

Australian Telework Advisory Committee (ATAC), Paper IV

## **Telework – Literature Search 2005**

March 2005

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## SECTION 1 - AUSTRALIA

### Australian Reports

#### ABS Household Use of IT surveys (2000 & 2002)

The number of wage and salary earners who had an agreement with their employer to work from home, on an ongoing basis, was 480,000 during 2002 (75,000 less than in 2001, but 50,000 more than in 2000). Although the number of such workers appears to vary markedly, the percentage of wage and salary earners who work from home remains fairly constant at between 6 per cent and 8 per cent between 2000 and 2002.

Source: Australian Bureau of Statistics 2001, *Household Use of IT – 2000*, 8 May 2002. ABS 8146 0 (Subscription).

Source: Australian Bureau of Statistics 2003, *Household Use of IT - 2001-02*, 10 September 2003. ABS 8146 0 (Subscription).

URL:

<http://www.abs.gov.au/Ausstats/abs@.nsf/94713ad445ff1425ca25682000192af2/7599f94ffdbadccbca256d97002c8636!OpenDocument>,

<http://www.abs.gov.au/websitedbs/c311215.nsf/22b99697d1e47ad8ca2568e30008e1bc/0312f14824e99117ca2568fd0018517c!OpenDocument>.

#### ABS Australian Social Trends 2002 (Labour Force Statistics - 2000)

In June 2000, there were almost 1 million home-workers in Australia. The main reason for people working from home was to operate a business (48 per cent). An estimated one in five home-based workers are farmers. Home-workers comprised 39 per cent of all persons employed as Managers and administrators and 28 per cent of all advanced clerical and service workers. Most home-workers (64 per cent) used information technology in their job at home.

Source: Australian Bureau of Statistics, *Labour Force Survey*, 30 June 2000. Source: Australian Bureau of Statistics, *Australian Social Trends*, 4 June 2002.

URL:

<http://www.abs.gov.au/Ausstats/abs@.nsf/0/81f583639480d4d0ca256bcd00827304?OpenDocument>.

#### ABS Teleworking NSW 2001

In the 3 months to October 2001, an estimated 244,700 or 8 per cent of employed persons teleworked (10 per cent teleworking in the public sector and 7 per cent in the private sector). The majority (176,200 or 72 per cent) of teleworkers live in Sydney, with the remaining 68,500 (28 per cent) residing in the balance of NSW. Of those who teleworked, 58 per cent (142,300) were male and 42 per cent (102,400) were female, which was not significantly different from the sex distribution of employed persons generally. The most common age group for teleworkers was 35 to 44 years, which accounted for 92,300 (38 per cent) of teleworkers. Teleworking employees

used a variety of technological facilities. The most commonly used facilities by teleworking employees included telephone (72 per cent), mobile phone (68 per cent), Internet (67 per cent) and Email (65 per cent).

Source: Australian Bureau of Statistics, *NSW Teleworking 2001*, 11 April 2002.

URL:

<http://www.abs.gov.au/Ausstats/abs@.nsf/e8ae5488b598839cca25682000131612/0b92ef6f04e14868ca256b97007e2c57!OpenDocument>.

### **Business Council of Australia Balancing Work and Family Survey (October 2003)**

The Business Council of Australia membership survey found that 88 per cent of the 68 of respondents offer work from home/telework arrangements – 70 per cent of BCA membership responded, accounting for 800,000 employees from large companies.

Source: Business Council of Australia, *Balancing Work and Family Survey*, October 2003.

URL: <http://www.bca.com.au/content.asp?newsID=92507>.

### **Community Teleservices Australia Inc, Sustainable Telecentres (March 2004)**

Investigates sustainable solutions for Australian Teleservice Centres. Makes recommendations to all levels of government including Online Council. Report commissioned by the Networking the Nation Board, Department of Communications, Information Technology and the Arts, and Prepared by Dr Karin Geiselhart, Centre for Online Regional Research Wangaratta, Victoria. Other contributors include Peter Farr and Andrew Cheel.

Source: Community Teleservices Australia Inc (CTSA), *Sustainable Telecentres*, March 2004.

URL: [http://www.teleservices.net.au/CTSA\\_Viability\\_Report%20Final.pdf](http://www.teleservices.net.au/CTSA_Viability_Report%20Final.pdf).

### **EMERGENCE Australia survey report (2000)**

Survey of 1,037 businesses reporting levels of eWork, telecommuting, outsourcing, and home-working. Compares to European average for each category. The survey covered all sizes of establishments right across the economy. Shows that eWork using employees is much more likely to be practiced in the largest organisations, steadily diminishing with establishment size, with the exception of fully home-based employees.

Source: EMERGENCE Australia, *Cities are main eWork magnets in Australia*, 2000.

URL: <http://www.emergence.nu/news/ausreport.html>.

### **HILDA Household, Income, and Labour Dynamics in Australia survey - (2003)**

The *Household, Income and Labour Dynamics in Australia (HILDA) Survey* is a household-based panel study which began in 2001. It collects information about economic and subjective well-being, labour market dynamics and family dynamics, with the Wave 1 panel consisting of 7682 households and 19,914 individuals.

