



**COUNCIL OF
THE EUROPEAN UNION**

Brussels, 24 November 2004

**15189/04
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COVER NOTE

from: Secretary-General of the European Commission,
signed by Ms Patricia BUGNOT, Director

date of receipt: 22 November 2004

to: Mr Javier SOLANA, Secretary-General/High Representative

Subject: Commission Staff Working Document
- European Innovation Scoreboard 2004
Comparative Analysis of Innovation Performance

Delegations will find attached Commission document SEC(2004) 1475 (Annex 2) which accompanies SEC(2004) 1475.

Encl.: SEC(2004) 1475



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 19.11.2004
SEC(2004) 1475

COMMISSION STAFF WORKING DOCUMENT

**EUROPEAN INNOVATION SCOREBOARD 2004
COMPARATIVE ANALYSIS OF INNOVATION PERFORMANCE**

ANNEX 2

ANNEX 2

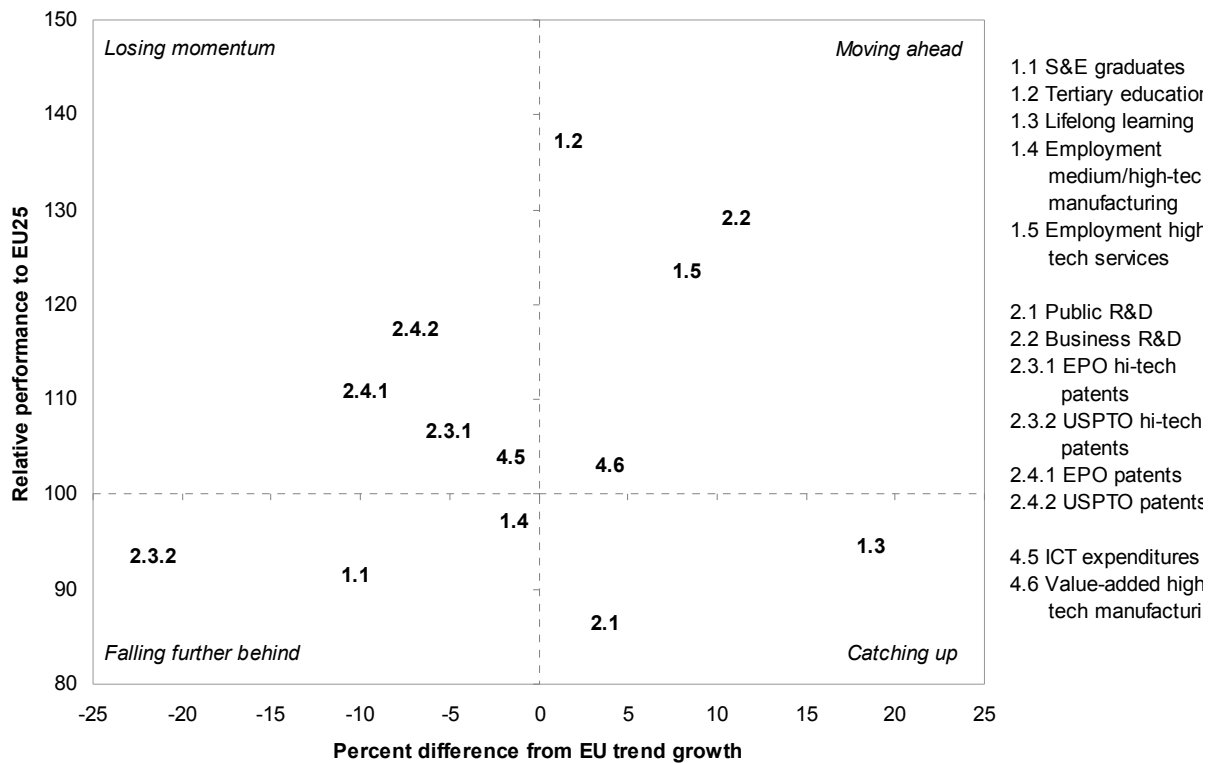
2004 European Innovation Scoreboard

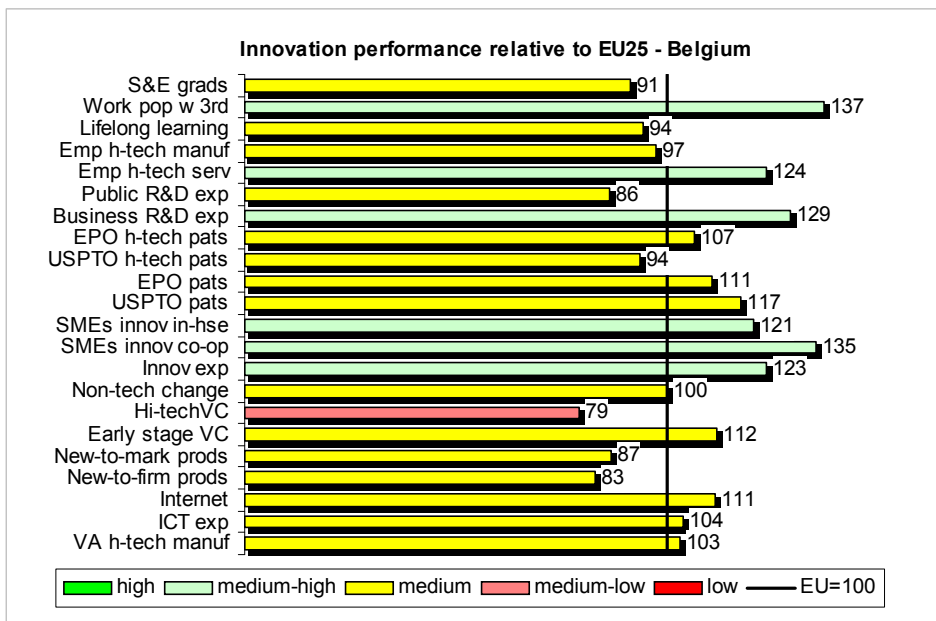
Country Pages

EU25 + Candidate countries

BELGIUM

2004 European Innovation Scoreboard - BELGIUM





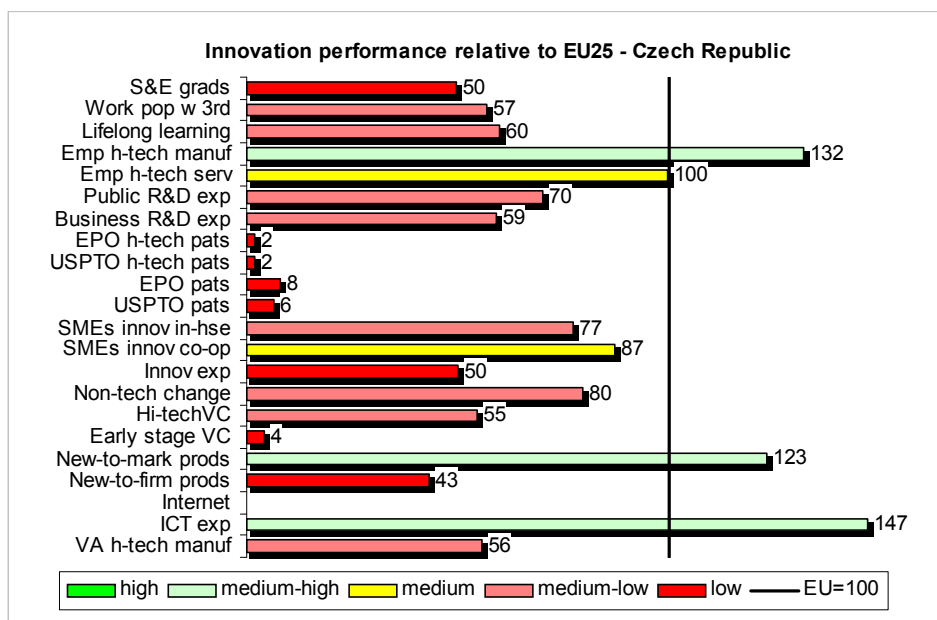
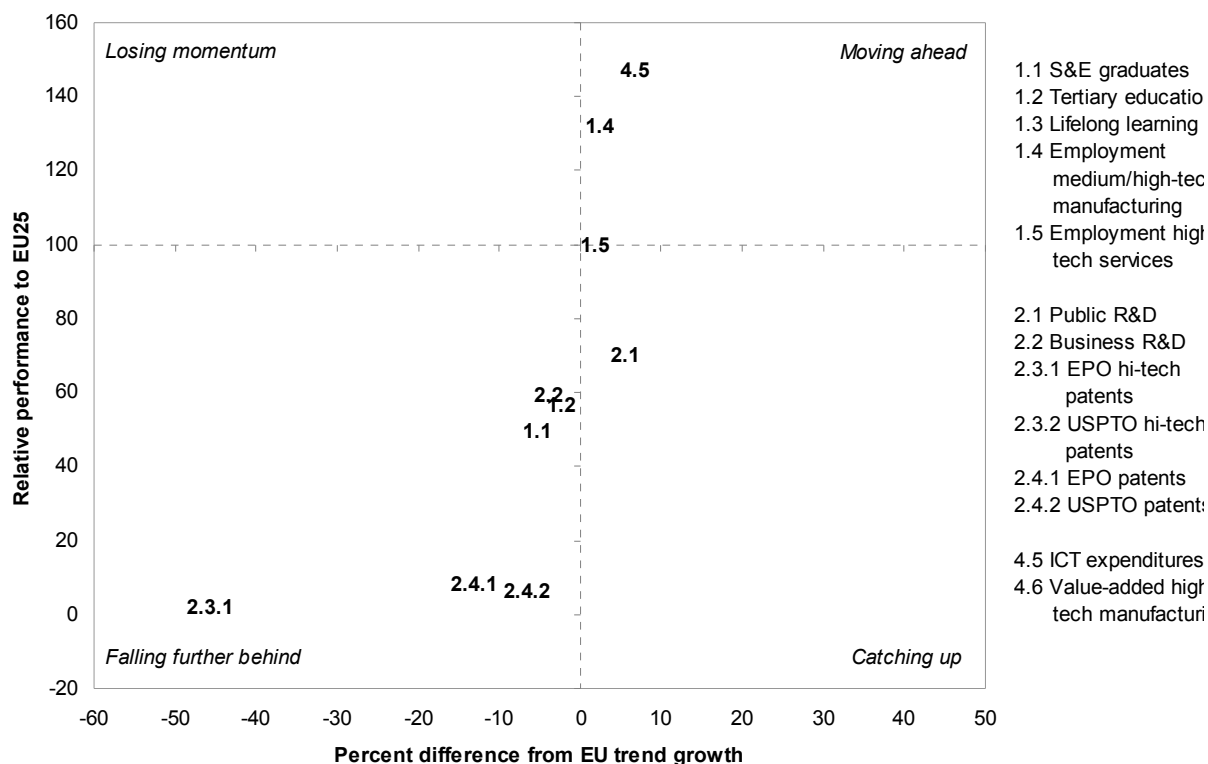
BELGIUM										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	--	--	--	9.7	10.1	10.5	--	91	9	0	-
	<i>relative to EU15</i>	--	--	--	--	85	82	84	--				
1.2	Work pop w 3rd educ	--	--	25.3	25.7	27.1	27.6	28.1	29.0	137	7	+	0
	<i>relative to EU15</i>	--	--	147	125	127	129	129	--				
1.3	Lifelong learning	2.9	3.0	4.4	6.9	6.8	7.3	6.5	8.5	94	11	0	+
	<i>relative to EU15</i>	51	52	--	84	80	87	76	88				
1.4	Employment hi-tech manuf	--	7.50	7.24	7.20	6.90	6.57	6.68	6.42	97	12	0	0
	<i>relative to EU15</i>	--	98	94	94	90	87	91	90				
1.5	Employment hi-tech serv	--	3.34	3.45	3.22	3.60	4.08	4.18	3.94	124	8	+	0
	<i>relative to EU15</i>	--	114	116	101	106	113	117	113				
Knowledge creation													
2.1	Public R&D exp	0.51	0.53	0.55	0.56	0.56	0.57	--	--	86	15	0	0
