

Dylunio'r rhwymedigaeth gwasanaeth cyffredinol band eang

Yr amcangyfrifon diweddaraf o'r costau

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Cyflwyniad

Ym mis Rhagfyr 2016, cyflwynodd Ofcom adroddiad i'r Llywodraeth ("Adroddiad Mis Rhagfyr") a oedd yn nodi cyngor Ofcom ynghylch sut mae sicrhau cysylltiad band eang teilwng i bawb. Yn y ddogfen honno, gwnaethom nodi ystod o senarios i'r Llywodraeth benderfynu pa un ohonynt oedd yn cyflawni ei hamcanion orau. Roedd Adroddiad Mis Rhagfyr yn cynnwys amcangyfrifon o gostau gwireddu gwahanol senarios band eang, wedi'u modelu ar draws tri phwynt amser gwahanol: 2016, diwedd 2017, a dechrau'r degawd nesaf.

Y man cychwyn ar gyfer yr amcangyfrifon hyn o'r costau oedd gwaith modelu a gyflawnwyd gan yr ymgynghorwyr Analysys Mason. Cafodd amcangyfrifon Analysys Mason o'r costau cyflwyno yn 2016 wedyn eu defnyddio gan Ofcom fel sail ar gyfer llunio amcangyfrifon o'r costau cyflwyno ar gyfer diwedd 2017 a dechrau'r degawd nesaf, gan ddefnyddio tybiaethau ynghylch sut gallai nifer yr adeiladau cymwys o dan bob un o'r senarios band eang newid dros amser.

Heddiw, rydym yn cyhoeddi diweddariad ar gostau bras y gwahanol senarios band eang, sy'n cynnwys dwy ddogfen. Fel y nodwyd yn Adroddiad Mis Rhagfyr, nid amcan y gwaith modelu hwn yw darparu union ffigur ar gyfer pob senario. Yn hytrach, mae'r ffigurau hyn yn cynrychioli amcangyfrifon rhagarweiniol o amcan maint costau pob senario, a'r hyn sydd y tu ôl i'r costau hynny, er mwyn cyfrannu at y gwaith o ddatblygu polisi.

Atodiad - Diweddariad ar waith modelu cost Analysys Mason

Mae Analysys Mason wedi diweddaru ei waith modelu ar gyfer yr amcangyfrifon o'r costau cyflwyno yn 2016 ar gyfer darparu'r dewisiadau a nodwyd yn Adroddiad Mis Rhagfyr ac – ar gais y Llywodraeth – mae wedi cynnwys model o senario band eang ychwanegol (gweler isod). Bu dau brif newid ers cyflwyno'r adroddiad i'r Llywodraeth ym mis Rhagfyr 2016.

Dewis ychwanegol ar gyfer y Rhwymedigaeth Gwasanaeth Cyffredinol band eang

Gofynnodd y Llywodraeth i Analysys Mason fodelu senario band eang technegol ychwanegol er mwyn cyfrannu at y gwaith o ddatblygu polisi. O dan y senario newydd hwn, cadwyd y cyflymder llwytho i lawr yn 20Mbit yr eiliad, a'r cyflymder llwytho i fyny yn 2Mbit yr eiliad. Cadwyd y manylebau technegol eraill yr un fath â Senario 2 (hy o ran diffyg ymateb, cymhareb gystadlu a chap defnydd data).

Roedd modelu'r senario newydd hwn yn golygu bod rhaid newid modelau'r tri senario band eang a nodwyd yn Adroddiad Mis Rhagfyr, er mwyn sicrhau bod modd cymharu'r pedwar senario. Mae'r newidiadau'n cael eu hesbonio'n fanylach yn atodiad Analysys Mason (gweler rhan 3 a rhan 4.1).

