

BharatNet & Absorptive Capacity of Institutional Users

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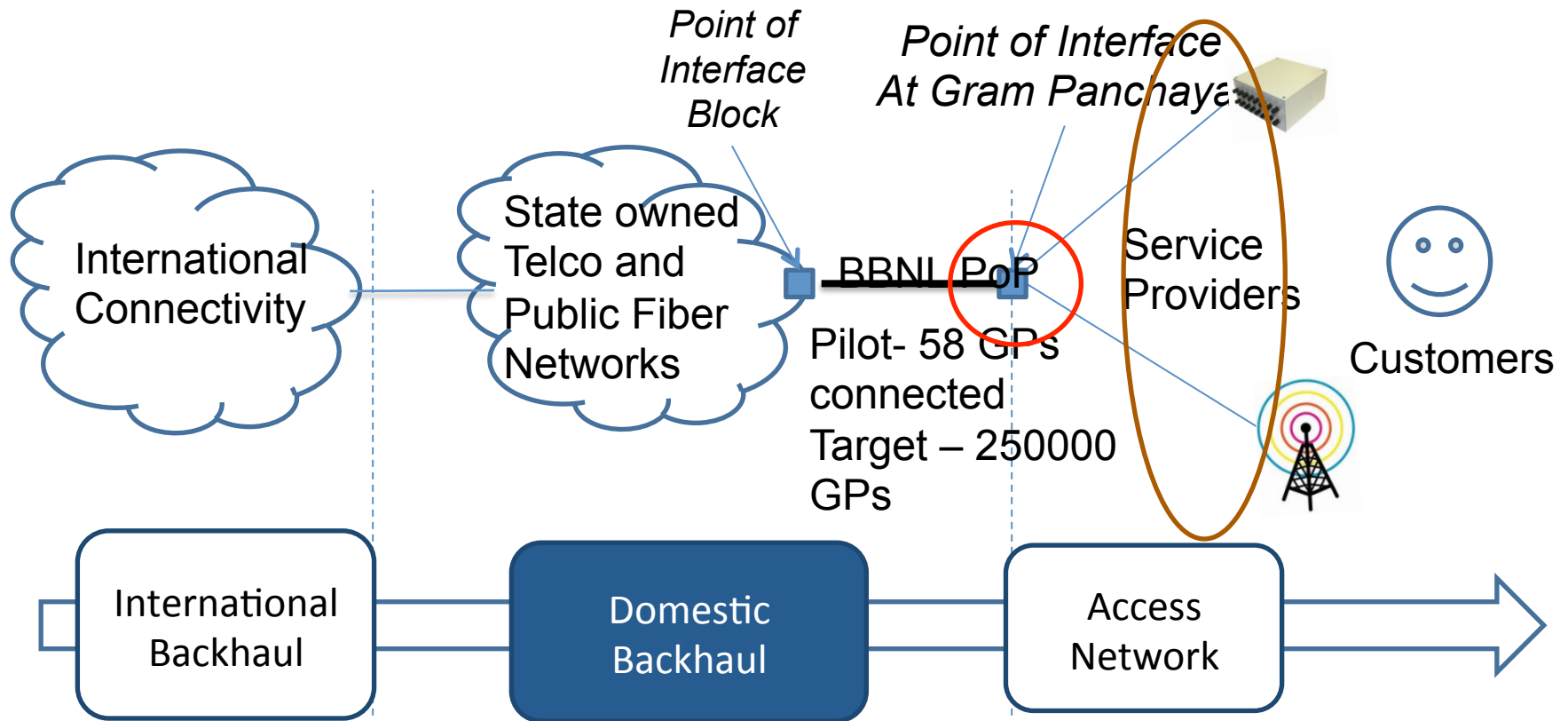
New Delhi, 19-22 August 2016



Agenda

- Context
- Absorptive capacity
- Questions
- Findings
- Implications

National Optical Fiber Network



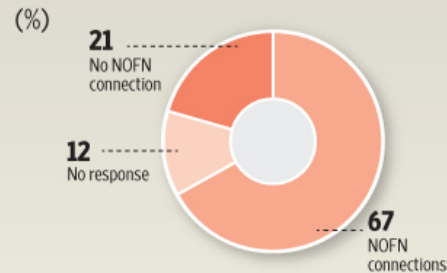
Implemented by BBNL – SPV (BSNL, Railtel, PowerGrid), wholesale bandwidth provider. Costing 4.6 B USD. Digital India Cost – 18 B USD.

FALTERING AT THE LAST MILE

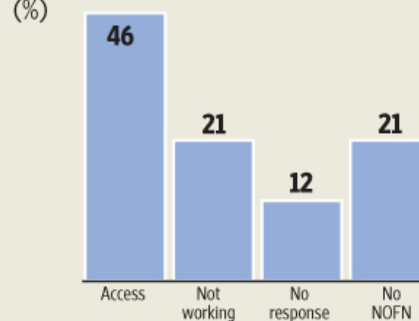
A recent survey by the Digital Empowerment Foundation has found that the government's pilot project to provide last-mile connectivity under the National Optical Fibre Network (NOFN) programme has been patchily implemented. Conducted in Arain block of Ajmer district in Rajasthan, Pravada block in Vishakhapatnam district of Andhra Pradesh and Panisagar block in North Tripura district in Tripura, the survey at schools, and panchayat (village council) and government offices revealed that only two-thirds had an Internet cable connection. It also showed that less than half the 112 institutions surveyed had a connection that actually worked although of a lower speed than the promised 100Mbps. This contrasts with the government's position that these sub-districts are fully covered under the programme that seeks to close India's digital divide.

112 Institutions covered under the survey

STATUS OF NETWORK AVAILABILITY IN PILOT BLOCKS



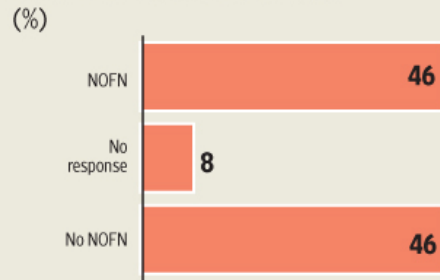
STATUS OF NETWORK CONNECTIVITY IN PILOT BLOCKS



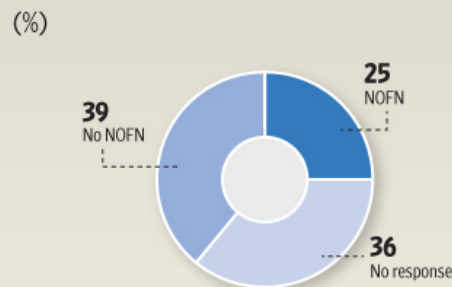
CONNECTION VERSUS ACCESS IN PILOT BLOCKS



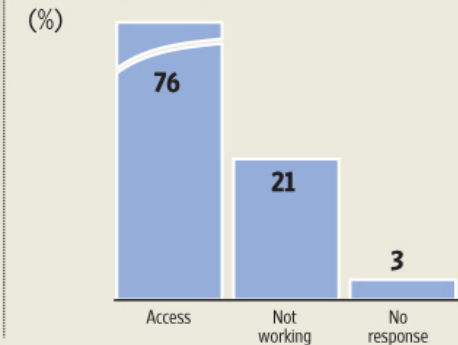
STATUS OF NETWORK CONNECTIVITY IN SCHOOLS OF PILOT BLOCKS



STATUS OF NETWORK CONNECTIVITY IN GOVERNMENT OFFICES

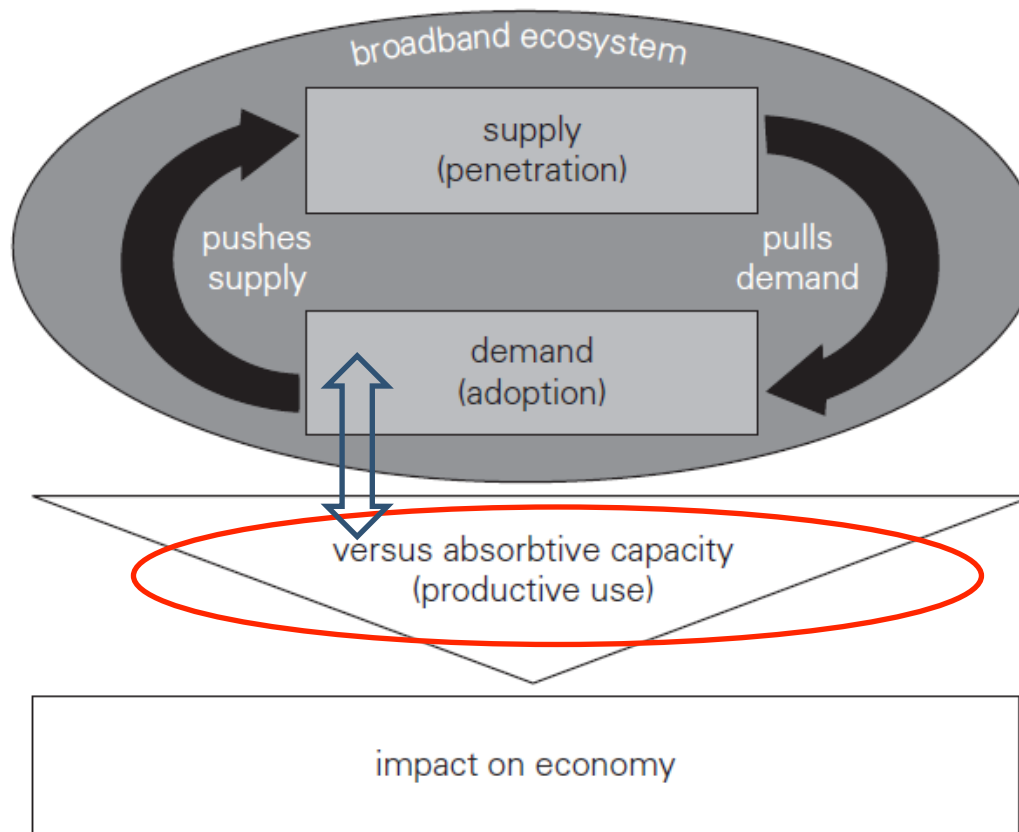


STATUS OF NETWORK CONNECTIVITY IN PANCHAYATS



Source: Digital Empowerment Foundation

Broadband Ecosystem & impact on economy



Source: World Bank.