	<i>relative to EU15</i>	73	78	81	84	82	84	--	--				
2.2	Business R&D exp	1.29	1.34	1.35	1.40	1.48	1.60	1.64	--	129	7	+	+
	<i>relative to EU15</i>	109	113	113	112	117	123	126	--				
2.3.1	EPO hi-tech patents	12.3	12.1	16.9	21.2	22.5	24.9	27.7	--	107	10	0	0
	<i>relative to EU15</i>	105	79	87	91	77	74	90	--				
2.3.2	USPTO hi-tech patents	6.0	4.2	10.1	8.6	9.9	10.4	8.8	--	94	10	0	-
	<i>relative to EU15</i>	107	78	118	95	104	96	78	--				
2.4.1	EPO patents	94.2	112.5	140.0	145.1	157.7	160.9	148.1	--	111	9	0	0
	<i>relative to EU15</i>	97	98	108	103	99	96	93	--				
2.4.2	USPTO patents	48.9	50.9	68.6	64.3	69.1	71.9	70.4	--	117	8	0	0
	<i>relative to EU15</i>	108	108	112	102	104	100	99	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	38.3	--	--	--	121	5	+	
3.2	SMEs innov co-operation	--	--	--	--	9.6	--	--	--	135	10	+	
3.3	Innovation expenditures	--	--	--	--	2.65	--	--	--	123	4	+	

3.4	SMEs non-tech innov	--	--	--	--	49	--	--	--	100	9	0	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	69	62	48	40	79	11	-	(3)
	<i>relative to EU15</i>	--	--	--	--	140	123	93	79				
4.2	Early stage venture capital	0.007	0.012	0.039	0.077	0.099	0.073	0.041	0.028	112	9	0	(3)
	<i>relative to EU15</i>	118	150	257	264	174	122	109	112				
4.3.1	New-to-market products	--	--	--	--	5.1	--	--	--	87	12	0	
4.3.2	New-to-firm products	--	--	--	--	13.9	--	--	--	83	8	0	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.67		--	9		
4.5	ICT expenditures	--	--	--	--	6.7	6.9	6.6	6.5	104	14	0	0
	<i>relative to EU15</i>	--	--	--	--	103	108	108	105				
4.6	Value-added hi-tech manuf	10.0	10.7	11.5	11.7	12.4	13.1	--	--	103	11	0	0
	<i>relative to EU15</i>	86	87	92	89	91	93	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	117	116	118	118	117	117				
Productivity per hour (EU15=100)		122	120	118	122	123	122	121	122				
Employment rate		56	57	57	59	61	60	60	60	95			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

