

Exploring the Potential of the Rural Public Access WiFi Service (PAWS) Delivery Model: The Story So Far

**F. Williams, G. Fairhurst, J. Farrington,
L. Philip, A. Mohideen, H. Hamdoun**

2nd GAIA Meeting, 20th October 2014

The research described here is supported by the award made by the RCUK Digital Economy programme to the dot.rural Digital Economy Hub; award reference: EP/G066051/1.



Rural Public Access Wifi Service

Exploring how to enable digital inclusion for commercially 'hard-to-reach' areas without, or with less than acceptable, access to broadband services.

PAWS and Rural PAWS



- Partner projects
- Ubiquitous access
- Urban and rural contexts
- Different approach to shared donor capacity
- Satellite instead of cabled wireless provision



Rural Public Access WiFi Service



Communities and individuals residing in remote rural areas, are by nature of their geography, more likely to be digitally excluded and as such less likely to “be able to engage online with the creative, social, commercial and civic life regarded as normal in other areas.”

Farrington et al, 2013: 25

Broadband Delivery UK

- BDUK responsibility for managing the Rural Broadband Programme
- Local authorities and devolved administrations responsible for individual projects - BDUK's Delivery Model.
- Ambition to provide superfast broadband to at least 95% of premises in the UK and to provide universal access to standard broadband with a speed of at least 2Mbps.



Broadband Delivery Programme:
Delivery Model

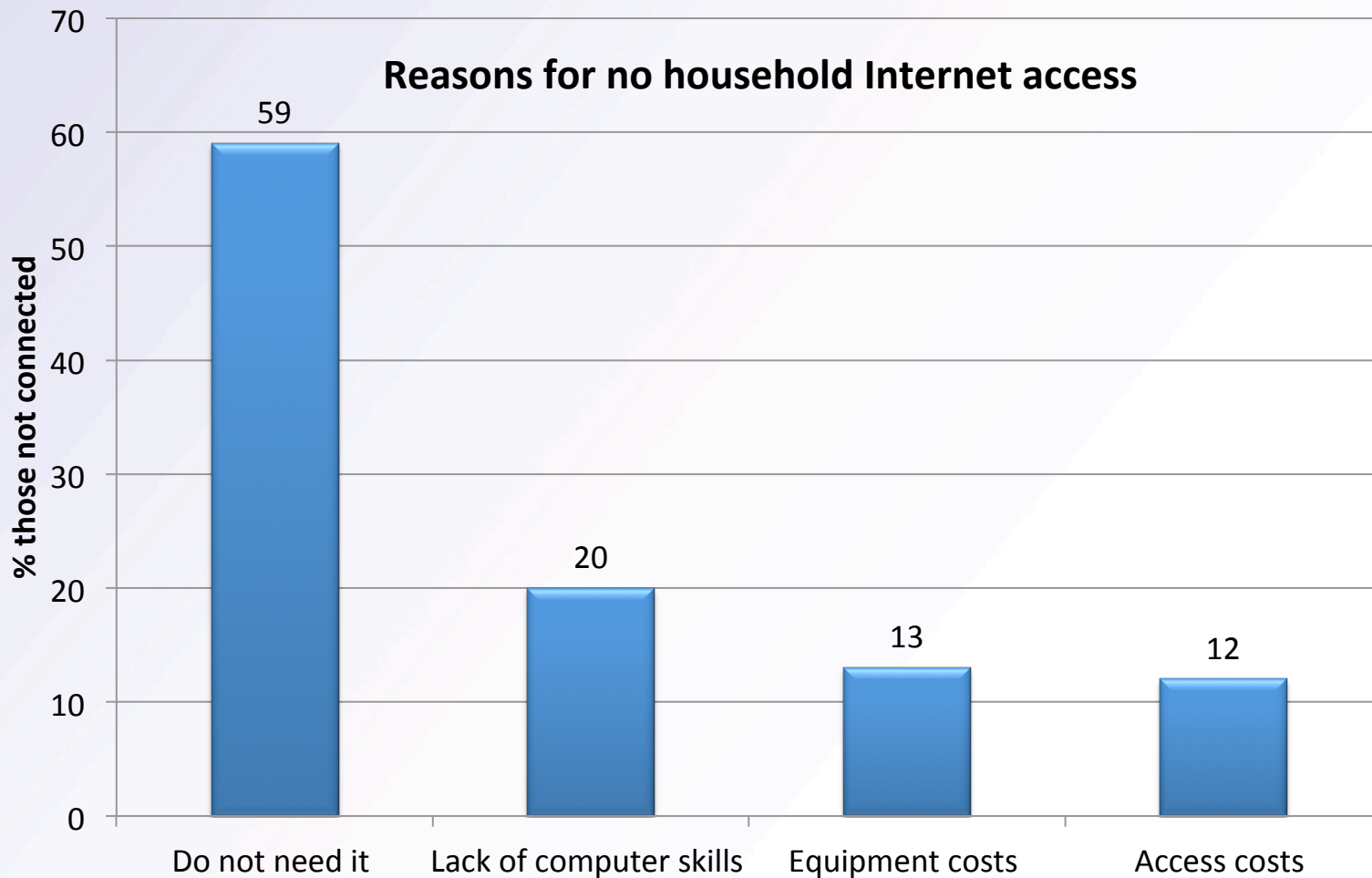
Broadband Delivery UK

September 2011



ONS 2013:

4 million households without internet access



Government Digital Strategy: December 2013

- Digital by default – public services online
- All those who can use them will choose to do so whilst those who can't are not excluded
- By going digital by default, the government could save between £1.7 and £1.8 billion each year

The Telegraph



Friday 27 June 2014

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Go on the internet - or lose access to government services, Francis Maude tells pensioners

Elderly people will have to have to go on to the internet or risk losing access to key government services, Francis Maude has said

The Telegraph
Unlimited website access

START NOW >



Rural PAWS Objectives:

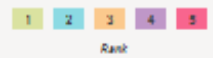
- To develop and test deployment of new access methods/ services that would provide commercially viable/lower cost Internet service provision that is acceptable to users in currently 'hard-to-reach' rural areas/communities.
- To understand and analyse the technological challenges and service requirements that need to be overcome to realise a very low cost service.
- To evaluate take-up and user perceptions of the service.



Average broadband take up

What do these scores mean?

Click on a region on the map to see more broadband information



Average broadband take up

Each area has been ranked from 1 to 5 on the number of broadband connections as a percentage of the total postal addresses in the area.

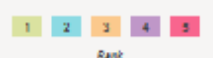
- 1= 80% or more
- 2= 70% - less than 80%
- 3= 60% - less than 70%
- 4= 50% - less than 60%
- 5= less than 50%



Percentage receiving less than 2 Mbit/s

What do these scores mean?

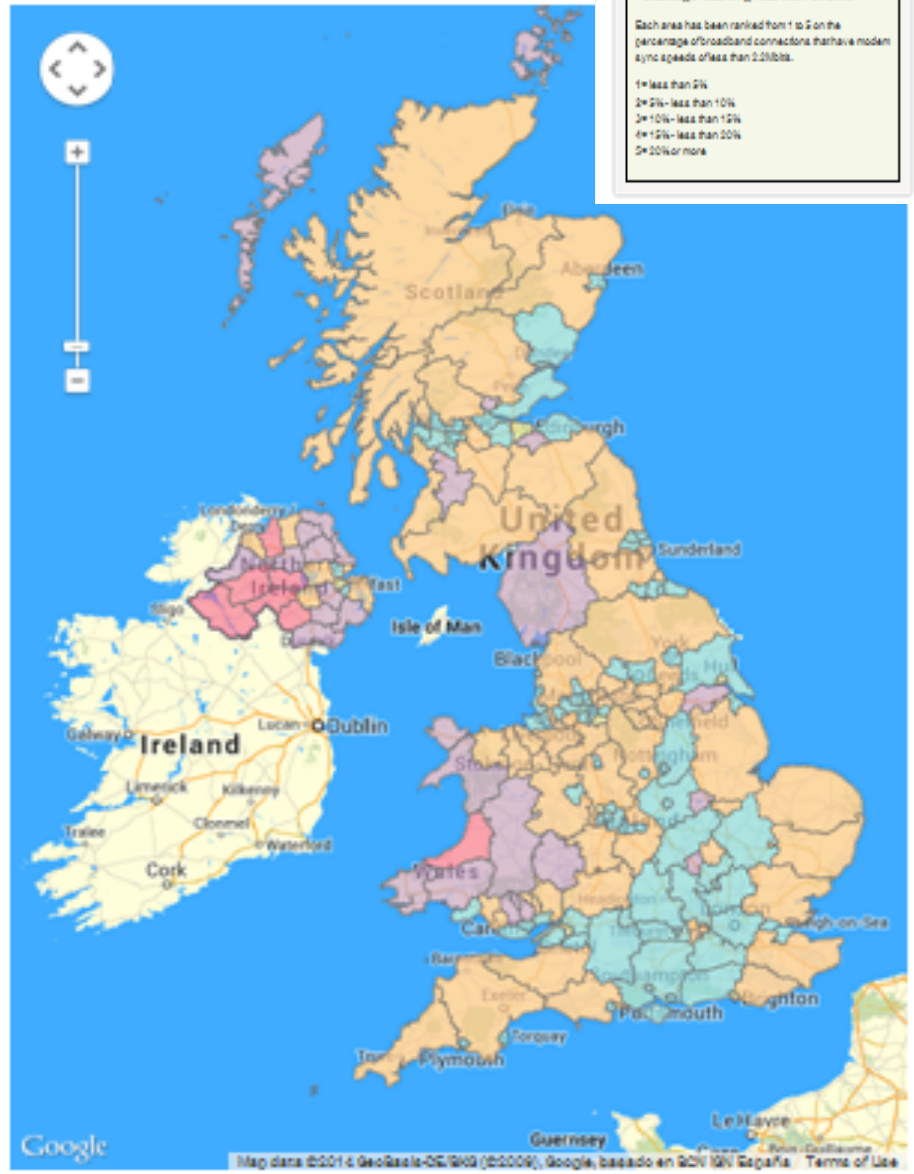
Click on a region on the map to see more broadband information