Kelly, T. and Rossotto, C. M. (Eds). (2010). *Broadband strategies handbook*. Washington: The World Bank.

Question

- *To assess whether present & potential institutional users in the gram panchayats of NOFN pilot phase, own and possess adequate capacity to use and access the Internet and to deliver services to the rural households*

Areas of enquiry

Level of ownership and usage of Internet

Awareness of the NOFN, its potential and the projected benefits

Impact of Internet on the way consumers conduct their businesses / activities

Future intention of use of Internet in consumers conduct of businesses / activities

Potential challenges to NOFN that consumers foresee

Method

- Computer assisted in-person Quanti. interviews
 - With heads or in-charges
 - 50% of Pilot GPs in Rajasthan (15) & AP (7)
 - *Arain (842) & Paravada (517)*
 - Systematic random selection

Sr. No.	GP Names	SS Target as per Design	SS Achieved as per Universe
1	Ajgara	60	44
2	Arain	60	127
3	Bhagwanpura	60	36
4	Bhogadeet	60	42
5	Birla	60	58
6	Dadiya	60	46
7	Deopuri	60	45
8	Fatehgarh	60	94
9	Gothiyana	60	38
10	Hingoniyan	60	60
11	Jheerota	60	30
12	Kasheer	60	53
13	Lallai	60	28
14	Manoharpura	60	48
15	Sapla	60	78
16	Syar (Pilot)	15	15
TOTAL		915	842

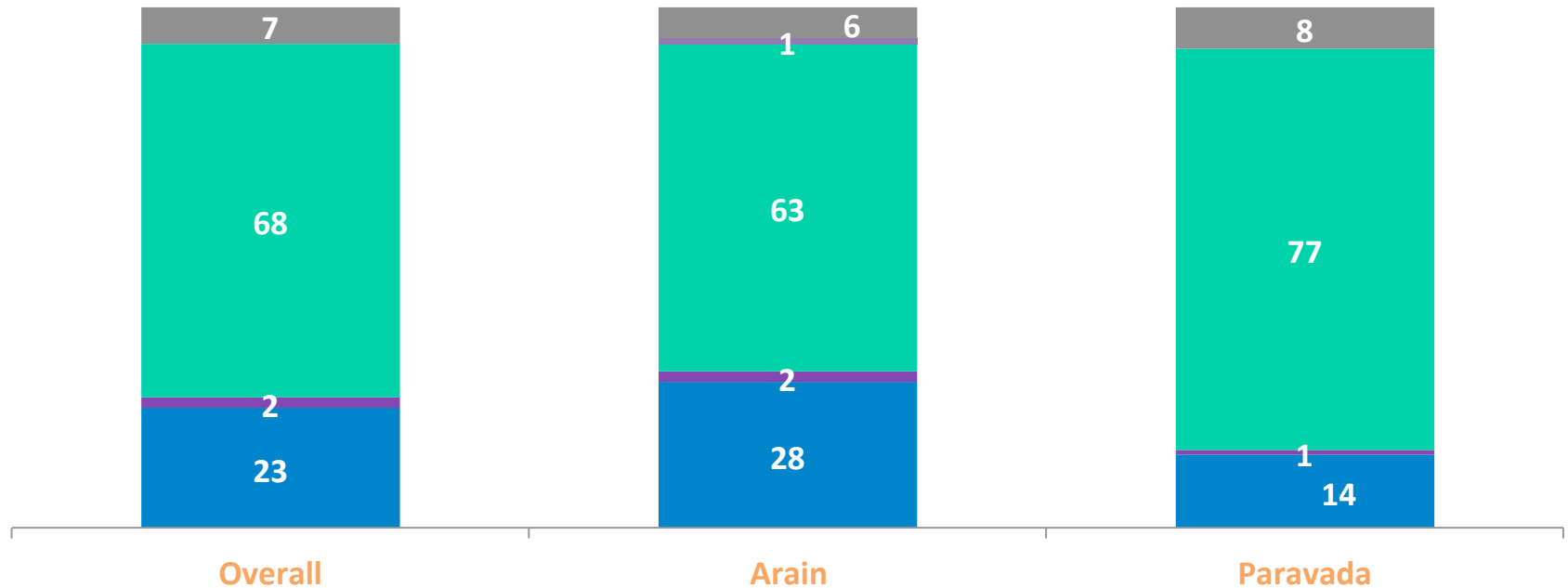
Sr. No.	GP Names	SS Target as per Design	SS Achieved as per Universe
1	Edulapaka Bonangi	60	59
2	Gorlivani Palem	60	42
3	Kunnuru	60	50
4	Mutyalammapalem	60	41
5	Paravada	60	228
6	Thadi	60	49
7	Vennelapalem	60	33
8	Pedamusidivada (Pilot)	15	15
Total		435	517

Quota

State Government Organization	25%
Central Government Organization	25%
Private Organization	25%
Non-governmental Organisation (Public/Private)	5%
Semi-governmental Organization	10%

Centre	State Government Organization		Central Government Organization		Private Organization		Non-governmental Organisation (Public / Private owned)		Semi-governmental Organization		TOTAL	
	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
Ajmer TOTAL	225	229	225	20	225	524	45	6	90	48	900	827
Parwada TOTAL	105	63	105	5	105	392	21	2	42	40	420	502
GRAND Total	330	292	330	25	330	916	66	8	132	88	1320	1329

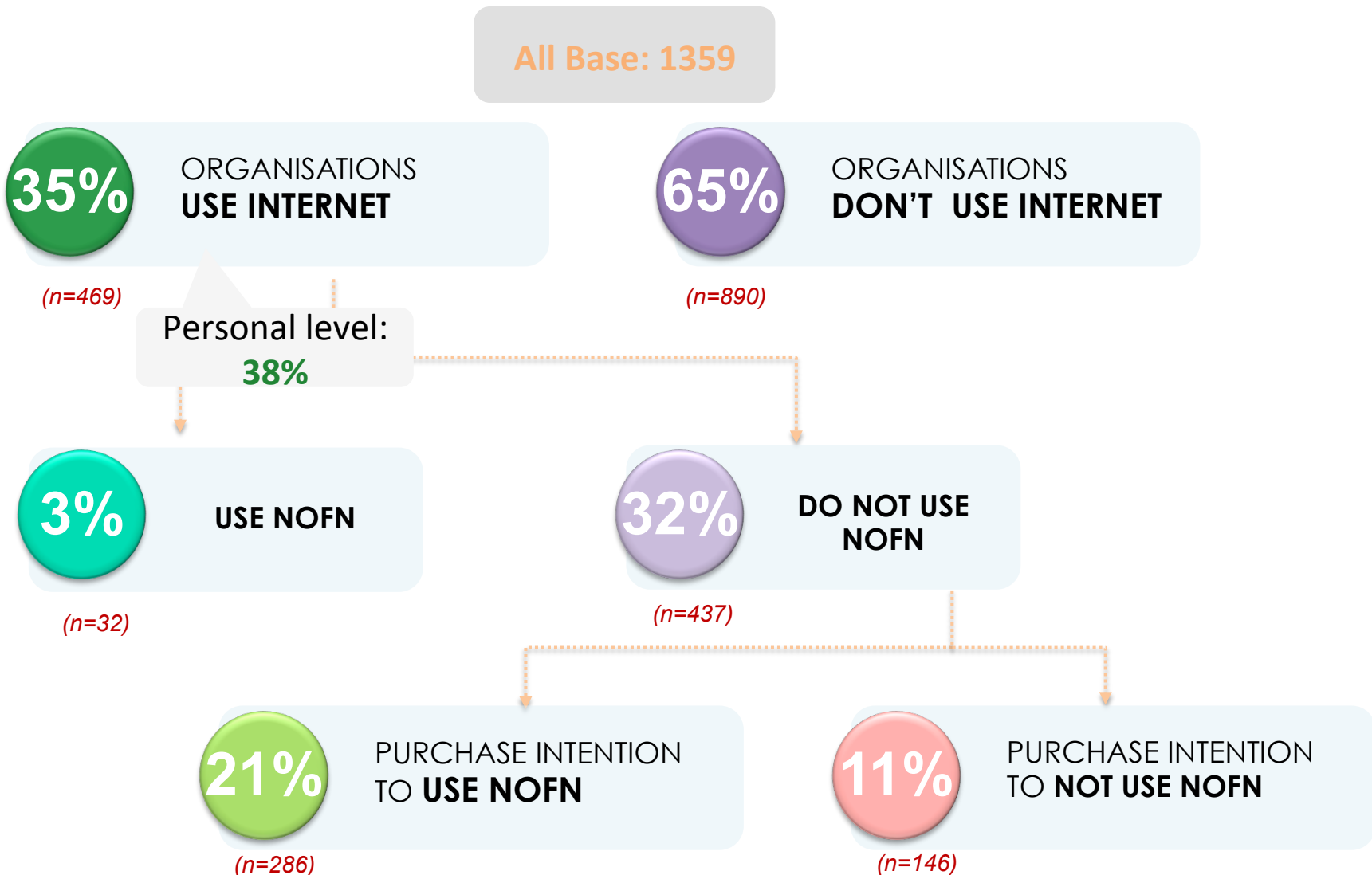
Sample



- State Government Organization
- Central Government Organization
- Private Organization
- NGOs (Public/ Private)
- Semi-governmental Organization

