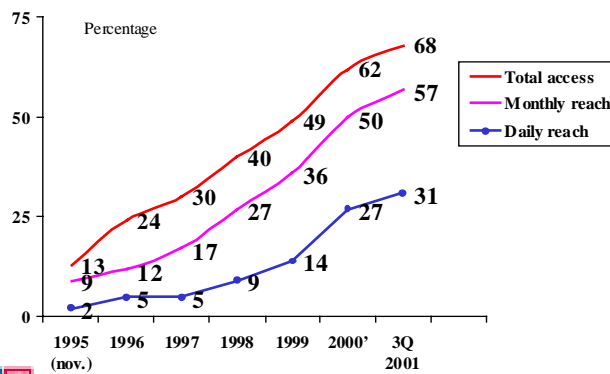


Broadband access and how broadband change media behaviour

Dag Andersen
Taylor Nelson Sofres - Norsk Gallup A/S
<http://www.gallup.no>

Access and use of the internet in Norway

Total access to Internet, Monthly reach, Daily reach

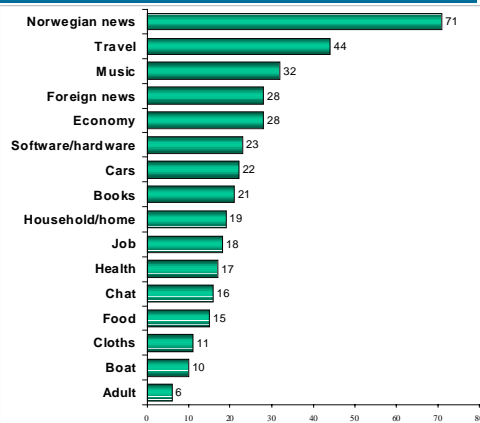


Source: Forbruker & Media, Gallups InterTrack.

Internet use in Norway

Surfing pattern last month

- News dominates
- Then travel related surfing
- Search for music no. 3 and require high speed



Source: Gallup Interbuss 3Q 2001 - In Norway - 3.712.000 persons over 13 year

Internet usage in Norway vs. UK?

- ▶ 3/4 of all Internet users at home access secured connections each month in Norway.
- ▶ Audio-Video is used by 20% in UK, 15% in Norway
- ▶ File transfers is used by about 15 % in both countries.

Rank	Protocol	Reach (%) Norway	Reach (%) - UK	Difference
1	Secured connections	74.5	70.9	3.6
2	Other	22.0	27.7	-5.7
3	Instant messaging	18.0	23.3	-5.3
4	Audio-video	15.5	20.2	-4.7
5	File transfers	15.3	16.3	-1.0
6	Chat	10.8	6.2	4.6
7	News	3.0	3.4	-0.4
8	Games	2.4	2.3	0.1



Source: NetValue sept. 2001

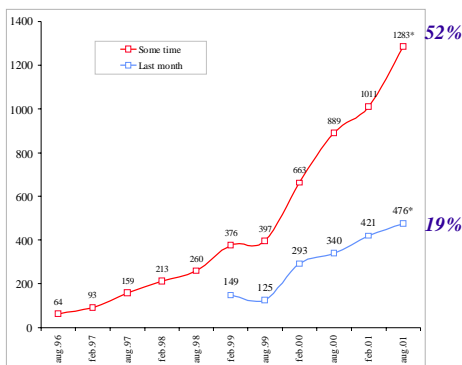
4

E-commerce

Questions

Have you order or bought goods / services on Internet ?

- ▶ Nearly 1,3 million have done e-commerce in Norway
- ▶ That's over 50% of those who have used Internet last month



Source: Gallup Interbus 3Q 2001 - In Norway - 3.712.000 persons over 13 year

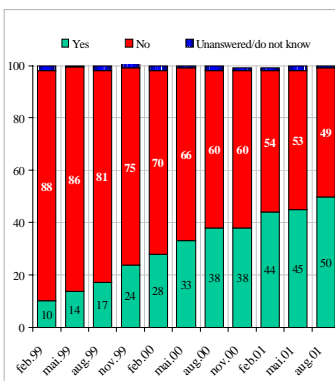
5

Bank services on Internet

Questions

Are you registered in order to use online banking ?

- ▶ Nearly 1,3 million have access to do bank services over Internet
- ▶ That's over 50% of those who have access to Internet.



