

03 - 1                      Policy Measures to Strengthen the Competitiveness  
   of Local Junior Colleges and Universities

⋮  
⋮

가

가

가

가

2003 7



	가,	
	가	2012
100		
	가	
	가	
	가	
	가	
	가	
: 1)		
	; 2)	
		; 3)
; 4)		
가 . 5)		가

3.

가 . , , ,  
 ( 가  
 가) ( 가,  
 가) 가  
 . 1)  
 , 가  
 , 2) 가

4.

. ,  
 , , , , ,  
 , : 1)

; 2)

,

가

; 3)

; 4)

•

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•

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•

•

; 5)

•

•

가

; 6)

•

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가

•

### 5.

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R&D

,

가

,

,

가

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: 1)

•

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: ① 「가

」

가

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, ② 「

」

•

, ③

• ; 2)

(partnerships)

•





: ① , ② 가  
 , ③ • ; 3)  
 : ① ( , ② )  
 ; 4)  
 : ① 가 , ②  
 ; 5) •  
 : ① • , ② • ' ' • ' • ; 6)  
 • : ①  
 • , ② • : 1) 「  
 」 ; 2) 「 가 」  
 ; 3) 「  
 」 • ; 4) 「 가 」  
 • ; 5) • 가 • .  
 1) 가  
 (national minimum)  
 , 가  
 2)  
 R&D , ,

.	.....	<b>1</b>
1.	.....	1
2.	.....	4
3.	.....	6
4.	.....	6
.	.....	<b>9</b>
1.	.....	9
2.	.....	20
3.	.....	28
.	.....	<b>31</b>
1.	.....	31
2.	.....	32
3.	.....	47
.	.....	<b>49</b>
1.	.....	49
2.	.....	64
3.	.....	84
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1.	.....	87
2.	.....	88
3.	.....	91
4.	.....	108
	.....	113
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< - 1>	..50
< - 2>	.....68
< - 3>	.....71
< - 4>	.....73
< - 5>	.....81
< - 1> ,	.....108

[ -1]	.....	10
[ -2]	.....	22
[ -1] 가	.....	53
[ -2]	.....	54
[ -3]	.....	71
[ -1]	.....	90
[ -2]	.....	96
[ -3]	.....	107

1.

가

가

가

(physical proximity)

(social capital)

1990

가

가

(regional innovation system)

가

가

(IMD, 2002),

가 . , 가  
가

,  
가 가 가 .

가

‘ (‘73 ‘93), ‘ (‘94 ‘98),  
‘ (‘97 ‘01), ‘ (BK21 ), ‘  
가 (‘02 ) ‘  
5 가 (1998.3), 「 가 (2000.12)

「 가 ( ‘  
; 2003.4), 「 가  
「 가  
(TP) (TIC) , S/W  
(RRC) (SRC, ERC)

‘ ; ‘ ; ‘ ; ‘

가

가

( , 2000; , 2000; , 2000; , 2000; , 2002; , 2002).

12

R&D

가

가

가

가

가

---

1) 「 」



가 .  
가 .  
2).

2.

가.

가,

---

(2002 2007) (2002. 9 2003. 6)

2)

가

IT

가

3.

6

2

2

4.

가

가

가 (network)

가 3).

4

( 가)  
R&D

가

가

( , )

4).

---

3) (2002). . p.p.  
9 11.

4)

· ' ' , 13  
. ' ' ,  
가  
,  
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.  
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· ·  
4 ,  
. 4  
4  
,  
.

---

가 가 .

1.

< II-1> 2002 4 , 4  
 ( , , ) 193 , 36.8% 71  
 , 63.2% 122  
 , 1,778,442 48.7% 865,552

< II-1>

( : , , %)

		4			
		193(19) (100.0)	1,778,442 (100.0)	158(1) (100.0)	602,202 (100.0)
		71(8) (36.8)	865,552 (48.7)	51 (32.3)	225,209 (37.4)
		40(3) (20.7)	688,417 (38.7)	12 ( 7.6)	45,846 ( 7.6)
		5 ( 2.6)	27,026 ( 1.5)	5 ( 3.2)	25,897 ( 4.3)
		26(5) (13.5)	150,109 ( 8.4)	34 (21.5)	153,466 (25.5)
		122(11) (63.2)	912,390 (51.3)	107(1) (68.4)	376,993 (62.6)
		13(1) ( 6.7)	129,358 ( 7.3)	10 ( 6.3)	51,083 ( 8.5)
		3(2) ( 1.6)	42,908 ( 2.4)	7 ( 4.4)	41,324 ( 6.9)
		9 ( 4.7)	68,188 ( 3.8)	7 ( 4.4)	26,481 ( 4.4)
		10 ( 5.2)	78,557 ( 4.4)	5 ( 3.2)	25,760 ( 4.3)
		1 ( 0.5)	12,008 ( 0.7)	2 ( 1.3)	8,958 ( 1.5)
		10 ( 5.2)	70,315 ( 4.0)	9 ( 5.7)	21,863 ( 3.6)
		10(1) ( 5.2)	66,701 ( 3.8)	6 ( 3.8)	22,339 ( 3.7)
		14(5) ( 7.3)	120,523 ( 6.8)	8 ( 5.1)	22,967 ( 3.8)
		10 ( 5.2)	81,333 ( 4.6)	11 ( 7.0)	24,253 ( 4.0)
		12 ( 6.2)	42,396 ( 2.4)	11 ( 7.0)	30,082 ( 5.0)
		18(1) ( 9.3)	116,220 ( 6.5)	18 (11.4)	54,621 ( 9.1)
		9 ( 4.7)	73,030 ( 4.1)	10(1) ( 6.3)	36,285 ( 6.0)
		3 ( 1.6)	11,353 ( 0.6)	3 ( 1.9)	10,977 ( 1.8)

: ( )  
 : (2002).

158 가 , 32.3% 51 ,  
 67.7% 107  
 , 602,202 가 37.4% 225,209  
 .  
 51.8%, 52.8%, 55.2%,  
 51.1%( 2000 )가  
 ,  
 , [ -1]  
 , (34 ), (22 ), (21 ), (19 ),  
 (19 ), (17 ) 4 가



주 1) ( )는 분교수. 전체학교수에 미포함.  
 2) 울산광역시는 지도에 표기가 불가능하여 제외함(4년제 대학 1개, 전문대학 2개)  
 3) 4년4년제 대학, 전-전문대학  
 자료: 교육부·한국교육개발원(2002). 교육통계연보

[ -1]

가.

11.8%  
 45.9% 2,183 , . .  
 30 2.5 가 ,  
 가

< II-2 >

			(%)	(%)	
	'02. 1	14,371	7,592(58.0)	5,508(42.0)	13,100
	'02. 2	4,935	2,172(51.0)	2,083(49.0)	4,255
	'03. 1	15,744	8,822(60.8)	5,692(39.2)	14,514
		35,050	18,586(58.3)	13,283(41.7)	31,869
	'02. 1	28,085	2,169(9.7)	20,361(90.3)	22,530
	'02. 2	10,200	457(6.8)	6,247(93.2)	6,704
	'03. 1	33,408	2,590(9.7)	24,112(90.3)	26,702
		71,693	5,216(9.3)	50,720(90.7)	55,936
	'02. 1	42,456	9,761(27.4)	25,869(72.6)	35,630
	'02. 2	15,135	2,629(24.0)	8,330(76.0)	10,959
	'03. 1	49,152	11,412(27.7)	29,804(72.3)	41,216
		106,743	23,802(27.1)	64,003(72.9)	87,805

1)

2) ('02. 1 1 14 , '02.  
 2 35 75 , '03. 1 1  
 75 )

3)

:

가 . 1999 ,



5% 32.5% , 62.5% 2003  
 4% 41.7%가 , 18.9%  
 5).