CZECH REPUBLIC

2004 European Innovation Scoreboard - CZECH REPUBLIC

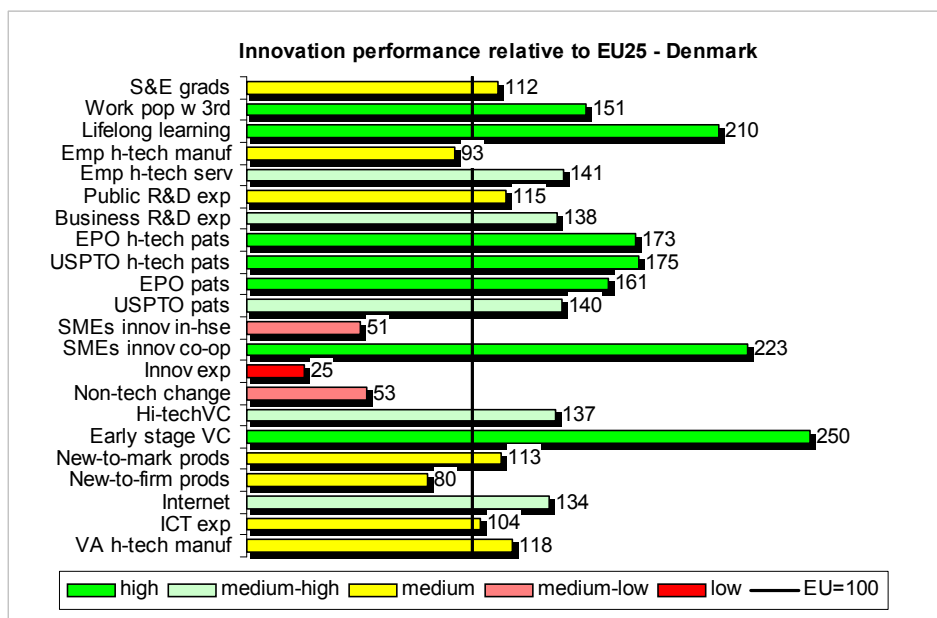
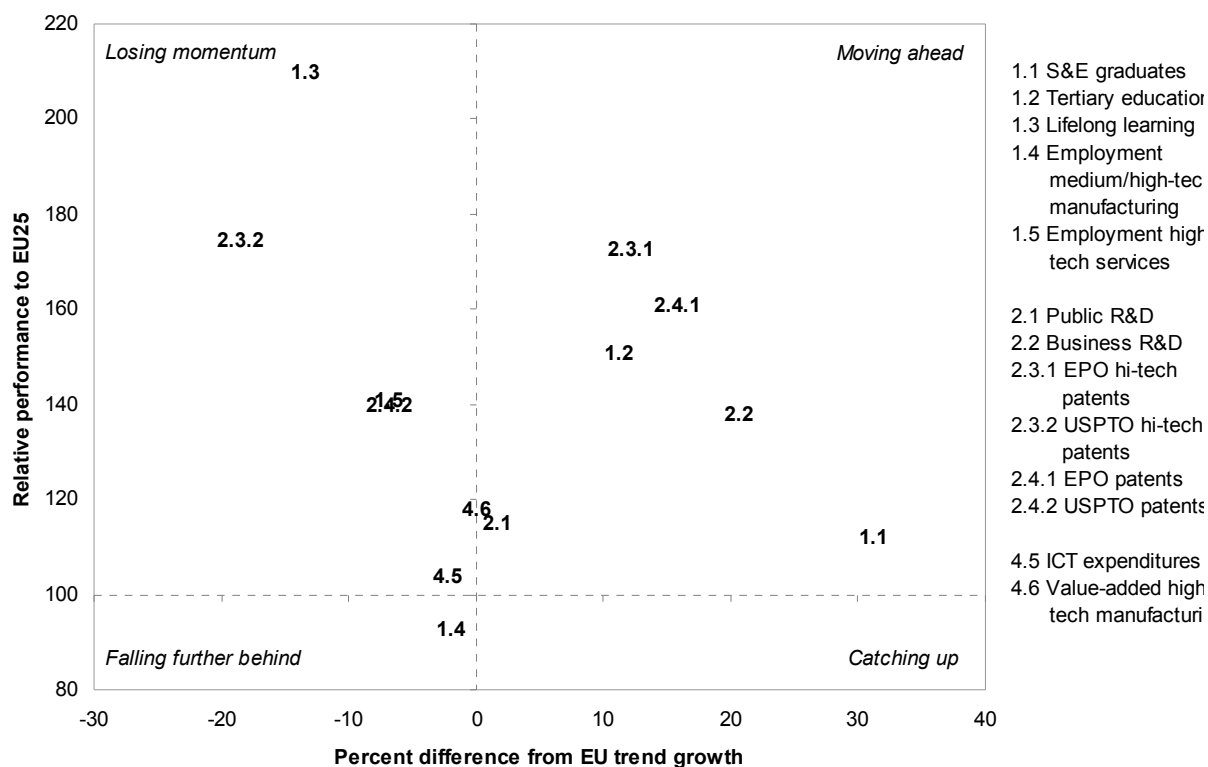


CZECH REPUBLIC										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	--	4.6	5.0	5.5	5.6	5.7	--	50	22	--	0
	<i>relative to EU15</i>	--	--	43	45	48	45	46	--				
1.2	Work pop w 3rd educ	--	--	10.8	11.3	11.5	11.7	11.9	12.0	57	24	-	0
	<i>relative to EU15</i>	--	--	63	55	54	54	54	--				
1.3	Lifelong learning	--	--	--	--	--	--	5.9	5.4	60	21	-	
	<i>relative to EU15</i>	--	--	--	--	--	--	69	56				
1.4	Employment hi-tech manuf	--	8.68	8.66	8.81	8.97	9.16	8.94	8.71	132	3	+	0
	<i>relative to EU15</i>	--	114	112	115	118	121	121	123				
1.5	Employment hi-tech serv	--	3.40	3.18	3.09	3.04	3.22	3.09	3.18	100	14	0	0
	<i>relative to EU15</i>	--	116	107	97	90	89	87	91				
Knowledge creation													
2.1	Public R&D exp	0.39	0.40	0.41	0.43	0.49	0.48	0.47	--	70	19	-	0
	<i>relative to EU15</i>	56	59	60	64	72	71	68	--				
2.2	Business R&D exp	0.59	0.69	0.75	0.73	0.74	0.74	0.75	--	59	16	-	0
	<i>relative to EU15</i>	50	58	63	58	58	57	58	--				
2.3.1	EPO hi-tech patents	0.4	0.2	0.7	0.6	0.8	0.8	0.5	--	2	26	--	--
	<i>relative to EU15</i>	4	1	4	3	3	2	2	--				
2.3.2	USPTO hi-tech patents	0.0	0.0	0.1	0.2	0.3	0.4	0.2	--	2	22	--	
	<i>relative to EU15</i>	0	0	1	2	3	3	2	--				
2.4.1	EPO patents	4.7	7.3	9.7	9.8	13.5	11.4	10.9	--	8	20	--	-
	<i>relative to EU15</i>	5	6	7	7	9	7	7	--				
2.4.2	USPTO patents	1.3	2.3	2.4	3.0	3.5	2.4	3.9	--	6	19	--	0
	<i>relative to EU15</i>	3	5	4	5	5	3	5	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	--	24.6	--	--	77	15	-	
3.2	SMEs innov co-operation	--	--	--	--	--	6.2	--	--	87	19	0	
3.3	Innovation expenditures	--	--	--	--	--	1.07	--	--	50	22	--	

3.4	SMEs non-tech innov	--	--	--	--	--	39	--	--	80	14	-	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	--	3	0	28	55	19	-	(3)
	<i>relative to EU15</i>	--	--	--	--	--	5	0	55				
4.2	Early stage venture capital	--	--	0.009	0.005	0.014	0.018	0.006	0.001	4	21	--	(3)
	<i>relative to EU15</i>	--	--	60	17	24	30	15	4				
4.3.1	New-to-market products	--	--	--	--	--	7.2	--	--	123	5	+	
4.3.2	New-to-firm products	--	--	--	--	--	7.3	--	--	43	16	--	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	--	--	--			
4.5	ICT expenditures	--	--	--	--	8.8	8.9	9.1	9.2	147	4	+	0
	<i>relative to EU15</i>	--	--	--	--	135	139	149	148				
4.6	Value-added hi-tech manuf	--	--	--	--	--	--	7.1	--	56	18	-	
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	--	--	66	67	68	69				
	Productivity per hour (EU15=100)	--	--	--	--	43	45	46	49				
	Employment rate	--	--	67	66	65	65	65	65	103			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - DENMARK