Cywiro gwallau modelu

Wrth wirio gwaith modelu Analysys Mason ymhellach, cafwyd hyd i ddau wall a oedd yn berthnasol yn benodol â modelu'r technolegau FTTC. Daethpwyd o hyd i'r gwall cyntaf yn y cyfrifon wrth dybio bod y dechnoleg LR-VDSL yn gallu darparu cyflymder llwyth ardal darpariaeth yr FTTC VDSL2 yn y model cost portreadol. Yr ail wall oedd cymryd bod y dechnoleg FTTC LR-VDSL yn gallu cyrraedd cyflymderau llwytho i lawr o 30Mbit yr eiliad dros bellteroedd radiws o hyd at 2.8km, ond mewn gwirionedd dylai'r pellter fod wedi cael ei gyfyngu i 1.8km. Canlyniad cywiro'r gwallau hyn yw bod angen mwy o seilwaith nag y meddylwyd yn wreiddiol ar gyfer y technolegau FTTC fel ei gilydd. Yn sgil hynny mae'r costau cyflwyno bras wedi cynyddu. Y brif effaith yn sgil cywiro'r gwallau hyn yw'r cynnydd yn y costau bras ar gyfer y senarios cyflymder uwch. Eto, nodir y cywiriad hwn yn atodiad Analysys Mason (gweler adran 4.1).

Diweddaru tablau Adroddiad Mis Rhagfyr

Mae'r ail ddogfen yn cynnwys tablau wedi'u diweddaru ers Adroddiad Mis Rhagfyr er mwyn adlewyrchu canlyniadau diweddaru gwaith modelu costau Analysys Mason. Mae'r tablau'n cynnwys yr amcangyfrifon diweddaraf o gostau cyflwyno pob un o'r senarios band eang ar gyfer y tri chfnod amser (hy 2016; diwedd 2017; a dechrau'r degawd nesaf). Mae hefyd yn cynnwys amcangyfrifon diwygiedig o'r Trothwyon Cost Rhesymol ar gyfer 2016, ynghyd ag amcangyfrifon o nifer yr adeiladau cymwys ar gyfer y senario newydd yn seiliedig ar gyflymder llwytho i lawr o 20Mbit yr eiliad.

Cywiro Talgryniad yn y Costau Bras i'r Gwledydd

Rydym hefyd yn cywiro gwall yn y ffordd y cyflwynwyd y costau bras ar gyfer Gogledd Iwerddon yn Adroddiad Mis Rhagfyr.

Yn yr adroddiad hwnnw, nodwyd y costau bras o wasanaethu adeiladau yng Ngogledd Iwerddon o dan Senarios 1 a 2 i ddau le degol. Cafodd Senario 3 ar gyfer 2016 hefyd ei nodi fel £0.10 biliwn, ond dylai, mewn gwirionedd, fod wedi cael ei nodi fel £0.05 biliwn.

Serch hynny, yn sgil y cywiriadau i waith modelu Analysys Mason y cyfeirir atynt uchod, mae'r amcangyfrifon newydd ar gyfer costau 2016 y senario cyflymder uwch yng Ngogledd Iwerddon bellach yn agosach i £0.10 biliwn.

Tablau wedi'u Diweddaru

Mae'r cynnwys isod yn Saesneg yn unig.

Figure 4.3: Estimate of the number of premises that cannot receive the technical specification outlined under each scenario in 2016

| Million premises (as % of total premises in Nation) | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|--|--|---|---|---|
| England | 1.0m (4%) | 1.9m (8%) | 2.2m (9%) | 2.6m (11%) |
| Scotland | 0.2m (7%) | 0.4m (14%) | 0.4m (15%) | 0.4m (17%) |
| Wales | 0.1m (9%) | 0.2m (12%) | 0.2m (13%) | 0.2m (16%) |
| NI | 0.06m (8%) | 0.08m (10%) | 0.1m (14%) | 0.1m (17%) |
| Total UK | 1.4m (5%) | 2.6m (9%) | 3m (10%) | 3.5m (12%) |

Figure 4.4: Future projection of the number of eligible premises

| Million premises (as % total UK) | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|-------------------------------------|--|---|---|---|
| Today 2016 | 1.4m (5%) | 2.6m (9%) | 3m (10%) | 3.5m (12%) |
| End of 2017 | ~1.1m (4%) | ~1.8m (6%) | ~1.9m (7%) | ~2m (7%) |
| Early 2020s | ~0.3m (1%) | ~0.6m (2%) | ~0.9m (3%) | ~1.1m (4%) |