가 가  
 . < III-2> 2002 1 2003 1  
 가 41.7%

가

가

3 4 가  
 < II-3> . 2002 1.5%(  
 1.2%, 2.2%, 2.3%) , 7.5%  
 (14.0%), (10.5%) , (20.1%), (15.6%),

2003 4 < -4> 가  
 1.2% 12.9% 25.7% 4

5)

< II-3>

	( )			( )			(%)		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
	18,495	19,507	19,526	641	572	1,408	3.5	2.9	7.2
	37,668	37,268	35,816	870	924	784	2.3	2.5	2.2
	19,695	19,797	17,496	1,883	1,971	963	9.7	10.0	5.5
	33,873	33,670	32,895	2,076	1,656	3,462	6.1	4.9	10.5
	17,495	17,378	17,192	637	591	1,718	3.6	3.4	10.0
	10,735	10,558	8,859	150	115	231	1.4	1.1	2.6
	20,013	22,548	19,325	641	772	803	3.2	3.4	4.2
	34,098	34,652	33,801	765	981	921	2.2	2.8	2.7
	83,752	80,793	82,358	943	657	961	1.1	0.8	1.2
	3,211	3,108	3,019	98	20	56	3.1	0.6	1.9
	6,773	6,754	6,470	182	154	150	2.7	2.3	2.3
	15,269	15,338	13,509	3,927	1,641	2,722	25.7	10.7	20.1
	24,008	23,600	22,585	1,356	1,109	3,156	5.6	4.7	14.0
	3,684	3,488	3,291	343	242	448	9.3	6.9	15.6
	32,314	32,338	31,968	1,324	861	1,289	4.1	2.7	4.4
	17,749	17,509	17,470	417	631	899	2.3	3.6	5.1
	378,832	378,306	365,580	16,253	12,897	19,971	4.3	3.4	5.5

: . .

< -4> 2003

	1.2%	1.4%	1.3%
	12.9%	25.7%	18.3%
	9.3%	17.6%	12.8%

: . .

. 2004 18 가 630  
 655 , 2012  
 2030 476 75.4%  
 6).

6) DB

가  
가  
1990 (1995~1996) 57.0%  
70.9% . 2000  
(2000~2002) 56.0% 60.8%

가  
7).  
가  
. 2001 2003  
100 4.7% 5.0% 9.9%  
13.5% . 100

7.9 , 10.5 ,  
8.5 , 12 8).

2002

「 9) 」

7) (2003). ' 「

2003.4.16.

8) (2003). ' 「

「 ( : , : 2003.4.18).

9) 2001 2 . 69 ( 350 19.7% ) 6,265 (

1)

가

가 4 ,  
가 가  
. 2001 2 「 .  
」 ,  
< -5> , 49.8% 가  
, 17.8%, 16.9%  
35.1% 가 , 28.1%, 22.1%

가

< -5>

	113 (28.1)	221 (49.8)	334 (39.5)
	89 (22.1)	69 (15.5)	158 (18.7)
	141 (35.1)	75 (16.9)	216 (25.5)
	59 (14.7)	79 (17.8)	138 (16.3)
	402 (100.0)	444 (100.0)	846 (100.0)

: p=.000, df=3,  $\chi^2=58.578$

: (2002), .

3,005 , 3,260 )

, , ( , , )

2001 2 , <  
 -6> , 92.0%가  
 , 25.4%가

< -6>

	357 (92.0)	107 (25.4)	464 (57.4)
	31 ( 8.0)	314 (74.6)	345 (42.6)
	388 (100.0)	421 (100.0)	809 (100.0)

: p=.000, df=1,  $\chi^2=366.103$

: (2002), .

< -7>

	26 (40.0)	26 (32.5)	52 (35.9)
가	24 (36.9)	21 (26.3)	45 (31.0)
	8 (12.3)	17 (21.3)	25 (17.2)
	4 (6.2)	-	4 (2.8)
	1 (1.5)	4 (5.0)	5 (3.4)
가	2 (3.1)	10 (12.5)	12 (8.3)
가	-	2 (2.5)	2 (1.4)
	65 (100.0)	80 (100.0)	145 (100.0)

: (2002), .

, ,  
 , < -7>  
 가 가 . 가 ,  
 12.3% , 21.3%

2)

가

, < -8> ,

95.5%가

가 4.5%

가 74.2%,

가

25.8%

가

가

< -8>

	1,717 (95.5)	728 (25.8)	2,445 (52.9)
	80 ( 4.5)	2,094 (74.2)	2,174 (47.1)
	1,797 (100.0)	2,822 (100.0)	4,619 (100.0)

: p=.000, df=1,  $\chi^2=2143.944$

: (2002),

, 52.9%가 , 47.1%가

88.9%

51.5%

< -9>

(2002)

( : , %)

	22,169	100.0	10,446	47.1	11,723	52.9
.	2,070	100.0	229	11.1	1,841	88.9
	4,260	100.0	2,167	50.9	2,093	49.1
-	4,241	100.0	2,162	51.0	2,079	49.0
	15,841	100.0	8,050	50.8	7,791	49.2
-	1,747	100.0	878	50.3	869	49.7
- .	5,996	100.0	2,909	48.5	3,087	51.5
- . .	5,940	100.0	3,185	53.6	2,755	46.4
- . . .	2,157	100.0	1,079	50.0	1,078	50.0

: , DB

3)

, < -10>

가

가

1,000

. , 10

31.6%,

68.4%

, 1,000

52.6%,

47.4%

가

< -10>

( : ,%)

10	1,136	100.0	359	31.6	777	68.4
11~49	1,270	100.0	462	36.4	808	63.6
50~99	489	100.0	199	40.7	290	59.3
100~299	569	100.0	211	37.1	358	62.9
300~999	405	100.0	181	44.7	224	55.3
1,000	635	100.0	334	52.6	301	47.4
	4,504	100.0	1,746	38.8	2,758	61.2

: p=.000, df=9,  $\chi^2=91.468$

: (2002), .

< -11>

( : ,%)

	68	1.5	20	1.1	48	1.7
	738	16.2	331	18.6	407	14.6
	460	10.1	131	7.3	329	11.8
PC , DB	1,121	24.5	529	29.7	592	21.3
,	22	0.5	9	0.5	13	0.5
,	571	12.5	225	12.6	346	12.4
	83	1.8	25	1.4	58	2.1
,	1,282	28.1	435	24.4	847	30.4
	291	6.4	98	5.5	193	6.9
	4,568	100.0	1,783	100.0	2,785	100.0

: p=.000, df=15,  $\chi^2=91.851$

: (2002), .

. < -11> ,  
 PC , DB 가  
 29.7% , ,  
 30.4% 가 .



가 가

1)

가

가

가

가

2)

가

가

가

가

2.

가.

, 2000

45,985,289 21.4% 9,853,972 ,  
 46.2% 21,258,062  
 . 1km<sup>2</sup> 17,131 473 36.2  
 ( , 2001).