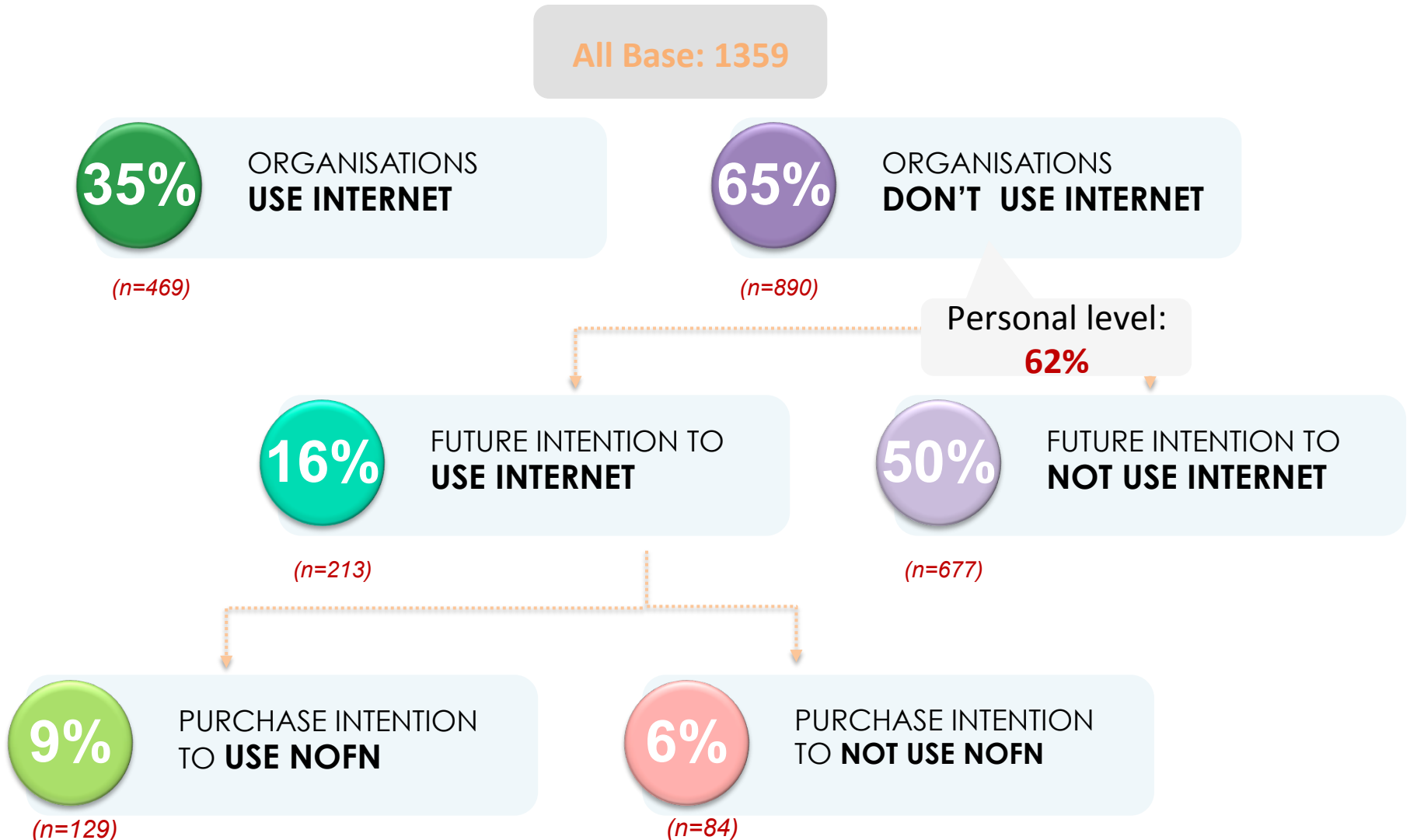
Internet Use

INTERNET USAGE – CURRENT & FUTURE INTENTION



- Personal level non internet users are slightly lesser than organizations that do not use internet
- Only 16% intend to use internet in future . Half of the organizations do not intend to use internet in the near future - a concern area
- With ~10% being positive of using NOFN as a service provider for future internet connection

INTERNET USAGE – CURRENT & FUTURE INTENTION



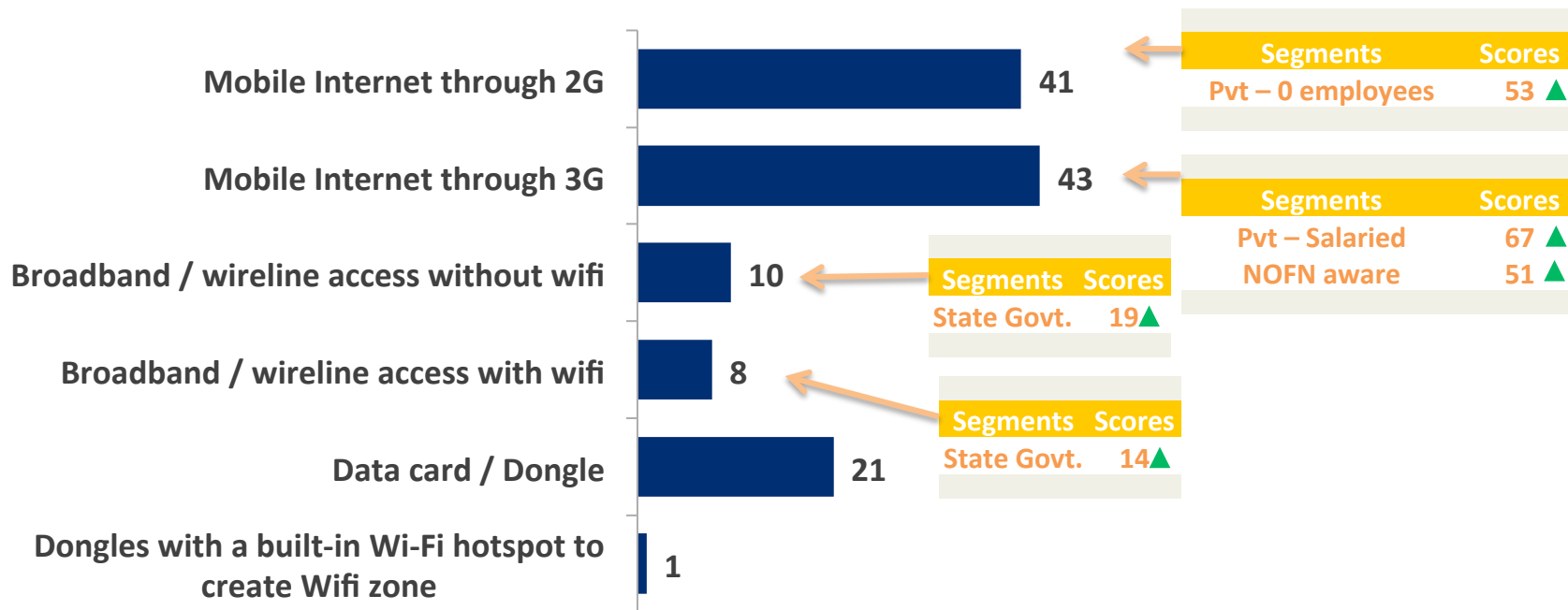
- At an overall level, Mobile internet forms the major portion as internet mode (2G : 3G close to equal)
- While Pvt org – 0 employees use mobile internet via 2G, Pvt – Salaried and NOFN aware organizations use advanced 3G internet technology
- Broadband with / without Wifi is used for internet much is primarily amongst State Govt organizations

MODES OF INTERNET ACCESS – ORGANIZATION USAGE : Overall

35%

ORGANISATIONS
USE INTERNET

Overall
Base: 469



Average Ownership: 1.2

Q. 27 Please tell me which of these devices does your business or organization own?

▼▲ Significant difference @ 95%

Base: Org that use internet
Figures in %

- Significantly higher proportion of Public organizations use Broadband / wireline access without Wifi while among Private organizations mobile internet via 2G / 3G is used equally

MODES OF INTERNET ACCESS – ORGANIZATION USAGE :