Figure 7.1: Summary of the technical capabilities of different technologies to meet the scenario requirements

| Technology | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|------------------------------|--|---|---|---|
| FTTC ¹ | Yes | Yes | Yes | Yes |
| FOTP | Yes | Yes | Yes | Yes |
| Fixed Wireless and mobile | Yes | Yes | Potentially | Potentially |
| Satellite | Potentially ² | No | No | No |

Figure 8.1: Estimates of total costs

| Total Cost | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|-------------|--|---|---|---|
| 2016 | £1.1bn | £1.7bn | £1.9bn | £2.4bn |
| End of 2017 | ~£1.0bn | ~£1.5bn | ~£1.6bn | ~£2.1bn |
| Early 2020s | ~£0.7bn | ~£1.0bn | ~£1.3bn | ~£1.7bn |

Figure 8.2: Summary of estimated costs based on number of eligible premises in 2016

| | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|--|--|---|---|---|
| Potentially eligible premises | 1.4m | 2.6m | 3m | 3.5m |
| Total cost | £1.1bn | £1.7bn | £1.9bn | £2.4bn |
| Cost per premise connected (CPPC) | £970 | £770 | £780 | £840 |

Source: Analysys Mason addendum

¹ There are some limitations of FTTC where the line between the cabinet and the premises is very long, which might require alternative technologies to be used in certain circumstances.

² Satellite's and mobile's ability to meet (respectively) the requirements of scenario 2, 3 and 1 depends on the number of potential customers being addressed. A significant number of customers will result in a risk of poorer consumer experience than '10Mbit/s'.

Figure 8.3: Summary of estimated costs by Nation based on number of eligible premises in 2016 (core network costs cannot be split)

| Costs by Nation | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|---------------------------|--|---|---|---|
| England | £0.8bn | £1.3bn | £1.4bn | £1.8bn |
| Wales | £0.1bn | £0.1bn | £0.1bn | £0.2bn |
| Scotland | £0.1bn | £0.2bn | £0.2bn | £0.3bn |
| NI | £0.04bn | £0.05bn | £0.06bn | £0.10bn |
| <i>Core network costs</i> | <i>£0.04bn</i> | <i>£0.04bn</i> | <i>£0.06bn</i> | <i>£0.07bn</i> |
| Total UK | £1.1bn | £1.7bn | £1.9bn | £2.4bn |

Figure 8.4: Total number of lines in the lowest cost technology mix

| Technology | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|-----------------|--|---|---|---|
| VDSL2 | 0.9m (69%) | 1.9m (76%) | 2.0m (71%) | 2.3m (69%) |
| LR-VDSL | 0.4m (26%) | 0.4m (15%) | 0.6m (21%) | 0.8m (24%) |
| FTTP | 0.1m (5%) | 0.2m (9%) | 0.2m (8%) | 0.2m (7%) |
| Total UK | 1.4m | 2.5m | 2.9m | 3.4m |

Source: Analysys Mason addendum

Figure 8.5: Estimated cost per premises connected by technology in 2016

| Technology | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|----------------------|--|---|---|---|
| FWA (low frequency) | £1,560 | £1,810 | £2,650 | £6,960 |
| FWA (high frequency) | £1,510 | £1,530 | £2,050 | £4,880 |
| FTTC VDSL2 | £1,610 | £1,090 | £1,110 | £1,150 |
| FTTC LR-VDSL | £1,170 | £870 | £870 | £910 |
| FTTP | £6,420 | £3,790 | £3,480 | £3,120 |
| Lowest Cost Option | £970 | £770 | £780 | £840 |

Figure 8.6: Estimated annualised cost by technology (cost per year)

| Technology | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|----------------------|--|---|---|---|
| FWA (low frequency) | £930m | £2070m | £3490m | £11200m |
| FWA (high frequency) | £890m | £1730m | £2670m | £7810m |
| FTTC VDSL2 | £330m | £450m | £510m | £630m |
| FTTC LR-VDSL | £250m | £370m | £420m | £520m |
| FTTP | £920m | £1070m | £1120m | £1210m |
| Lowest Cost Option | £240m | £340m | £390m | £480m |