Percentage receiving less than 2Mbit/s

Each area has been ranked from 1 to 5 on the percentage of broadband connections that have modem sync speeds of less than 2.5Mbit/s.

- 1= less than 2%
- 2= 2% - less than 10%
- 3= 10% - less than 15%
- 4= 15% - less than 20%
- 5= 20% or more

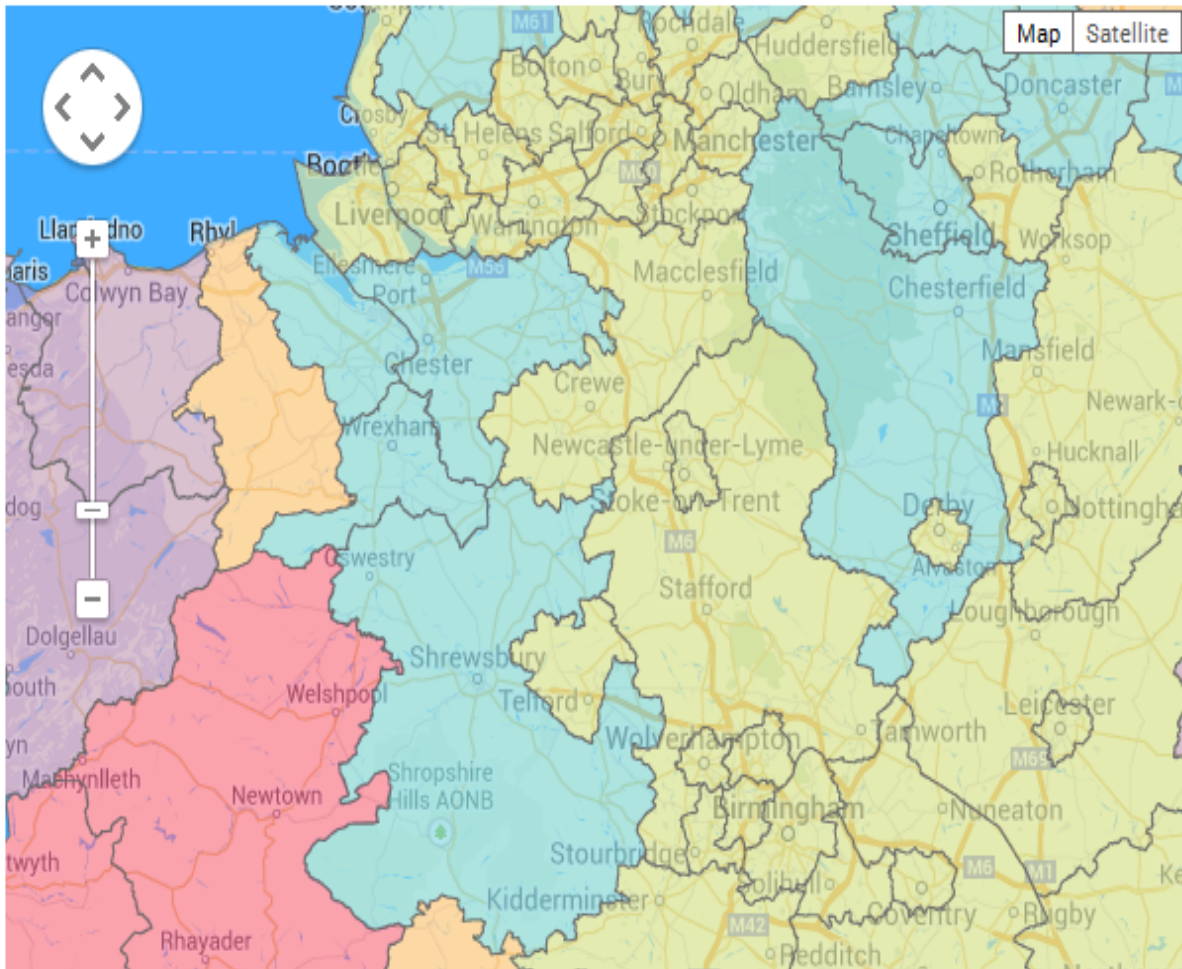


Aggregated data masks the reality

Ofcom / Broadband / Fixed Broadband Map 2012

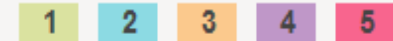
UK Fixed Broadband Map 2013

Map showing broadband information by administrative authority



What do these scores mean?