2000

< II-12> 47.2%  
 , 21.7%  
 1985 42.0% 2000 47.2% 가 , 15  
 ( ) 가

< -12> (1985 2000)  
 ( : , =100 )

1985		1990		1995		2000	
19,713,859	100	44,852,806	100	84,598,728	100	108,523,811	100
6,527,044	33	13,845,901	31	24,134,923	29	30,292,127	28
3,044,058	15	7,165,958	16	13,917,759	16	17,120,350	16
3,498,293	18	8,772,604	20	18,007,029	21	22,282,531	21
-	-	4,162,324	9	8,522,225	10	11,250,327	10
-	-	4,077,922	9	7,934,873	9	11,524,522	11
-	-	-	-	-	-	25,337,612	23
10,553,952	54	28,161,138	63	60,835,097	72	106,902,659	99
3,086,285	16	5,316,632	12	9,766,748	12	12,965,595	12
2,748,993	14	5,261,034	12	11,846,345	14	18,390,351	17
5,171,915	26	6,326,966	14	14,774,106	17	23,899,799	22
3,323,390	17	6,158,652	14	12,971,746	15	16,989,030	16
6,585,490	33	9,196,064	21	18,907,378	22	25,479,894	23
6,027,977	31	12,346,292	28	24,003,127	28	33,557,742	31
9,357,091	47	19,681,985	44	43,760,510	52	34,147,860	31
772,980	4	1,788,062	4	3,741,867	4	4,787,660	4

: ( ).

2001 28.4%가  
 , 23%가

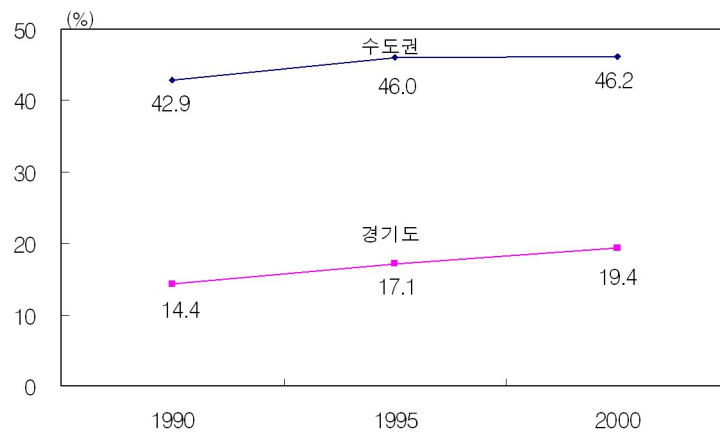
(<http://www.stat.go.kr>).

(decent job)

[ II-2]

1990

42.9% 2000 46.2%  
14.4% 19.4% 5% 가 16  
6 3.5%



: (2001), 「 , p.12

[ -2]

2001

28.8%, 22.7%, 17.8% 13.8%

1000

< II-13> 10 ,

12 가

< II-13>

		( =100)	( =100)	( )	/ / (%)
		100	100	14	28.8
	/	120	114	6	21.7
		220	214	10	25.0
		50	46	17	13.6
		132	126	11	14.3
		49	51	12	12.9
		12	14	15	11.5
		4	6	7	12.9
		248	243	12	13.7
		468	456	11	19.0

: (2003).

, p.65

가, .

. < -14>

< -14>

(2000 )

( : )

	BK21	IT				
	6,820	1,241	291	700	250	0
	3,796	1,868	398	450	750	270
	3,560	1,758	208	700	850	0
	3,066	869	169	700	0	0
	3,020	15	15	0	0	0
	2,620	590	90	500	0	0
	2,575	167	167	0	0	0
	2,395	1,306	96	600	610	0
	2,017	1,767	277	700	790	0
	877	19	19	0	0	0
	873	1,201	101	450	450	200
	790	46	46	0	0	0
	778	866	16	450	400	0
	757	57	57	0	0	0
	731	300	0	0	300	0
	723	17	17	0	0	0
	690	60	60	0	0	0
	529	20	20	0	0	0

: (2001).

. p.126

가

가

< II-15 >

'(43.9%)

'(22.7%), '

'(13.6%), '  
(9.1%)

'(10.6%), '

'(32.5%), '

'(29.3%)

가

< II-15 >

	10.3	10.3	12.9	9.1
	29.3	11.3	12.9	10.6
	32.5	15.5	19.4	13.6
	17.2	40.2	32.3	43.9
	10.7	22.7	22.6	22.7
	100.0	100.0	100.0	100.0

: (2003).

, p.82

가

가  
가

1999 GDP OECD 1.06%  
0.49%

( ) 31.5%가

, R&D 8.4%

10). < -16 > 2001 4

1 4,781.2 63% 9,324.8 20

, 3,856.2

10) 2001 가 R&D 4 5,283 ( 4.3%)  
18.6% 8,443 , 8.4% 3,807 ( )  
)

< -16>

20

(2001)

	( )		( )		( )		( )		( )
1	1,264.2	6	578.6	11	336.4	16			219.6
2	1,123.8	7	550.7	12	330.9	17			218.5
3	855.5	8	390.6	13	248.7	18			194.4
4	809.8	9	368.4	14	246.6	19			190.3
5	650.6	10	338.4	15	227.5	20			181.4

: (2003). ‘ 가?』

( , 2000; 2000b).





가

R&D

가

가

가

가

( )

가 .

1.

가  
가

가

가,

가 -

-

( )

가,

( )

가 -

가

< - 1 >

	1	3
	2	4

1 가

가 가,

가,

가,

가가

가

가

가 , , ,  
2 ( )  
3 ,  
(善作用)  
4 ( ) ( )  
(善作用) 가 가

2.

가. 1

1

1)

가)

1970

)  
 < -2> , 1973  
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 1979 . 6  
 , < -3> ,  
 1982 , 314 .

< -2>

			1973
			1973
			1973
			1977
			1979
			1979

< -3>

( : )

	2,405	1,890	265	410	4,970	'73-'81
	2,401	3,605	552	592	7,150	'74-'82
	2,093	3,813	333	256	6,495	'77-'82
	3,851	2,895	372	192	7,310	'76-'82
	1,404	16	60	45	1,525	'79-'82
	3,208	270	273	192	3,943	'79-'82
	15,362	12,489	1,855	1,687	31,393	

) 가

가 , 가  
 가 가

가 ( 89% )  
2~3

2)  
가)

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6

1994 8 , 1998 가  
5 400 50 가  
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, 가

12) 가 (1993). 가

< - 4 >

		( )
	.	258
		247
	.	268.5
		239.5
		255
		244
		237
	.	251
		2,000

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100

3)

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가



)  
 < - 5> < -6> , 1997  
 2001 5 28 .  
 가 , 780  
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< - 5>

		( )
(6 )	, , , , ,	156
(8 )	, , , , , , , , ,	312
(5 )	, , , , ,	117
(4 )	, , ,	91.56
(5 )	, , , , ,	103.44
	28	780

) 가  
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4) (BK21 )  
가)

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 2005 7 BK21 1999  
 500 . BK21  
 < - 7> .

< - 7>

		( )	
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/	1	( , , )	
/	2	( , )	
		( , , )	
/	2	( )	
		( , )	
	1	( , )	
	1	( )	
	1	( , )	
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) 가  
 BK21

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21

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50%

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- 1997 12

2001 5

- 1999 7

2003 5

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· · · , 가 , 2 , 3  
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○ :

가

- 30 ( 5 )

○ :

) 가

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2) ( )

가)

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 가 가 . 가  
 가 .

3) ( )  
 가) , ,

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가

2001 706 39% 274  
 58% 160 .