Source: Melbourne Institute, *Household, Income, and Labour Dynamics in Australia Survey (HILDA) (Wave 3)*, 2003. (DCITA Internal Copy).

URL: <http://www.melbourneinstitute.com/hilda/>.

### **IBM telecommuter survey and case studies (2001-2002)**

IBM Australia began to introduce telecommuting among some of its employees around five years ago and now leads other large Australian organizations in adopting this form of working. The survey reveals that the practice is particularly common among those in the early stage of their career and in IBM Australia's public-relations and marketing people, but is also seen among its legal and financial teams and, to a lesser extent, senior management. Employees involved in low-status, repetitive work at the company do not appear to practise telecommuting.

Source: 'How IBM Australia manages its telecommuters', *Human Resource Management International Digest*, 2002, Vol.10, Iss. 5. (DCITA ProQuest Database).

Source: D. Ilozor & B. Ilozor, 'Australian telecommuting: Management communication strategies', *Logistics Information Management*, 2001, Vol.15, Issue 1/2. (DCITA ProQuest Database).

Source: D. Ilozor, B. Ilozor, J. Carr, 'Management communication strategies determine job satisfaction in telecommuting', *The Journal of Management Development*, 2001, Vol.20, Iss. 5/6. (DCITA ProQuest Database).

### **IDC Telecommuter report - 2004**

Provides estimates on size of Australian mobile workforce and discusses technology that supports telecommuting. States that approximately 2.8 million Australians are mobile workers and this will increase to 3.4 million by 2008. Of the total mobile workforce, only 480,000 are now telecommuters, which is approximately 5 per cent of the total workforce.

Source: International Data Corporation, *Australia Telecommuting Services and Equipment 2004-2008 Forecast and Analysis*, October 2004. (Subscription only).

URL: [www.idc.com.au](http://www.idc.com.au).

### **Lafferty survey of Australian businesses & case studies (1999-2002)**

Dr Lafferty's three-year research project commenced in 1999 and focused on the adoption of telework in Australian organisations and why it has stalled. Managers comprised the largest single group of teleworkers identified by the study, followed by IT professionals and administrative and clerical workers.

Source: 'Home alone', *Sydney Morning Herald*, 30 September 2003.

URL: <http://smh.com.au/articles/2003/09/29/1064817581601.html>.

### **Local Government Manager Association (LGMA) - Home-based work in Australian Local Government (2003)**

In 2000 at least one in five working Australians (1.68 million people) worked some hours at home and 980,000 worked mainly from home. This is significant increase from the mid nineties when one in twenty five Australian employees were working from home:

Source: Local Government Manager Australia (LGMA), *Home-based work in Australian Local Government*, September 2003. (report produced by Associate Professor Michael Paddon, The Centre For Local Government, University Of Technology, Sydney [Michael.Paddon@uts.edu.au](mailto:Michael.Paddon@uts.edu.au)).

URL: <http://www.lgma.org.au/national/HBW%20Report.pdf>.

### **Mobile telecottage**

A selfcontained portable building has been developed to bring high-tech communications to remote areas of Australia. It is designed to handle a range of needs, from distance education and telemedicine to government services and remote work. The benefit of the unit is that everything is integrated into one package, which can be driven to a remote area, connected to electrical and phone lines, and is ready to go.

Source: 'Australian firm rolls out mobile telecottage', *Telecommuting Review*, November 1998, Vol.15, Iss. 11. (ProQuest Database).

### **Pacific Internet, Broadband Barometer (SMEs) - July 2004**

According to the July 2004 Pacific Internet survey of small and medium sized businesses, 36 per cent of SME's currently use teleworking and 19 per cent of those that do not stated that they intend to use teleworking.

Source: Pacific Internet, *The Broadband Barometer*, July 2004.

URL: <http://www.pacific.net.au/pdf/BbandBarometerReportJul04.pdf>.

### **RTA Telecentres**

Contains the results of the 1998/99 West Gosford telecentre trial, which demonstrated that a telecentre can provide a cost effective alternate office facility and provide a viable alternative to working from home. Penrith was selected as the most suitable location because it is considered the geographical centre for Roads and Traffic Authority (NSW) staff who live in areas covering the Blue Mountains to Blacktown.

Source: Roads and Traffic Authority (NSW), *About Teleworking*, (last updated: 15 November 2002).

URL:

<http://www.rta.nsw.gov.au/trafficinformation/managingtraveldemand/teleworking/aboutteleworking.html>.

### **Rural telework: case studies from the Australian outback**

Journal paper discussing isolation and infrastructure issues for teleworkers in the bush. Assesses the evidence from two case studies; one government initiative and one community initiated training project.

Source: L. Daws, B. Pini, L. Wood, Rural telework: Case studies from the Australian outback, *New Technology, Work, and Employment*, July 2003, Vol.18, Iss. 2. (ProQuest Database).

### **Sensis, eBusiness survey (2005)**

DCITA Information Economy Division has funded telework questions in the Sensis 2005 eBusiness Survey covering takeup, type of technology used, whether the teleworking has a formal or informal agreement, main benefits, reasons for not adopting.