Click on a region on the map to see more broadband information



Rank

Overall performance

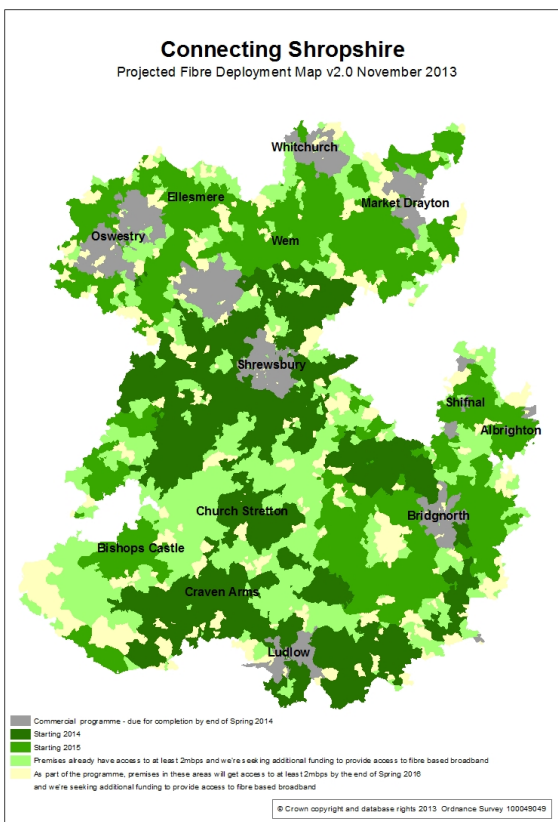
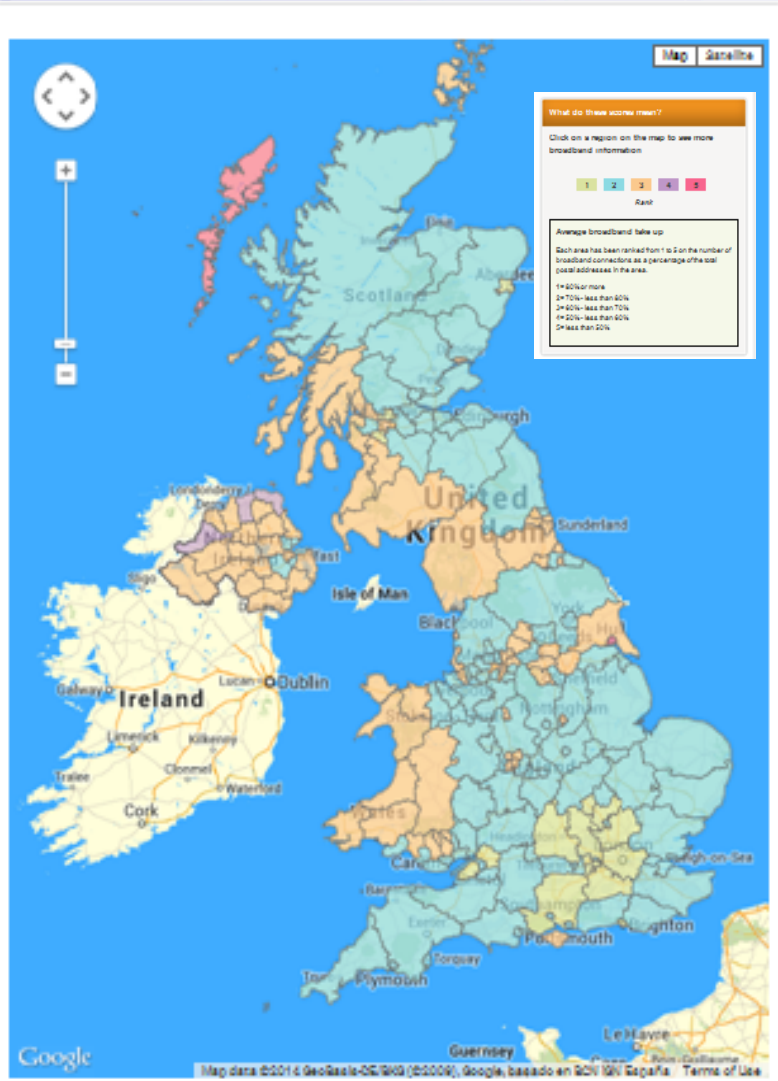
Each area has been ranked on how they score on four broadband metrics, on a scale of 1 to 5, with 1 the highest or fastest, and 5 the lowest or slowest.

