

# Satellites for 5G

## Myths and the Reality

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of GVA for every  
£1 invested



> **7 jobs** created for every business invested in



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## Next Generation Mobile Technologies: A 5G Strategy for the UK

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What 5G will bring to you?	What's new with 5G?	EU projects
<b>amazing volume amazingly fast</b>	spectrum extension, millimetre waves, cell densification, increase spectrum efficiency, advanced antennas, 3D beam-forming techniques, new site form factors, carrier aggregation, backhaul optimization, D2D, moving networks (vehicle based cells)	5G-NOW, HARP, 5G-STABLE, Eureka5G
<b>always best connected</b>	combination of 4G, 3G, Wi-Fi, & new radio access to create an integrated & dynamic radio access network, connectivity management mechanisms	5G-NOW, HARP, 5G-STABLE, Eureka5G, CROWP
<b>no perceived delay</b>	ultra low latency, software-defined networks, decoupling functional architecture from the underlying physical infrastructure, network intelligence closer to users; MEC (mobile edge computing), D2D	5G-NOW, HARP, 5G-STABLE, Eureka5G, CROWP
<b>massive amount of connected things &amp; people</b>	new waveform, cell densification, much less signalling traffic & no synchronisation, BAN architecture	5G-NOW, HARP, 5G-STABLE, Eureka5G, CROWP
<b>energy efficiency</b>	millimetre waves for front-haul & backhaul, new operation mechanisms for dense networks, pooling of base station processing, on-demand consumption, massive machine communications, power amplifiers, DSP (digital signal processor)-enabled optical transceivers, harvesting ambient energy, optimization of sleep mode switching	5G-NOW, HARP, 5G-STABLE, Eureka5G, CROWP
<b>flexible programmable networks</b>	software-defined networks, network function virtualisation, decoupling functional architecture from the underlying physical infrastructure, APIs	5G-NOW, HARP, 5G-STABLE, Eureka5G, CROWP
<b>secure networks</b>	physical channel authentication, virtualised authentication	5G-NOW, HARP, 5G-STABLE, Eureka5G, CROWP



Telecommunications and automotive players form 5G Automotive Association







# Thank You

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