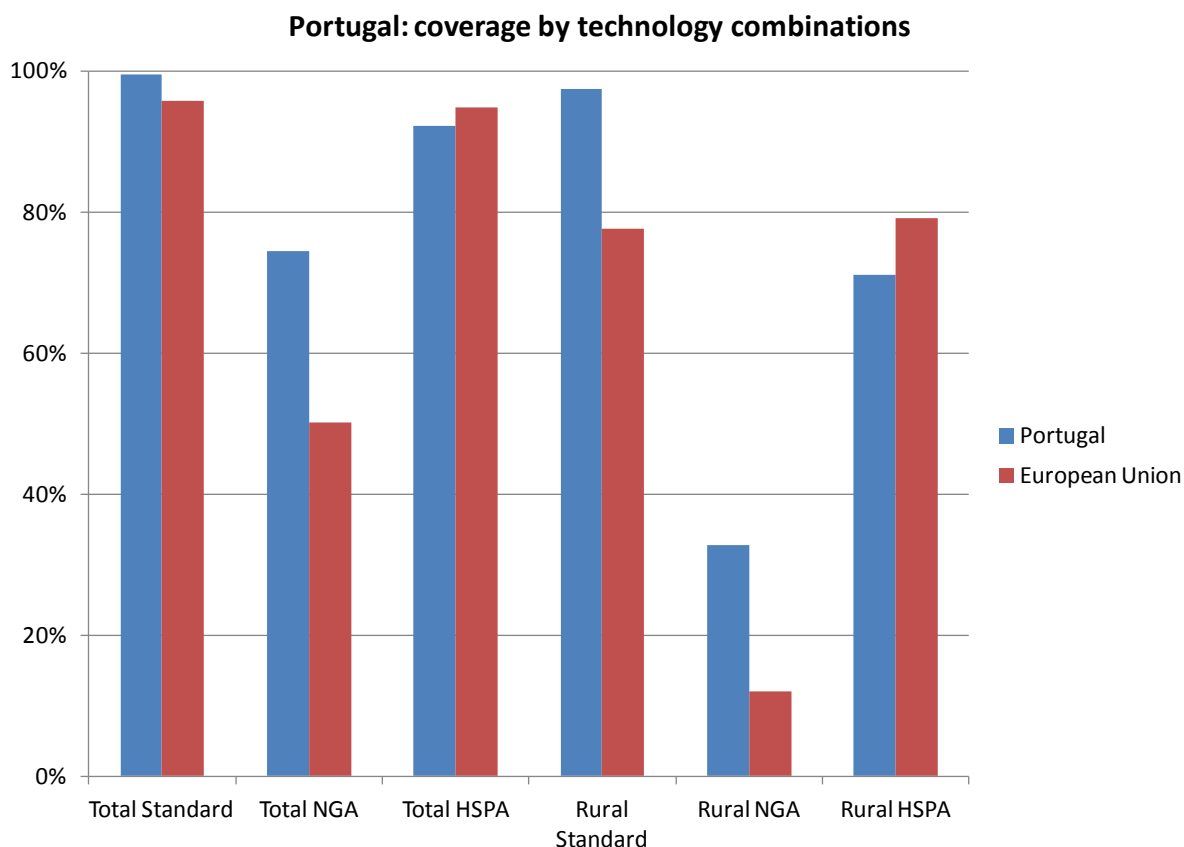


Broadband Coverage in Europe in 2011 – Portugal

1.1 National coverage by broadband technology

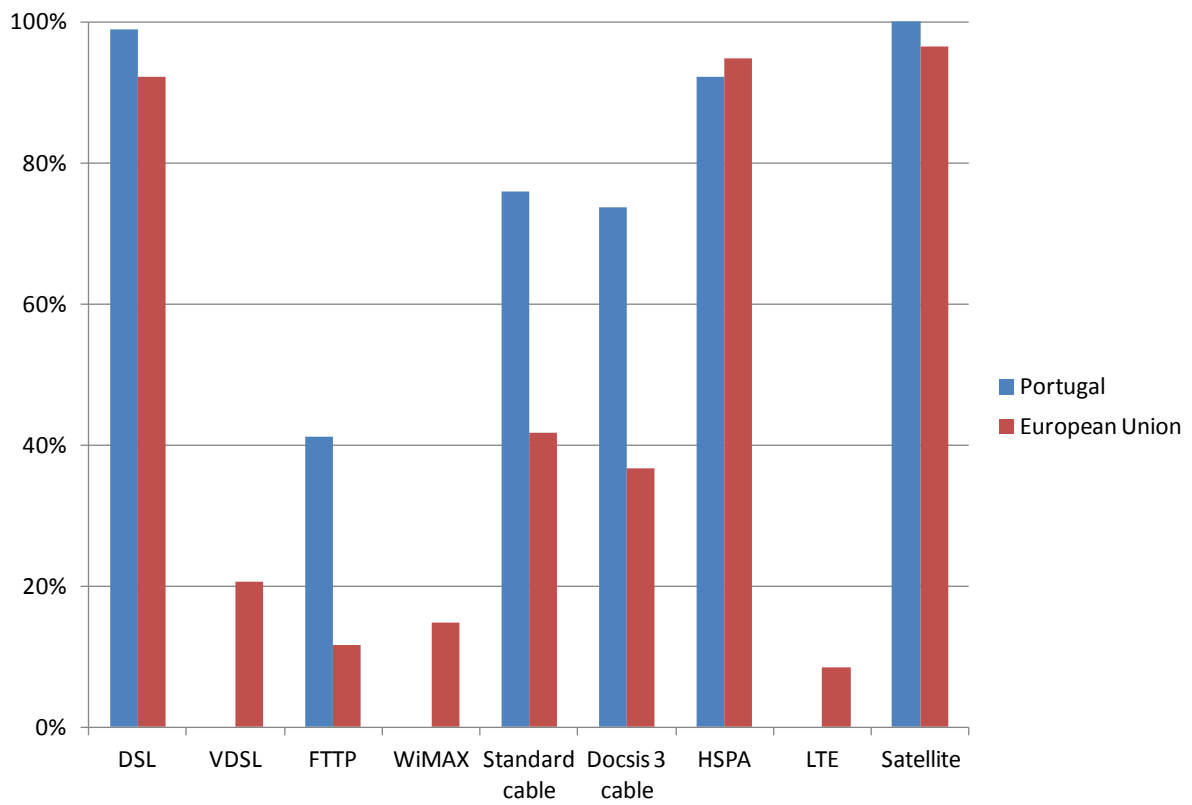


Portugal has made major investments in broadband coverage, particularly for next generation access. As a result, despite being a relatively poor country, it is well ahead of the European averages for the coverage of fixed line standard and NGA services. For example it has the fifth highest Total NGA Coverage of any of the study countries, 74.5%, and the third highest rural figure at 33%.