The individual scores have been combined to provide an overall view of broadband in each area.

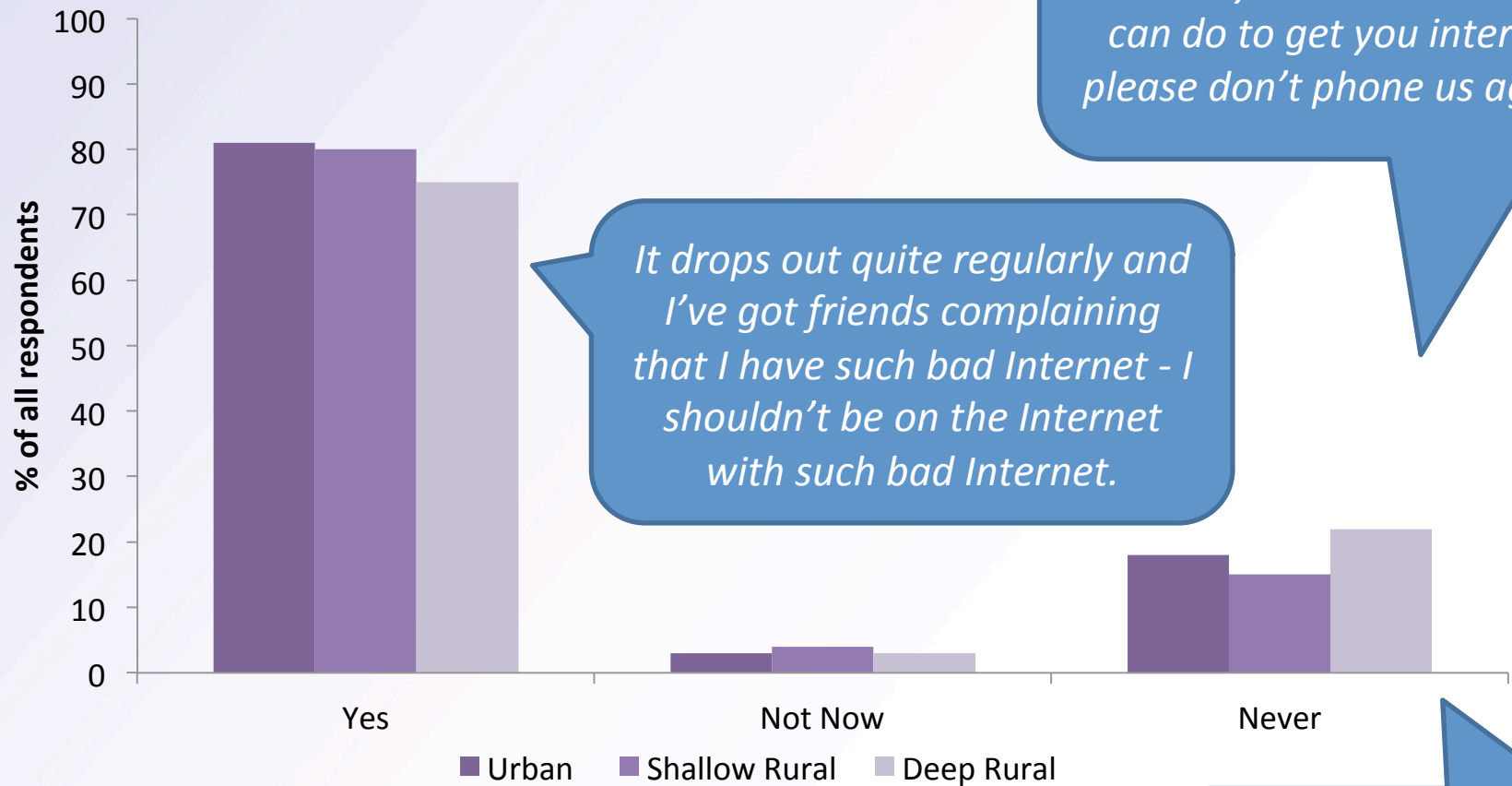
Map options

- Overall performance
- Average broadband take up
- Percentage receiving less than 2Mbit/s
- Superfast broadband availability