) 가 , , ,  
 , , 가 ,  
 2/3가

4) ( )

가)

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1997 6

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< - 8 >

) 가

가

가

가

5) ( )

가)

(SRC, ERC)

(RRC)



< - 8 >

		( )				,
(m <sup>2</sup> )	452,100	99,000	27,390	153,120	99,000	199,320
(m <sup>2</sup> )	5,105	7,672	18,466	6,388	1,320	24,057
( )		250	250	250	250	250
		500	635	175	125	190
		67	9	258	374	157
		409	75	78	96	57
		1,226	969	761	845	654

)

9 (3 가

) 10

. 2001

599

40% 238

235

85%

198

) 가

가

가

6) IT ( )

가)

IT

IT

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IT

IT

8

(4

가)

) 가

IT

. 413)

4

가

. 2001

< - 9>

< -10>

2002

가

가

15%

13)

가 (2002)

2001

가

< - 9> R&D

( : )

	R&D		
	45,283	8,443.2	18.6
	10,266	3,400	33.1
	10,158	273	2.7
	8,934	1,113	12.5
	4,121	-	-
	2,743	2,743	100.0
	2,015	22	1.1
	1,994	219	11.0
	1,091	194	17.8
	1,037	405	39.1
	867	60	6.9
	691	104	15.1
	545	268	49.2
	255	20	7.8
	216	1	0.5
	128	47	36.7
	97	5	5.2
	80	-	-
	23	23	100.0
	17	-	-
	7	0.2	2.9

< -10> R&D

( )

( : )

	R&D				
		(%)			
	10,266	33.1	3,400	1,652 (48.6)	1,743 (51.4)
	10,158	2.7	273	172 (63.0)	101 (37.0)
	8,934	12.5	1,113	466 (41.9)	647 (58.1)
('02)	9,314	100.0	9,314	3,741 (40.2)	5,574 (59.8)
	2,015	1.1	22	12 (54.5)	10 (45.5)
	1,994	11.0	219	84 (38.4)	135 (61.6)
	1,091	17.8	194	110 (56.7)	84 (43.3)
	1,037	39.1	405	310 (76.5)	95 (23.5)
	545	49.3	268	101 (37.7)	168 (62.3)
	7	2.9	0.2	-	0.2 (100.0)

: 2002

3.

1 가 가 가 가 .  
, 가 가 .  
2 가 .  
3 가 .  
3 4 가 가 .  
(善作用) . 3 가 .  
4 가 가 가 .  
가 가 .  
가 .

,  
14).

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14)

. 가

1.

가.

4 1,227  
, 4 74%가 . 75%

2000 1 10 , 18

'98 10% , '99  
19.8%, 2001 30% 가 , 222  
2003 가 ( , 2003 3  
7 40 ).

1)

가)

“ (まちづくり)” (省)

, “ , . , . (16 )” “ ( )  
 (6 )”, ‘  
 (10 )’, ‘ (21 )’,  
 (1 ) .  
 < -1> .

< -1>

		( )		
		2002	2003	
		63	56	/ /
		506	497	/ /

< -1>

( )

·		· · ·	380	361	
· ( ( )		· ·	921	921	/
( , )	가	: , :	36,500	37,700	/
	, ,		3,111	3,281	/



< -1>

( )

(知的)	, ( )		6,000	6,900	. /
	) ( , , , , )		2,568	3,100	. /
	, (2002 62 )		-	-	. /
	, 가 . 가 . 가		952	1,502	. /

가 ,

2002

10

가

가

가

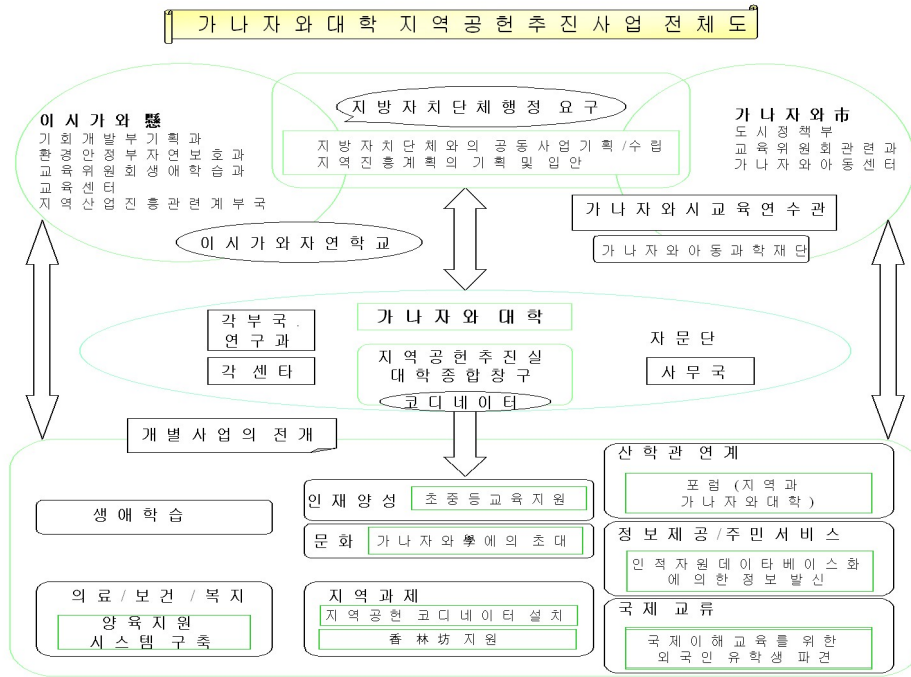
20

(concept),

5

가

[ -1]



: [www.mext.go.jp/b\\_menu/houdou/](http://www.mext.go.jp/b_menu/houdou/)

[ -1] 가

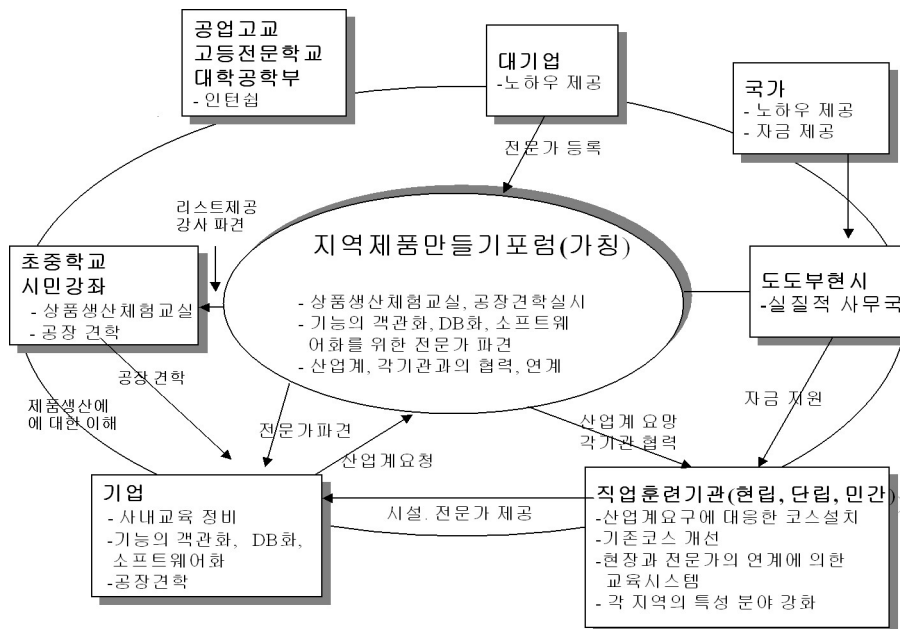
)

(ものづくり)  
(1999 2 ) 9 1  
(ものづくり基盤技術基本計画(2000. 9. 12)

1 )

가

[ -2]



: (1999). 「 가

」.