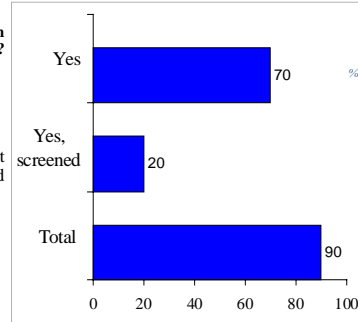
Source: Gallup Interbus 3Q 2001 - In Norway - 3.712.000 persons over 13 year

6

Knowledge - Broadband

Questions

- Do you know what broadband is ? (N=1005)
- Definition of broadband and then question on whether they have heard about it ? (N=306)
- 70% knows the term "broadband"
- 67% of those who didn't know what broadband is, have nevertheless heard about it.
- Total knowledge is 90 %**



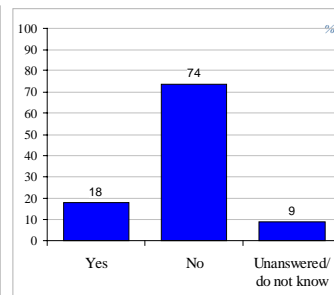
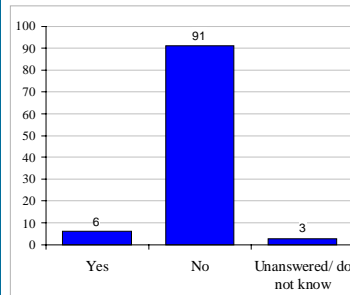
Source: Gallup Interbus 3Q 2001

7

Access to Broadband in Norway

Access today

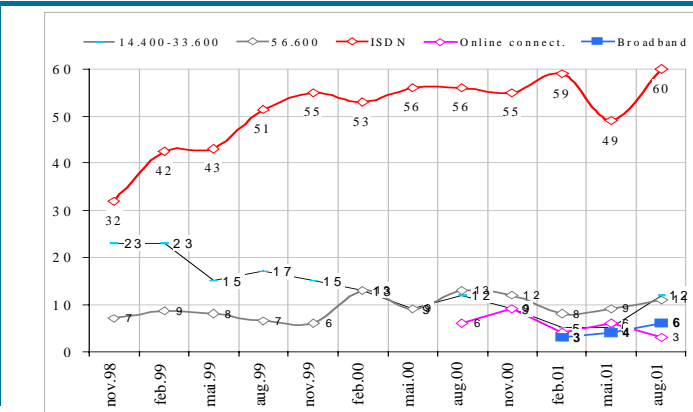
Received offer last 6 months



Source: Gallup Interbus 3Q 2001

8

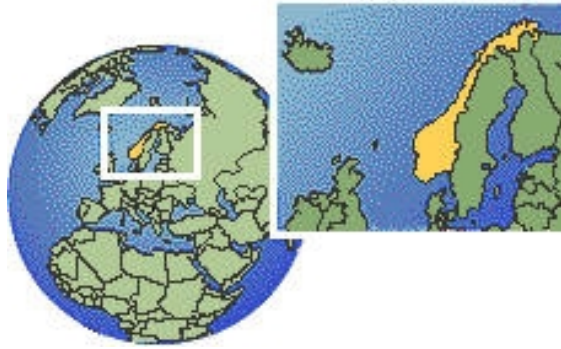
Access type in Norway



Source: Gallup Interbus

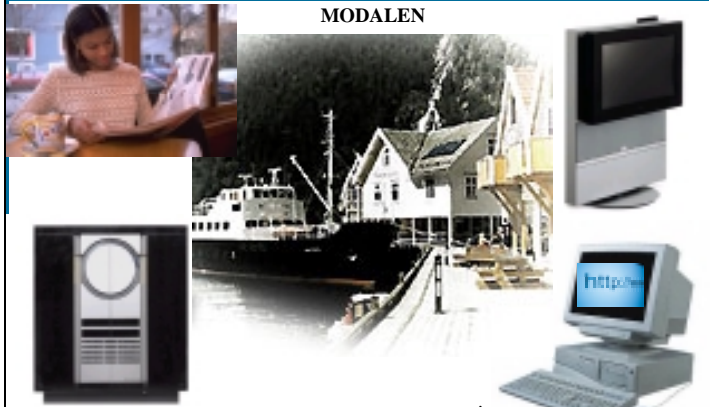
9

Another reason for low broadband access ◀



How does broadband change media behaviour ◀

MODALEN



A look into the future !