Organization type

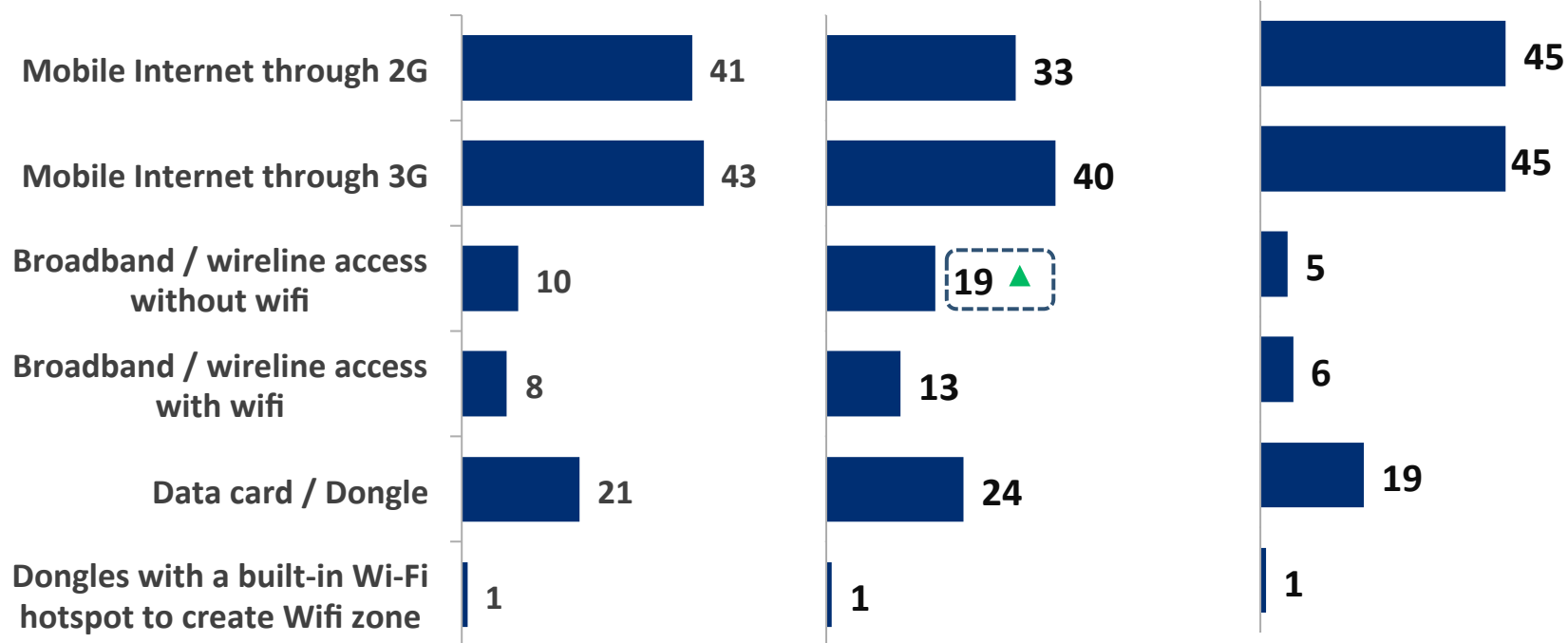
35%

ORGANISATIONS
USE INTERNET

Overall
Base: 469

Public
Base: 153

Private
Base: 316



Q. 27 Please tell me which of these devices does your business or organization own?

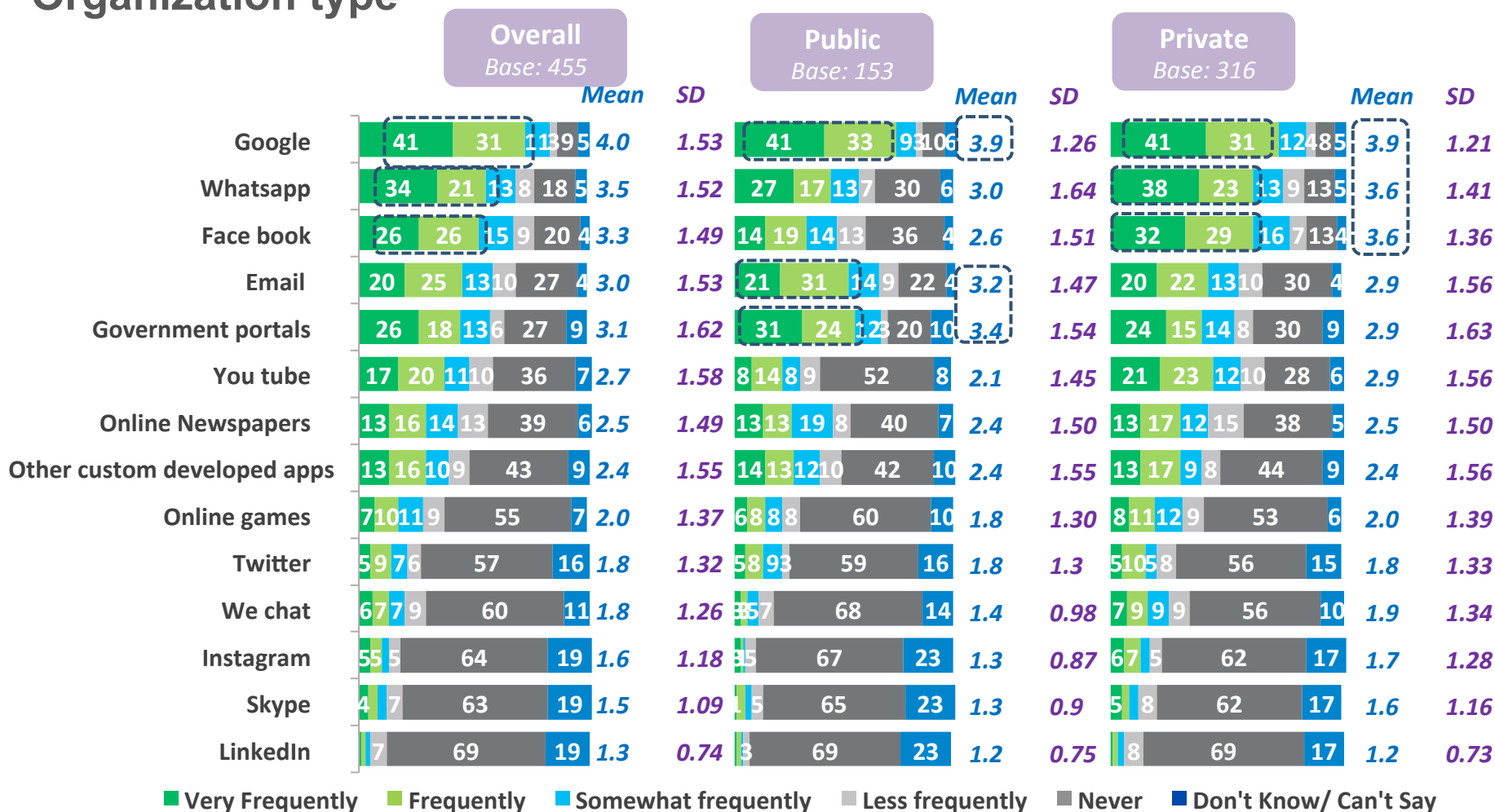
Significant difference @ 95%

Base: Org that use internet
Figures in %

- Amongst both the Public & Private players, 'Google search engine' appears on top, whereas amongst Public Players 'Email' & 'Govt. Portals' as the next most performed activities, unlike amongst Private players

ACTIVITIES PERFORMED ON INTERNET – ORGANIZATION :

Organization type



Q. 48a How frequently does your organization use or access the following on internet?

Significant difference @ 95%

Base: Organizations which use internet

Figures in %
* Low base

- Instant info' followed by 'Multitasking' & 'Everyone around using Internet' emerge as the top 3 triggers for internet usage for org, similar story amongst both Public & Private players
- 'Influenced by colleagues' also forms appears among top 3 triggers among Private organizations

TRIGGERS FOR USING INTERNET - ORGANIZATION : Organization type

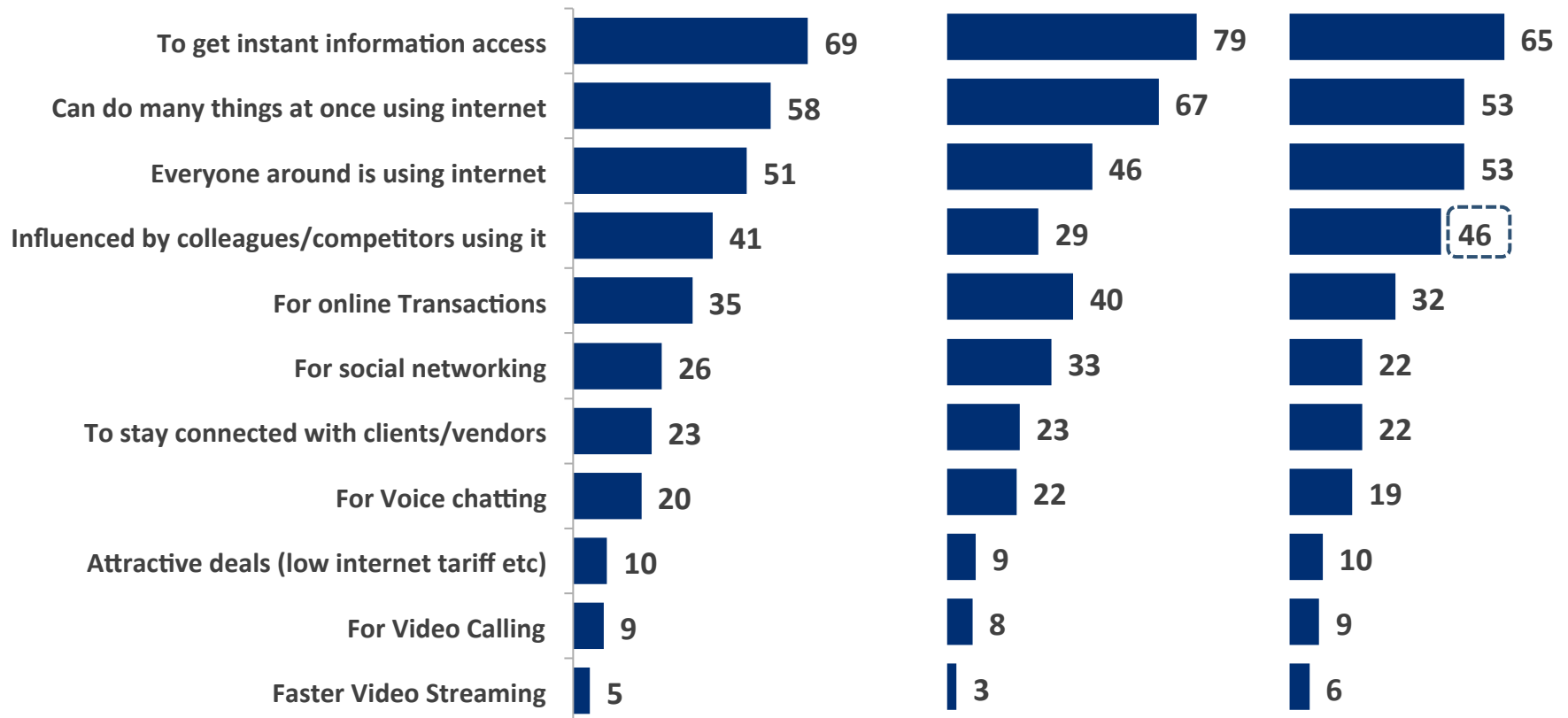
35%

ORGANISATIONS
USE INTERNET

Overall
Base: 469

Public
Base: 153

Private
Base: 316



Q. 36 Why did your organization / business get the Internet connection?

Base: Organizations that use internet

Figures in %

- While the top barriers amongst Public players are similar to overall, whereas the 3rd most barrier amongst Private players is 'Lack of technical capacity'

