



1

1

1. 318

2002

33,870

18.2

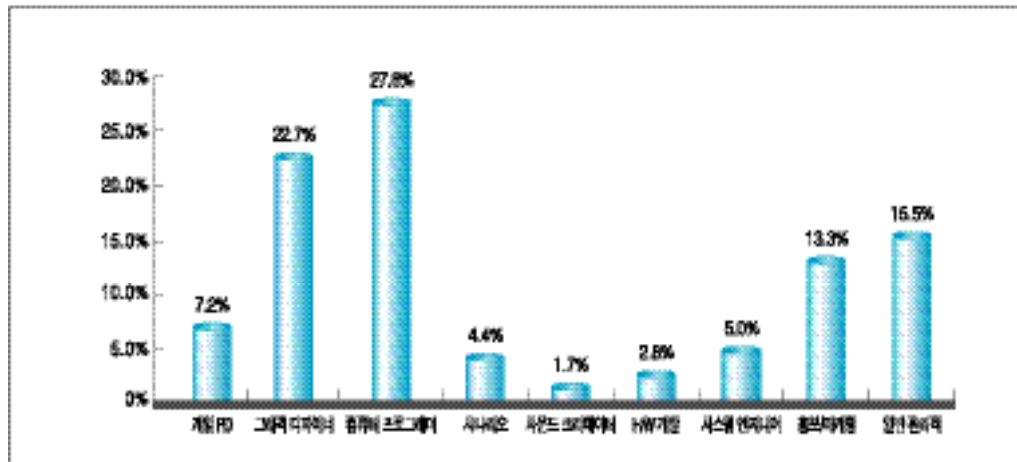
PD,

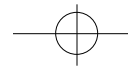
< 1-4-1-01>

(:)

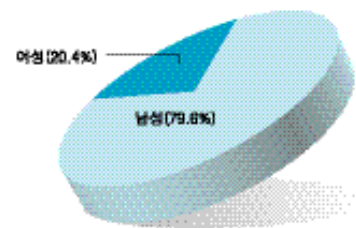
	PD					H/W		/		
	2,490	7,624	9,382	1,524	516	1,013	1,718	4,432	5,171	33,870
	1.3	4.1	5.1	0.8	0.3	0.5	0.9	2.4	2.8	18.2
	7.2%	22.7%	27.6%	4.4%	1.7%	2.8%	5.0%	13.3%	15.5%	100%

< 1-4-1-01>





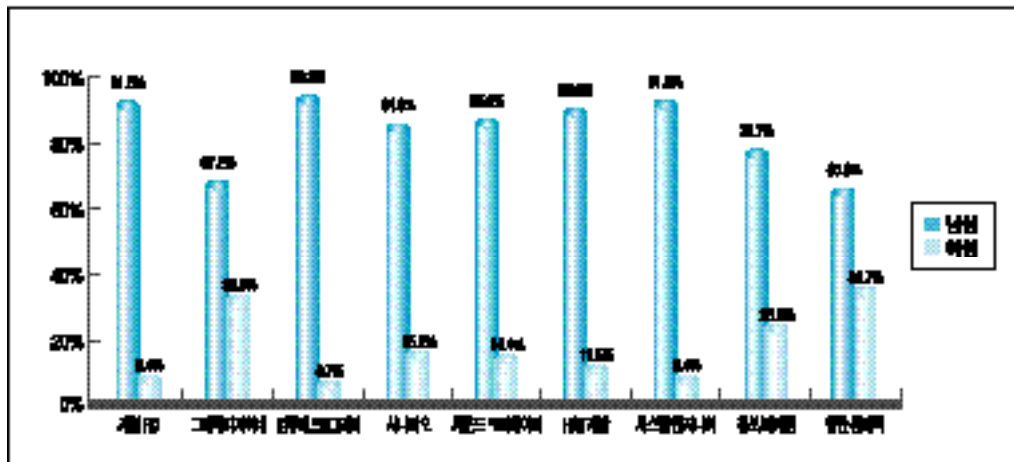
< 1-4-1-02>



가 20%
 /
 67.2%, 32.8%
 20%
 PD 91.6%, 8.4%,
 93.3%, 6.7%
 H/W
 가 9,123
 70%
 /
 2.4
 84.8%, 85.6%, 88.5%
 15.2%, 14.4%, 11.5%

5,171 2.8
 15.5% 가 70% PD
 가 / , 30% 가가
 20.4%

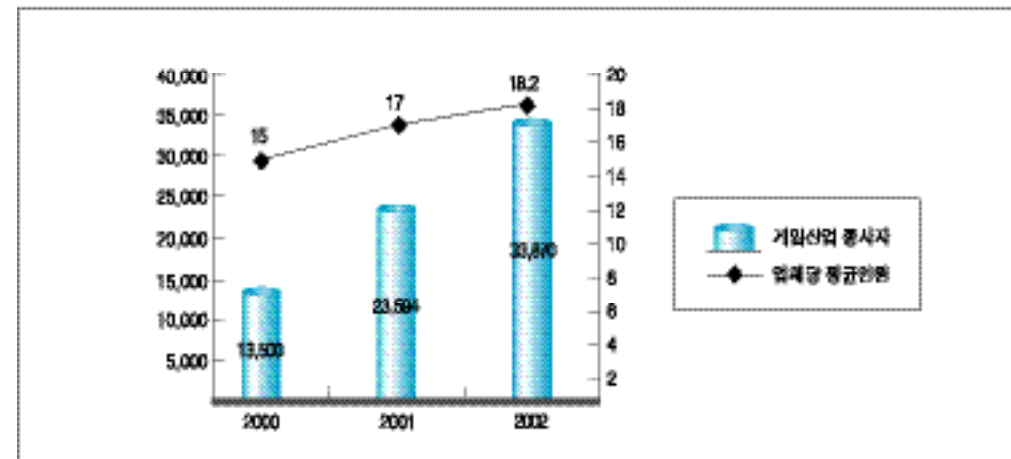
< 1-4-1-03>



< 1-4-1-04>

(2000-2002)

(:)



2.

55%~74%

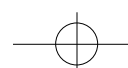
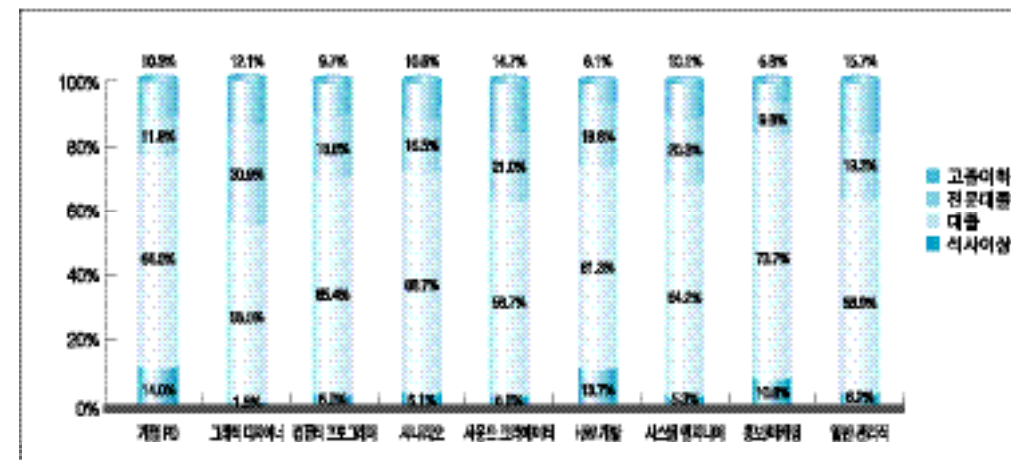
(1)