Phases I and II: test sites



Without Internet access: greater likelihood in 'deep' rural

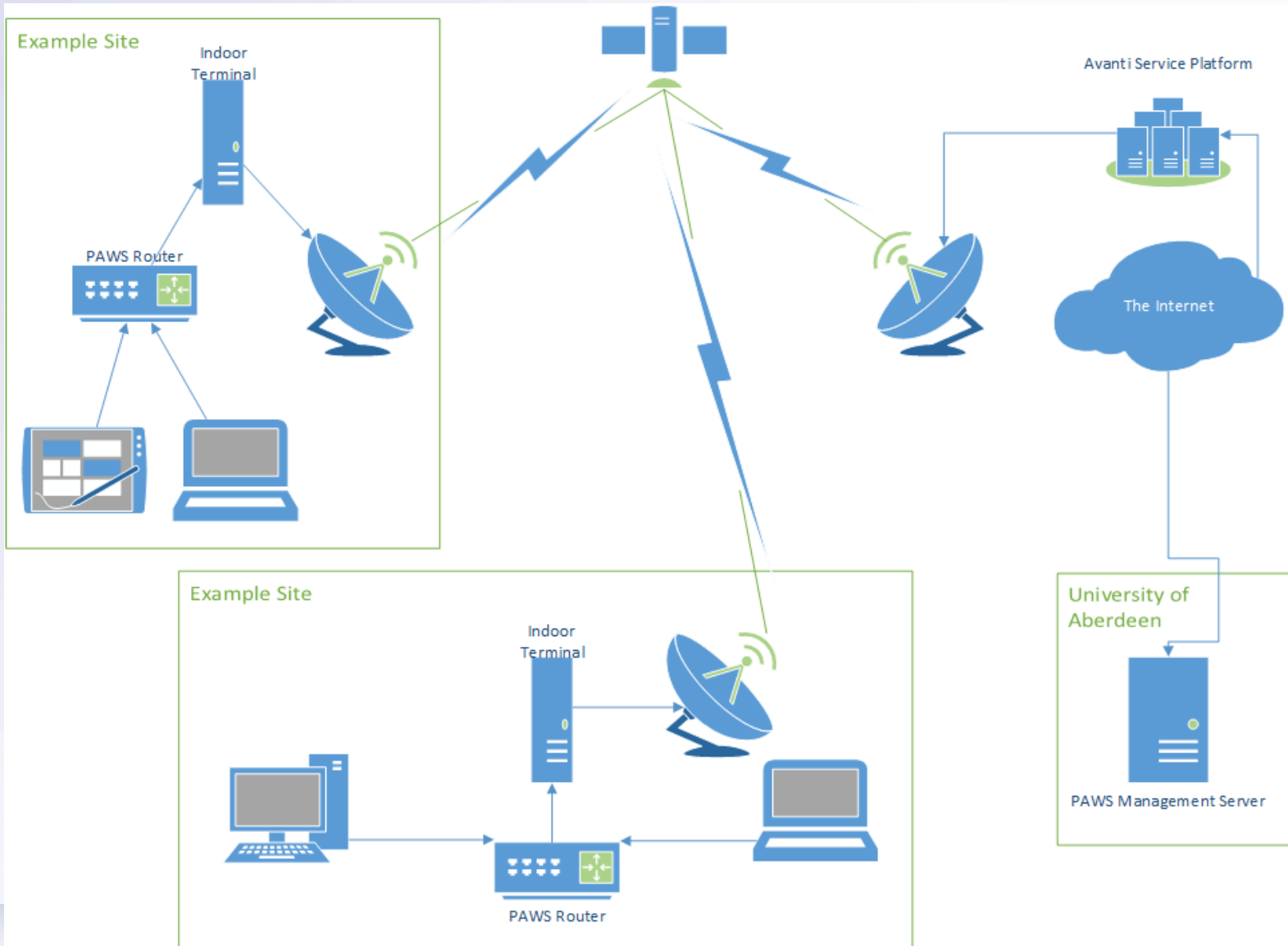


And then they re-laid the whole cable [...] And they said sorry there's nothing we can do to get you internet please don't phone us again.

It drops out quite regularly and I've got friends complaining that I have such bad Internet - I shouldn't be on the Internet with such bad Internet.

You don't miss what you've never had.

Overview: Rural PAWS platform



Deployed at each site:



Satellite Terminal
(outdoor dish and indoor unit)

Rural PAWS Router
(provides wireless access)

Rural PAWS model: striking the balance:

Acceptability:

Speeds
Usage
Limits
Expectation
Needs/wants



Cost:

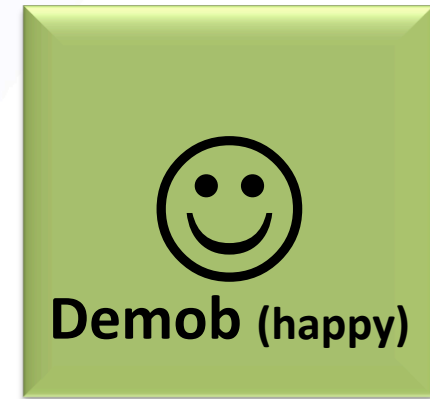
Who pays?
Loss leader
Subsidy
Differentiation
ISP acceptable