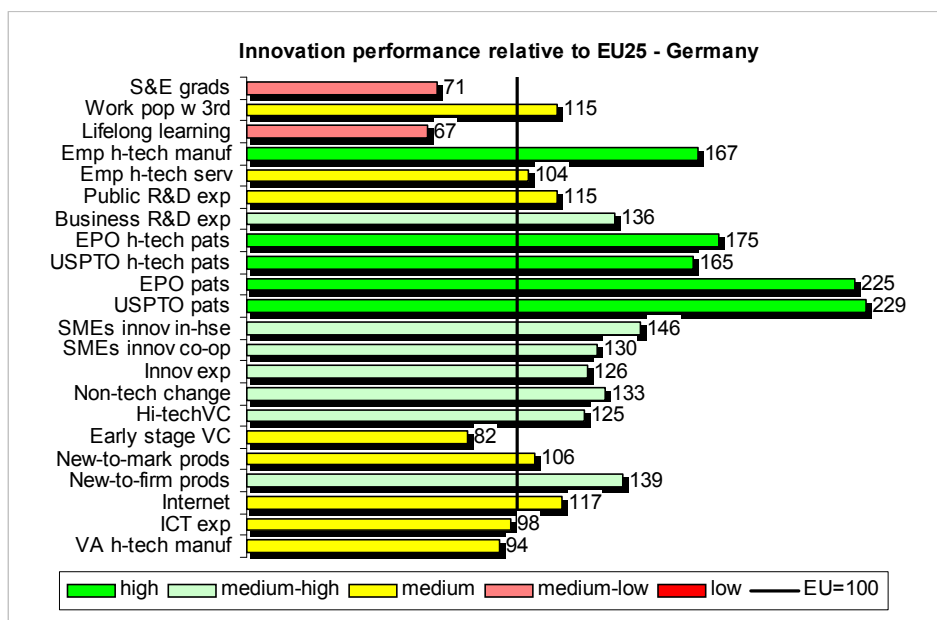
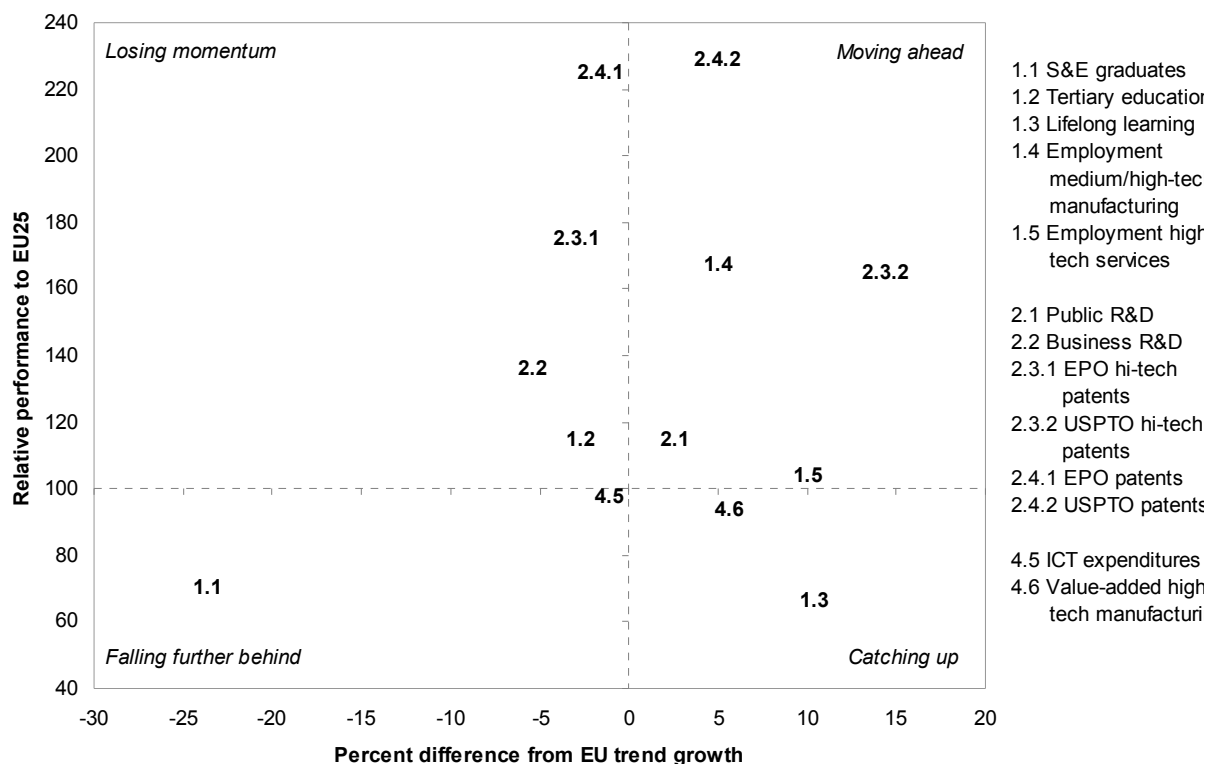
DENMARK										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	9.4	--	8.1	8.2	11.7	12.2	--	--	112	7	0	++
	<i>relative to EU15</i>	--	--	76	74	102	99	--	--				
1.2	Work pop w 3rd educ	--	--	25.4	26.6	26.2	28.4	29.6	31.9	151	2	++	+
	<i>relative to EU15</i>	--	--	148	130	123	132	136	--				
1.3	Lifelong learning	18.0	18.9	19.8	19.8	20.8	17.8	18.4	18.9	210	6	++	-
	<i>relative to EU15</i>	316	326	--	241	245	212	216	195				
1.4	Employment hi-tech manuf	--	6.31	6.83	6.39	6.44	6.99	6.31	6.12	93	16	0	0
	<i>relative to EU15</i>	--	83	88	84	84	93	86	86				
1.5	Employment hi-tech serv	--	3.90	4.15	4.51	5.04	4.93	4.73	4.50	141	4	+	0
	<i>relative to EU15</i>	--	133	139	141	149	137	133	129				
Knowledge creation													
2.1	Public R&D exp	0.72	0.75	0.73	0.77	0.76	0.75	0.77	--	115	6	0	0
	<i>relative to EU15</i>	103	110	107	115	112	110	112	--				
2.2	Business R&D exp	1.13	1.19	1.33	1.33	1.51	1.65	1.75	--	138	5	+	+
	<i>relative to EU15</i>	96	100	111	106	119	127	135	--				
2.3.1	EPO hi-tech patents	12.9	21.1	24.8	29.0	38.4	45.6	44.9	--	173	6	++	+
	<i>relative to EU15</i>	110	139	127	125	131	135	145	--				
2.3.2	USPTO hi-tech patents	5.3	9.2	14.5	17.9	17.5	18.1	16.4	--	175	5	++	-
	<i>relative to EU15</i>	94	172	170	198	184	167	146	--				
2.4.1	EPO patents	130.1	144.2	139.7	168.5	199.3	225.7	214.8	--	161	6	++	+
	<i>relative to EU15</i>	134	126	107	120	126	134	136	--				
2.4.2	USPTO patents	47.6	63.8	75.0	91.7	81.7	91.3	83.8	--	140	7	+	0
	<i>relative to EU15</i>	105	135	123	146	123	127	117	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	16.1	--	--	--	51	21	-	
3.2	SMEs innov co-operation	--	--	--	--	15.8	--	--	--	223	2	++	
3.3	Innovation expenditures	--	--	--	--	0.54	--	--	--	25	23	--	

3.4	SMEs non-tech innov	--	--	--	--	26	--	--	--	53	20	-	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	30	32	63	70	137	1	+	(3)
	<i>relative to EU15</i>	--	--	--	--	62	64	122	137				
4.2	Early stage venture capital	0.002	0.002	0.005	0.014	0.020	0.053	0.080	0.063	250	3	++	(3)
	<i>relative to EU15</i>	36	25	33	47	35	88	216	250				
4.3.1	New-to-market products	--	--	--	--	6.6	--	--	--	113	6	0	
4.3.2	New-to-firm products	--	--	--	--	13.5	--	--	--	80	9	0	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.89		--	3		
4.5	ICT expenditures	--	--	--	--	7.0	6.7	6.5	6.5	104	14	0	0
	<i>relative to EU15</i>	--	--	--	--	108	105	107	105				
4.6	Value-added hi-tech manuf	11.8	12.5	13.2	14.4	14.3	15.0	--	--	118	9	0	0
	<i>relative to EU15</i>	101	103	105	110	104	106	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	126	128	128	127	124	124				
	Productivity per hour (EU15=100)	103	103	102	101	104	104	102	104				
	Employment rate	74	75	75	76	76	76	76	75	119			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