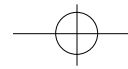
PD(14%) H/W
 (13.7%), / (10.8%)

< 1-4-1-02>

	PD					H/W	/		
	14.0%	1.5%	6.0%	6.1%	5.6%	13.7%	5.3%	10.8%	6.2%
	64.0%	55.5%	65.4%	66.7%	58.7%	61.3%	64.2%	73.7%	58.9%
	11.8%	30.9%	18.8%	16.5%	21.0%	18.8%	20.3%	9.8	19.3%
	10.3%	12.1%	9.7%	10.6%	14.7%	6.1%	10.1%	5.8	15.7%
	100%	100%	100%	100%	100%	100%	100%	100%	100%

< 1-4-1-05>

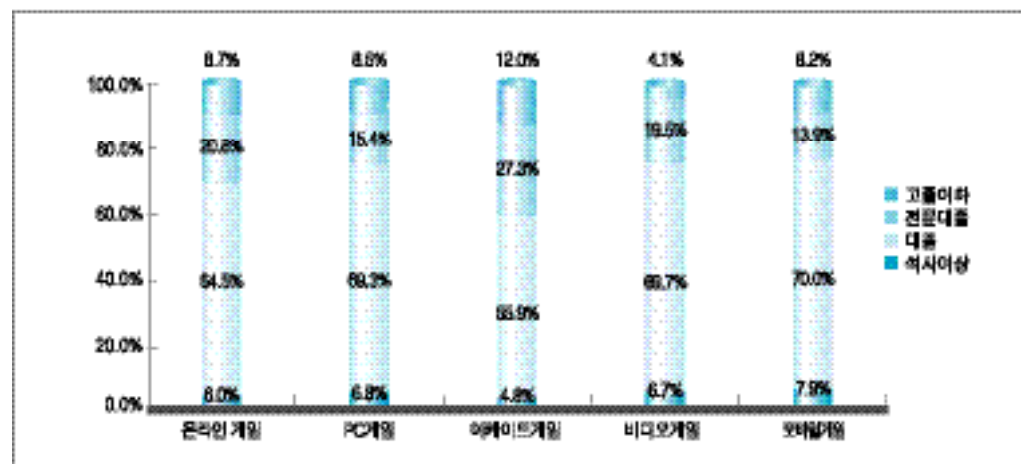




< 1-4-1-03>

	6.0%	64.5%	20.8%	8.7%	100%
PC	6.8%	69.3%	15.4%	8.5%	100%
	4.8%	55.9%	27.3%	12.0%	100%
	6.7%	69.7%	19.5%	4.1%	100%
	7.9%	70.0%	13.9%	8.2%	100%

< 1-4-1-06>

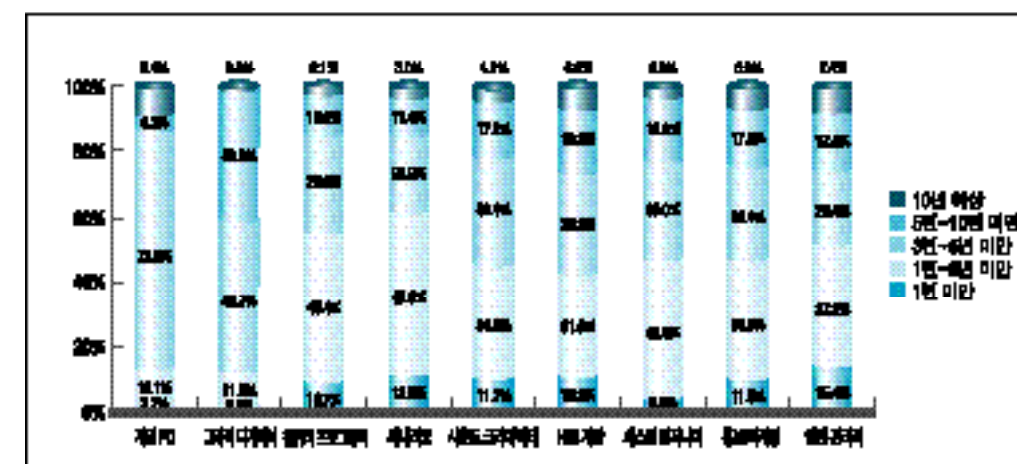


가 6.7%, 6.0% ,
 30.9% , 4.8% 가
 가21% , 27.3% 가
 가 , 13.9% .
 15.7%, 14.7%, 8~12%
 10.6% , 4.1% 가
 가
 가 (2)
 가 70%가 , 3~5 가가
 , 69.7% , 1~3 1
 가 , 3~5
 55.9% 가 가가 PD 72.5%
 , 7.9% 가 , 45.7%
 , PC 6.8%,

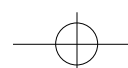
< 1-4-1-04>

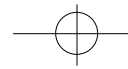
	PD					H/W		/	
1	2.7%	2.5%	10.7%	12.9%	11.7%	12.2%	5.5%	11.5%	15.4%
1~3	12.1%	11.6%	45.4%	49.6%	34.5%	31.5%	42.6%	36.3%	37.2%
3~5	72.5%	45.7%	29.8%	23.2%	32.4%	30.2%	30.0%	28.4%	22.4%
5~10	4.3%	39.9%	12.0%	11.4%	17.2%	19.3%	18.9%	17.2%	17.5%
10	8.4%	0.3%	2.1%	3.0%	4.1%	6.8%	2.9%	6.6%	7.4%
	100%	100%	100%	100%	100%	100%	100%	100%	100%

< 1-4-1-07>



1~3 가 가
 45.4%, 49.6% 가 PD 3~5
 가 42.6% 1~3 가 ,
 가 . 10 5
 가가 PD . 2001
 3~5
 1~3% 가
 5 10 ,





4

2

1.

(1)