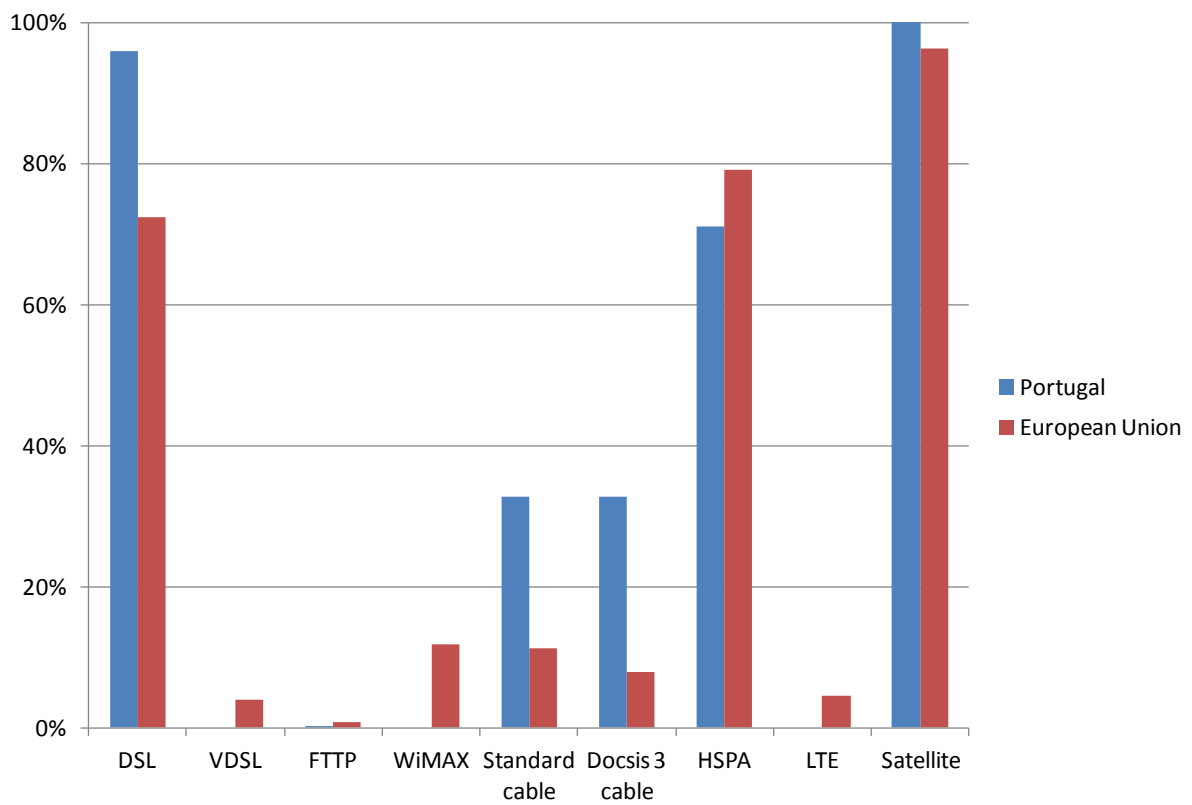
Total DSL coverage is quoted at 99%, using the definition of coverage as “being within the service area of a DSL-enabled exchange”. But the Portuguese exchange network is quite thinly spread in rural areas so a performance-based definition would probably reduce the coverage figure significantly. On the other hand, Portugal has an extensive cable network with the fourth-highest Docsis 3 coverage in the study countries, at 74%. This is now backed up with the fifth biggest FTTP network with 41% coverage. But VDSL is not being pursued in view of the priority being given to FTTP and a plan to launch a WiMAX network does not appear to have come to fruition.

Besides basic DSL and HSPA, rural areas benefit from the wide coverage of Docsis 3 cable, which accounts for all the rural NGA coverage so far.