Source: Analysys Mason addendum

Figure 8.7: Summary of estimated costs based on number of eligible premises in 2017

| | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|-----------------------------------|--|---|---|---|
| Potentially eligible premises | ~1.1m | ~1.8m | ~1.9m | ~2m |
| Total cost | ~£1.0bn | ~£1.5bn | ~£1.6bn | ~£2.1bn |
| Cost per premise connected (CPPC) | ~£1,140 | ~£960 | ~£1,020 | ~£1,270 |

Figure 8.8: Estimated total costs by Nation at end of 2017 (core network costs cannot be split by Nation)

| Costs by Nation | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|--------------------|--|---|---|---|
| England | ~£0.8bn | ~£1.1bn | ~£1.2bn | ~£1.5bn |
| Wales | ~£0.1bn | ~£0.1bn | ~£0.1bn | ~£0.2bn |
| Scotland | ~£0.1bn | ~£0.2bn | ~£0.2bn | ~£0.2bn |
| NI | ~£0.04bn | ~£0.04bn | ~£0.05bn | ~£0.08bn |
| Core network costs | ~£0.04bn | ~£0.04bn | ~£0.05bn | ~£0.06bn |
| Total UK | ~£1.0bn | ~£1.5bn | ~£1.6bn | ~£2.1bn |

Figure 8.9: Summary of estimated costs based on number of eligible premises by early 2020s

| | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|-----------------------------------|--|---|---|---|
| Potentially eligible premises | ~0.3m | ~0.6m | ~0.9m | ~1.1m |
| Total cost | ~£0.7bn | ~£1.0bn | ~£1.3bn | ~£1.7bn |
| Cost per premise connected (CPPC) | ~£2,820 | ~£2,040 | ~£1,790 | ~£1,890 |

Figure 8.10: Estimated total costs by Nation by early 2020s (core network costs cannot be split)

| Costs by Nation | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|---------------------------|--|---|---|---|
| England | ~£0.5bn | ~£0.8bn | ~£1.0bn | ~£1.3bn |
| Wales | ~£0.1bn | ~£0.1bn | ~£0.1bn | ~£0.1bn |
| Scotland | ~£0.1bn | ~£0.1bn | ~£0.1bn | ~£0.2bn |
| NI | ~£0.02bn | ~£0.03bn | ~£0.04bn | ~£0.07bn |
| <i>Core network costs</i> | ~£0.02bn | ~£0.03bn | ~£0.04bn | ~£0.05bn |
| Total UK | ~£0.7bn | ~£1.0bn | ~£1.3bn | ~£1.7bn |

We have not updated Figures 8.11 or 8.12 as the changes to the model would have had a very small impact on the overall shape of the cost curves.

Figure 8.13: Illustrative effect of different Reasonable Cost Thresholds in 2016

| | Scenario 1: 10Mbit/s download speed | | Scenario 2: 10Mbit/s download + 1Mbit/s upload | |
|---------------------------|-------------------------------------|---------------------------|--|---------------------------|
| Reasonable cost threshold | # of premises left unserved | Reduction in costs of USO | # of premises left unserved | Reduction in costs of USO |
| >£3,400 | 50K | ~£360m | 60K | ~£400m |
| >£5,000 | 30K | ~£300m | 35K | ~£320m |
| >£10,000 | 12K | ~£190m | 12K | ~£180m |
| Exclude last 1% | 280K | ~£660m | 280K | ~£740m |
| Exclude last 0.5% | 140K | ~£530m | 140K | ~£570m |
| Exclude last 0.1% | 28K | ~£290m | 28K | ~£290m |

| | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | | Scenario 3: 30Mbit/s download + 6Mbit/s upload | |
|---------------------------|---|---------------------------|--|---------------------------|
| Reasonable cost threshold | # of premises left unserved | Reduction in costs of USO | # of premises left unserved | Reduction in costs of USO |
| >£3,400 | 61K | ~£410m | 105K | ~£590m |
| >£5,000 | 35K | ~£320m | 47K | ~£380m |
| >£10,000 | 12K | ~£190m | 13K | ~£190m |
| Exclude last 1% | 280K | ~£780m | 280K | ~£940m |
| Exclude last 0.5% | 140K | ~£580m | 140K | ~£680m |
| Exclude last 0.1% | 28K | ~£290m | 28K | ~£290m |