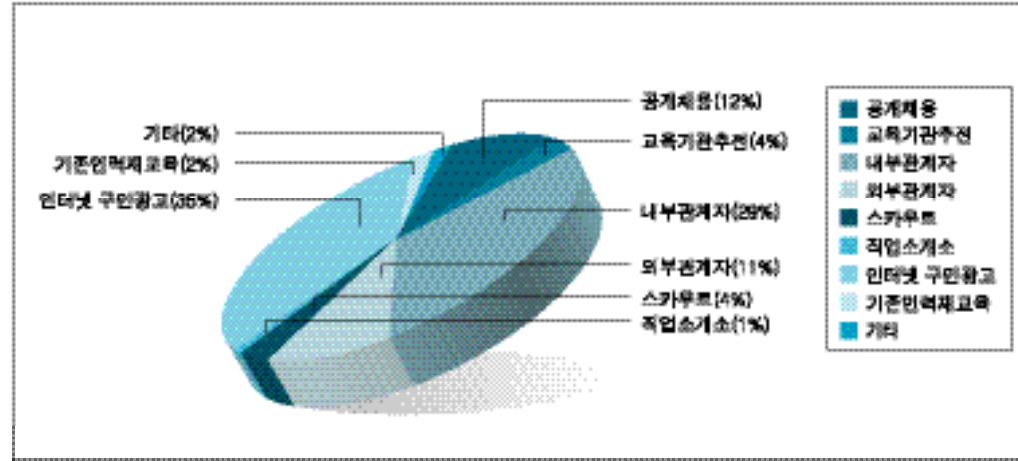
가
 (2002 31%)
 가 (35%)
 가 8%
 가
 가

40%

< 1-4-2-01>

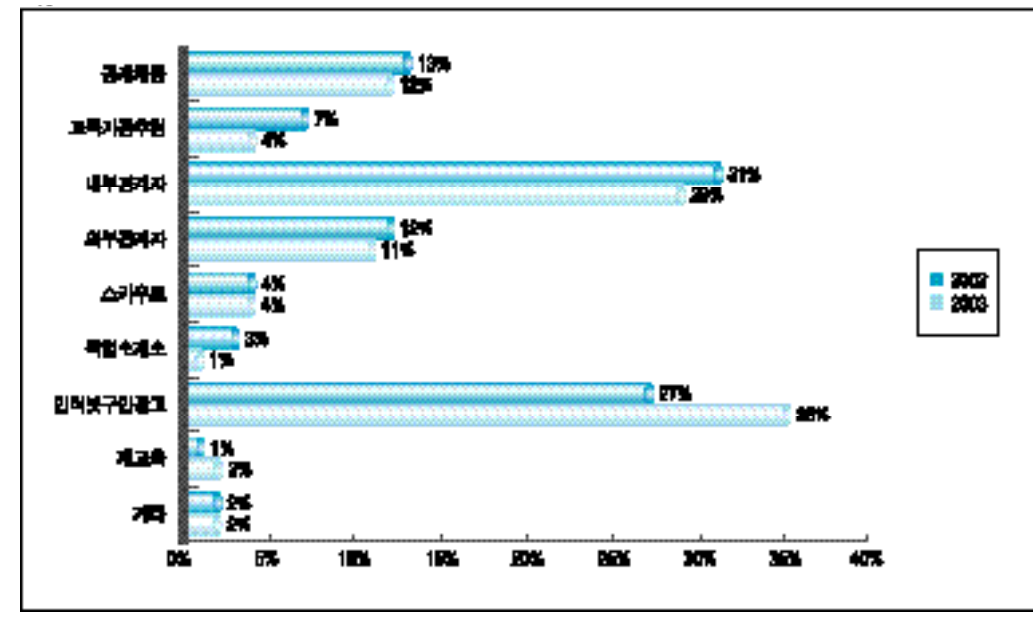
	12%	4%	29%	11%	4%	1%	35%	2%	2%	

< 1-4-2-01>



1

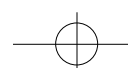
< 1-4-2-02> (2002-2003)

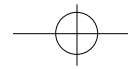


< 1-4-2-02>

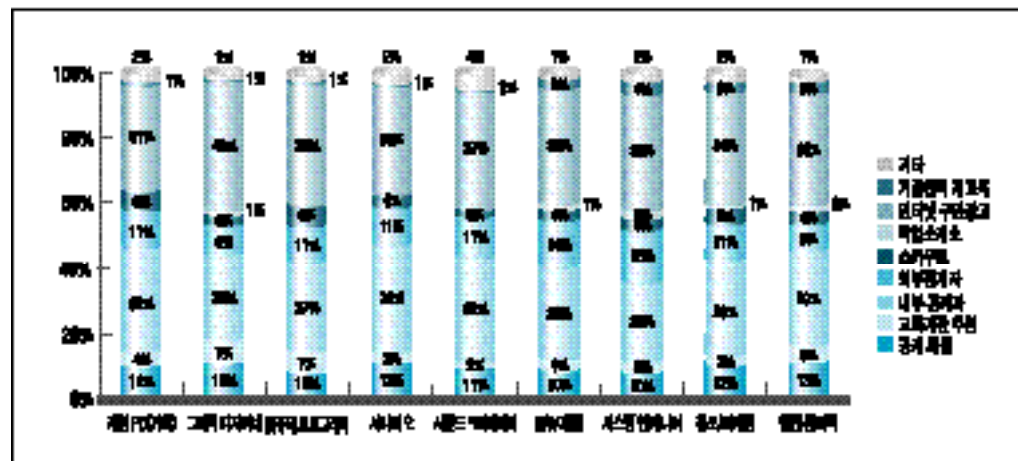
	12%	4%	32%	11%	6%	0%	31%	1%	2%	100%
PD	13%	7%	26%	9%	3%	1%	40%	1%	1%	100%
	10%	7%	27%	11%	6%	0%	38%	1%	1%	100%
	13%	3%	32%	11%	4%	0%	33%	1%	2%	100%
	11%	2%	32%	11%	3%	0%	37%	1%	4%	100%
H/W	10%	4%	28%	14%	4%	1%	35%	3%	1%	100%
	10%	3%	25%	16%	4%	2%	36%	4%	2%	100%
/	12%	3%	28%	11%	5%	1%	34%	3%	2%	100%
	13%	5%	29%	8%	4%	2%	34%	3%	1%	100%

PD, (3)
 가 , PD ,
 30% , 1-3 , H/W ,
 3
 가





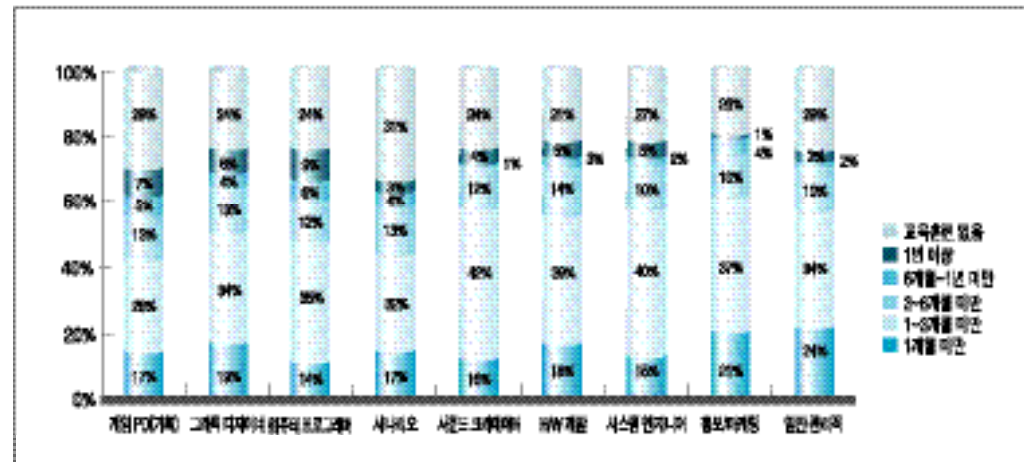
< 1-4-2-03>



< 1-4-2-03>

	1	1-3	3-6	6	-1	1		
PD	17%	28%	13%	5%	7%	29%	100%	
	19%	34%	13%	4%	6%	24%	100%	
	14%	35%	12%	6%	9%	24%	100%	
	17%	32%	13%	4%	3%	31%	100%	
	16%	42%	12%	1%	4%	24%	100%	
H/W	18%	39%	14%	3%	5%	21%	100%	
	15%	40%	10%	2%	5%	27%	100%	
/	21%	37%	10%	4%	1%	26%	100%	
	24%	34%	10%	2%	3%	29%	100%	