Source: Sensis, *eBusiness Survey*, April-May 2005 (available June 2005).

### **Toshiba Australia, Mobility and Mistrust (2004)**

Cultural resistance from managers and employees was researched by Toshiba Australia in April 2004. Toshiba commissioned a survey of 600 managers and employees across Australia and New Zealand to explore opinions on flexible working. The survey covered a wide range of industry sectors, including communication services, finance and insurance, government administration and transportation, and found that mistrust of flexible workers is prevalent amongst Australian and New Zealand organizations.

Source: Toshiba Australia, *Mobility and Mistrust*, September 2004.

URL: [http://www.isd.toshiba.com.au/cgi-](http://www.isd.toshiba.com.au/cgi-bin/ai1.exe/topic/content/ed_content.jsp?BV_SessionID=@@@@1432676610.1106624503@@@@&BV_EngineID=caddefddjdkkbfhdhcjkcfldio.0&CATOID=-15057&LISTOID=60210)

[bin/ai1.exe/topic/content/ed\\_content.jsp?BV\\_SessionID=@@@@1432676610.1106624503@@@@&BV\\_EngineID=caddefddjdkkbfhdhcjkcfldio.0&CATOID=-15057&LISTOID=60210](http://www.isd.toshiba.com.au/cgi-bin/ai1.exe/topic/content/ed_content.jsp?BV_SessionID=@@@@1432676610.1106624503@@@@&BV_EngineID=caddefddjdkkbfhdhcjkcfldio.0&CATOID=-15057&LISTOID=60210).

## **Australian Guides**

### **Australian Chamber of Commerce and Industry (ACCI), Telework - An Employer Checklist (1998)**

To assist employers in the new field of Telework, ACCI has published a simple Telework checklist which examines the issues to be considered before moving into Telework. It is not only for those already Teleworking, but also for those employers who understand the role which Telework will play in the future of work and who want to be strategically prepared to address the human resource issues involved.

Source: Australian Chamber of Commerce and Industry (ACCI), *Telework - An Employer Checklist*, 1998.

URL: <http://www.acci.asn.au/acciworkplacerelements.htm>.

### **Australian Government Department of Employment and Workplace Relations, Guide to Teleworking (1997)**

In 1997, DEWR published a *Guide to Teleworking* which provides information, primarily intended for the use of employers, on issues to be considered when developing and implementing teleworking arrangements.

The guide provides information relating to the benefits of teleworking and provides practical advice related to the development of teleworking policy, covering issues such as OHS, insurance, security and the effective review of teleworking arrangements.

Source: Australian Government Department of Employment and Workplace Relations, *Guide to Teleworking*, 1997.

### **NSW Premiers Department, Flexible Working Guidelines (1995)**

As part of the NSW Government's commitment to the development of a responsive, flexible public sector, the policy and guidelines on *Flexible Work Practices* have been revised. The revised document is the result of extensive consultation with public agencies and the public sector unions. It includes a range of changes to flexible work practice options. In particular, the working from home and variable year employment options have been further developed, to provide clearer and more detailed advice to agencies regarding these options. This advice includes a model working from home agreement.

Source: NSW Premiers Department, *Flexible Working Guidelines*, 1995.

URL:

[http://www.premiers.nsw.gov.au/pubs\\_dload\\_part4/prem\\_circs\\_memos/prem\\_memos/1995/m95-40attach.htm](http://www.premiers.nsw.gov.au/pubs_dload_part4/prem_circs_memos/prem_memos/1995/m95-40attach.htm).

**Roads and Traffic Authority (NSW), How to set up a teleworking program (1998)**

Based on the results of a teleworking pilot project conducted by the Roads & Traffic Authority NSW in 1993/94. Teleworking is a flexible work opportunity to work for part of the time at a location away from the usual work base. The location may be at home, a satellite office near home, a mobile office, a telecentre, a virtual office, or a combination of these alternatives. The guide can be used to pilot a teleworking program or to implement a full-scale program.

Source: Roads and Traffic Authority (NSW), *How to set up a teleworking program*, 1998.

URL:

<http://www.rta.nsw.gov.au/trafficinformation/downloads/teleworkingmanual.pdf>.

**Local Government Manager Association Home-Based Work – It Can Work For You (2003)**

Developed to provide for assistance in introducing home-based work (HBW) programs and draws on the 2003 research report prepared for LGMA by The Centre for Local Government at the University of Technology, Sydney. In doing so it provides a ‘warts and all’ analysis of HBW as a flexible work arrangement from both employer and employee perspectives.

Source: Local Government Manager Association (LGMA), *Home Based Work – It Can Work For You*, 2003

URL: [http://www.lgma.org.au/national/HBW\\_Booklet.pdf](http://www.lgma.org.au/national/HBW_Booklet.pdf).

**Toshiba Australia, Flexible Working Special Interest Group and Management Guide (2005)**

The Toshiba press release for their Mobility and Mistrust report makes reference to a Flexible Working Special Interest Group consortium of organisations and academics to develop and issue a management guide to assist organisations in implementing flexible working. It will outline the range of considerations required for success and will provide models and case studies.

