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THE COMPOSITION AND STRUCTURE OF THE COMPUTER SERVICES INDUSTRY IN VOORBURG GROUP MEMBER COUNTRIES

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THE COMPOSITION AND STRUCTURE OF THE COMPUTER SERVICES INDUSTRY IN VOORBURG GROUP MEMBER COUNTRIES

1. At the 1991 Voorburg Group Meeting, Australia agreed to collect statistics on the computer services industry within member countries and to summarise that data for the 1992 meeting. This paper meets that commitment.

Methodology

2. Each member country was asked to complete a short questionnaire on the computer services industry in their country. The questionnaire consisted of five tables, broadly following the outline of modules 1, 2, 6, 7 and 11 of the model survey. International agencies attending the Voorburg Group meetings such as OECD and EUROSTAT were also asked to provide any data that they had available on the computer services industry in their member countries.

3. The five tables in the questionnaire were:

Table	Data Items
1. Size of Industry	Number of businesses Employment x type Revenue for both the computer services industry and the economy as a whole.
2. Revenue Generated	Revenue for each detailed CPC item for businesses in the computer services industry and by other businesses.
3. Expenses Incurred	Value for each detailed expense item by businesses in the computer services industry.
4. International Trade	Value of exports and imports for broad level CPC commodities. The total value of export and imports was also sought (but not reported).
5. Software R&D	Expenditure on and human resources devoted to software R&D. Values and percentage share of total R&D was also sought (but not reported).

Response

4. At the time of writing, responses have been received from Australia, Canada, Finland, France, Great Britain, Netherlands, New Zealand and Sweden. Statistics from these responses are summarised in the attached tables.

5. At the time of writing it was expected that not all countries would be able to provide data and in some cases, only partial responses could be made. This is because of the different stage of development of computer services industry surveys in member countries.

6. Those countries or agencies which have data which could be used to supplement the information in the attached tables are asked to supply it at the Williamsburg meeting.

Results

Table 1

7. This shows the size of the computer services industry in eight countries who have responded. Data is shown only for number of businesses and employment; estimation of revenue gained has been excluded because of doubts about some of the responses and the difficulties of comparing different currencies.

8. The importance of the industry as shown by the number of businesses ranges from 0.5% for Australia to 2.2% for Great Britain. These percentages are always greater than the share expressed in terms of employment which are generally about half that size.

9. Only two countries (Canada and Great Britain) could provide a dissection of employment between *computer professionals* and *other*. They show a remarkably different composition.

Table 2

10. This shows the percentage share of revenue by the commodity items listed for the model survey. Percentage shares were thought to be the more appropriate way of representing the data collected.

11. Only those countries which have trialed the model survey have been able to complete this table, and even then there are some combinations made.

12. In most countries, *data processing and tabulation services* is the most important commodity, but not so in the case of Canada. *Custom software development* is significant in most countries and *applications software* is also generally fairly important. *Systems and technical consulting* is especially significant in France. *Other computing processing services* is especially significant in Sweden and, to a lesser

extent, in Canada. *Revenue from other sources* is generally significant in most countries, but less so in Sweden.

13. Given the comments made by the Voorburg Group countries which have trialed the model survey and reported on in another paper for this meeting, care needs to be exercised in making such judgements. Some of the differences may be attributable to different definitions and conventions.

Table 3

14. This shows the percentage share of expenses for each type of expense. Again, percentages were thought to be the best way of showing the data.

15. This table shows that it was a lot more difficult to compile these statistics than those shown in Table 2. For those countries who have been able to provide data, there would appear to be some significant anomalies. For example the share of *wages and salaries* in New Zealand is much smaller than most other countries.

16. Clearly, this part of the model survey needs to be the subject of more development work.

Table 4

17. This shows the percentage share of exports at the broader level of commodity item used in the model survey. An inspection of the table shows that there is only limited data available from Voorburg Group countries.

18. From the data that has been reported, Australia's exports are mainly *packaged software products;* France's exports are mainly *professional computer services* and New Zealand has its exports more evenly spread between *packaged software products, professional computer services* and *other computer services.*

Table 5

19. There is virtually no data availability on imported commodities within the groupings used in the model surveys. Australia and New Zealand have reported some data and in both cases *packaged software products* is the major item.

Software R&D

20. No table has been prepared for this item as there was very little reported by Voorburg Group countries.

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TABLE 1: SIZE OF COMPUTER SERVICES INDUSTRY

Country	No of Businesses ('000)	Employment			Revenue Generated (millions)	Share of Total Economy (%)	
		Comp Prof ('000)	Other ('000)	Total ('000)		No of Bus	Employment
Australia	4	n.a.	n.a.	24	$A1628	0.5	0.3
Canada	10	23	39	61	$C941,400	0.6	0.5
Finland	1	n.a.	n.a.	13	FIM6258	1.0	n.a.
France	18	n.a.	n.a.	166	ff91625	n.a.	n.a.
Great Britain	38	112	61	173	£9085	2.2	0.8
Netherlands	9	n.a.	n.a.	39	$FL6650	1.5	0.6
New Zealand	2	n.a.	n.a.	8	$NZ1500	1.0	0.7
Sweden	7	n.a.	n.a.	27	SEK25,236	1.4	0.7