< 1-4-2-04>

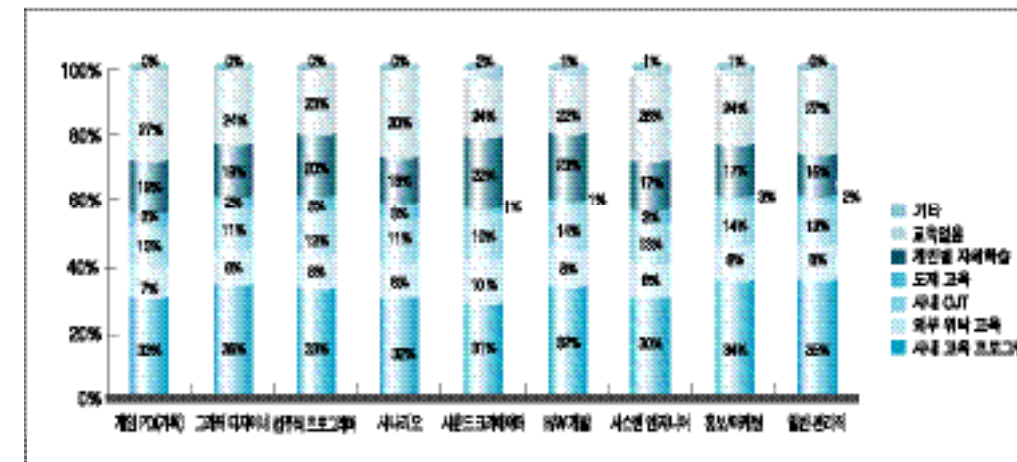


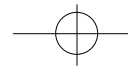
(4)
가
PD
6
OJT,
가

< 1-4-2-04>

			OJT					
PD	33%	7%	10%	3%	19%	27%	0%	100%
	36%	8%	11%	2%	19%	24%	0%	100%
	33%	8%	12%	3%	20%	23%	0%	100%
	32%	8%	11%	3%	18%	30%	0%	100%
	31%	10%	10%	1%	22%	24%	2%	100%
H/W	32%	8%	14%	1%	23%	22%	1%	100%
	30%	8%	13%	3%	17%	28%	1%	100%
/	34%	8%	14%	3%	17%	24%	1%	100%
	35%	8%	13%	2%	15%	27%	0%	100%

< 1-4-2-05>





2.

(1)

가 PD 가 40% 가
 H/W 70% / 43% 가
 72% 가 / 34% 가
 PD / 가
 가



PD / 66% 가
 H/W PD, 가
 H/W 5% 가
 (2) / 30% 가

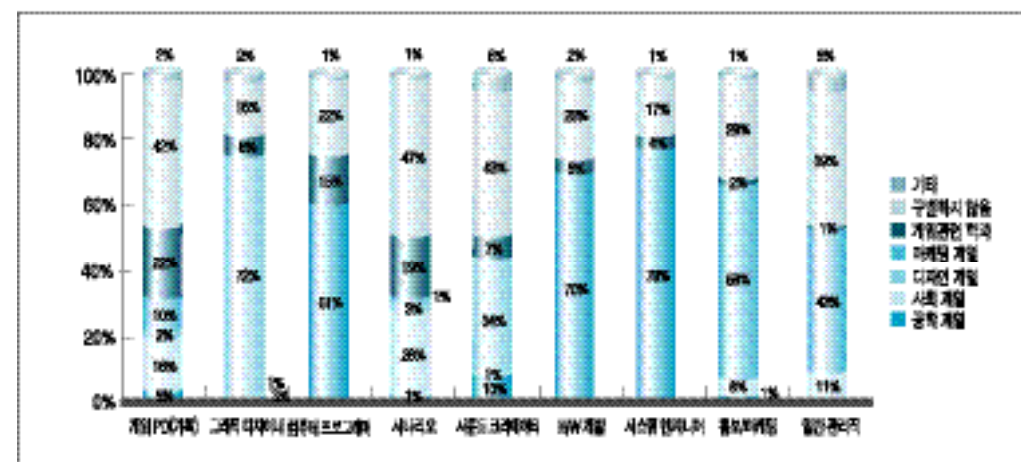
< 1-4-2-05>

	/	/	/	/				
PD	5%	16%	2%	10%	22%	42%	2%	100%
	3%	1%	72%	0%	6%	16%	2%	100%
	61%	0%	0%	0%	15%	22%	1%	100%
	1%	28%	3%	1%	19%	47%	1%	100%
	10%	1%	34%	0%	7%	43%	5%	100%
H/W	70%	0%	0%	0%	5%	23%	2%	100%
	78%	0%	0%	0%	4%	17%	1%	100%
/	1%	8%	0%	58%	2%	29%	1%	100%
	0%	11%	0%	43%	1%	39%	5%	100%

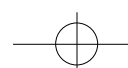
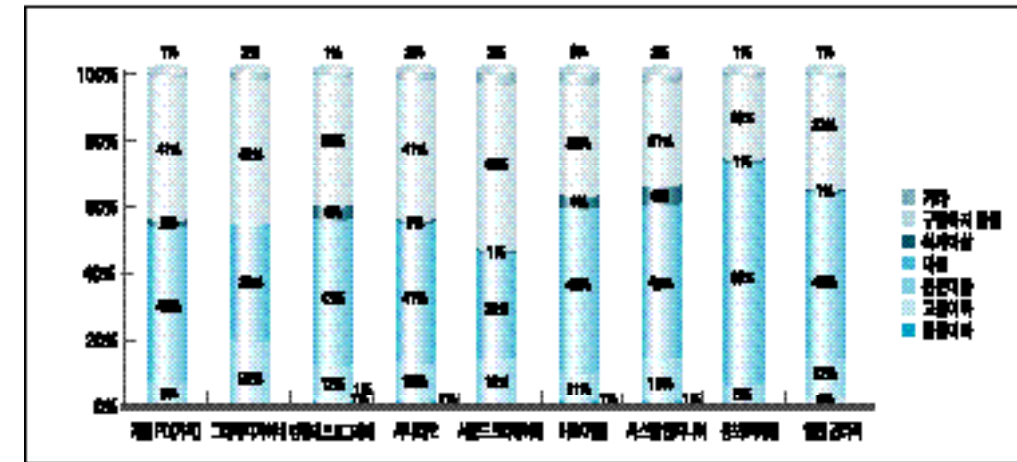
< 1-4-2-06>

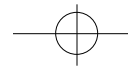
PD	0%	0%	9%	46%	2%	41%	1%	100%
	0%	0%	21%	35%	0%	41%	2%	100%
	1%	1%	12%	43%	4%	38%	1%	100%
	1%	0%	15%	41%	1%	41%	2%	100%
	0%	0%	16%	31%	1%	49%	3%	100%
H/W	1%	0%	11%	48%	4%	33%	3%	100%
	1%	0%	15%	45%	6%	31%	2%	100%
/	0%	0%	8%	66%	1%	23%	1%	100%
	0%	4%	12%	49%	1%	33%	1%	100%

< 1-4-2-06>



< 1-4-2-07>





4

(3) / , 80% ,
 가 72% ,
 가 1/4 , 가 51% ,
 , / , PD
 , 50% ,
 가 PD 86% ,
 가 54% ,
 가

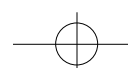
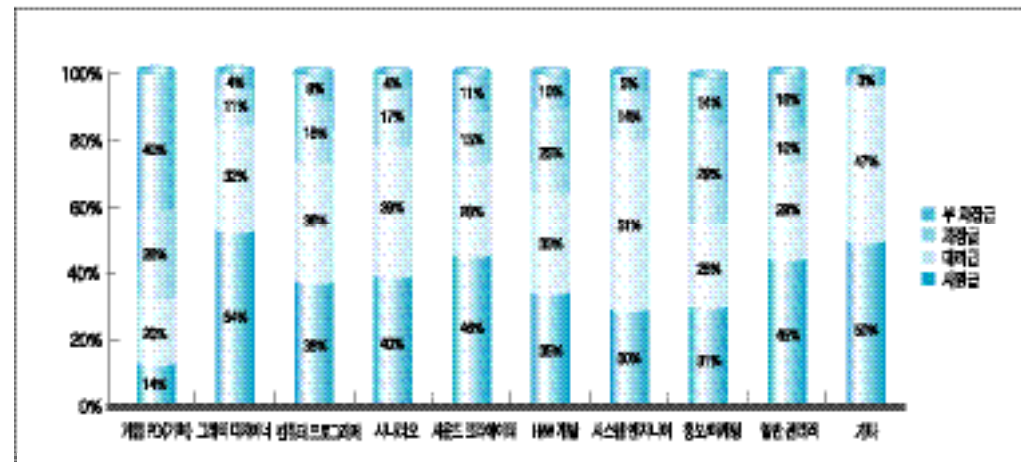
< 1-4-2-07>