[ -2]

2)

, , , . 「  
(consortium) 」 ( )  
, 1999; , 2001: 157-160; <http://www.city.kyoto.jp>)  
가) 『 』 (京都)  
1995 , / , .  
, . 1998 3 가  
『 』 , , , , ,  
, 4 , , .  
)  
7 11 , , 1 , 1  
23 , ,  
, 2003 49 , 가  
, 가  
6가  
:

가 ) , 1999 가

(internship) :

가 , ,

가 , , ( , , )

가 , , , NPO 3 .

(city college) . 1999 32 가 가

11 156

가

가 , 가 가

가 「 가 가

가 : . 1999

37 16 209 .

3)

( , 2001 [http://www.mext.go.jp/b\\_menu/houdou/14/01/020199a.htm](http://www.mext.go.jp/b_menu/houdou/14/01/020199a.htm)).

가

가

3 가

30

가

가  
가

4)

가

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( , 2002).

15)

(出向)

(1991)

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15)

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5)

(産官)



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가 ,  
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Manchester

16)

1) Manchester

가 가 , 가  
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 가  
 8 , 4  
 가  
 가

2)

Manchester, Manchester Metropolitan, Salford, UMIST  
 4 60 , 12,000  
 , 5,000 ,  
 50,000 가

---

16) Robson, B.(1997). 'Universities and human resource development: the case of Manchester,' in Regional Competitiveness and Skills. OECD. pp.117-120.

(districts)

(European Commission)

(structural fund)

(North-West Partnership)

(Training

and Enterprise Councils)

, 가

가

8

(Standing

Conference of NW Universities)

4

CONTACT

4

4

CONTACT

Trafford Park Manufacturing Institute

Trafford Park

5

(

4

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Manchester University

1992 ' (the Consortium of  
Academic Libraries in Manchester) 4  
On-line .

1993 ' (Greater Manchester  
Information Network Group) ( .  
, 4 , Science Park, , Trafford Park)

3)

3 .

' (research incubator)  
' (research hotel)

(two-way process)

' (Campus Venture)

2.

가.

1)

'95

(global university)

( )

가 (TOEFL 500 , TOEIC 600 , TEPS  
500 ). UILSP(U. S. and  
International Legal Studies Program), GM(Global Management), IT  
, GEEE, IOWA, Huntingdon, Biola, UofN,

3 2001 6-10% 30%

가

2)

3

가

가) (Teaching)

/



) (community service)

, 3 2003  
 400 15,000  
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 , ( , ,  
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 , , TV  
 , ( , , )  
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 ( , , , )

3) : LG

2003 4 LG &

. . LG 5

TV

,

가

LG



4)

가 .  
 , , 3 .  
 100 .  
 가 , 28 ,  
 . < -2> '98  
 2003 70 .

< -2>

	'98	'99	'00	'01	'02	'03 1
	63	129	160	176	199	224
	-	-	-	-	39	31

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5)

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 가, 가 가 .

LG

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가

17)

2002 ( )

( )

4

17)

「 ( . 2003.6)

가

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1)

70%

가 8 2

가

2

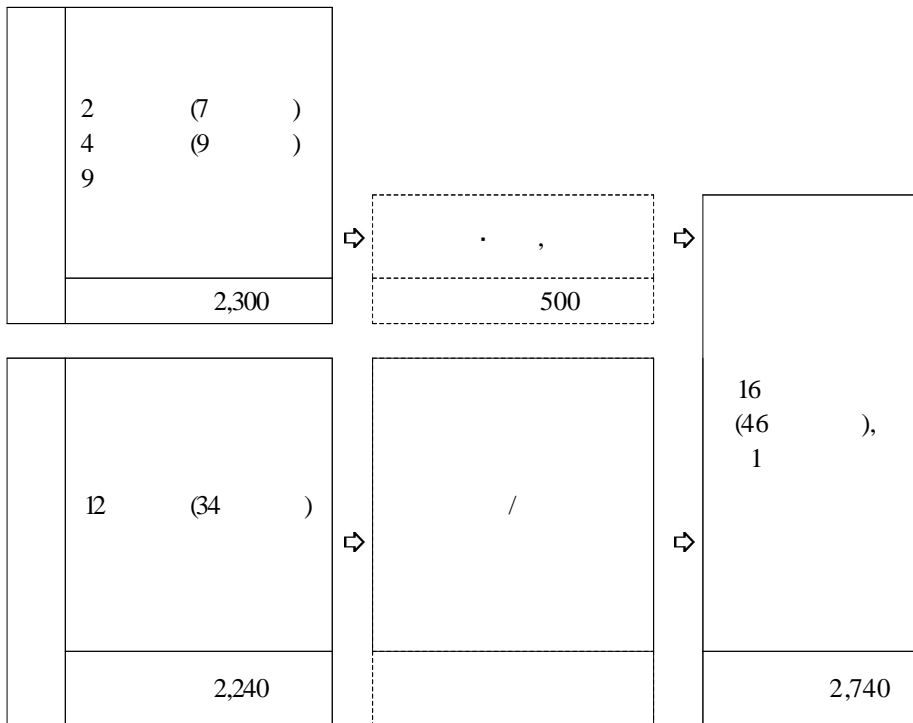
4

2 4

-3] ).

< -3>

([



: , “ ”, 「 」, 2003 3 4.

[ -3]

< -3>

(2002 )	84.3%	97.6%	131.1%	53.4%
(2003 )	107.6%	155.3%	169.7%	142.2%

: 2003

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2)

가)

1 2

“ ”

가 , 가

, 가

가 ( )

가

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가 ( )

가

, , , , , , , , ,

가

, , , , IT

(2003

Trade Incubator ), IT (2002

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가가

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 < -4> .

< -4>

			- B&B ( ) , -25	(31 )
			-	-
			-	-

18)

1)

1996

가

가

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1990

가

2001

(Daewoo Club)

가

41

2)

가)

(2001.9). 200

가

가

.19)

18)

「 ( . 2003.6)

가

20)

가

( )

(needs)

50

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50

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6 Sigma

(TOC)

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19)

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12

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, HSE

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6





( ) . ,

'work-to-school' .

. 21)

1)

1979 24 .  
12,420 6 ,  
3,700 .

2)

3 가 . , ,  
1999  
21  
85 .

3)

가 , 34 5 .  
100 .  
31  
. 1 14 , 2 10

21) 「 ( . 2003.6) . .

가  
1999  
가,

4)

가  
2001  
80%  
22)

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22) (2003).

23)

1)

가  
 ' ' . 가  
 10 100% 2003  
 , , 가  
 2001 4 , ,  
 99% 81%  
 4 3  
 , , 가  
 , 가  
 가  
 2003 100%  
 가  
 가  
 100%  
 가 가

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23) 「 ( . 2003.6)

10

가

2)

2003 5 1,451

가

가)

1998

가

25%

3

가

가

< -5>

OTTO KOREA	
DIY SHOES	
( )	
	가
ENCHEM	
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( )	Outsole
CREGEN	Insole
F.I.T	Off-Line
( )	
TESCO	
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, SDI,

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SDI

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6

가

SDI

2003 1

SDI

SDI

2003  
가

60

가

24)

1)

1981

22

. 4,686

가 2,128 (45.4%)

. 2003

(12 3 )

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(2002 )

가)

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(47%)

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24)

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4 , Science Park,  
, Trafford Park  
가  
가  
CONTACT Trafford Park  
Manufacturing Institute  
가

가 . 가 .  
가 ,  
가 . 가 .  
가 .

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가.

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**R&D**

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가

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R&D  
 ( )  
 R&D  
 R&D 가  
 가 ,  
 ,  
 가

2.