GERMANY

2004 European Innovation Scoreboard - GERMANY

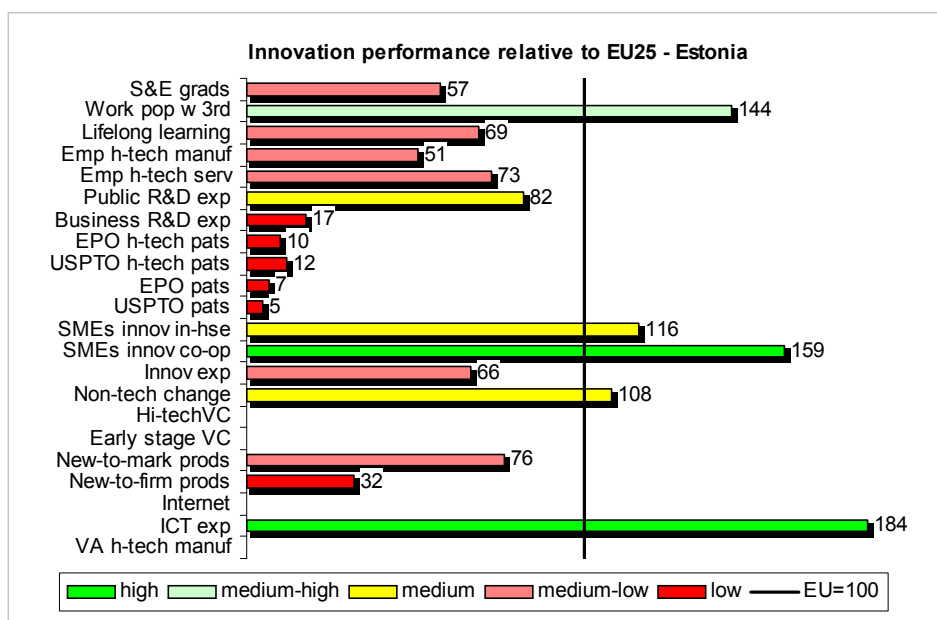
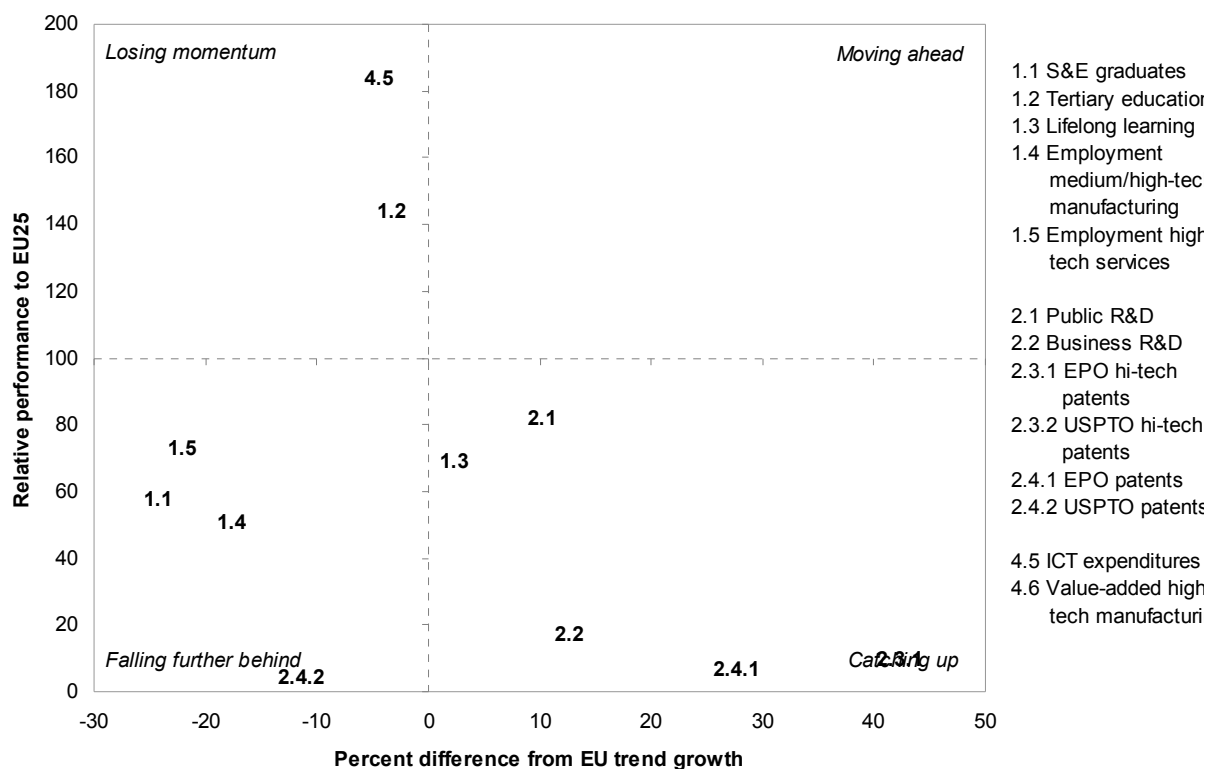


GERMANY										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	9.3	9.1	8.8	8.6	8.2	8.0	8.1	--	71	12	-	-
	<i>relative to EU15</i>	--	88	82	77	72	65	65	--				
1.2	Work pop w 3rd educ	--	--	--	23.0	23.8	23.5	22.3	24.3	115	14	0	0
	<i>relative to EU15</i>	--	--	--	112	112	109	102	--				
1.3	Lifelong learning	5.7	5.4	5.3	5.5	5.2	5.2	5.8	6.0	67	18	-	+
	<i>relative to EU15</i>	100	93	--	67	61	62	68	62				
1.4	Employment hi-tech manuf	--	10.83	11.04	10.87	11.18	11.21	11.36	11.04	167	1	++	0
	<i>relative to EU15</i>	--	142	143	142	147	148	154	155				
1.5	Employment hi-tech serv	--	2.83	2.61	2.81	3.03	3.20	3.33	3.32	104	12	0	+
	<i>relative to EU15</i>	--	96	88	88	89	89	94	95				
Knowledge creation													
2.1	Public R&D exp	0.77	0.75	0.74	0.74	0.74	0.76	0.78	0.77	115	6	0	0
	<i>relative to EU15</i>	110	110	109	110	109	112	113	--				
2.2	Business R&D exp	1.48	1.54	1.57	1.70	1.75	1.75	1.75	1.73	136	6	+	0
	<i>relative to EU15</i>	125	129	131	136	138	135	135	--				
2.3.1	EPO hi-tech patents	16.4	23.4	29.6	35.3	45.2	51.6	45.5	--	175	5	++	0
	<i>relative to EU15</i>	140	154	152	152	154	153	147	--				
2.3.2	USPTO hi-tech patents	6.6	6.2	10.1	10.5	11.9	14.2	15.6	--	165	6	++	+
	<i>relative to EU15</i>	118	115	119	117	125	130	138	--				
2.4.1	EPO patents	177.9	221.0	247.6	273.5	305.1	320.4	301.0	--	225	4	++	0
	<i>relative to EU15</i>	183	192	190	194	192	190	190	--				
2.4.2	USPTO patents	83.7	85.6	111.0	114.2	124.9	137.0	137.2	--	229	4	++	0
	<i>relative to EU15</i>	186	181	182	181	187	191	192	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	46.2	--	--	--	146	3	+	
3.2	SMEs innov co-operation	--	--	--	--	9.2	--	--	--	130	13	+	
3.3	Innovation expenditures	--	--	--	--	2.72	--	--	--	126	3	+	

3.4	SMEs non-tech innov	--	--	--	--	65	--	--	--	133	2	+	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	46	43	61	63	125	2	+	(3)
	<i>relative to EU15</i>	--	--	--	--	93	85	117	125				
4.2	Early stage venture capital	0.005	0.008	0.018	0.038	0.066	0.069	0.042	0.021	82	13	0	(3)
	<i>relative to EU15</i>	91	100	117	129	117	114	112	82				
4.3.1	New-to-market products	--	--	--	--	6.2	--	--	--	106	8	0	
4.3.2	New-to-firm products	--	--	--	--	23.4	--	--	--	139	1	+	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.72		--	6		
4.5	ICT expenditures	--	--	--	--	6.4	6.3	6.1	6.1	98	17	0	0
	<i>relative to EU15</i>	--	--	--	--	98	98	100	98				
4.6	Value-added hi-tech manuf	9.5	9.8	9.8	10.7	11.4	11.9	--	--	94	13	0	0
	<i>relative to EU15</i>	81	81	78	81	83	84	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	115	114	113	111	110	109				
	Productivity per hour (EU15=100)	107	107	106	106	105	104	104	105				
	Employment rate	64	64	64	65	66	66	65	65	103			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - ESTONIA