	1	2	3	4		
	13%	8%	3%	4%	72%	100%

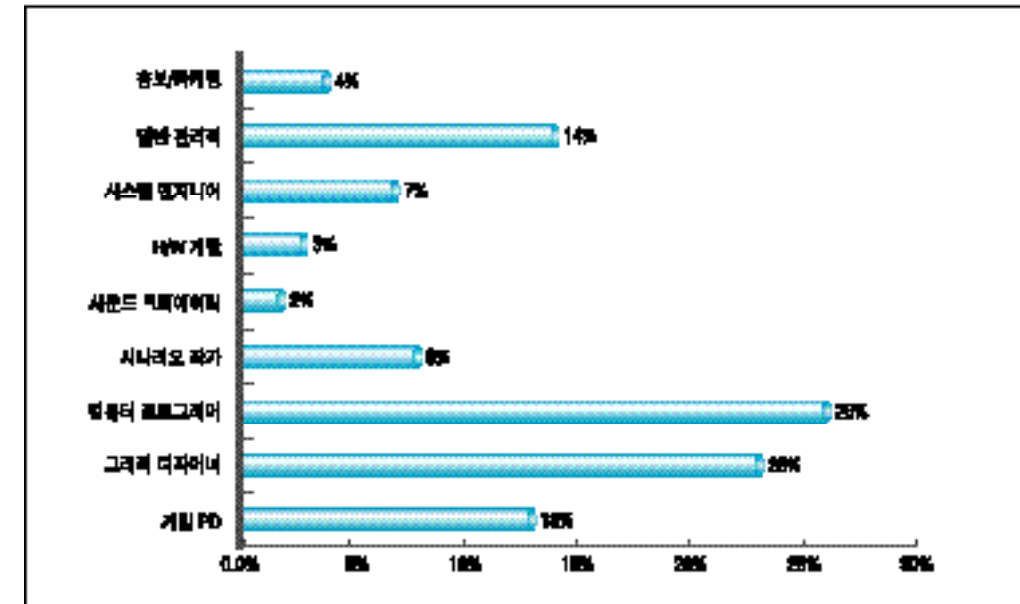
< 1-4-2-08>

	PD					H/W		/		
	14%	54%	38%	40%	46%	35%	30%	31%	45%	50%
	20%	32%	36%	39%	28%	30%	51%	25%	29%	47%
	26%	11%	18%	17%	15%	25%	14%	29%	10%	0%
	40%	4%	8%	4%	11%	10%	5%	14%	16%	3%
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

< 1-4-2-08>



< 1-4-2-09>

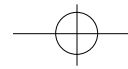


1

26% , (23%) ,
 (14%) , PD(13%) , (8%) ,
 28.7% ,
 25.5% ,
 40.7% ,
 (4) , 43.0% ,
 가 71.1% ,
 가 PC

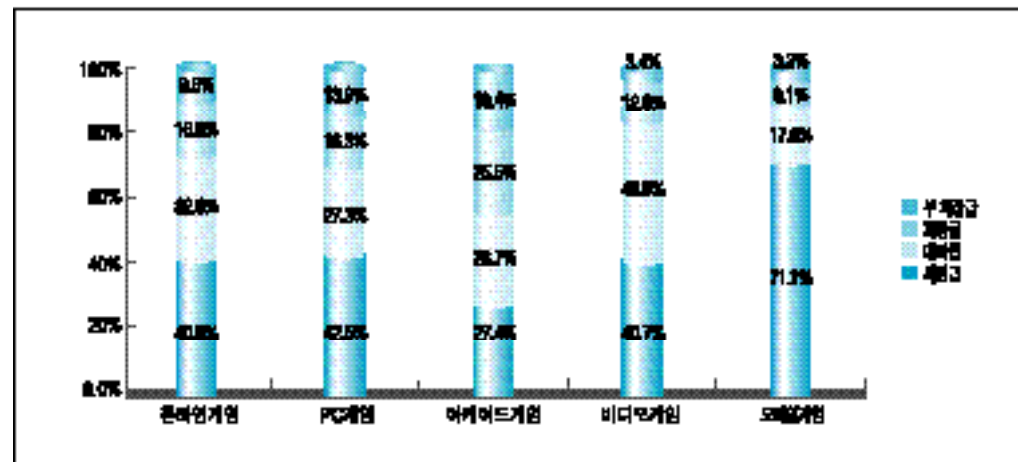
< 1-4-2-09>

	40.8%	32.6%	16.8%	9.8%	100%
PC	42.5%	27.3%	16.3%	13.9%	100%
	27.4%	28.7%	25.5%	18.4%	100%
	40.7%	43.0%	12.9%	3.4%	100%
	71.1%	17.6%	8.1%	3.2%	100%



PD, 70%
PC

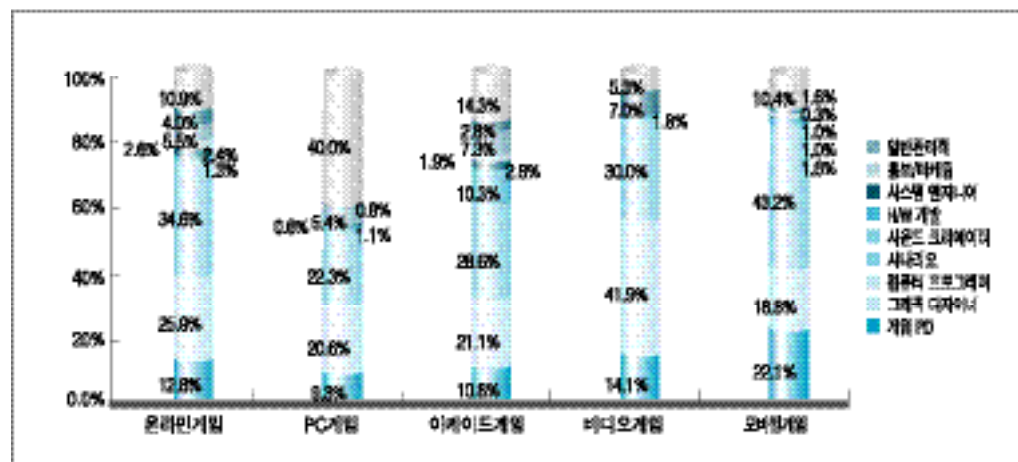
< 1-4-2-10>



< 1-4-2-10>

	PD					H/W		/		
	12.8%	25.9%	34.6%	1.3%	2.4%	2.6%	5.5%	4.0%	10.9%	100%
PC	9.3%	20.6%	22.3%	1.1%	0.6%	0.0%	5.4%	0.8%	40.0%	100%
	10.8%	21.1%	28.6%	10.3%	2.8%	1.9%	7.3%	2.8%	14.3%	100%
	14.1%	41.9%	30.0%	1.8%	0.0%	0.0%	7.0%	0.0%	5.3%	100%
	22.1%	18.8%	43.2%	1.6%	1.0%	1.0%	0.3%	1.6%	10.4%	100%

< 1-4-2-11>



3.