Portugal: total coverage by technology

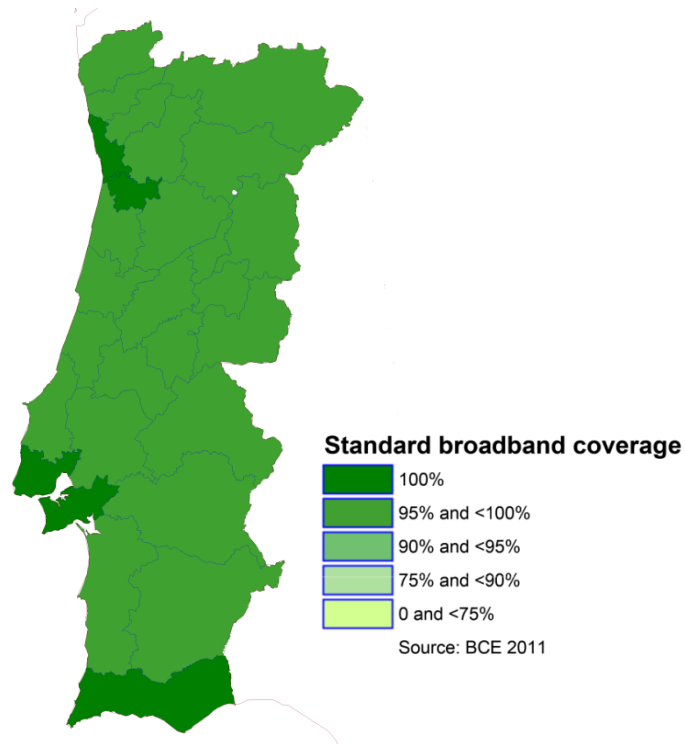


Portugal: rural coverage by technology

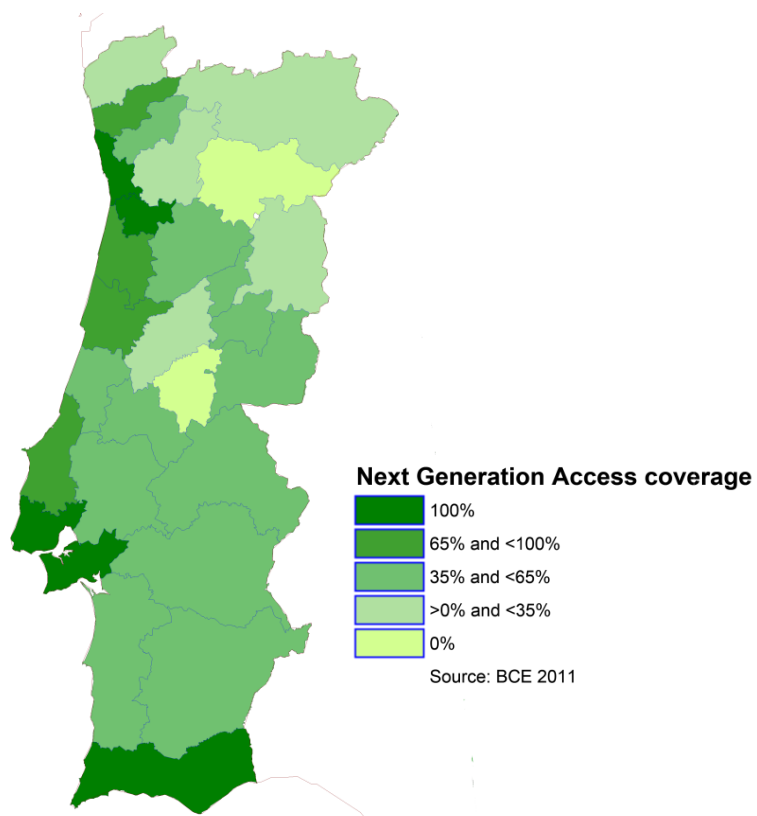


1.2 Regional coverage by technology combinations

Map: Portugal Standard broadband coverage



Map: Portugal Next Generation Access coverage



Portugal has 99% standard broadband coverage across all its NUTS 3 areas, with Lisbon and Oporto and their surrounding areas, and the southern province of the Algarve all enjoying 100%.

The coverage of NGA is more varied. The same five provinces have 100% NGA as well as 100% standard coverage. Three coastal provinces, and also the overseas regions of Madeira and the Azores have 95% down to 81% NGA coverage. Thirteen others have 71% down to 36%. Three more in the north and east have between 27% and 20%. Of the four with less than 10%, including two with 0%, three are on Portugal's northern and -eastern borders, while one is in the centre of the country.

Coverage of Portuguese NUTS 3 areas outside mainland Europe

Country	NUTS code	NUTS area name	Standard coverage	NGA coverage
Portugal	PT200	Açores	99.3%	95.0%
Portugal	PT300	Madeira	99.5%	83.5%

1.3 Data tables for Portugal

Demographics

Statistic	National
Population	10,617,575
Persons per household	2.7
Rural proportion	18.3%

Coverage by technology

Technology	Total	Rural
DSL	99.0%	95.9%
VDSL	0.0%	0.0%
FTTP	41.2%	0.0%
WiMAX	0.0%	0.0%
Standard cable	75.9%	32.8%
Docsis 3 cable	73.7%	32.8%
HSPA	92.2%	71.1%
LTE	0.0%	0.0%
Satellite	100.0%	100.0%
Standard Combination	99.5%	97.4%
NGA Combination	74.5%	32.8%