가. 가

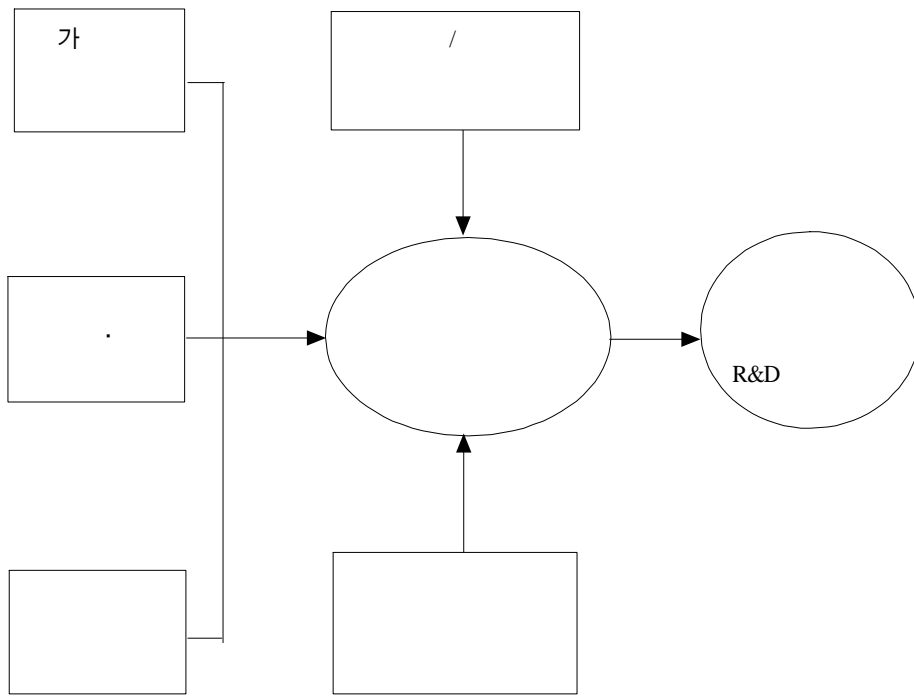
가

가 ( ,  
 ),  
 ( , , )  
 , ( ,  
 ), ( )  
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 ,  
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,  
 .  
 . /  
 , , (partnerships)  
 가 .  
 , , ,  
 . . .  
 (regional innovation system)  
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 가 .  
 가  
 , ( )  
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 , 가  
 . 가, 가  
 . , 가 , feedback 가

( , 5 10 ) •

R&D



[ -1]

3. 25)

가.

가 .

가 . . ,

가 . .

「 가 」가 , 「 가 」

가 .

1) 「 가 」 가

가 . .

가 . . , , ,

가 . .

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25)



가 26).  
 '가 ) , 「 가 」  
 ' 가 , ' 가  
 , 가  
 , 가  
 「 가 」 27)  
 「 가 」 ' (가 )  
 ' 가  
 「 가 」  
 가  
 「 가 」  
 가  
 「 가 」 ( , , '  
 ' )가

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26) 가 60  
 가 ( , ' . 2003.4.18).  
 27) 가 20  
 '(2001.12.20) ( ) ' 가 ( ' )  
 (2003) ' ( ' )

2) 「 」 .

가 . 「 」 (가 ) ,

(TIC, ), (RRC, ),

S/W 가

가 가 가

가 가 가

( , , )가

가 가 , 「 가

가 가 .



가 (가 )

(partnerships)

( 가 )

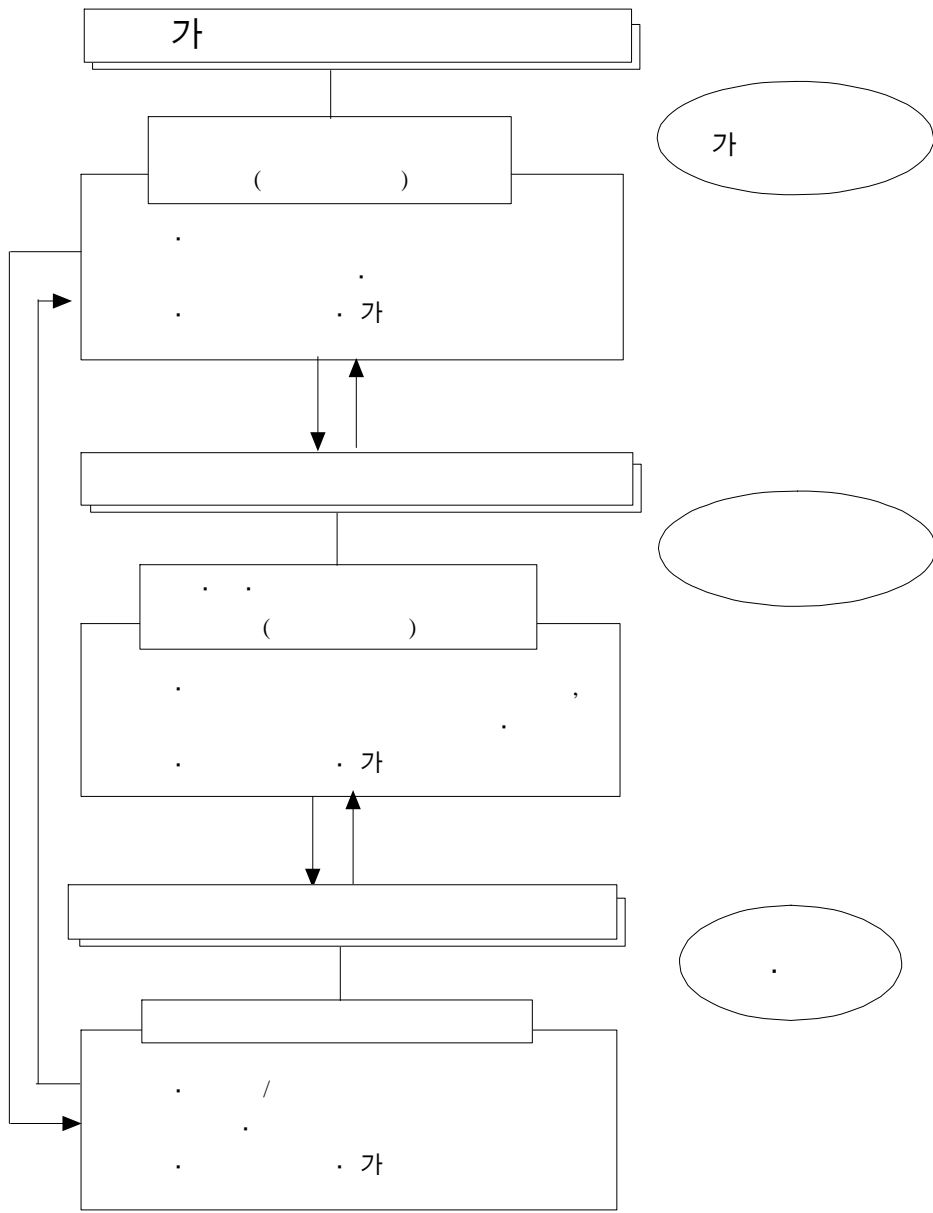
가

가

1)

( ) ( )

( ) 가



[ -2]

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 . 가  
 ,  
 가  
 (matching fund)  
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 가 , ,  
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 R&D ' ' ) ,  
 「 가 」 「 가 」  
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 . 「 가 」 가  
 30)  
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 가  
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 가  
 가

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30) ,

가  
가

2) 가  
가, 가, 가( , BK21  
가

가  
(  
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가

3)  
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1) ( , , )

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가 가

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(가 )

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)<sup>33)</sup>; )

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가

33)

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가  
(가 )  
( , , , , ) ;  
( , )  
( )

18 가

1) 가

가 가

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2004 3 1 가

가 .