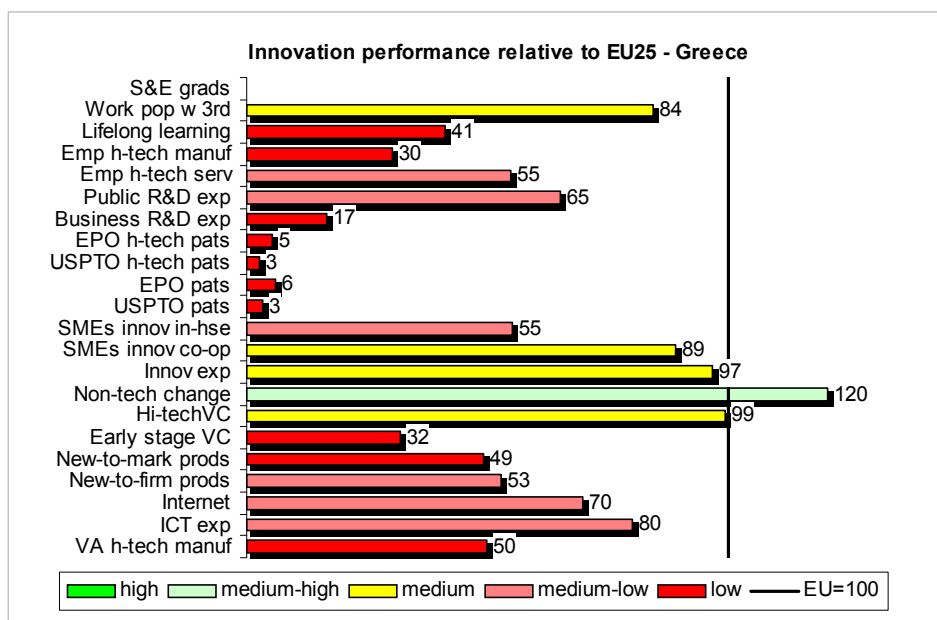
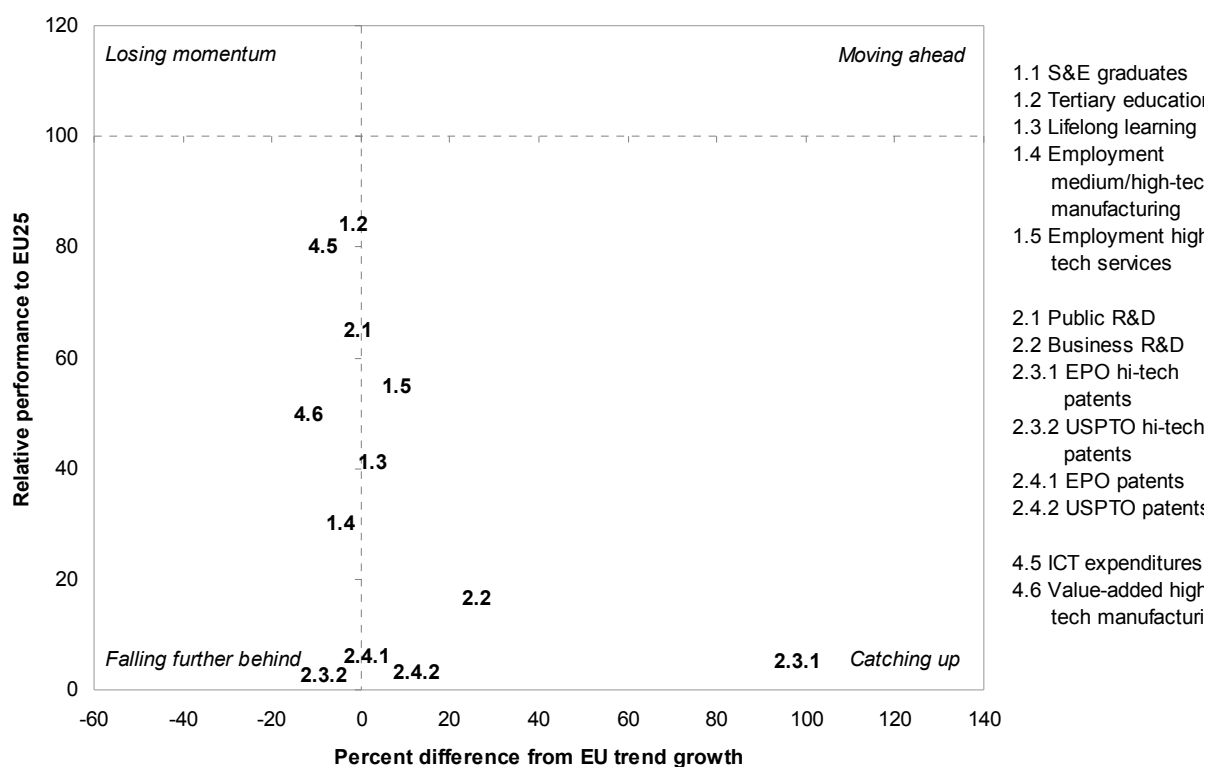
ESTONIA										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	4.2	--	--	7.0	7.3	6.6	--	57	19	-	-
	<i>relative to EU15</i>	--	41	--	--	61	59	53	--				
1.2	Work pop w 3rd educ	--	--	30.2	29.6	28.9	29.8	29.7	30.4	144	5	+	0
	<i>relative to EU15</i>	--	--	175	144	136	139	136	--				
1.3	Lifelong learning	--	4.3	6.3	6.5	6.0	5.2	5.2	6.2	69	17	-	0
	<i>relative to EU15</i>	--	74	--	79	71	62	61	64				
1.4	Employment hi-tech manuf	--	4.60	3.61	3.94	4.25	4.88	3.41	3.35	51	20	-	-
	<i>relative to EU15</i>	--	60	47	52	56	65	46	47				
1.5	Employment hi-tech serv	--	2.77	2.90	2.63	2.87	3.42	2.87	2.32	73	22	-	-
	<i>relative to EU15</i>	--	94	97	82	85	95	81	66				
Knowledge creation													
2.1	Public R&D exp	--	--	0.47	0.53	0.48	0.48	0.52	0.55	82	17	0	+
	<i>relative to EU15</i>	--	--	69	79	71	71	75	--				
2.2	Business R&D exp	--	--	0.11	0.17	0.14	0.25	0.23	0.22	17	22	--	+
	<i>relative to EU15</i>	--	--	9	14	11	19	18	--				
2.3.1	EPO hi-tech patents	0.4	0.2	0.3	1.5	2.4	2.4	2.6	--	10	19	--	++
	<i>relative to EU15</i>	3	2	1	6	8	7	8	--				
2.3.2	USPTO hi-tech patents	0.0	--	--	0.0	0.2	0.0	1.1	--	12	17	--	
	<i>relative to EU15</i>	0	--	--	0	3	0	10	--				
2.4.1	EPO patents	4.2	6.4	5.0	5.8	11.7	12.4	8.9	--	7	22	--	++
	<i>relative to EU15</i>	4	6	4	4	7	7	6	--				
2.4.2	USPTO patents	0.7	--	--	0.7	3.0	1.1	2.7	--	5	20	--	-
	<i>relative to EU15</i>	2	--	--	1	5	2	4	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	36.9	--	--	--	116	7	0	
3.2	SMEs innov co-operation	--	--	--	--	11.3	--	--	--	159	7	++	
3.3	Innovation expenditures	--	--	--	--	1.43	--	--	--	66	16	-	

3.4	SMEs non-tech innov	--	--	--	--	53	--	--	--	108	6	0	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	--	--	--	--				(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
4.2	Early stage venture capital	--	--	--	--	--	--	--	--				(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
4.3.1	New-to-market products	--	--	--	--	4.5	--	--	--	76	14	-	
4.3.2	New-to-firm products	--	--	--	--	5.4	--	--	--	32	19	--	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	--	--	--			
4.5	ICT expenditures	--	--	--	--	13.1	11.7	11.6	11.5	184	1	++	0
	<i>relative to EU15</i>	--	--	--	--	202	183	190	185				
4.6	Value-added hi-tech manuf	--	--	--	--	--	--	--	--				
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	42	42	44	45	48	49				
	Productivity per hour (EU15=100)	--	--	--	--	34	35	36	--				
	Employment rate	--	--	65	62	60	61	62	63	100			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