TABLE 2: PERCENTAGE SHARE OF REVENUE BY COMMODITY ITEM

Commodity Item	Aust	Canada	Finland	France	GB	Neth	NZ	Sweden
Systems and user tools software	n.a.	)	1	0	n.a.	n.a.	7	2
Application software	n.a.	) 11)	6	8	n.a.	n.a.	5	8
Consultancy related to the installation of hardware	n.a.	1	0	7	n.a.	n.a.	2	5
Systems and technical consulting	n.a.	5	2	16	n.a.	n.a.	7	(a)1
Custom software development	n.a.	10	15	13	n.a.	n.a.	9	23
Programming services	n.a.	5	10	n.a.	n.a.	n.a.	4	3
Computer facilities management services	n.a.	5	2	3	n.a.	n.a.	5	incl in (a)
Systems maintenance	n.a.	n.a.	4	1	n.a.	n.a.	3	6
Other professional computer services	n.a.	9	n.a.	6	n.a.	n.a.	1	7
Data processing and tabulation services	)) 25	8	28	20	n.a.	n.a.	27	17
Data entry services	))	2	1	3	n.a.	n.a.	1	4
Other computing processing services	n.a.	7		1	n.a.	n.a.	2	12
Data base services	n.a.	2	2		n.a.	n.a.	3	1
Computer repair and maintenance services	n.a.	5	4	1	n.a.	n.a.	1	n.a.
Other computer services	n.a.	n.a.	3	1	n.a.	n.a.	)) 24	7
Revenues from other sources	n.a.	31	23	21	n.a.	n.a.	)	3
Total	100	100	100	100			100	100

TABLE 3: PERCENTAGE SHARE OF EXPENSES INCURRED

Expense Item	Aust	Canada	Finland	France	GB	Neth	NZ	Sweden
Wages and Salaries	37	46	39	40	n.a.	61	28	39
Employee benefits	4	3	n.a.	16	n.a.		incl in (a)	
Computer services for own use	n.a.	3	n.a.	n.a.	n.a.	n.a.	incl in (a)	
Professional services - legal, auditing, etc	n.a.	2	n.a.	n.a.	n.a.	2	incl in (a)	
Advertising and sales promotion	n.a.	4	n.a.	n.a.	n.a.	6	incl in (a)	12
Insurance	–	–	12	n.a.	n.a.	–	incl in (a)	
Rental and leasing of machinery	3	4	9	10	n.a.	2	incl in (a)	
Telecommunication services	18(a)	5	n.a.	n.a.	n.a.	2	3	
Operating supplies		4	n.a.	n.a.	n.a.	n.a.	incl in (a)	15
Office and other supplies			15	n.a.	n.a.	n.a.	incl in (a)	
Rental and leasing of land and buildings	3	6(a)	n.a.	n.a.	n.a.	4	incl in (a)	
Utilities	2	incl in (a)	n.a.	n.a.	n.a.	2	incl in (a)	
Property and school taxes	–	incl in (a)	n.a.	3	n.a.	n.a.	incl in (a)	
Permits, licenses and other non-commodity indirect taxes	n.a.	incl in (a)	n.a.		n.a.	n.a.	incl in (a)	34
Royalties and patent fees paid	1	n.a.	n.a.	1	n.a.	n.a.	incl in (a)	
Services from related parties (not included above)	n.a.	3	3	n.a.	n.a.	2	incl in (a)	
Depreciation	5	incl in (a)	8	6	n.a.	7	8	
Other operating, administrative and general expenses	incl in (a)	12	15	25	n.a.	13	62(a)	
Total	100	100	100	100		100	100	100

TABLE 4: PERCENTAGE SHARE OF EXPORTS

Commodity	Aust	Canada	Finland	France	GB	Neth	NZ	Sweden
Packaged software products (own design)	50	64	n.a.	13	n.a.	n.a.	24	n.a.
Professional computer services	12	34	n.a.	76	n.a.	n.a.	34	n.a.
Computer processing services	38	2	n.a.	9	n.a.	n.a.	-	n.a.
Data base services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	n.a.
Computer repair and maintenance services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Other computing services	n.a.	n.a.	n.a.	2	n.a.	n.a.	42	n.a.
Total	100	100		100			100	

TABLE 5: PERCENTAGE SHARE OF IMPORTS

Commodity	Aust	Canada	Finland	France	GB	Neth	NZ	Sweden
Packaged software products (own design)	62	n.a.	n.a.	n.a.	n.a.	n.a.	81	n.a.
Professional computer services	12	n.a.	n.a.	n.a.	n.a.	n.a.	19	n.a.
Computer processing services	25	n.a.	n.a.	n.a.	n.a.	n.a.	–	n.a.
Data base services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	–	n.a.
Computer repair and maintenance services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Other computer services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	–	n.a.
Total	100						100	