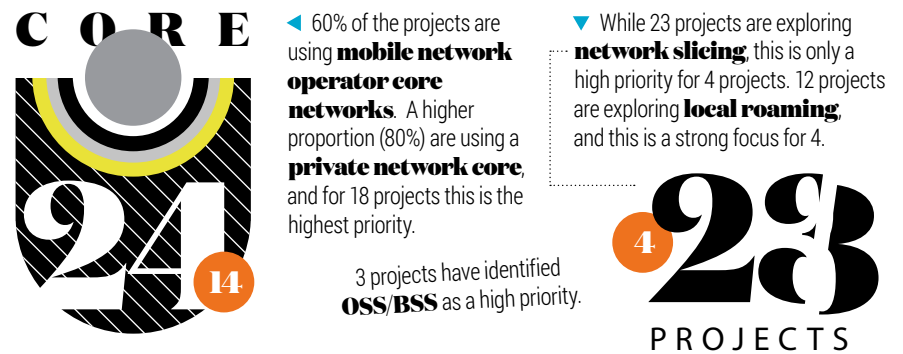Shared Access **19**
Local Licence **16**
T&D Licence **20**

While 8 projects are exploring **dynamic access spectrum**, only 1 project is prioritising this [5G New Thinking]. 3 projects have identified **mmWave spectrum** as a high priority. None of the projects are prioritising **TV white space**.

8 PROJECTS

CORE
24 / **14**

◄ 60% of the projects are using **mobile network operator core networks**. A higher proportion (80%) are using a **private network core**, and for 18 projects this is the highest priority.

▽ While 23 projects are exploring **network slicing**, this is only a high priority for 4 projects. 12 projects are exploring **local roaming**, and this is a strong focus for 4.

3 projects have identified **OSS/BSS** as a high priority.

23 PROJECTS / **4**

RADIO ACCESS NETWORK

19 PROJECTS

SA New Radio **27** / **4**
Fixed Wireless Access **19** / **4**
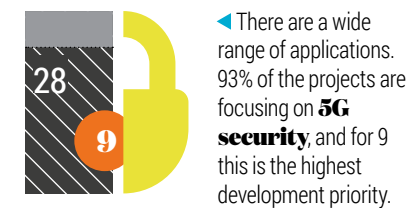Small Cell Deployment **25** / **9**

▲ state that they are investigating **Open RAN** or **Multi-Operator RAN** and for 6 of the projects this is the highest priority.

▲ 90% of the projects are deploying **standalone 5G new radio**.

◄ 63% of the projects (19) are investigating **fixed wireless access** - for 4 of the projects this is the highest priority.

▲ More projects are deploying **small cells** (83%) than are utilising **macro cells** (60%) - some projects are, of course, utilising both.

ENGINEERING FOCUS

28 / **9**
◄ There are a wide range of applications. 93% of the projects are focusing on **5G security**, and for 9 this is the highest development priority.

17 PROJECTS / **5**
◄ 17 projects state that they are exploring **artificial intelligence** and for 5 this is a high priority.

IoT
INTERNET OF THINGS

24 PROJECTS / **14**
◄ In all, 24 projects are deploying **IoT or sensor arrays**, and for 14 this is a high priority focus. More than half of the projects are investigating cellular IoT deployments (NB-IoT or LTE-M) - for two projects this is a high priority. 3 projects are deploying LoRA sensors and 1 project is looking at Sigfox

21 PROJECTS / **8**
◄ 21 projects have an **IoT platform** in their core - and for 8 projects this is a high priority.

18 PROJECTS / **7**
◄ 18 projects are looking at **asset tracking**, and for 7 this is a high priority.

TELECOM INNOVATION

20 PROJECTS / **6**
◄ As one would expect, all projects are focusing on telecom innovation. 20 projects cover **neutral host applications** (and for 6 of the projects, this is their highest priority).

Other network applications range from **orchestration** to **carrier aggregation**.

▽ 80% of the projects are looking at **AR/VR applications** - and this is the highest priority for 12 projects, not all of them, of course, in the entertainment and media segments.

IMMERSIVE TECHNOLOGIES

80%

24 PROJECTS / **12**

ENTERTAINMENT AND MEDIA APPLICATIONS

16 PROJECTS / **6**

▲ 16 projects are deploying **entertainment and streaming** platforms in their core (it is a high priority for 6 projects). Engineering applications in this sector range from FeMBMS enhanced video services for live events to audio over IP applications.
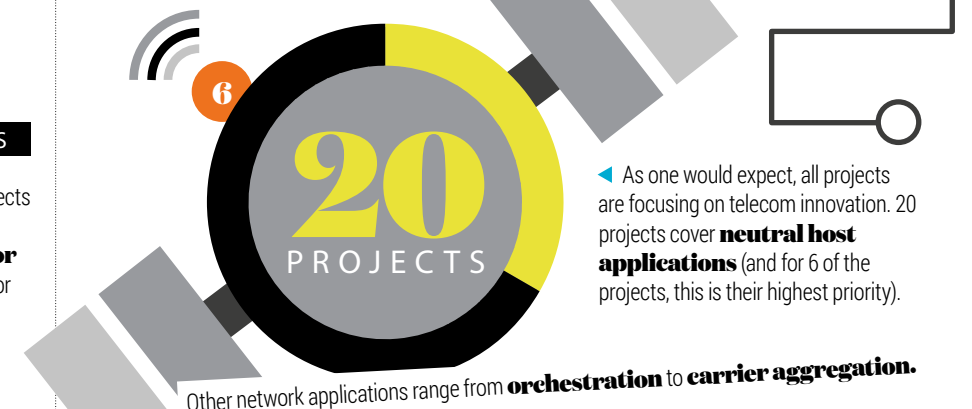
INDUSTRIAL APPLICATION

16 PROJECTS / **3**

◄ 16 projects are looking at **process control applications** with 3 projects stating this is their highest priority; business models such as **machine time** as a service are being investigated in 1 project.

For 4 projects, **predictive maintenance** is of the highest priority. / **4**

◄ 10 projects state they are exploring **vehicle automation**, and in addition, real-time remote control and teleoperation applications are being investigated in specific projects.

10 PROJECTS

AUTOMATION

PONGO AND MATELOT