Figure 9.3: Illustrative impact on consumer bills per month

| | Fixed broadband subscribers only (per subscription) | Fixed broadband and mobile subscribers (per household) |
|-------------------|---|--|
| Scenario 1 | £0.89 | £0.76 |
| Scenario 2 | £1.34 | £1.15 |
| 20Mbit/s scenario | £1.54 | £1.32 |
| Scenario 3 | £1.96 | £1.69 |

Figure A3.1: Projected estimates of the number of eligible premises, by nation and by rurality: 2016, 2017 and 2020

| | Million premises (as % of total premises in Nation) | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|------------|---|-------------------------------------|--|---|--|
| Today 2016 | England | 1m (4%) | 1.9m (8%) | 2.2m (9%) | 2.6m (11%) |
| | Rural | 0.6m (3%) | 0.9m (4%) | 1.1m (4%) | 1.3m (5%) |
| | Urban | 0.3m (1%) | 1.1m (4%) | 1.1m (5%) | 1.3m (6%) |
| | Scotland | 0.2m (7%) | 0.4m (14%) | 0.4m (15%) | 0.4m (17%) |
| | Rural | 0.2m (6%) | 0.2m (8%) | 0.2m (8%) | 0.2m (9%) |
| | Urban | 0.03m (1%) | 0.2m (6%) | 0.2m (6%) | 0.2m (8%) |
| | Wales | 0.1m (9%) | 0.2m (12%) | 0.2m (13%) | 0.2m (16%) |
| | Rural | 0.09m (7%) | 0.1m (8%) | 0.1m (9%) | 0.2m (10%) |
| | Urban | 0.03m (2%) | 0.05m (4%) | 0.06m (4%) | 0.07m (5%) |
| | NI | 0.06m (8%) | 0.08m (10%) | 0.1m (14%) | 0.1m (17%) |
| | Rural | 0.06m (8%) | 0.07m (9%) | 0.09m (12%) | 0.1m (14%) |
| | Urban | 0m (0.6%) | 0.01m (2%) | 0.02m (2%) | 0.03m (4%) |
| | Total UK | 1.4m (5%) | 2.6m (9%) | 3m (10%) | 3.5m (12%) |
| | Rural | 1m (3%) | 1.3m (4%) | 1.5m (5%) | 1.8m (6%) |
| Urban | 0.4m (1%) | 1.3m (4%) | 1.4m (5%) | 1.6m (6%) | |

| | | | | | |
|-------------|------------------|-------------------|-------------------|-------------------|------------------|
| End of 2017 | England | 0.8m (3%) | 1.5m (6%) | 1.5m (6%) | 1.5m (6%) |
| | Rural | 0.5m (2%) | 0.4m (2%) | 0.4m (2%) | 0.8m (3%) |
| | Urban | 0.3m (1%) | 1.1m (4%) | 1.1m (5%) | 0.8m (3%) |
| | Scotland | 0.2m (6%) | 0.2m (9%) | 0.2m (9%) | 0.2m (9%) |
| | Rural | 0.1m (5%) | 0.09m (3%) | 0.1m (3%) | 0.1m (5%) |
| | Urban | 0.03m (1%) | 0.16m (6%) | 0.2m (6%) | 0.1m (4%) |
| | Wales | 0.1m (7%) | 0.1m (8%) | 0.1m (8%) | 0.1m (9%) |
| | Rural | 0.08m (5%) | 0.06m (4%) | 0.06m (4%) | 0.1m (7%) |
| | Urban | 0.03m (2%) | 0.05m (4%) | 0.06m (4%) | 0.04m (2%) |
| | NI | 0.04m (6%) | 0.03m (4%) | 0.04m (5%) | 0.08m (11%) |
| | Rural | 0.04m (6%) | 0.03m (4%) | 0.04m (5%) | 0.08m (11%) |
| | Urban | 0m (0%) | 0m (0%) | 0m (0%) | 0m (0%) |
| | Total UK | ~1.1m (4%) | ~1.8m (6%) | ~1.9m (7%) | ~2m (7%) |
| | Rural | 0.7m (2%) | 0.6m (2%) | 0.5m (2%) | 1.1m (4%) |
| Urban | 0.4m (1%) | 1.3m (4%) | 1.4m (5%) | 0.9m (3%) | |