GREECE

2004 European Innovation Scoreboard - GREECE

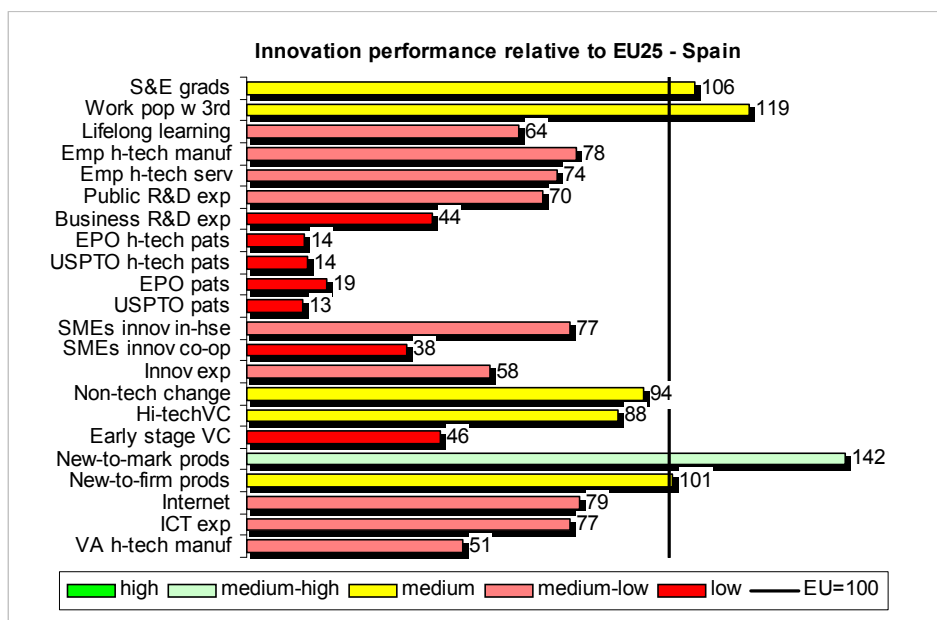
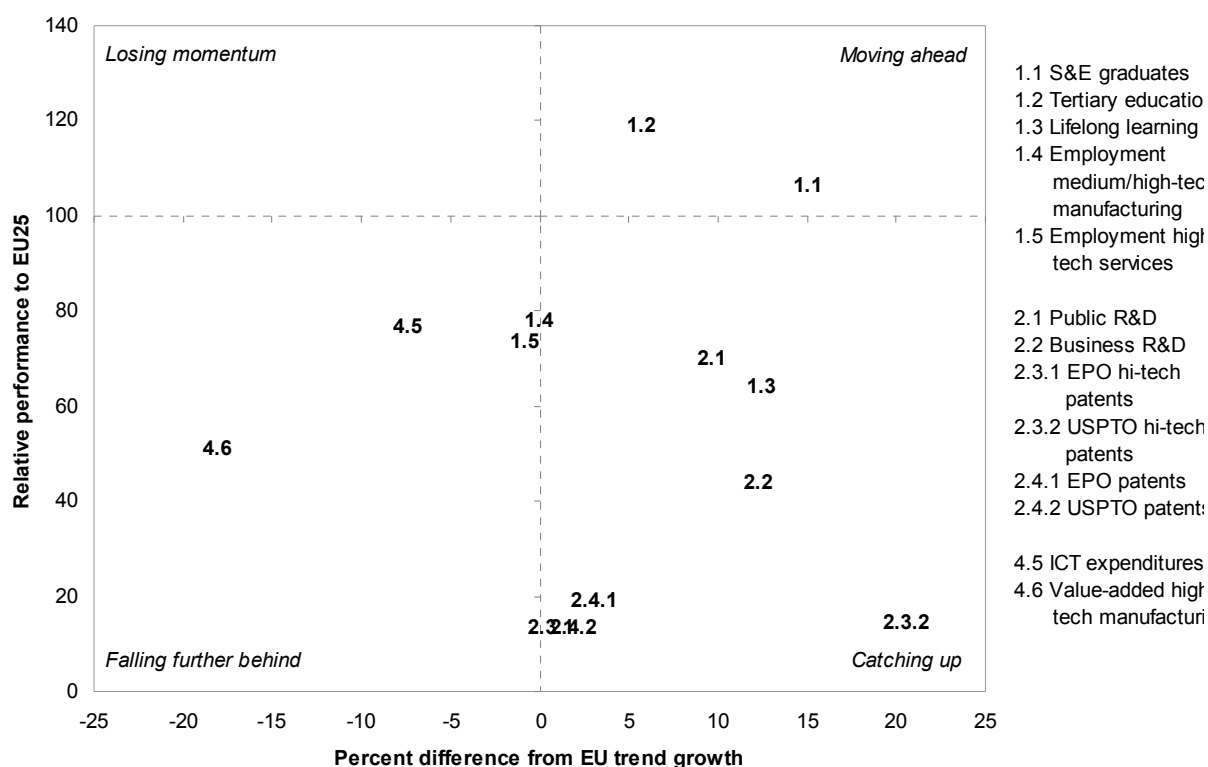


GREECE										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	--	--	--	--	--	--	--				
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
1.2	Work pop w 3rd educ	--	--	16.8	16.7	17.0	17.2	17.6	17.8	84	18	0	0
	<i>relative to EU15</i>	--	--	97	82	80	80	81	--				
1.3	Lifelong learning	0.9	0.9	1.0	1.2	1.1	1.4	1.2	3.7	41	27	--	0
	<i>relative to EU15</i>	16	16	--	15	13	17	14	38				
1.4	Employment hi-tech manuf	--	2.20	2.41	2.21	2.22	2.22	2.20	1.99	30	23	--	0
	<i>relative to EU15</i>	--	29	31	29	29	29	30	28				
1.5	Employment hi-tech serv	--	1.43	1.49	1.53	1.62	1.70	1.76	1.75	55	25	-	0
	<i>relative to EU15</i>	--	49	50	48	48	47	49	50				
Knowledge creation													
2.1	Public R&D exp	--	0.38	--	0.48	--	0.43	--	--	65	22	-	0
	<i>relative to EU15</i>	--	56	--	72	--	63	--	--				
2.2	Business R&D exp	0.12	0.13	--	0.19	--	0.21	--	--	17	23	--	++
	<i>relative to EU15</i>	10	11	--	15	--	16	--	--				
2.3.1	EPO hi-tech patents	0.3	0.4	0.6	0.9	0.8	2.1	1.4	--	5	20	--	++
	<i>relative to EU15</i>	2	3	3	4	3	6	4	--				
2.3.2	USPTO hi-tech patents	0.5	0.1	0.3	0.2	0.3	0.4	0.2	--	3	21	--	0
	<i>relative to EU15</i>	9	2	4	2	3	3	2	--				
2.4.1	EPO patents	4.6	5.3	7.1	8.1	6.1	8.3	8.1	--	6	23	--	0
	<i>relative to EU15</i>	5	5	5	6	4	5	5	--				
2.4.2	USPTO patents	1.6	1.3	1.6	2.0	1.7	2.5	1.9	--	3	23	--	+
	<i>relative to EU15</i>	4	3	3	3	3	3	3	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	17.5	--	--	--	55	20	-	
3.2	SMEs innov co-operation	--	--	--	--	6.3	--	--	--	89	18	0	
3.3	Innovation expenditures	--	--	--	--	2.08	--	--	--	97	9	0	

3.4	SMEs non-tech innov	--	--	--	--	59	--	--	--	120	3	+	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	1	50	52	--	99	5	0	(3)
	<i>relative to EU15</i>	--	--	--	--	2	99	99	--				
4.2	Early stage venture capital	0.005	0.006	0.005	0.011	0.012	0.016	0.017	0.008	32	16	--	(3)
	<i>relative to EU15</i>	91	69	30	36	21	26	45	32				
4.3.1	New-to-market products	--	--	--	--	2.9	--	--	--	49	16	--	
4.3.2	New-to-firm products	--	--	--	--	8.9	--	--	--	53	14	-	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.28		--	18		
4.5	ICT expenditures	--	--	--	--	5.7	5.6	5.2	5.0	80	21	-	0
	<i>relative to EU15</i>	--	--	--	--	88	88	85	81				
4.6	Value-added hi-tech manuf	5.9	6.2	6.5	6.2	6.2	6.3	--	--	50	21	--	-
	<i>relative to EU15</i>	50	51	52	47	45	45	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	72	72	73	74	78	80				
	Productivity per hour (EU15=100)	66	70	66	66	68	69	73	74				
	Employment rate	55	55	56	55	56	55	57	58	92			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - SPAIN