가 .

가 . ,

가 : )

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2)

가 ,

가 .

가

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4

가

가

.34)

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34)

(2002). 4



R&D

R&D

R&D

가

(sector skills

council),

(sector council)

가

(national skill standards)

Voluntary

Partnership

가

36).

가

가

가 37).

가

36)

Sector Skills Councils

Sector Councils

37)

(2003).

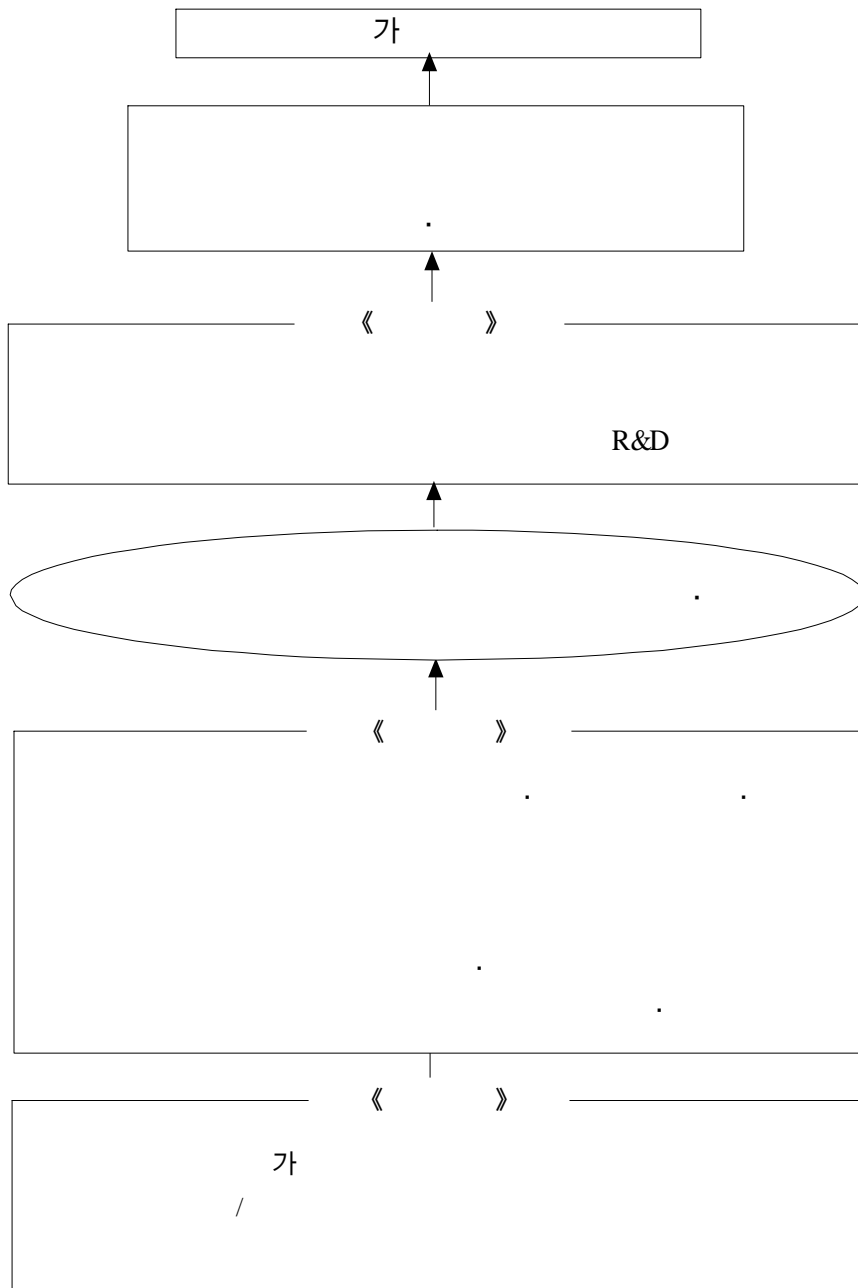
2003.4.16).

• , R&D  
R&D ,

가  
가

1)  
가  
D/ B  
(Edu-Net, HRD-Net, Work-Net, NHRD-Net, Career-Net )

2)



[ -3]



4.

가. ,

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가 .

< -1> ,

	○ 「 가 」, ' / ' /
	○ 「 」, ' . . ' /
	○ 「 」
	○ 「 」
	○ 「 」
	○ 「 . 」
	○ 「 」

•

•

1) 「 」 (가 )

「 가 ) 38).

(「 가 , 「 가 , , )  
가

10

2) 「 가  
가  
「 가 , 「 가  
」  
가

1) 「 가

39).

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38)

「 가 」 GDP 6%  
가 , ( 가  
) ( , ), 가  
( ) 「 가 」

2) 「 가 」 가  
「 가 」 「 가 」  
, ' 가 ' 가  
가 가 , 가  
가 가  
「 가 」  
」 .40)

3) ( , )  
41)

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39) 「 가 」 가  
( ) ( , ' 가 ' ,  
3% 「 가 」 가 , 2003.5.2).

40) 가 가 가 가 가

41) (가 )  
, 3 4000  
( , 2000.6.2.- <2>).



가 가  
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가, 가 「 가  
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가 가 . 가 .  
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가 가 , 가  
가 .

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(2000).

(2000.12). ' . '

(2001). ' . ' 17

2 .

(2000). ' . '

「 . 」 ( :)

, : 2000.4.26).

(2001).

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(2003). ' . '

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(2003). ' . ' 「

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2003.4.18).

(2003). ' . '

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( : . , : 2003.6.12).

(2003). ' . ' 「

「 . 」 ( :

, : 2003.4.16).

(2002).

(2003).

(2002). , 가 .

(2000). ' , 「  
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 (2000). ' .  
 「 ( :  
 , : 2000.4.26).  
 (2003). ' 「  
 」 ( :  
 , : 2003.4.16).  
 (2000). ' 「  
 」 ( : ,  
 : 2000.4.26).  
 (2001).  
 (2002). ' .  
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 (2003). ' 「 :  
 가? -  
 」  
 ( : , : 2003.5.23).  
 (2003). ' 「 ,  
 가?」 ( : , : 2003.5.2).  
 (2000).  
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 (2003). ' 「 , 가?」  
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 」 ( :  
 , : 2003.4.16).

- (2002).
- (2003). ' :  
가? -  
( : , : 2003.5.23).

OECD(1997). Regional Competitiveness and Skills.

OECD(1999). The Response of Higher Education Institutions to Regional Needs.

OECD(2001). Cities and Regions in the New Learning Economy.



## **ABSTRACT**

# **Policy Measures to Strengthen the Competitiveness of Local Junior Colleges and Universities**

Research-in-charge: Sung-Joon Paik

Research Staff: Jeong-Pyo Lee

Sang-Shin Han

Cheol Hee Kim

## **1. The background and goal of the study**

There is a growing need for a new approach to foster local junior colleges and universities (hereafter local universities). There are complex reasons behind this: the emerging importance of the regional human resources development and regional innovation systems; the steadily weakening competitiveness of local universities; central government's policies for nurturing local universities that have failed to bear their expected fruits, and the new policy for balanced national development pursued by the current government. Against this backdrop, this study seeks to lay the groundwork for mapping out new policies that will support the development of successful local universities. In detail, this study discusses and analyzes the current status and problems of local universities, and draws upon exemplary cases from within and outside the nation on the premise that the policies for nurturing local universities should be prepared within an overall policy framework for balanced national social and economic development. Based on this, the study

proposes from the perspective of the central government the goals, direction, and specific policy measures for nurturing local universities.