| | | | | | |
|---------------------|---------------------|-------------------|-------------------|-------------------|-------------------|
| 2020s | England | 0.2m (1%) | 0.5m (2%) | 0.7m (3%) | 0.8m (3%) |
| | <i>Rural</i> | 0.1m (1%) | 0.2m (1%) | 0.4m (1%) | 0.5m (2%) |
| | <i>Urban</i> | 0.1m (0%) | 0.2m (1%) | 0.3m (1%) | 0.4m (1%) |
| | Scotland | 0.04m (1%) | 0.07m (3%) | 0.1m (4%) | 0.1m (5%) |
| | <i>Rural</i> | 0.03m (1%) | 0.05m (2%) | 0.07m (3%) | 0.08m (3%) |
| | <i>Urban</i> | 0.01m (0%) | 0.03m (1%) | 0.03m (1%) | 0.04m (2%) |
| | Wales | 0.02m (2%) | 0.04m (3%) | 0.07m (5%) | 0.09m (6%) |
| | <i>Rural</i> | 0.02m (1%) | 0.03m (2%) | 0.05m (4%) | 0.07m (5%) |
| | <i>Urban</i> | 0.01m (0%) | 0.01m (1%) | 0.01m (1%) | 0.02m (1%) |
| | NI | 0.01m (2%) | 0.02m (3%) | 0.04m (5%) | 0.06m (8%) |
| | <i>Rural</i> | 0.01m (2%) | 0.02m (3%) | 0.04m (5%) | 0.06m (8%) |
| | <i>Urban</i> | 0m (0%) | 0m (0%) | 0m (0%) | 0m (0%) |
| | Total UK | ~0.3m (1%) | ~0.6m (2%) | ~0.9m (3%) | ~1.1m (4%) |
| | <i>Rural</i> | 0.2m (1%) | 0.3m (1%) | 0.5m (2%) | 0.7m (2%) |
| <i>Urban</i> | 0.1m (0%) | 0.3m (1%) | 0.4m (1%) | 0.4m (1%) | |

Figure A5.3: Estimated deployment costs in 2016

| | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|-----------------------------------|--|---|---|---|
| Potentially eligible premises | 1.4m | 2.6m | 3m | 3.5m |
| Total cost | £1.1bn | £1.7bn | £1.9bn | £2.4bn |
| Cost per premise connected (CPPC) | £970 | £770 | £780 | £840 |

Figure A5.5: Estimated deployment costs in 2017 and 2020s

| | | Scenario 1: 10Mbit/s download speed | Scenario 2: 10Mbit/s download + 1Mbit/s upload | 20Mbit/s scenario: 20Mbit/s download + 2Mbit/s upload | Scenario 3: 30Mbit/s download + 6Mbit/s upload |
|-------------|-----------------------------------|--|---|---|---|
| End 2017 | Potentially eligible premises | ~1.1m | ~1.8m | ~1.9m | ~2m |
| | Total cost | ~£1.0bn | ~£1.5bn | ~£1.6bn | ~£2.1bn |
| | Cost per premise connected (CPPC) | ~£1,140 | ~£960 | ~£1,020 | ~£1,270 |
| Early 2020s | Potentially eligible premises | ~0.3m | ~0.6m | ~0.9m | ~1.1m |
| | Total cost | ~£0.7bn | ~£1.0bn | ~£1.3bn | ~£1.7bn |
| | Cost per premise connected (CPPC) | ~£2,820 | ~£2,040 | ~£1,790 | ~£1,890 |