BARRIERS FOR USING INTERNET – ORGANIZATION : Organization

type

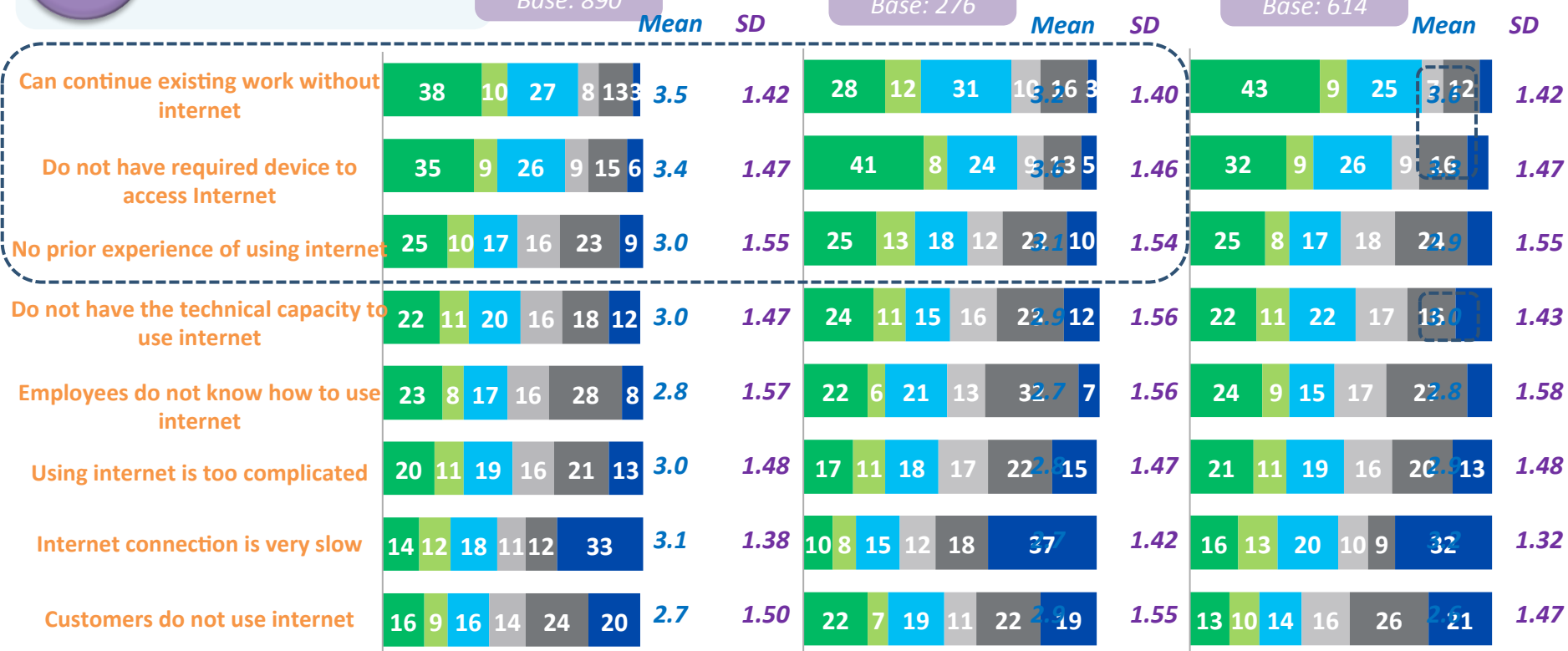
65%

ORGANISATIONS
DON'T USE INTERNET

Overall
Base: 890

Public
Base: 276

Private
Base: 614



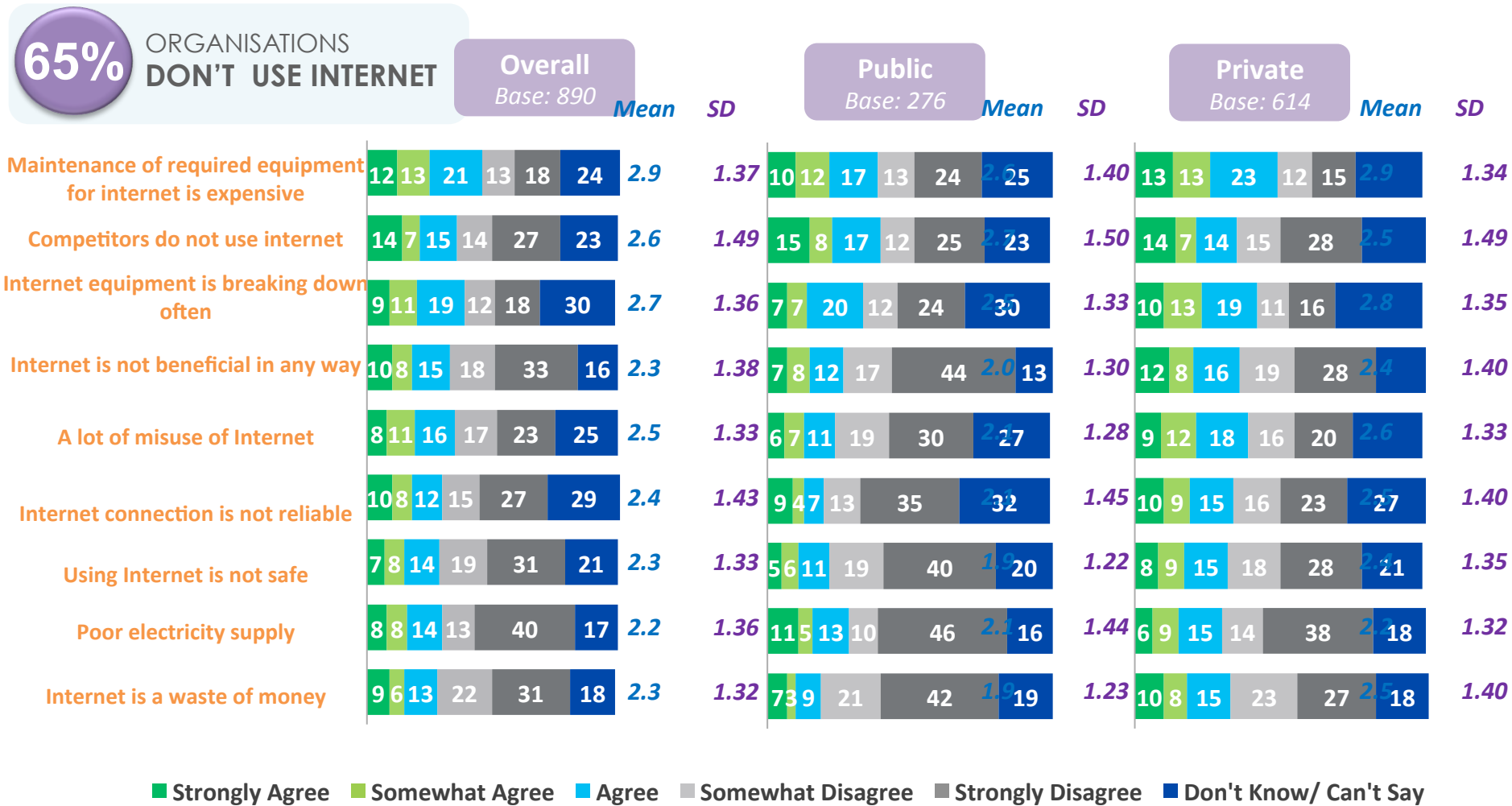
■ Strongly Agree
 ■ Somewhat Agree
 ■ Agree
 ■ Somewhat Disagree
 ■ Strongly Disagree
 ■ Don't Know/ Can't Say

Q. 51 We would like to know the reason behind not using internet for your organisation

Base: Organizations
which do not use
Internet

Figures in
%
* Low base

BARRIERS FOR USING INTERNET – ORGANIZATION : Organization type CONT..



Q. 51 We would like to know the reason behind not using internet for your organisation

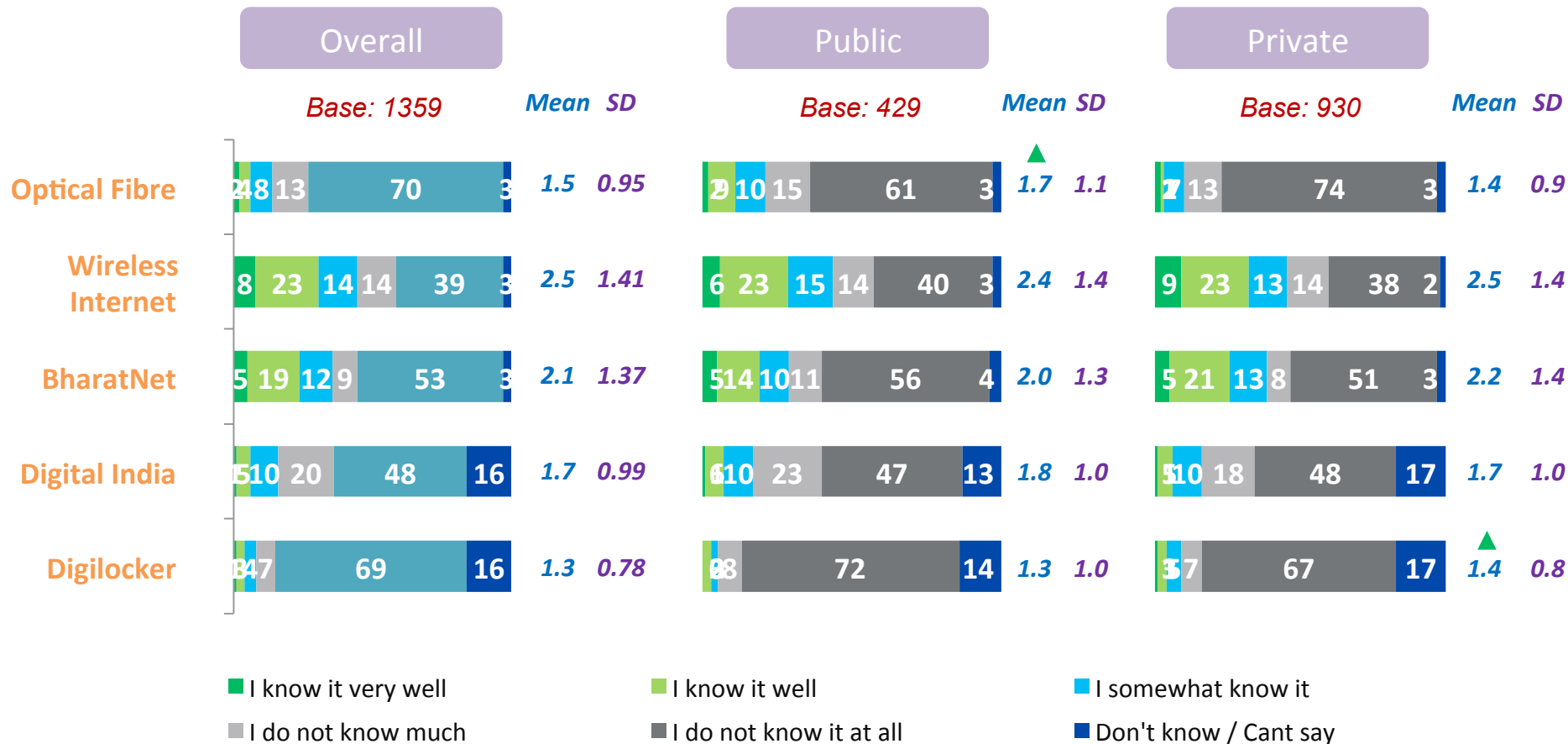
Base: Organizations which do not use Internet

Figures in %
* Low base

AWARENESS OF TECHNOLOGIES AND NOFN

- Awareness of 'Optical Fibre' is significantly higher among Public organizations
- As compared to Public organizations, Private organizations show significantly higher awareness of 'Diigilocker'

AWARENESS OF TECHNOLOGIES - OVERALL



Q60. How familiar are you with the following?