Modalen - the broadband community ◀



Modalen - the broadband community ◀

- ▶ The **Modalen** community is situated at the end of the Osterfjord in Hordaland county in western Norway. Bordering on the Sogn county, the municipality consists of about **150 families** and 350-400 inhabitants. The closest major city is Bergen at a distance of 83 kilometres (52 miles), and about 1 hour and 15 minutes by car. It wasn't always like that, as the road was built about 25 years ago.
- ▶ Local authorities and industry in the community of Modalen in Hordaland, Norway, have together with several of Norway's leading companies within communication technology and e-business initiated the "**Modalen project**", **giving the inhabitants access to the Internet through broadband technology**. Every family, company, public department, organisation, school and institution is now being offered connection to the system that uses the TV-set as its user interface.



13

Technology ◀

- ▶ The project will showcase technology from **PCTVnet ASA** and **Nera ASA**, the two Norwegian companies providing the infrastructure making the project possible. Other partners will provide applications and content.
- ▶ In the first phase **Nera is installing a wireless broadband solution using radio signals**. In 2001 Nera will also test their new solutions for two-way satellite. This will make full digital TV over IP possible.



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PCTVnet and their Homepilot ◀

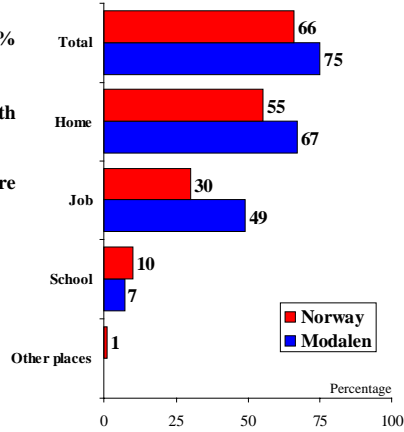
- ▶ PCTVnet front-end applications enable the end-user to:
 - ▶ Use IP Video telephony
 - ▶ Surf the web
 - ▶ Use e-mail
 - ▶ Operate interactive TV
- ▶ PCTVnet offers one-stop-shopping solutions for Set-Top-Boxes and Internet appliances.



15

Use of the internet in Norway Access to the internet

- ▶ Access is higher in Modalen 75% than rest of Norway 66%.
- ▶ Access in Modalen is higher both at **job** and at **home**.
- ▶ Inhabitants in Modalen are more online than rest of Norway.

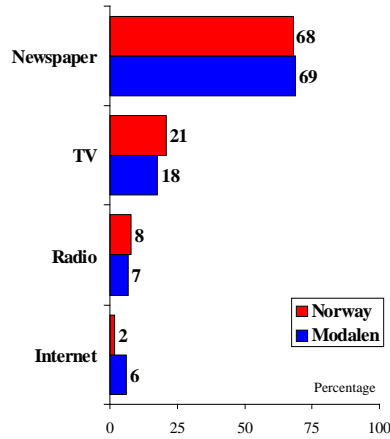


Source: Gallups InterTrack 1. quarter 2001

76

Newspaper is most important source for local- and regional news

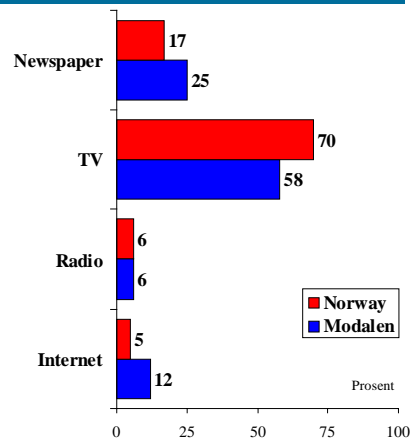
- ▶ **Newspaper** is most important source for local and regional news. Then you have TV, radio and Internet.
- ▶ **Internet** rates higher in **Modalen** than rest of Norway.
- ▶ **TV** (36%) and **Internet** (6%) are ranked higher among people between the age **15-29** than newspaper (53%).



