# The Broadband Future

Broadband is today's transformational technology, taking us in exciting new directions . . .

## Faster web access

	Download	256kbp/s	2Mbp/s	100Mbp/s
	Google home page	5s	0.6s	0.64s
	Music track	2m36s	2s	0.40s
	Video clip	10m5s	1m20s	1.60s
	CD/low-quality movie	6h	47m	55s
	DVD/high-quality movie	34h17m	4h29m	5m

#### E-health

Remote diagnosis, video consultations and remotely

directed surgery can bring healthcare to isolated and poor communities.

#### Distance learning

The world's largest universities are distance-learning institutions – the Indira Gandhi National Open University in New Delhi, with 3 million students, and

the Allama Iqbal
Open University
in Islamabad, with
1.8 million.



## Smart infrastructure

Intelligent transport networks, smart grids, GPS-based location services and remote sensing technologies are improving safety and reducing our environmental impact.

# The "Internet of Things"

Tiny RFID chips and always-on systems mean machines are beginning to interact without human intervention. The number of connected objects – cars, appliances, cameras,

roadways, pipelines – will reach one trillion by 2011.







www.broadbandcommission.org