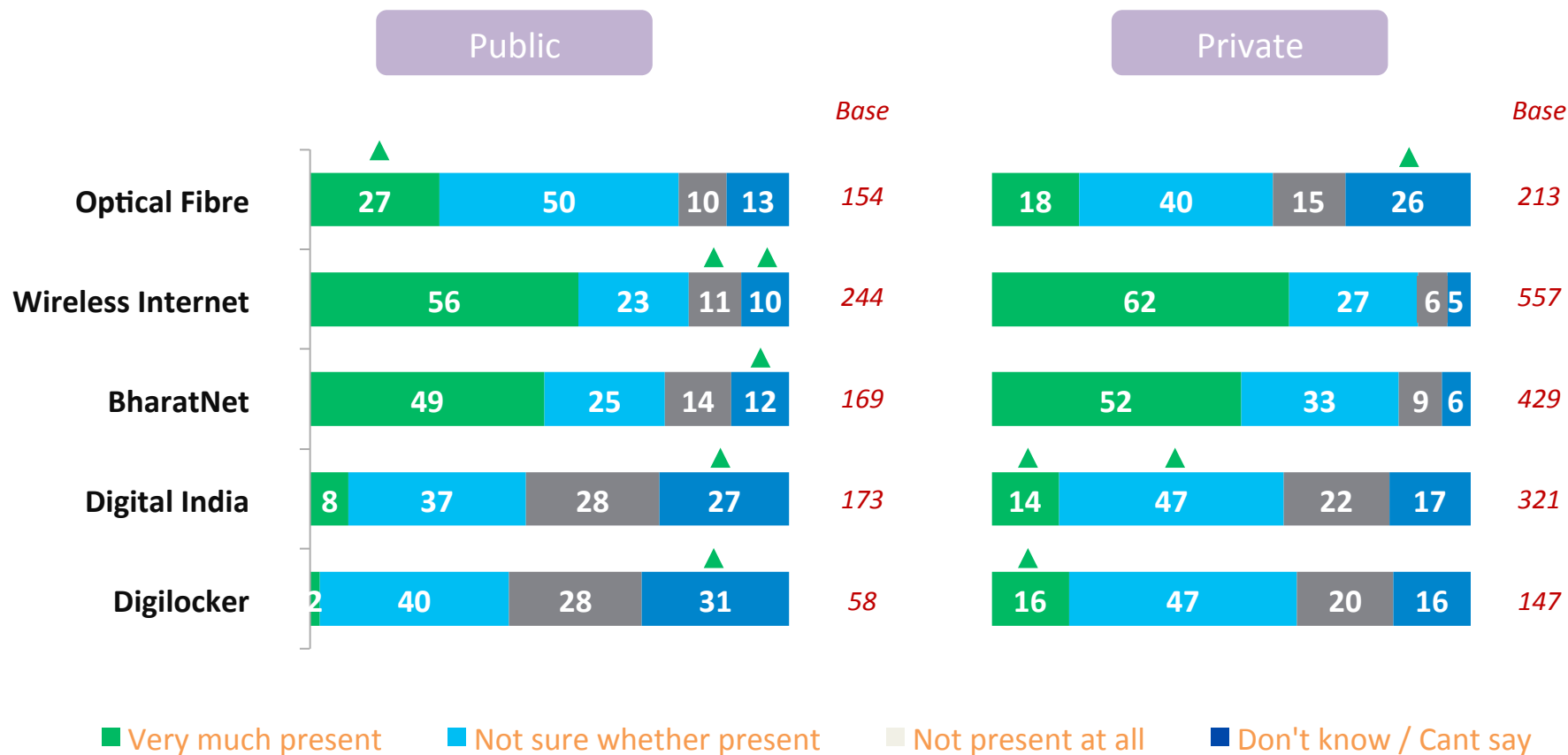
Significant difference @ 95%

Base: All respondents

Figures in %

- Claimed proportion for presence of 'Optical Fibre' is much higher among Public organizations
- Private organizations show significantly high claim proportions for 'Digital India' & 'Digilocker' as compared to Public organizations
- Public organizations exhibit high proportions of lack of clarity of most technologies, compared to Private

PRESENCE OF TECHNOLOGIES IN THE SOCIETY



Q61. To what extent will you say that each of the following is present in your society / village /

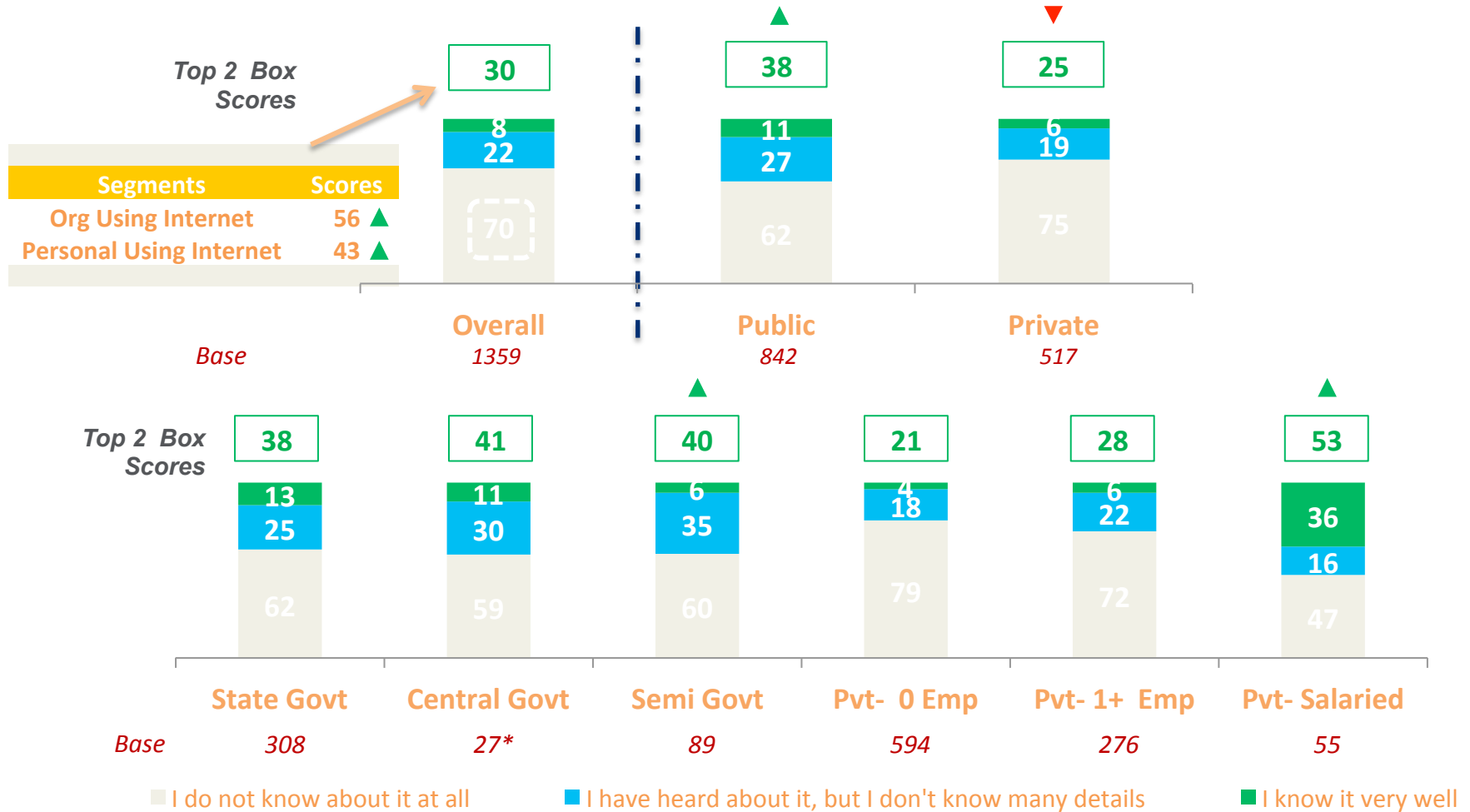
your home? @ 95%

Base: Respondents who are aware of the technology

Figures in %

- 1/3rd of respondents are aware of NOFN / BBNL
- Also, significantly higher awareness seen in Public organizations as compared to Private organizations
- Semi Govt and private organizations with salaried individuals exhibit significantly higher awareness compared to other segments
- Also, organizations and individual using internet show significantly higher awareness of NOFN