Source: Telework Guide to be released mid-2005.

**NSW Office of Equal Opportunity in Public Employment, Success with flexible work practices (1997)**

The NSW Government actively supports making flexible work arrangements widely available in Public Sector workplaces. Flexible work practices aim for the best possible match between the interests of your organisation to deliver services to the community and your interests as an individual employee.

Source: NSW Office of Equal Opportunity in Public Employment, *Success with flexible work practices*, November 1997.

URL: <http://www.eeo.nsw.gov.au/family/flexible/success.pdf>,  
<http://www.eeo.nsw.gov.au/family/flexible.htm>.

## **SECTION 2 - INTERNATIONAL REPORTS**

### **United States**

#### **ITAC website - telework take-up**

The ITAC site publishes results from the Dieringer Research Group's 2003 – 2004 American Interactive Consumer Survey 2004. The number of employed Americans who performed any kind of work from home, with a frequency range from as little as 1 day a year to full time, grew from 41.3 million in 2003 to 44.4 million in 2004, a 7.5 per cent growth rate.

Source: International Telework Association and Council (ITAC), *Work at home grows in past year by 7.5% in U.S. use of broadband for work at home grows by 84%*, September 2004.

URL(s): <http://www.telecommute.org/news/pr090204.htm>,  
<http://www.workingfromanywhere.org/news/pr090204.htm>.

#### **Innovisions - telework take-up**

The Innovisions website publishes ITAC statistics on US telework usage in 2004, including: teleworkers who worked at home during business hours at least one day per month increased to 24.1 million in the past year.

Source: Innovisions, *US Telework Scene - stats and facts*, (last updated January 2005).

URL: <http://www.ivc.ca/studies/us.html>.

#### **Telework Coalition - telework take-up**

Telework Coalition website quotes the 2004 Dieringer Research Group survey results from 2004 and results from the Society for Human Resource Management (SHRM) survey of 459 Human Resource professionals.

Source: Telework Coalition, *Telework Facts*, (undated). (sourcing the 2004 American Interactive Consumer Survey conducted by The Dieringer Research Group).

URL: <http://www.telcoa.org/id33.htm>.

### **eMarketer, US/European telework take-up, interest, feasibility (2002/03)**

SIBIS statistics on interest, feasibility, actual teleworking and share of employed population who work from home in US and EU-15.

Source: eMarketer, *Interest, Feasibility and Actual take-up of telework in US and Eu-15 countries, 2002 (as a percentage of employed persons)*, 1 January 2003 (Source: Statistical Indicators Benchmarking the Information Society (SIBIS)). (Subscription only)

URL: [www.eMarketer.com.au](http://www.eMarketer.com.au).

Source: eMarketer; *Share of Employed Population teleworking at home and household broadband penetration in the US and select countries in Europe*, 1 March 2004. (Subscription only).

URL: [www.eMarketer.com.au](http://www.eMarketer.com.au).

### **Point-topic, US/European telework (2004)**

This 2004 profile primarily looks at teleworkers connecting to the workplace from their home. Teleworkers can connect to their office using a dial-up connection, a broadband connection, or a virtual private network (VPN). A significant proportion use mobile communications when away on business trips or at a client's premises. Teleworkers or telecommuters use telecommunications to connect to information systems at their workplace, thus enabling them to work from home or on the move. The teleworker saves on the expense and stress of commuting to work, and can move to lower cost areas. The employer saves on office space and other employee overheads. Teleworking can lead to higher productivity and more family-friendly conditions for staff. Most people who define themselves as teleworkers also go to the office frequently. Only a small proportion are 'remote' for all of their working time.

Source: Point-Topic, *Telework*, 24 November 2004. (Subscription only).

URL: [www.point-topic.com](http://www.point-topic.com).

## **US Federal Government**

### **US Government interagency website (OPM & GSA)**

In recent years, both Congress and the Executive branch have increasingly promoted telework to help achieve important public policy goals. Among these are: improving the Government's ability to recruit and retain a high-quality workforce in a competitive job market, protecting environmental quality and energy conservation by reducing traffic congestion and vehicle emissions, improving employees' work lives by allowing a better balance of work and family responsibilities, and reducing work-related stress.

Source: Office of Personnel Management (OPM) and General Services Administration (GSA), *Featured Questions*, 11 August 2003.

URL: <http://www.telework.gov/definition.asp>.

## **Telework policies**

Office of Personnel Management's 2003 survey of Federal Government agencies: seventy-four agencies with more than 1.7 million employees responded to the 2003 survey. Virtually all agencies have telework policies in place. Only one small agency, the Federal Retirement Thrift Investment Board, lacked a policy at the time of the survey.

Source: Office of Personnel Management (OPM), *The status of telework in the federal government - report to the congress*, May 2004.

URL: OPM report [http://www.telework.gov/documents/tw\\_rpt04/rpt.pdf](http://www.telework.gov/documents/tw_rpt04/rpt.pdf).