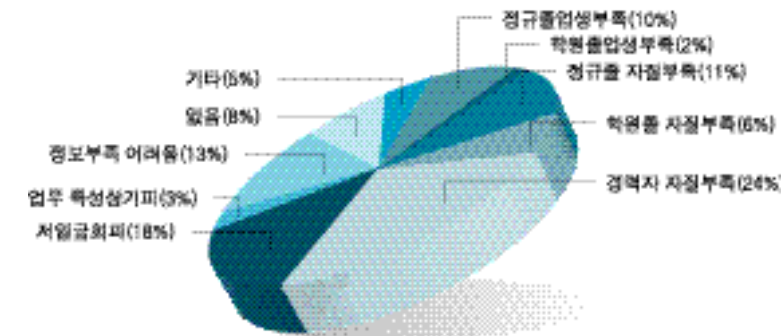
가 24%, 가 10% 가



< 1-4-2-11>

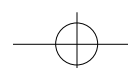
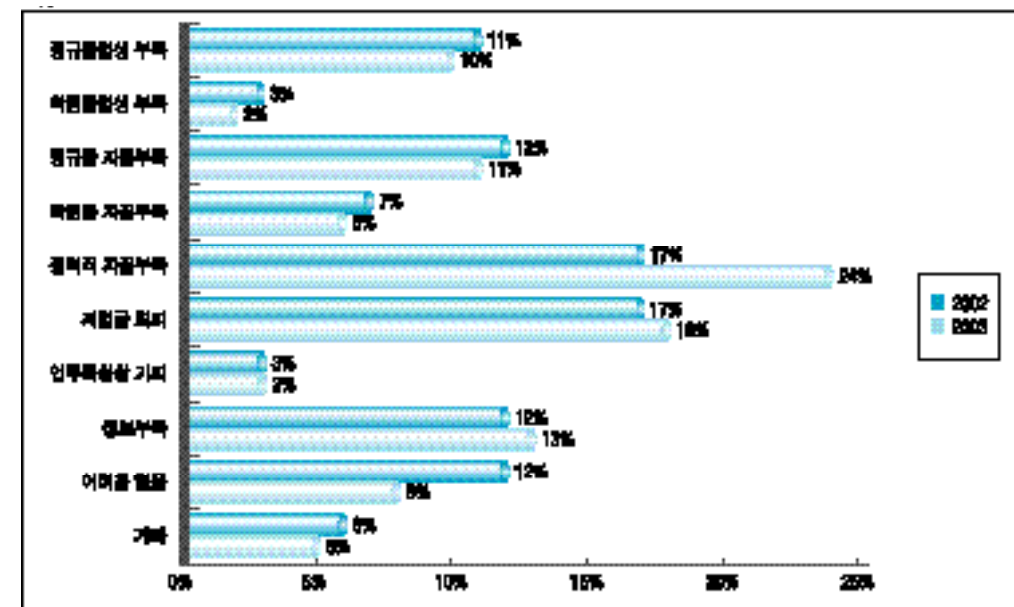
10%	2%	11%	6%	24%	18%	3%	13%	8%	5%	100%
-----	----	-----	----	-----	-----	----	-----	----	----	------

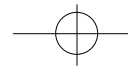
< 1-4-2-12>



< 1-4-2-13>

(2002-2003)



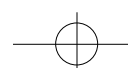
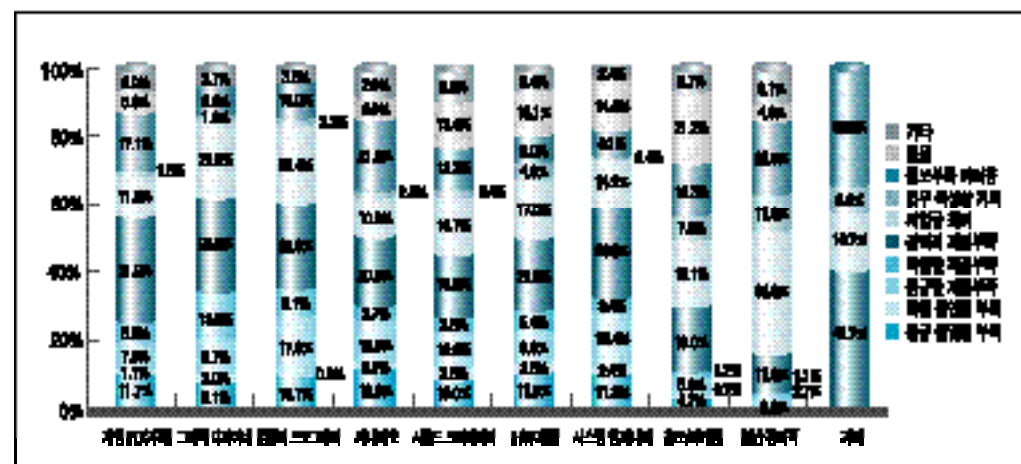


13%, 가
 11%, 10% 1-2
 /
 가
 2002
 17% 7% 가 24% 가

< 1-4-2-12>

PD	11.7%	1.1%	7.9%	5.8%	31.2%	11.8%	1.5%	17.1%	5.9%	6.0%	100%
	9.1%	3.0%	9.7%	13.6%	28.1%	21.9%	1.9%	8.8%	0.0%	3.7%	100%
	10.7%	0.3%	17.3%	8.1%	25.3%	22.4%	2.3%	10.0%	0.0%	3.5%	100%
	12.9%	2.1%	12.3%	3.7%	20.8%	10.8%	2.5%	21.2%	6.0%	7.9%	100%
	10.0%	3.6%	10.6%	3.6%	18.8%	16.7%	2.4%	12.2%	13.4%	8.5%	100%
H/W	11.5%	3.5%	9.3%	5.4%	21.8%	17.0%	4.8%	8.0%	13.1%	5.4%	100%
	11.3%	2.4%	16.4%	3.4%	26.8%	14.2%	0.4%	8.1%	14.5%	2.4%	100%
/	4.7%	0.7%	5.6%	1.2%	19.0%	19.1%	7.5%	15.3%	21.2%	5.7%	100%
	2.2%	0.0%	2.7%	1.1%	11.8%	36.6%	11.3%	21.5%	4.8%	8.1%	100%
	0.0%	0.0%	0.0%	0.0%	41.7%	16.7%	8.3%	33.3%	0.0%	0.0%	100%

< 1-4-2-14>

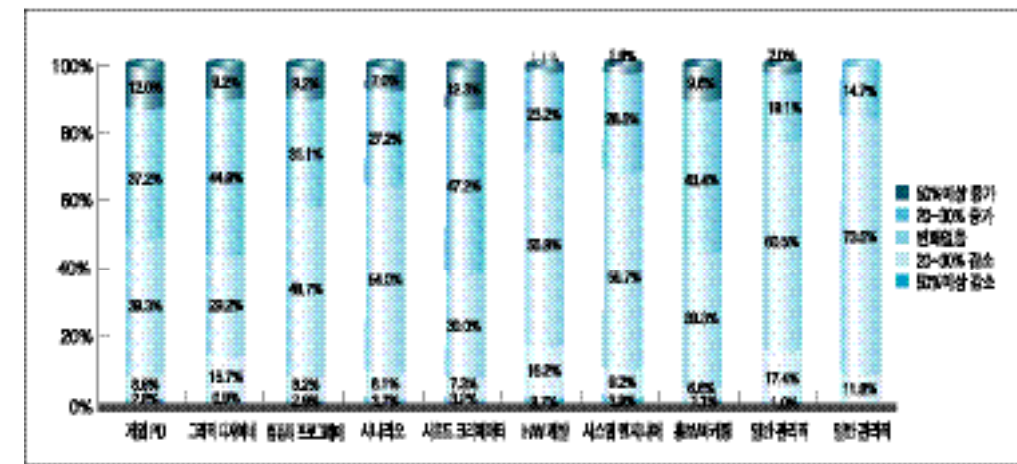


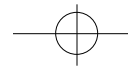
PD(31.2%) PD (86%)
 가
 PD, 25%
 가
 PD 4.
 가가 (1)
 3
 가