AWARENESS OF NOFN – OVERALL & SEGMENTS



Q. How familiar with National Optical Fiber Network (NOFN) / Bharat Broadband Network Ltd (BBNL) would you

Base: All respondents

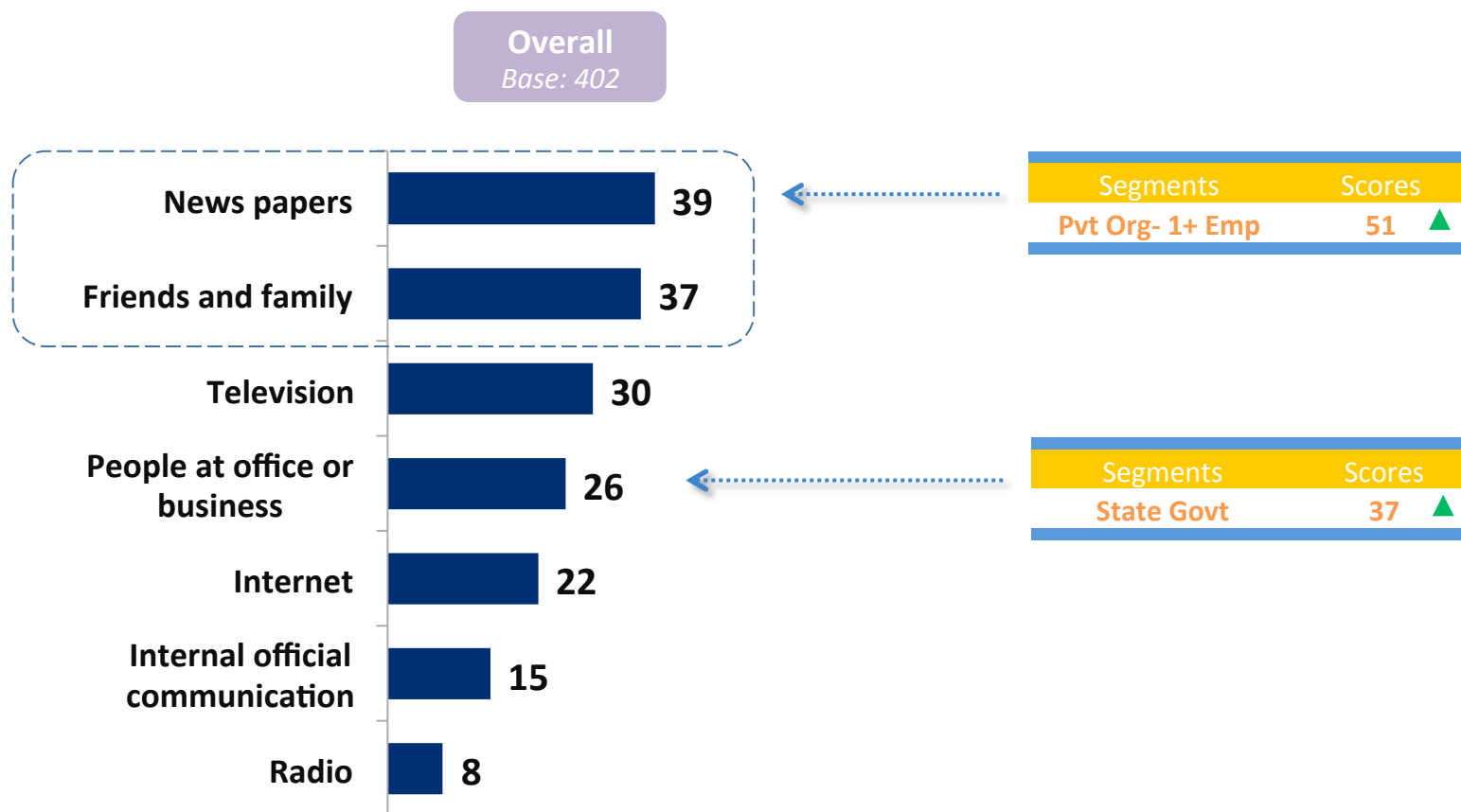
Base: All respondents

Figures in %

* Low base

- 'Newspaper publications' and 'Friends and family' play an important role in spreading the word about NOFN
- Private organizations with 1 or more employees claim significantly high source of awareness from 'Newspaper publications'
- Also, State Govt organizations are significantly more aware of NOFN through 'People at office or business' as compared to other segments

SOURCE OF AWARENESS OF NOFN – OVERALL



Q63. Where did you come to know about National Optical Fiber Network (NOFN) / Bharat Broadband Network Ltd

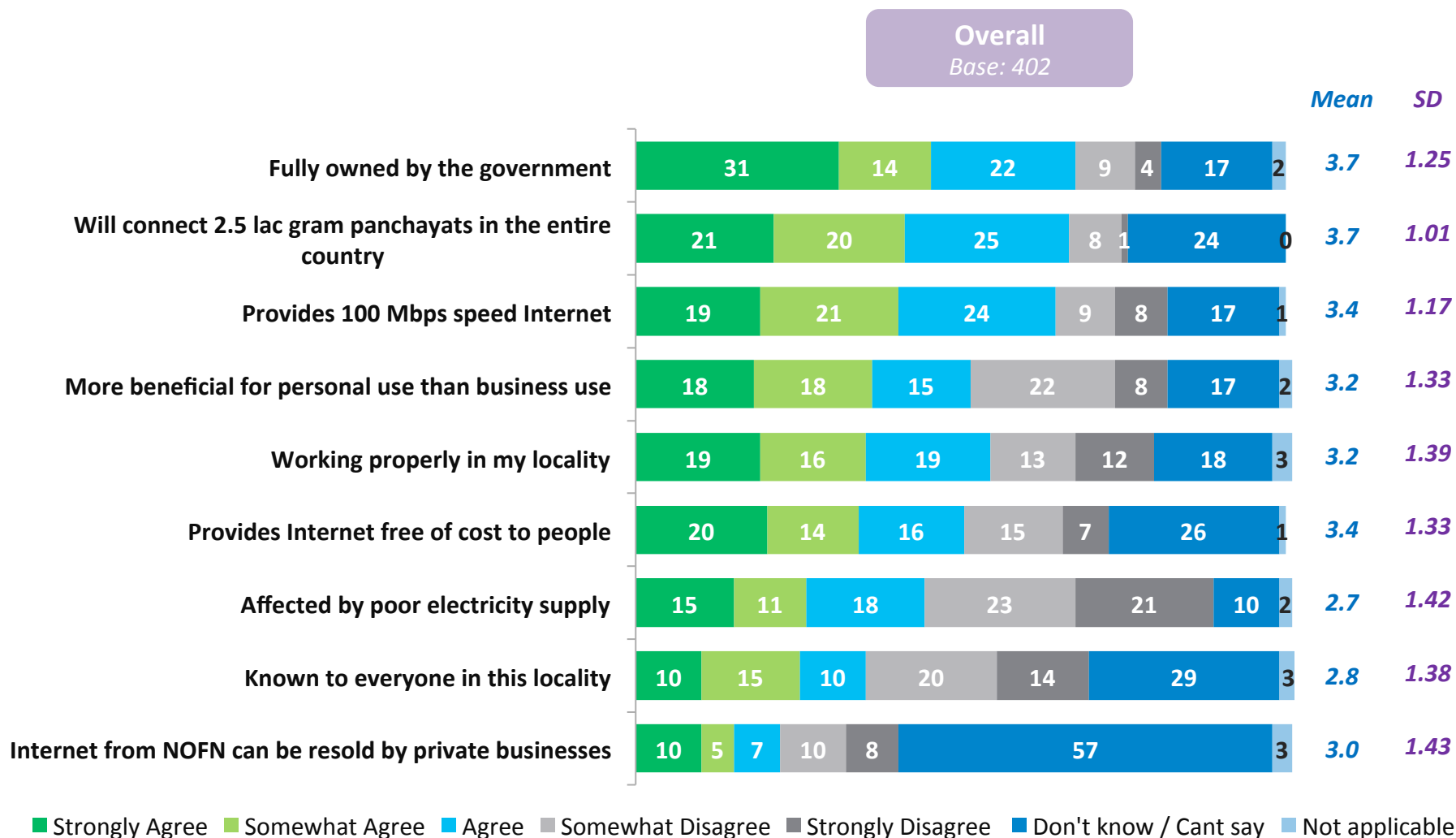
BBNL? Significant difference @ 95%

Base: Respondents who are aware of NOFN

Figures in %

- NOFN relation with Govt followed by 'connectivity' and 'high speed internet' is known only by ~50% of the consumers. Also, ~50% consumers claim that NOFN is not affected by 'poor electricity supply'

PERCEPTION OF NOFN



Q65. Please share your agreement or disagreement with each of these statements

Base: Respondents who are aware of NOFN

Figures in %

- 'Equipment is breaking down often', 'NOFN connection is slow' and 'Already having internet' emerge as 3 key barriers to using NOFN
- State Govt organizations face 'Lack of manpower/technical support' as a barrier to using NOFN
- Semi Govt organizations say few of the main reasons for not using NOFN is 'Expensive maintenance of equipment' and 'No clarity on who would pay for the connection'

BARRIERS FOR USING NOFN

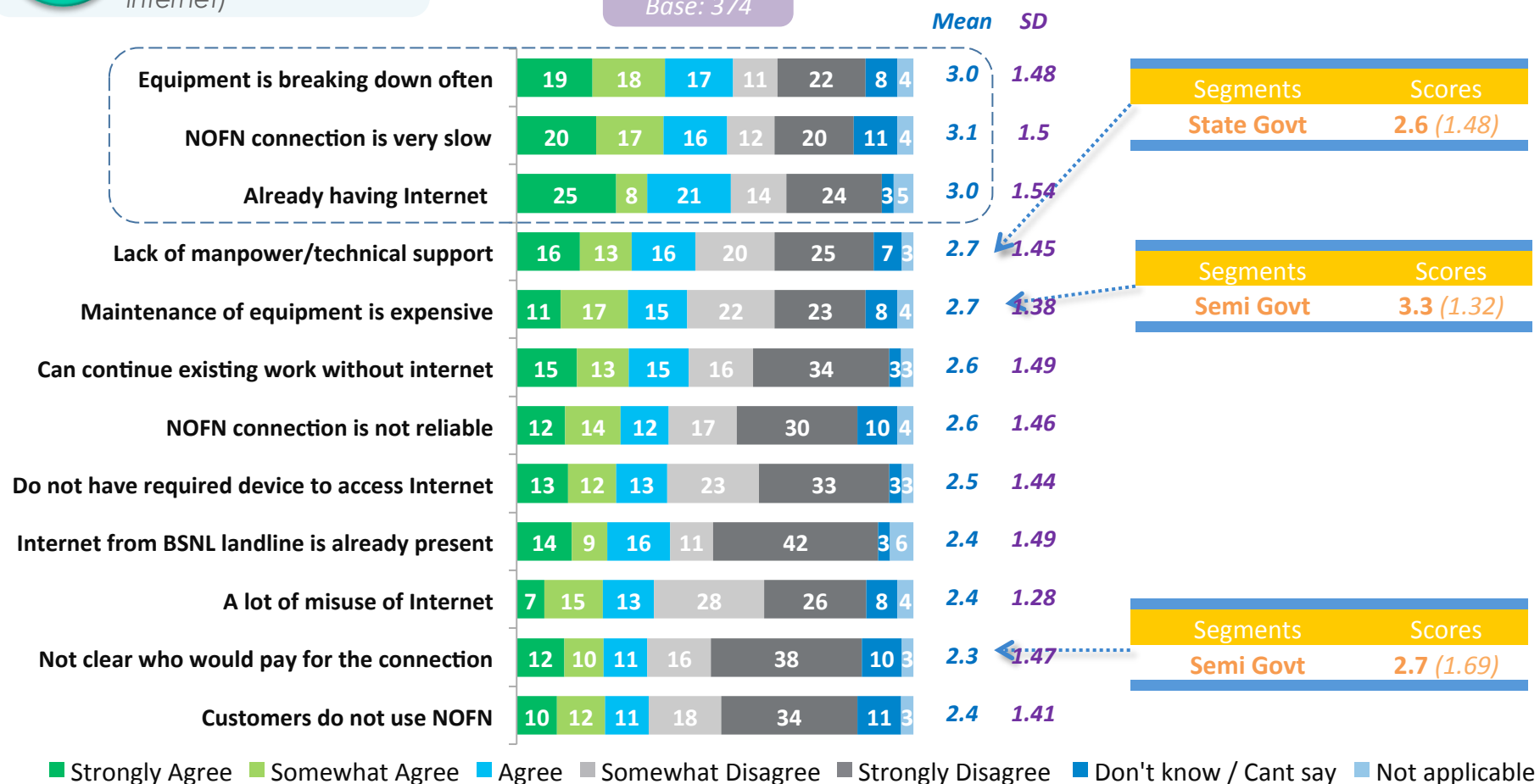
93%

DO NOT USE NOFN

(Among 35% who use internet)