Source: Govexec, *Telework slowly catching on, officials say*, 15 December 2004.

URL: <http://govexec.com/dailyfed/1204/121504p1.htm>.

## **Telework programs**

The OPM and GSA interagency website lists 16 US Government agencies that have teleworking programs.

Source: Office of Personnel Management (OPM) and General Services Administration (GSA), *Agency Telework Policies*, (undated).

URL: <http://www.telework.gov/agencies.asp>.

## **Public sector telework programs**

ITAC links to 25 state-based Public Sector telework programs and organisations.

Source: ITAC, *U.S. State and Local Programs*, 2005.

URL: <http://www.workingfromanywhere.org/publicsector/usa.htm>.

## **Omnibus bill**

The US National Treasury Employees Union spoke out last week in support of language in the fiscal 2005 appropriations legislation that will impose financial penalties on Federal agencies that refuse to adopt strong telework programs. The omnibus bill will withhold \$5 million in appropriations from agencies if managers do not make telecommuting available to all of their eligible employees. It is not clearly defined, however, which employees should be eligible for this program.

Source: [Govexec.com](http://www.govexec.com), 'Union praises passage of telework language', 13 December 2004.

URL: <http://www.govexec.com/dailyfed/1204/121304d1.htm>.

### **Mohktarian telecommuting paper (2005)**

Telecommuting appears to have a significant enough impact to justify further collection of statistics.

Source: S. Choo, P. Mokhtarian & I. Salomon, Does telecommuting reduce vehicle miles?, *Transportation Journal*, 2005. (DCITA Internal Version).

### **Video and face-to-face contact the key enabler**

The TC state that face-to-face contact is crucial to work and that the inability of workers to have face-to-face contact has been the primary barrier to telework growth. TC state that research shows that face-to-face contact is essential to develop the trust relationships necessary for high value or high-risk work. The range of technologies that are researched includes: email, file sharing and file management, virtual white board, voice-over-IP, and both basic video and high quality video.

Source: Telework Consortium, *The Telework Consortium Work Local. Be Global*, (undated).

URL: <http://www.teleworkconsortium.org/>.

### **Telework productivity article**

Article concerning the accuracy of the self-reported teleworker productivity statistics.

Source: Does teleworking really deliver productivity gains?, *Communications of the ACM*, August 2004, Vol. 47, No. 8. (University of Washington - Information School website).

URL: [http://www.ischool.washington.edu/mcdonald/courses/imt546\\_au04/readings-11.13/westfall.pdf](http://www.ischool.washington.edu/mcdonald/courses/imt546_au04/readings-11.13/westfall.pdf).

### **US telework survey methodology**

Discussion of methodology used in measuring telework usage.

Source: T. Kistner, Mixed messages of telework's future, *Network World*. 2 August 2004, Volume 21, Issue 31. (DCITA Internal Copy. ProQuest Database)

## **Canada**

### **Take-up and cost-benefit studies**

Canada is reported to have an estimated one million teleworkers who telework informally under private agreements with their boss. This site also links to

cost-benefit case studies. Bob Fortier ([bobf@ivc.ca](mailto:bobf@ivc.ca), President of InnoVisions Canada) states that there were an estimated 1 million to 1.5 million Canadian teleworkers as at February 2005.

Source: InnoVisions website contact - Bob Fortier, [bobf@ivc.ca](mailto:bobf@ivc.ca), President of InnoVisions Canada states that there are an estimated 1m to 1.5m Canadian teleworkers as at February 2005.

URL: <http://www.ivc.ca/costbenefits.htm>.

### **Canadian Telework Association/InnoVisions - case studies**

Contains a list of North American case studies and companies who use teleworking, and links to telehealth and work/life balance articles.

Source: Canadian Telework Association/InnoVisions, *Canadian Telework Scene*, (undated).

URL(s): <http://www.ivc.ca/canadianscene.html>, <http://www.ivc.ca/definition.htm>, <http://www.ivc.ca/studies/canadianstudies.htm>, <http://www.ivc.ca/studies/index.html>.

### **Royal Bank of Canada survey (2002)**

A January 2002 Royal Bank of Canada Survey shows how IT, including ability to telework, shapes Canadian family life. The tangible benefits of telecommuting are many: 77 per cent reported increased job satisfaction; 72 per cent reported more time with the family; 58 per cent reported more convenient child care arrangements; 32 per cent reported more trips/vacations out of the city; 30 per cent reported greater choice on where to live; 18 per cent reported the ability to manage with one vehicle.

Source: InnoVisions, *Canadian Royal Bank survey (January 2002)*, 2004.

URL: <http://www.ivc.ca/studies/RoyalBank.htm>.

### **Public Health Agency of Canada (2001)**

Canadian work/life balance survey report from. Answers questions concerning: what kinds of work and non-work demands and responsibilities do these individuals face?; how has the amount of time spent in paid employment changed over the last decade?; how has the use of various alternative work arrangements changed over the last decade?.

Source: Public Health Agency of Canada, *National study on balancing work, family and lifestyle study*, 8 November 2004.

URL: <http://www.phac-aspc.gc.ca/publicat/work-travail/index.html>.