< 1-4-2-13>

	50%	20-30%		20-30% 가	50% 가	
PD	2.8%	8.8%	39.3%	37.2%	12.0%	100%
	0.9%	15.7%	29.2%	44.9%	9.2%	100%
	2.9%	8.2%	48.7%	31.1%	9.1%	100%
	3.7%	8.1%	54.0%	27.2%	7.0%	100%
	3.2%	7.3%	30.0%	47.2%	12.3%	100%
H/W	3.7%	16.2%	55.9%	23.2%	1.1%	100%
	3.9%	9.2%	56.7%	28.5%	1.8%	100%
/	1.1%	6.6%	39.3%	43.4%	9.6%	100%
	1.0%	17.4%	60.5%	19.1%	2.0%	100%
	0.0%	11.8%	73.5%	14.7%	0.0%	100%

< 1-4-2-15>





20~30% 가 PD, /
 , 10~20% 가 가 60.7%, 46.3%, 48.9%, 51.6%
 가
 30~40% , 50% 가 17.9%
 , 3 PC
 가
 PC 가 PC
 ' 50% 가'
 ,
 가 12.3%, PD가 12% ,
 20~30% 가 PC
 47.2%, 37.2% 3
 가 H/W
 ' 50% 가
 ,
 1.1%, 1.8%
 ,
 55.9%, 56.7% PD 20~30%
 30% ,
 26.5%, 22%
 PD 가
 , H/W 가 2002
 가
 (2) 가
 ' ' 20~30% 가가 가
 ,
 (50.2%) (48.6%) PD
 가 가 ,
 가
 PC
 , 20~30% 가 , 20~30% 가
 , PD 44.4%,

< 1-4-2-14>

	50%	20-30%		20-30% 가	50% 가	
PD	1.9%	6.6%	46.9%	31.3%	13.3%	100%
	0.5%	19.0%	24.9%	50.2%	5.4%	100%
	2.3%	7.3%	30.0%	48.6%	11.8%	100%
	2.4%	3.0%	54.5%	32.7%	7.3%	100%
	5.9%	2.9%	61.8%	23.5%	5.9%	100%
H/W	3.7%	15.9%	58.9%	21.5%	0.0%	100%
	4.7%	4.7%	55.7%	64.9%	0.0%	100%
/	1.5%	5.5%	33.5%	48.5%	11.0%	100%
	1.1%	12.4%	51.9%	31.4%	3.2%	100%
	0.0%	0.0%	86.7%	13.3%	0.0%	100%



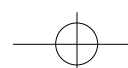
< 1-4-2-15> PC

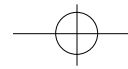
	50%	20-30%		20-30% 가	50% 가	
PD	7.1%	3.6%	25.0%	60.7%	3.6%	100%
	0.0%	19.6%	23.2%	39.3%	17.9%	100%
	0.0%	3.7%	40.7%	46.3%	9.3%	100%
	4.4%	0.0%	37.8%	48.9%	8.9%	100%
	5.4%	5.4%	45.9%	37.8%	5.4%	100%
H/W	5.4%	10.8%	51.4%	32.4%	0.0%	100%
	0.0%	0.0%	68.0%	24.0%	8.0%	100%
/	3.1%	3.1%	26.6%	51.6%	15.6%	100%
	1.9%	18.9%	67.9%	7.5%	3.8%	100%
	0.0%	44.4%	44.4%	11.1%	0.0%	100%

< 1-4-2-16>

	50%	20-30%		20-30% 가	50% 가	
PD	3.3%	30.0%	51.7%	13.3%	1.7%	100%
	1.5%	20.0%	44.6%	32.3%	1.5%	100%
	11.8%	17.6%	38.2%	29.4%	2.9%	100%
	8.0%	22.0%	56.0%	12.0%	2.0%	100%
	2.0%	26.5%	53.1%	12.2%	6.1%	100%
H/W	6.2%	15.4%	52.3%	21.5%	4.6%	100%
	9.5%	11.1%	66.7%	9.5%	3.2%	100%
/	0.0%	4.1%	69.9%	17.8%	8.2%	100%
	1.5%	12.1%	83.3%	3.0%	0.0%	100%
	0.0%	0.0%	88.9%	11.1%	0.0%	100%

46.5%,
 68.4%
 42.9%, / 41.9%
 . 2003 가
 가 가





4

< 1-4-2-17>

	50%	20-30%		20-30% 가	50% 가	
PD	0.0%	11.1%	33.3%	44.4%	11.1%	100%
	0.0%	4.7%	30.2%	46.5%	18.6%	100%
	0.0%	0.0%	26.3%	68.4%	5.3%	100%
	0.0%	0.0%	57.1%	28.6%	14.3%	100%
	0.0%	14.3%	35.7%	42.9%	7.1%	100%
H/W	0.0%	0.0%	69.2%	30.8%	0.0%	100%
	0.0%	14.3%	57.1%	28.6%	0.0%	100%
/	0.0%	11.6%	37.2%	41.9%	9.3%	100%
	0.0%	15.2%	60.6%	24.2%	0.0%	100%

< 1-4-2-18>

	50%	20-30%		20-30% 가	50% 가	
PD	3.2%	0.0%	6.3%	58.7%	31.7%	100%
	2.6%	6.6%	28.9%	46.1%	15.8%	100%
	1.5%	5.0%	13.8%	51.3%	27.5%	100%
	0.0%	22.6%	28.3%	30.2%	18.9%	100%
	0.0%	2.1%	50.0%	35.4%	12.5%	100%
H/W	0.0%	35.1%	48.6%	16.2%	0.0%	100%
	0.0%	27.7%	34.0%	38.3%	0.0%	100%
/	0.0%	12.9%	35.7%	48.6%	2.9%	100%
	0.0%	33.3%	57.1%	9.5%	0.0%	100%

가

가가

가 가 .

, / 가 5.

20~30% 가

가 , PD가 58.7%, 가
가 46.1%, 가 가

51.3% . 2002 가 가

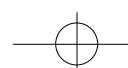
가가 , 가 27.2% 2001

가 가 , 2000 -2001

가 2003

2003 40% , 2004

57% .



< 1-4-2-19>

(:)

		(A)	(B) < / >	(B/A)
2000	13,500	6,750	1,384	20.5%
2001	23,800	10,200	1,577	15.5%
2002	33,870	10,161	2,766	27.2%
2003	42,180	10,545	4,284	40.6%
2004	49,400	9,880	5,637	57.1%

1

< 1-4-2-20>

가

(: /)

	가				
	2000	2001	2002	2003 ()	2004 ()
(, 1)	900	1,400	1,860	2,220	2,470
	15	17	18.2	19	20
	13,500	23,800	33,870	41,180	49,400
	6,750	10,200	10,161	10,545	9,880

3

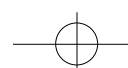
1.