## **2. The current status and problems of local universities**

Among two-year colleges across the nation, non-metropolitan schools account for 67.9% and 62.7% of the number of schools and the number of students respectively (metropolitan areas, here, means Seoul, Incheon and Kyungki province). In the case of four-year universities, the corresponding figures are 59.5% and 60.7%. The numbers show that a relatively greater number of colleges and universities and students are located in non-metropolitan regions, a reflection of the population of Korea as a whole. 53.8% of people reside in non-metropolitan areas and 55.2% of total gross domestic product is generated by these regions, which also account for 55.2% of total enterprises and 51.1% of those engaging in businesses.

Currently local universities in Korea are facing a variety of problems such as the increasing number of talented students flocking to universities in the metropolitan area, the growing trend of the lack of applicants and the low employment rate and relatively low employment status of local university graduates. Specifically, the more able students are opting for universities in metropolitan areas over those in non-metropolitan areas for reasons of employment opportunities and the prestigious hierarchical system among universities in Korea. This regional migration is further aggravated by the fact that a growing number of students in local universities are transferring to metropolitan universities. In addition, local universities have witnessed a sharply increasing trend of a declining number of applicants; a trend that is likely to deepen further after 2012. It was also found that the average employment rate of graduates from

local universities and their rate of employment by the top 100 business are lower than those of graduates from metropolitan universities. Also, it took more time for local university graduates to find their first job than their metropolitan counterparts.

In light of these problems, local universities are now caught in a vicious circle of weakened competitiveness that is both the cause and result of an *academic brain drain*, which, in turn, will be a drain on the competitiveness of the regions and the nation as a whole. There are complex reasons behind the current problems facing local universities. The economic and social gap between the metropolitan areas and non-metropolitan areas has kept widening; jobs preferred by graduates from two-year and four-year colleges and universities such as those requiring expertise and skills or administrative managerial jobs are mainly located in metropolitan areas; planning and operation of policies by central government are not reflecting the reality of local conditions; partnerships among local universities, local governments and local businesses have not been strong; educational and research facilities of local universities have been poor, which has undermined their competitiveness and finally, from a national perspective, there has been an oversupply of higher education itself.

An analysis of the current status and problems of local universities has led to the following conclusions. First, it is necessary to prepare comprehensive measures that will ensure the co-operation and participation of both central and local governments in order to support local universities effectively. Second, more efforts should be made to improve the competency levels of local authorities for planning and reforming local policies. Third, measures for nurturing local universities should focus on the enhancement of local university's competitiveness. Fourth, to achieve an equilibrium in the balance of supply and demand of university education,

non-performing universities should be forced out of the education market and university integration and restructuring should be encouraged. Finally, local schools should be equipped with better employment information systems for effective career and employment guidance.

### **3. Analysis of policies for nurturing local universities**

The study analyzes existing policies carried out by central government including the Ministry of Education and Human Resources Development, the Ministry of Commerce, Industry and Energy, the Ministry of Science and Technology, and the Ministry of Information and Communication. The policies are organized into four categories according to their goals - whether the nurturing of local universities themselves is the goal or the nurturing of local universities is just a part of fulfilling other objectives - and according to type of application - whether they are school-oriented or professor-oriented.

The analysis found that the following problems exist in carrying out the aforementioned central government policies. First, it was difficult to make an accurate assessment of the results of projects arising from such policy since project goals had not been specifically described in the first place. Second, local universities do not have institutions in place capable of responding to policy projects designed to help in their improvement. As for the government's policies in general, it has been pointed out that policy projects have been carried out without the necessary coordination among the government agencies themselves. For example, projects commissioned by the Ministry of Education and Human Resources Development have been executed without proper coordination with the Ministry of Commerce, Industry and Energy. The effective execution of policy projects has also been further undermined by the failure of local

universities to make required improvements in their institutions. In conclusion, before pursuing any policy project with the goal of nurturing local universities, it is first necessary to determine whether a similar kind of policy project is underway, and, if there is, to make sure that proper coordination on both content and methodology between the existing and new project is carried out.

#### **4. Case studies of local universities for development of local human resources**

In order to discover factors for nurturing local universities and to seek ways to strengthen the competitiveness of local universities, an analysis was made of successful cases in Japan and the U.K. and of certain domestic universities, such as Handong University, Yeongsan University, Bugeong University, Hoseo University, Gyeongnam Information College and Daedeok College.

As a result, some factors were identified as being essential to the carrying out of policies for nurturing local universities. First, universities themselves should be strongly committed to the principle of ongoing development. Second, restructuring of universities should be planned and implemented in the long-term perspectives taking into account the opinion of every party of the university. Third, local universities need to strengthen practical education in response to the demands of local industry and facilitate cooperation with businesses in order to raise the employment rate of graduates and to draw more applicants. Fourth, it is necessary to pursue the development of local universities in line with the economic, social and cultural development of the region in a comprehensive and systematic way through coordination among government agencies.

Fifth, partnerships among local universities should be established in order to heighten their competitiveness and to tackle the problem of decreasing numbers of applicants. Finally, local universities need to develop and provide education and training programs for employees in local businesses.

## **5. Measures to strengthen the competitiveness of local universities**

Based on the analyses mentioned above, the study discussed and proposed the goal of nurturing local universities, and policy directions and measures for their implementation from the perspective of central government. The strengthening of the human resources development and R&D for the development of industry and science of local universities was set up as a policy goal. Policy directions are also proposed: policy implementation from the viewpoint of comprehensive and balanced national and local development, policy initiation and pursuit by local stakeholder, and performance-oriented policy implementation.

Along with the goal and directions of policies to nurture local universities, the study also proposed policy measures from the perspective of the central government. First, a system to link and coordinate policies for nurturing local universities should be put in place. In detail, the policies for local universities should be linked and coordinated with the policies for balanced development of the nation through the Council for Balanced National Development. Also, the function of the Committee on Human Resources Development should be strengthened in terms of linkage and coordination with policies for nurturing local universities. In addition, a consultative body for local development with the participation

of local entities should be formed and operated. Second, local partnerships should be set up and facilitated. As part of these efforts, central government should provide financial and administrative incentives to encourage local stakeholder to actively participate in local university development projects and to induce local universities to make closer cooperation among themselves. Third, there should be extended supports for universities making efforts to reduce enrollment quota and to redesign the department structure including the integration of departments, as well as for the specialization project to develop university's specialty. Fourth, a legal and institutional framework should be laid for the closure of non-performing schools and easier integration among schools. Fifth, administrative and financial support should be increased for enhanced cooperation with businesses and for the establishment and operation of an association composed of business representatives from industry and an academic-industry consultative body. Sixth, information infrastructure for local human resources development and a system for ensuring the stability of local employment should be established and operated.

The study also proposes policy implementation methods as follows: enactment of a Special Act for Nurturing Local Junior Colleges and Universities, incorporation of provisions for the development of local universities into the Special Act for Balanced National Development, establishment and operation of a Special Account for the Development of Local Universities, incorporation of items concerning the development of local universities into the Special Account for Balanced National Development, and establishment of a scientific and objective policy assessment system. As for the distribution of central government's budget for nurturing local universities, the study suggests two measures. First, it is necessary to set a national minimum level of educational and research standards and to distribute fairly a certain proportion of the budget to each region in order

to guarantee the minimum level and later adjust the budget distribution based on the result of policy implementation. Second, in distributing the R&D budget of each government agency, it is desirable to distribute a certain share of the budget to each region and then let the local universities compete among themselves.



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: 02- 3485- 5074, E- mail : white@krivet.re.kr