Diaries
Tech data
Interviews

Preliminary findings: four broad categories of user

Characterised by:

- Requirements of the Internet
- Understanding & acceptability of 'free' PAWS service
- Perceptions of utility, value, ability to pay



Preliminary findings: three stories (service models)

Public places & spaces e.g.
libraries,
community centres

**Govt.
involvement?**

**Commercial
public places &
spaces** e.g.
tourism related –
campsites, lodges

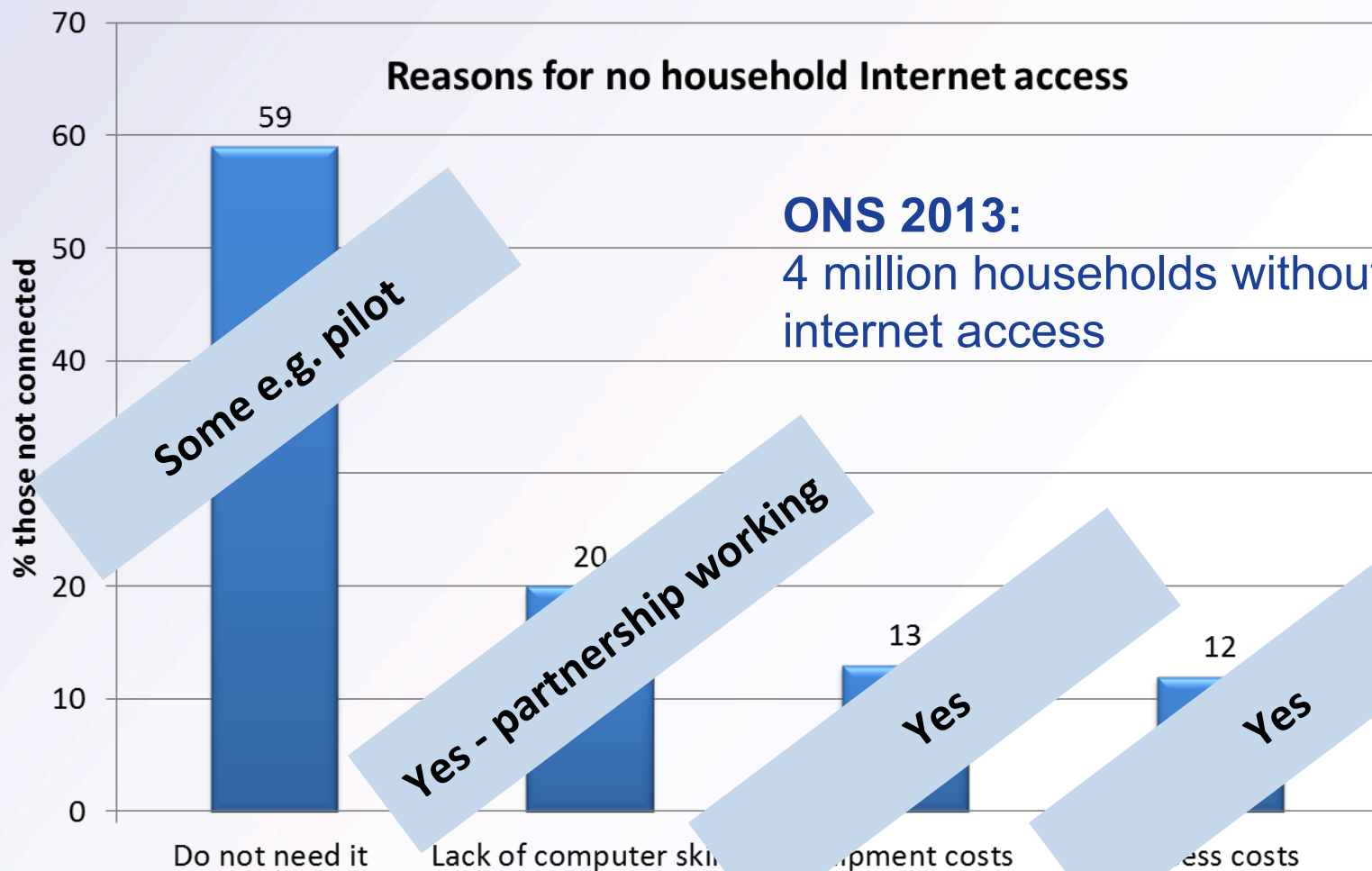
**Complementary
service?**

**Households and
businesses** e.g.
livestock farming,
ageing rural
demographic

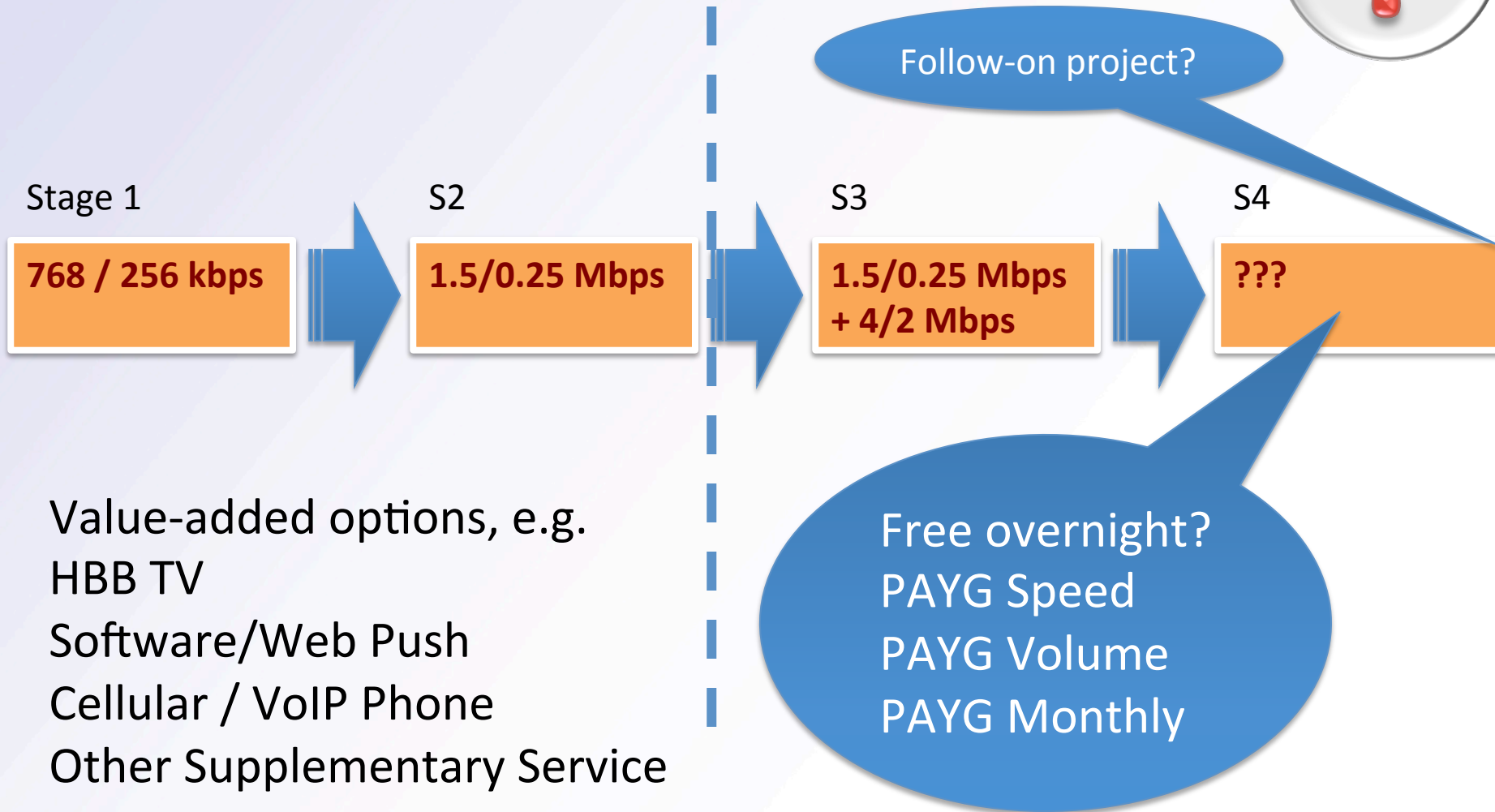
Stepping stone?

Rural PAWS hybrid ?

PAWS 'potential' re getting people connected



Rural PAWS service model evolution



Features	PAWS household	PAWS public places	PAWS commercial public places
Nature of service :	Bandwidth 1.5 Mbps down and 256kbps up	Bandwidth 1.5 Mbps down and 256kbps up	Bandwidth 1.5 Mbps down and 256kbps up
Offer to user:	Better than basic plus fast-track to whitelisted sites/prioritised capacity	Better than basic plus fast-track to whitelisted sites/prioritised capacity	Better than basic plus fast-track to whitelisted sites/prioritised capacity
User outcome:	<ul style="list-style-type: none"> • Get connected • Stepping stone to paid higher grade service 	<ul style="list-style-type: none"> • Get connected • Access to Digital by Default 	<ul style="list-style-type: none"> • Get connected • Expectation re Internet availability
Cost model			
Funder possibilities (hardware)			
Funder possibilities (service)			





In summary - an analogy:

- Significant number of roads aren't motorways
- The right track or alternative routes?
- Opportunities & investment?

<http://www.dotrural.ac.uk/paws/>