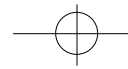
. 2003 5 8 (10
) , 4 10 , 13 , 2
(3) 28 ,
22 , 3

< 1-4-3-01>

(:)

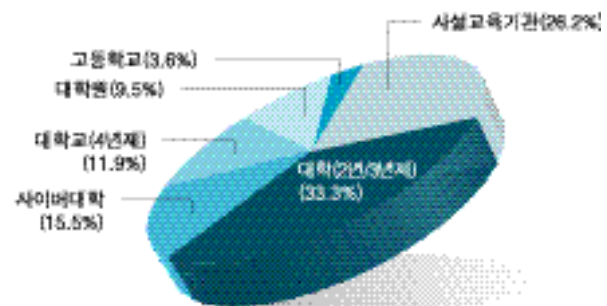
	2001(5)	2002(4)	2003(5)
(/)	2	5	8
	3	7	10
(4)	-	8	13
(2 /3)	16	22	28
	5	11	22
	2	2	3
	28	55	84



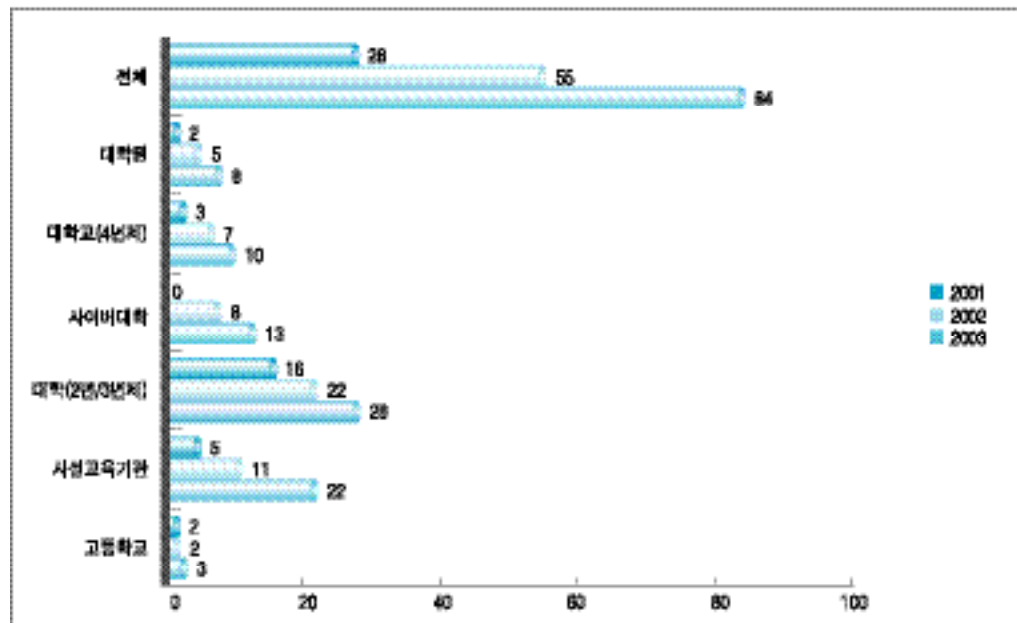


4

< 1-4-3-01 > 2003



< 1-4-3-02 >



2002 3 2. 1998 4 3, 5, 2 / 3 6, 11, 1 가 가 2003 5 8 (10), 4, 2002 29 가 10, 13, 2 (3 가 53%) 28 59

< 1-4-3-02 >

(:)

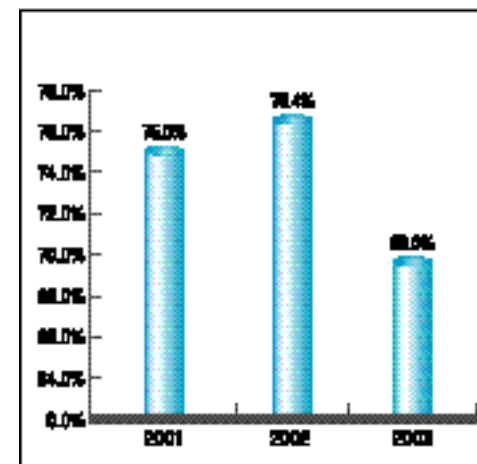
	2001(5)	2002(4)	2003(5)	
(/)	2	5	6	2
(4)	3	7	-	10
(2 / 3)	-	8	9	4
	16	22	3	25
	21	42	18	41



70% 가 2002 100%, 2003 40% . 2003 가 2002

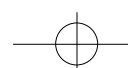
< 1-4-3-03 >

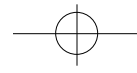
(2001-2003)



59 70% 41 18 가 가 30% 4 가

2 / 3





4

2002
 가
 가 .2
 4
 3 가
 가
 가
 가

< 1-4-3-03> 4 2

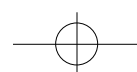
	/	3
(8 ,10)		2
		4
		1
		10(8+2)
4 (10)	(,) (&) (,)	6 2 2
(13)	() &	5 3 3 1 1
		23
2 /3 (28)	()	16 4 5 3
		28
		61(59+2)

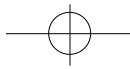
1

가
 가
 가
 가 ,2003 8

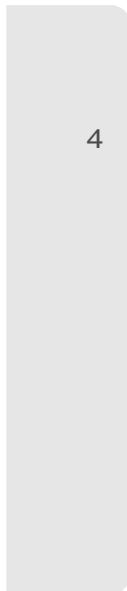
< 1-4-3-04> 4

	가	가 (3D) (2D)
	가	가 ,DirectX
		2D ,3D 3D ,2D , Virtual Reality
		2D ,2D ,3D

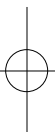




< 1-4-3-05>



		,3
		,3
		1,2,3, 가. ,camera working. 가.
		history.2D raster grahpics. ,2D vector gtophic.design
		1,2, 가 , ,3D , 1,2,3, ,3D rendering. 가.
		modeling. visual c++ 1,2, direct X , ,web program. 3D ,3Drendering visual c++ Direct X, , interactive web, , 가.
		,2D , 1,2, ,3D ,1,2, ,1,2,가 ,1,2, ,1,2,
		,HCI , 1,2, 1,2,3,4,5, ,2D ,
		X1,2, ,1,2,3,4,5, ,HCI ,WIN32API ,3D ,3D
		,3D ,가 ,1,2,, ,1,2,3,4,5, ,2,
		1,2, ,1,2,3, ,1,2,, ,pc ,1,2,3 tv ,1,2, ,1,2,3,4 ,1,2, ,.3D ,



< 1-4-3-06>

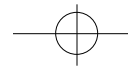


		,3D
		,가
		,HCI가
		3-D
		1,2 ,DirectX
		1,2, ,1,2, 1,2, 1,2,3,
		,가
		,가
		,가



가 가가 , 4 , 3 , . 2003 가 ,





4

< 1-4-3-07>

		1	
		105 (3)	
		25 (1)	, ,
		25 (1)	, ,
		50 (2)	(2004)

가 70% 가 77%(17)가 33%(5) 86%(19)가 가 (), 6 1, 2~3 가 3. 가 가 가 가

1

< 1-4-3-08>

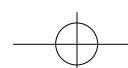
(:)

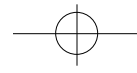
	2001(5)	2002(4)	2003(5)	
	5	11	17	5

< 1-4-3-09>

	2D	8
	3D	4
	2D/3D	6
	&	3
	e- 3D 가	1
		1
		1
		3
		1
		8
		8
	3D LeptonGL	40
		()
IT&GIS		6
		7
		3
DMC		2
		1
	3D	1
		8
		1
		5
		1
	3D	10
		6
		6
		9
3D		6
		8
MBC	가	9

가 가





4

< 1-4-3-10>

		()	
2 8		CG	, HCI
			, 2D , 3D
			, 2D , 3D (Storyboard Making), 3D
		Network	, DirectX , 3D

가 , 70%
 가 , 70%
 70%
 90%가
 가
 가
 20 , 3

< 1-4-3-11>

		()	
		, / , 2,	
		, 1, 2,	, 2D CG,
		, 2,	1,
		, 2, HCI , DirectX 1,	
		1,	1, , 가

1

2 8 11
 5~8 . 2002
 가
 , 30
 , 12 가
 2003
 60
 50 가
 가가 가 가

가 가 ,
 가 2002

< 1-4-3-12>

	가	가	가
	(100):	(100):	(100):
	40 ,	40 ,	40 ,
	60	60	60
	(100): 60	(100): 60	(100): 60