## **Europe**

### **European Union**

A European Union agreement on guidelines for telework in the commerce sector was agreed in April 2001 for all member countries. The agreement outlined concrete guidelines for regulating telework through collective agreements and other arrangements at national and company level. It stipulated that teleworkers should be employed on a similar basis to any other employee, enjoying comparable employment rights, remuneration structures and career opportunities.

Source: European Commission (EU), *Agreement on guidelines on Telework in Commerce*, 2001.

URL:

[http://europa.eu.int/comm/employment\\_social/news/2001/may/twguidelines.pdf](http://europa.eu.int/comm/employment_social/news/2001/may/twguidelines.pdf).

Source: EU, *Telework 1997: Annual Report from the European Commission*, (last update October 1997).

URL: <http://www.eto.org.uk/twork/tw97eto/tw97-311.htm>.

Other EU URLs:

[http://europa.eu.int/comm/dgs/employment\\_social/teleworking\\_en.htm](http://europa.eu.int/comm/dgs/employment_social/teleworking_en.htm)

[http://europa.eu.int/comm/information\\_society/evaluation/pdf/foilstelework2.pdf](http://europa.eu.int/comm/information_society/evaluation/pdf/foilstelework2.pdf)

[http://europa.eu.int/comm/employment\\_social/esf/en/member/examples/eopexamp/german2.htm](http://europa.eu.int/comm/employment_social/esf/en/member/examples/eopexamp/german2.htm)

[http://europa.eu.int/comm/employment\\_social/esf2000/ms/success\\_stories/d-9-en.pdf](http://europa.eu.int/comm/employment_social/esf2000/ms/success_stories/d-9-en.pdf).

### **eGap study**

Funded by the European Commission's Information Society Technologies Programme and by the partners of the project, the two-year eGap project is carrying out pioneering research on telework in small and medium-sized enterprises (SMEs) in six countries (Finland, France, Hungary, Italy, the United Kingdom and Japan).

Source: 'Telework in SMEs', *eGap Newsletter*, June 2004.

URL: <http://www.egap-eu.com/egap/pdf/eGap06.pdf>.

### **Sustainable Telework (SUSTEL)**

A 2002-2004 research project on teleworking financed by the European Commission's Information Society Technologies initiative.

Source: SUSTEL (Sustainable Telework), *Project Internal Deliverable No. 15 – Policy Implications*, March 2004.

URL: <http://www.sustel.org/>.

### **EMERGENCE Project**

The numbers of people working from home or on the move could reach over 27 million by 2010. The latest EMERGENCE study, *Modelling eWork in Europe*, estimates, models and forecasts from the EMERGENCE Project (2000-2003 statistics and forecasts for eWork and subcategories, including telehomecommuting, teleworkers, telecentres).

Source: EMERGENCE Europe project, *Teleworking to Triple by 2010*, (undated).

URL: <http://www.emergence.nu/news/triple.html>, <http://www.emergence.nu>.

### **Gartner Dataquest**

Dataquest provides an overview of the teleworking market in Western Europe for 2001 (with forecasts to 2006), examining market size, teleworking penetration and the access technologies used.

Source: Gartner Dataquest, *Teleworking...into the future*, 21 October 2001. (DCITA Internal Copy. Subscription only)

URL: <http://www3.gartner.com/Init>.

### **International Labour Organisation**

Description of the EU telework agreement 2001.

Source: ILO, *Telework Agreement*, 22 November 2002.

URL: <http://www.ilo.org/public/english/bureau/inf/magazine/44/news.htm>.

## **United Kingdom**

### **UK Government telework guidelines**

UK Telework Guidelines definition: Telework is a form of organising and/or performing work, using information technology, in the context of an employment contract/relationship, where work, which could also be performed at the employer's premises, is carried out away from those premises on a regular basis.

Source: UK Department of Trade and Industry (DTI), *Telework Guidance*, August 2003.

URL: <http://www.dti.gov.uk/er/individual/telework.pdf>.

### **Teleworking at BT**

Teleworking is Generally Positive for BT staff and society as a whole. Most of the questions related to the personal and social impacts of teleworking. The majority of respondents felt that this was giving them a better life.

Source: SUSTEL Project, *Sustainable Telework – Assessing and Optimising the Ecological and Social Benefits of Teleworking*, 14 October 2002.

URL: [www.sustel.org/documents/sustel\\_bt\\_pilot\\_report\\_v3.doc](http://www.sustel.org/documents/sustel_bt_pilot_report_v3.doc).

### **Broadband-enabled home and flexible working – BT's experience**

BT has approximately 8,500 home-workers. On average they each save the company accommodation costs of circa £6k per annum, they have an increased productivity rate averaging at 20 per cent but recorded between 15 per cent and 31 per cent, they have on average only 3 days sick absence per annum against an industry average of 12 days. We also know through individual comments that a significant number of them have turned down job offers which offer better packages in exchange for retaining the flexibility which we offer. This makes an important contribution to our retention capability in critical skill areas. This resulted in an annual saving in excess of £60m per year. BT has also extended flexible working arrangements to its 'blue collar' field force. This is called the Field Reward Scheme. Here the latest figures from a trial of 3,000 engineers show increased productivity of 5 per cent, quality of service of 8 per cent, engineers working on average 2 hours less per week but earning more and BT making further savings through the elimination of overtime payments.