Overall

Base: 374



Strongly Agree
Somewhat Agree
Agree
Somewhat Disagree
Strongly Disagree
Don't know / Cant say
Not applicable

Q64. Reasons for not using internet through NOFN / BBNL

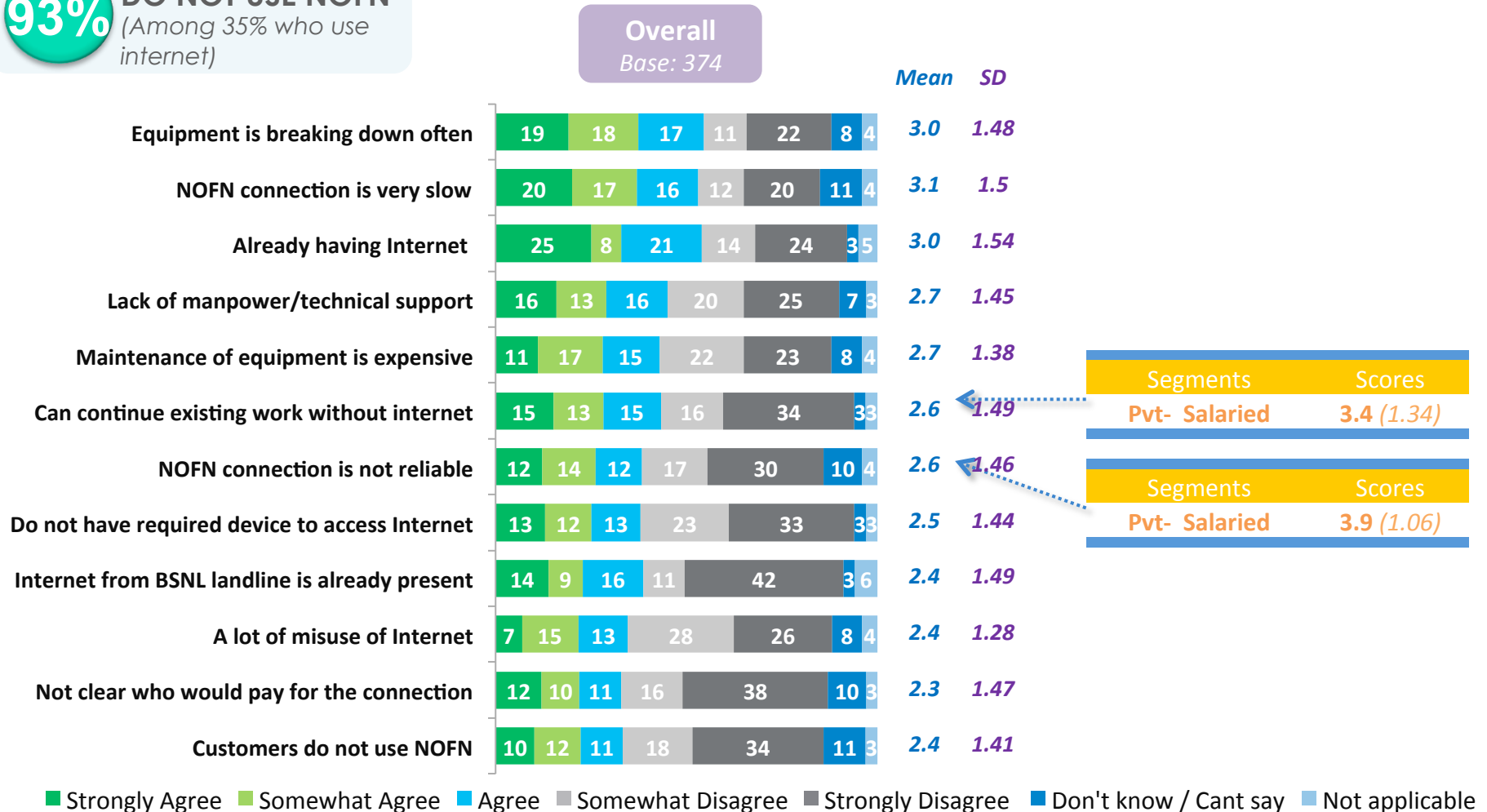
Base: Respondents who do not use NOFN

Figures in %

- Private organizations with salaried employees claim that 'Can continue work without internet' and 'NOFN connection is not reliable' are reasons for not taking up NOFN connection

BARRIERS FOR USING NOFN

93% DO NOT USE NOFN
(Among 35% who use internet)



Q64. Reasons for not using internet through NOFN / BSNL

Base: Respondents who do not use NOFN

Figures in %

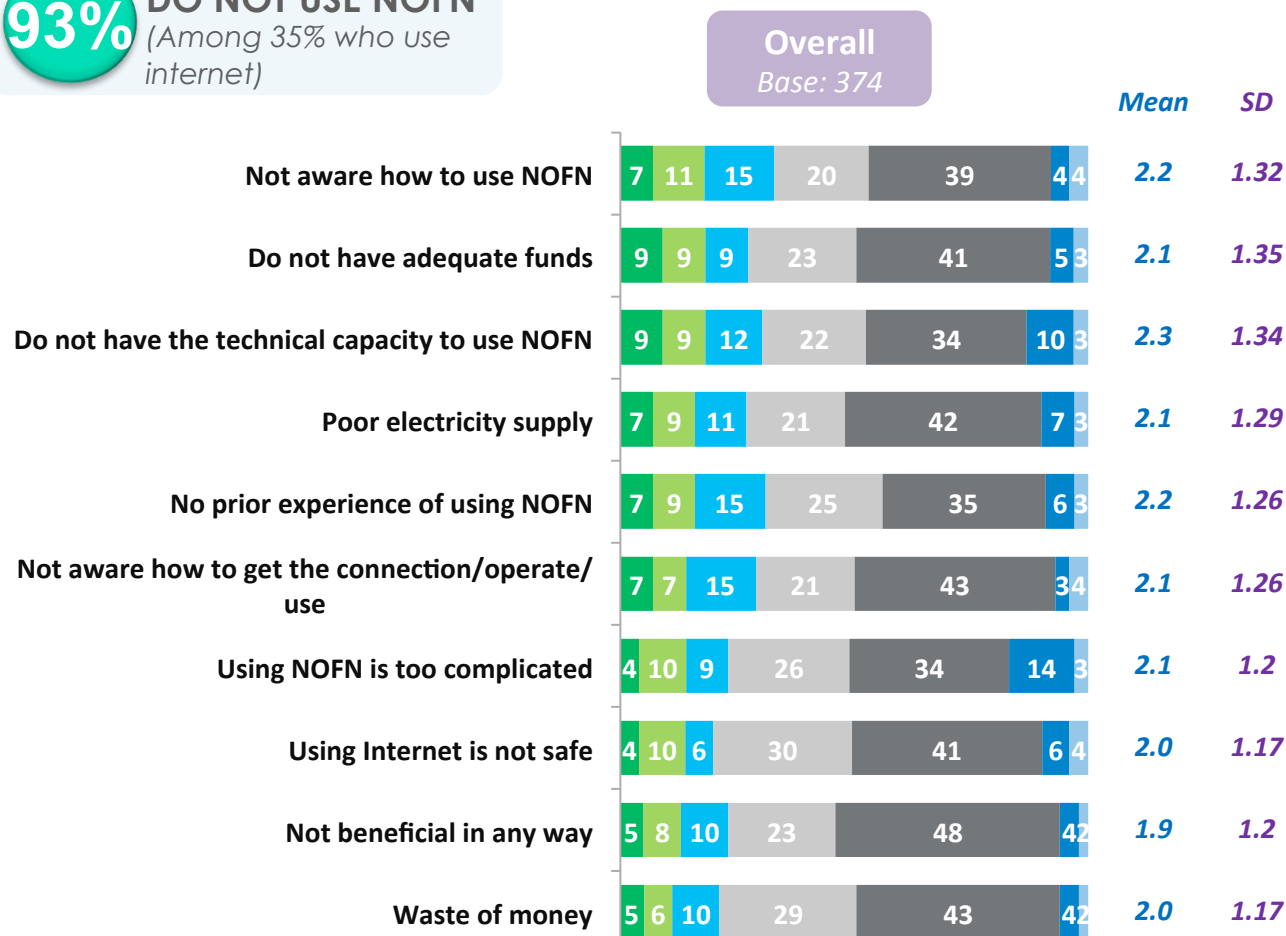
- Consumers do not relate a lot to 'Not beneficial in any way' and 'Waste of money' as reasons for not using NOFN

BARRIERS FOR USING NOFN CONT..

93%

DO NOT USE NOFN

(Among 35% who use internet)



■ Strongly Agree
 ■ Somewhat Agree
 ■ Agree
 ■ Somewhat Disagree
 ■ Strongly Disagree
 ■ Don't know / Cant say
 ■ Not applicable

Q64. Reasons for not using internet through NOFN / BBNL

Base: Respondents who do not use NOFN

Figures in %

Implications

- Non use of Internet → BharatNet uptake
- Focus: Mobile & wifi
- Improve communication
 - Awareness, perceived use

Thank you!

Q?