Source: Gallups KonvergensBuss Mai 2001

77

TV is most important source for national and international news

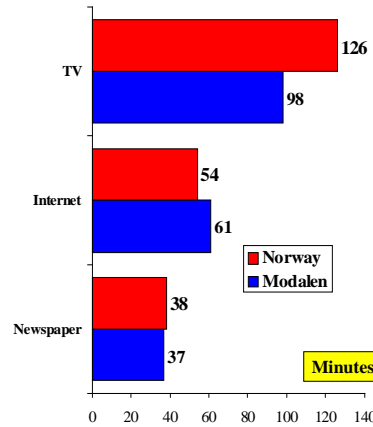


Source: Gallups KonvergensBuss May 2001

78

Inhabitants in Modalen use less time on TV, and more time on Internet than rest of Norway

- ▶ Modalen spend less time on watching TV than average Norwegian
- ▶ They spend the same time reading newspapers as rest of Norway.
- ▶ But they spend more time on Internet than rest of Norway.

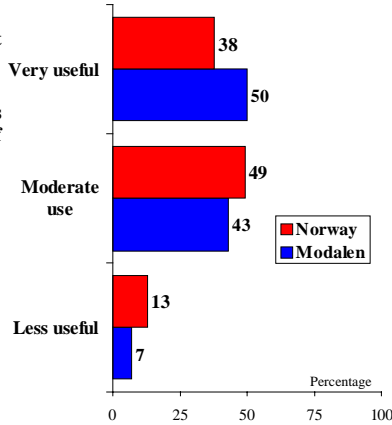


Source: Gallups KonvergensBuss May 2001

19

The people in Modalen find internet more useful

- ▶ People in Modalen find internet more useful than rest of Norway.
- ▶ One of the reason for this is access to broadband and use of applications

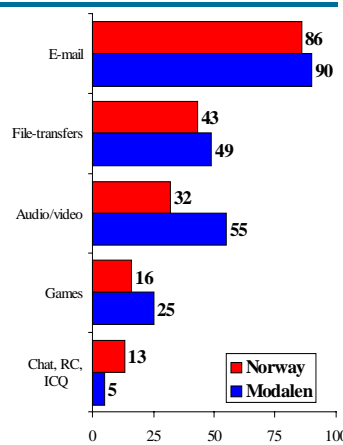


Source: Gallups KonvergensBuss May 2001

20

Use of internet services last 30 days: Modalen use audio/video and games more

- ▶ The difference in use can be explained by higher access - broadband.



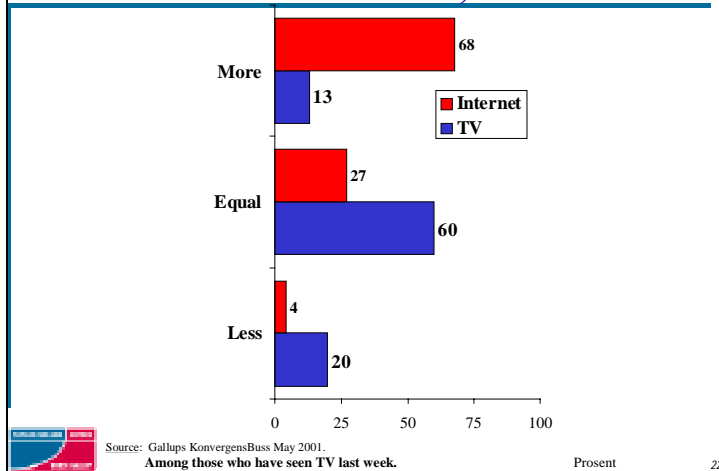
Source: Gallups KonvergensBuss May 2001.

Among those who have used Internet last 30 days.

Percentage

21

*In future people will use more time on
internet, and less on TV*



Summary

Access to broadband in Norway

- ▶ 68 % have access to Internet
- ▶ Nearly everybody recognise the term "Broadband"
- ▶ 60 % have ISDN
- ▶ 6 % have Broadband
- ▶ 50 % of Internet users have order or bought goods and services over Internet
- ▶ 50 % of Internet users are registered in order to use online banking

Broadband influenced on media behaviour - Modalen community

- ▶ **Newspaper** are still number one when it comes to local and regional news but people prefer **TV** for national- and international news. .
- ▶ The People in Modalen use less time on **TV**, and more time on **Internet**.
- ▶ The people in Modalen find internet more **useful** than average Norwegian
- ▶ The people in Modalen use audio/video and games more

**Applications will drive demand for broadband
Content is lacking !**

Thank you