Source: UK Broadband Advisory Group, *The Impact of Broadband-Enabled ICT, Content, Applications and Services on the UK Economy and Society to 2010*, 24 September 2004.

URL:

[http://www.broadbanduk.org/news/news\\_pdfs/Sept%202004/BSG\\_Phase\\_2\\_BB\\_Impact\\_BackgroundPaper\\_Sept04\(1\).pdf](http://www.broadbanduk.org/news/news_pdfs/Sept%202004/BSG_Phase_2_BB_Impact_BackgroundPaper_Sept04(1).pdf).

### **Teleworking in the UK 2002 (and EU)**

The total number of teleworkers in the UK in spring 2001 was 2.2 million, or about 7.4 per cent of all in employment. Of these teleworkers, 1.8 million could not perform their job without the use of both a computer and telephone. The number of teleworkers has increased dramatically in the UK and other countries. The total number of teleworkers in the UK has increased by between 65 and 70 per cent over the period 1997 to 2001 depending on the measurement. International comparisons show that teleworking in the UK is just above the average for ten EU countries covered by a recent survey. Germany and France have the smallest proportion of employed people working as teleworkers, while Finland has the highest proportion.

Source: UK Department of Trade and Industry (DTI), *Teleworking in the UK*, June 2002

URL: <http://www.dti.gov.uk/er/emar/teleworking.pdf>.

### **EMERGENCE UK**

Summary of EMERGENCE UK research findings.

Source: EMERGENCE Europe project (UK), *eWork in Europe Results from the EMERGENCE 18-Country Employer Survey*, 2001.

URL: <http://www.employment-studies.co.uk/summary/summary.php?id=380>,  
<http://www.emergence.nu>.

## **Hungary**

### **Teleworking in Hungary (2001)**

Summary of key telework reports for Hungary.

Source: A. Wesselenyi, *The Present and Future of Telework in Hungary*, 2005

URL: <http://www.tavmunkainfo.hu/report.htm>.

### **OnRec online survey of European teleworking (2004)**

A 2004 online telework survey of 8,300 Europeans by Online Recruitment concerning take-up and attitudes towards teleworking.

Source: *Over three-quarters of Brits are in favour of teleworking*, OnRec.com, 15 June 2004.

URL: <http://www.onrec.com/content2/news.asp?ID=4299>.

## **Asia Pacific**

### **Japan**

#### **Japanese Telework Association**

Japan Telework Association website contains data on the estimated Japanese Telework Population as of FY2002 (telework at least 8 hours per week). The telework population is approx. 4.08 million in total, consisting of 3.11 million employed teleworkers and approx. 0.97 million self-employed teleworkers as of FY2002 (as of FY2002, the total number of salaried workers who telework at least 8 hours).

Source: Ministry of Land, Infrastructure and Transport (translated by Japan Telework Association), *Actual Conditions of Teleworkers in Japan as of FY2002 - Summary of 2002 Telework Survey Surveyed*.

URL: [http://www.japan-telework.or.jp/english/english\\_010.pdf](http://www.japan-telework.or.jp/english/english_010.pdf),

URL: [http://www.japan-telework.or.jp/english/english\\_008.html](http://www.japan-telework.or.jp/english/english_008.html).

### **New Zealand**

#### **NZ Census (2001)**

The NZ Department of Statistics 2001 Census found that an estimated 1 in 10 of the population performed work from home on the day of the census (figures included unpaid work from home).

Source: NZ Department of Statistics, *Main Means of Travel to Work and Sex by Status in Employment*, 2001.

URL(s):

[http://www2.stats.govt.nz/domino/external/pasfull/pasfull.nsf/0/4c2567ef00247c6acc256cfa0011118e/\\$FILE/Table%2016.xls](http://www2.stats.govt.nz/domino/external/pasfull/pasfull.nsf/0/4c2567ef00247c6acc256cfa0011118e/$FILE/Table%2016.xls), and

<http://www.stats.govt.nz/NR/rdonlyres/2581DE50-CE29-401A-A997-6FC41A67DA40/0/cssnap3.pdf>.

#### **International Guides**

The following list is a brief selection of the numerous guides that are available concerning implementing telework arrangements.

#### **MIRTI Guide**

MIRTI guide to implementing telework.

Source: MIRTI, *MIRTI Handbook – Implementing Telework*, 1998.

URL: [http://www.telework-mirti.org/handbook/inglese/1\\_start!.htm](http://www.telework-mirti.org/handbook/inglese/1_start!.htm).

### **ITAC Workshops**

Eleven workshop summaries on implementing telework.

Source: ITAC, *ITAC Telework America Workshops*, 2005.

URL: <http://www.workingfromanywhere.org/telework/workshops.htm>,  
<http://www.workingfromanywhere.org/telework/1999workshop1.htm#research>.

### **US interagency website**

Emphasises the key role that managers and supervisors play in the success of telework, identifying eligible positions and employees, setting performance expectations and parameters for telework arrangements, and monitoring productivity. This publication provides guidance to managers and supervisors to assist them with those tasks. In addition to strategies and helpful hints, the guide also includes sample checklists, surveys, safety checklists and telework agreements.

Source: US Telework Interagency website, *Telework: A Management Priority A Guide for Managers, Supervisors, and Telework Coordinators*, 11 August 2003.

URL: [http://www.telework.gov/documents/tw\\_man03/tw\\_man.asp](http://www.telework.gov/documents/tw_man03/tw_man.asp).

### **ITAC eWork/telework guide**

The e-Work Guide: How to Make Telework Work for Your Organization is a 100-page report on recommended practices, compiled by telework experts who served on a Blue Ribbon Panel formed by International Telework Association and Council.

Source: ITAC, *ITAC eWork Guide*, 2005.

URL: <http://www.workingfromanywhere.org/resources/eworkguide.htm>.

### **US Department of Defence**

Source: US Department of Defence, *Department of Defense Telework Guide*, 9 July 2003.

URL: <http://www.telework.gov/policies/dodguide.asp>.

### **US Department of Justice**

Source: US Department of Justice Human Resources Department, *Worklife Program – teleworking guide*, 31 July 2001.

URL: <http://www.usdoj.gov/jmd/ps/wortelecommute.htm>.

## **Telework Consortium**

Discusses management theory and factors to include in measuring telework performance. Recommends that by adopting output- and outcome-oriented performance measures aligned with organizational strategies, managers and employees will together build individual performance contracts (or "telework agreements") that hold employees accountable to their own measurement standards and thereby empower them to participate fully in the implementation of strategies, regardless of where the work actually takes place.

Source: Telework Consortium, How to Run a Successful Pilot Project, 2002.URL:  
[http://www.teleworkconsortium.org/Theory\\_and\\_Practice/successful\\_pilots.asp](http://www.teleworkconsortium.org/Theory_and_Practice/successful_pilots.asp).

## **WEBSITES**

### **GENERAL**

<http://www.teleworker.org/articles/>

<http://www.100toptelecommuting.com/>

<http://www.telework-mirti.org/>

<http://www.etw.org>

<http://www.ednes.org/telesol/>

<http://www.flexwork.eu.com/>

[http://www.att.com/telework/article\\_library/eurtel.html](http://www.att.com/telework/article_library/eurtel.html)

<http://www.telework.gov/>

<http://www.telecommute.org/>

<http://www.eto.org.uk/eustats/index.htm>

<http://www.eto.org.uk/faq/worksvcs.htm>

<http://www.eto.org.uk/twork/index.htm>

<http://www.telework.ie/newsite/index.html>

<http://www.telework-mirti.org/>

<http://www.ivc.ca/>

<http://www.telework.com/>

<http://www.telework.org.uk/>

<http://www.telework.co.nz/>

<http://www.teleworkconsortium.org/>

<http://radio.weblogs.com/0125927/>

<http://www.telework.se/>

<http://www.telcoa.org/>

<http://www.tavmunkainfo.hu/English.htm>

[http://coonamble.communitytechnology.net.au/news/20020628\\_6.jsp](http://coonamble.communitytechnology.net.au/news/20020628_6.jsp)

<http://www.bg-telework.org/>

<http://www.telework.ru/>

## **EUROPEAN**

### **European Information Society Technologies Projects Relevant to Teleworking:**

**ASSIST** - a study of the potential substitution of IST for material consumption.

**ATTRACT** - advanced teleworking techniques for insurance agents and customers.

**Beep** (Best eEurope Practices)- cases and other information on good practice in the Information Society.

**Digital Europe** - case studies and research findings on the contribution of e-business to sustainable development.

**ECATT** - research on the prevalence of teleworking in Europe and case studies of teleworking organisations.

**Emergence** - estimation and mapping of employment relocation in a global e-economy.

**Families** - research on the impact of ICT on work-family interactions.

**FlexWork** - encouraging and supporting flexible working amongst SMEs in more remote and rural regions through development of services and tools.

**INTELCITY** - a 'road map' of how ICT can contribute to sustainable urban development over the next 30 years.

**KISEIS** - examining ways in which disadvantaged groups can be helped to participate in the information society.

**PROTELEUSE** - fostering the introduction of teleworking tools in the services sector within 7 European countries.

**SANE** - has developed a unified framework for the design of a sustainable workplace.

**SIBIS** - statistical indicator development for 9 areas of the e-economy, one of which is "work".

**STAR** - examining the socio-economic impacts of new technologies with specific reference to economic and employment opportunities.

**TERRA** - scenarios for the ways in the Networked Society might evolve and their implications for sustainability.

**THINK** - the issues facing the physically handicapped in IST work and how their capabilities might be used.

**WWW-ICT** - pathways to improve equal opportunities, women's participation and their quality of life in or through ICT.

**WISTCIS** - promotion of IST in 7 CIS countries including information demonstration centres.