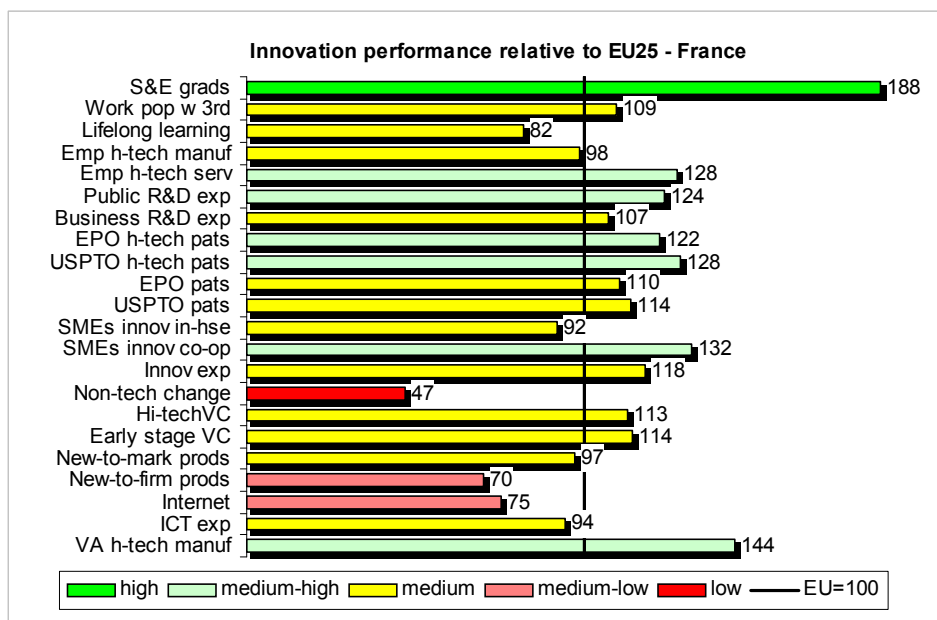
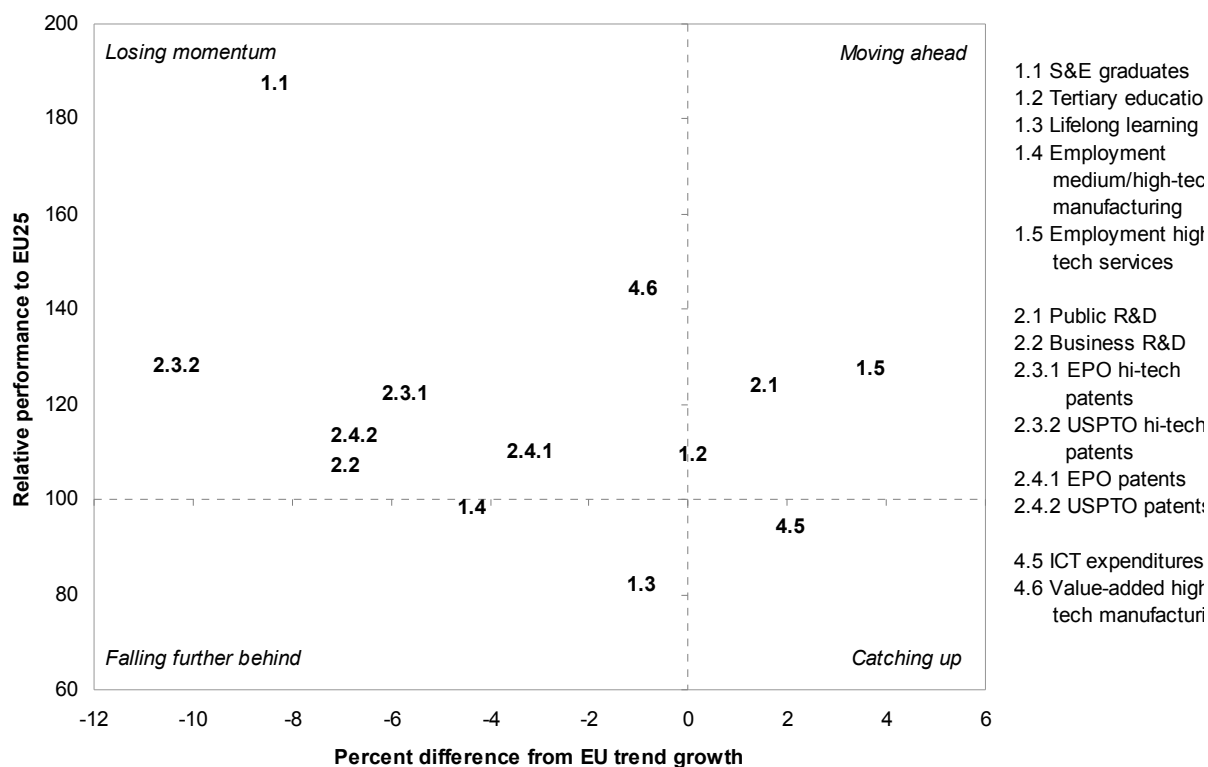


SPAIN										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	6.6	7.6	8.0	9.5	9.9	11.3	12.2	--	106	8	0	+
	<i>relative to EU15</i>	--	74	75	85	87	91	98	--				
1.2	Work pop w 3rd educ	--	--	20.1	21.1	22.6	23.6	24.4	25.2	119	13	0	0
	<i>relative to EU15</i>	--	--	117	103	106	110	112	--				
1.3	Lifelong learning	4.4	4.5	4.3	5.1	5.1	4.9	5.0	5.8	64	20	-	+
	<i>relative to EU15</i>	77	78	--	62	60	58	59	60				
1.4	Employment hi-tech manuf	--	5.43	5.54	5.46	5.39	5.50	5.35	5.15	78	17	-	0
	<i>relative to EU15</i>	--	71	72	71	71	73	73	73				
1.5	Employment hi-tech serv	--	1.72	1.92	2.14	2.29	2.67	2.50	2.35	74	21	-	0
	<i>relative to EU15</i>	--	59	64	67	68	74	70	67				
Knowledge creation													
2.1	Public R&D exp	0.43	0.42	0.42	0.42	0.44	0.45	0.47	--	70	19	-	0
	<i>relative to EU15</i>	61	62	62	63	65	66	68	--				
2.2	Business R&D exp	0.40	0.40	0.47	0.46	0.50	0.50	0.56	--	44	17	--	+
	<i>relative to EU15</i>	34	34	39	37	39	38	43	--				
2.3.1	EPO hi-tech patents	0.9	1.4	2.0	3.1	3.3	4.1	3.5	--	14	17	--	0
	<i>relative to EU15</i>	8	9	10	13	11	12	11	--				
2.3.2	USPTO hi-tech patents	0.3	0.4	0.7	0.8	1.3	1.3	1.4	--	14	16	--	+
	<i>relative to EU15</i>	6	7	8	9	14	12	12	--				
2.4.1	EPO patents	13.0	16.7	21.0	23.3	24.9	28.8	25.5	--	19	17	--	0
	<i>relative to EU15</i>	13	15	16	17	16	17	16	--				
2.4.2	USPTO patents	4.1	4.7	6.5	6.0	6.9	6.9	8.0	--	13	17	--	0
	<i>relative to EU15</i>	9	10	11	10	10	10	11	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	24.3	--	--	--	77	16	-	
3.2	SMEs innov co-operation	--	--	--	--	2.7	--	--	--	38	24	--	
3.3	Innovation expenditures	--	--	--	--	1.24	--	--	--	58	20	-	

3.4	SMEs non-tech innov	--	--	--	--	46	--	--	--	94	12	0	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	45	24	24	45	88	10	0	(3)
	<i>relative to EU15</i>	--	--	--	--	91	48	47	88				
4.2	Early stage venture capital	0.003	0.003	0.007	0.013	0.025	0.025	0.016	0.012	46	15	--	(3)
	<i>relative to EU15</i>	55	38	43	43	43	42	43	46				
4.3.1	New-to-market products	--	--	--	--	8.3	--	--	--	142	4	+	
4.3.2	New-to-firm products	--	--	--	--	17.0	--	--	--	101	4	0	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.37		--	16		
4.5	ICT expenditures	--	--	--	--	5.5	5.2	4.9	4.8	77	23	-	0
	<i>relative to EU15</i>	--	--	--	--	85	81	80	77				
4.6	Value-added hi-tech manuf	7.7	7.2	6.8	6.8	6.6	6.5	--	--	51	19	-	-
	<i>relative to EU15</i>	66	59	54	51	48	46	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	90	92	92	93	95	96				
Productivity per hour (EU15=100)		86	84	83	84	83	82	84	84				
Employment rate		48	49	51	54	56	58	58	60	95			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - FRANCE



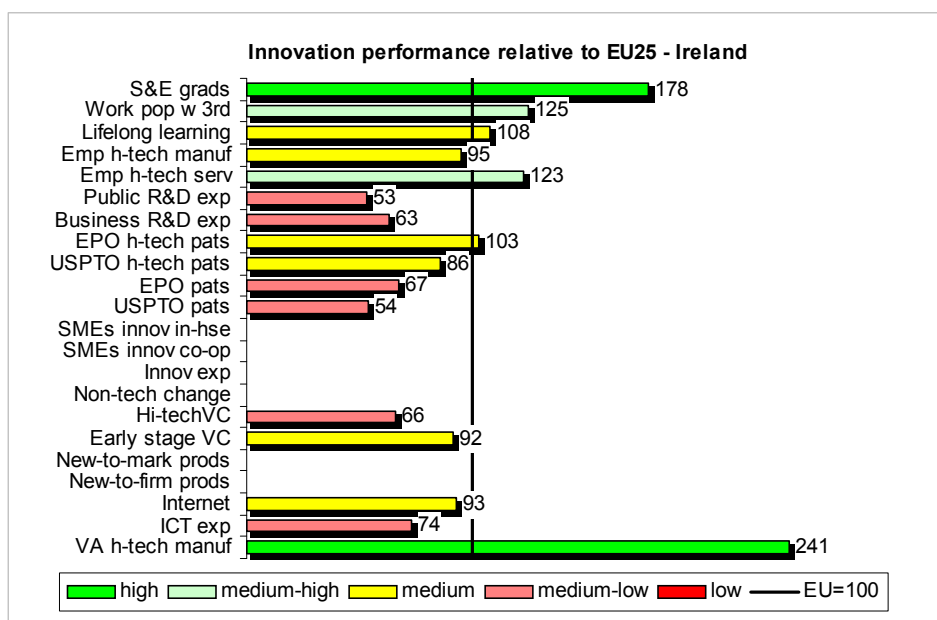
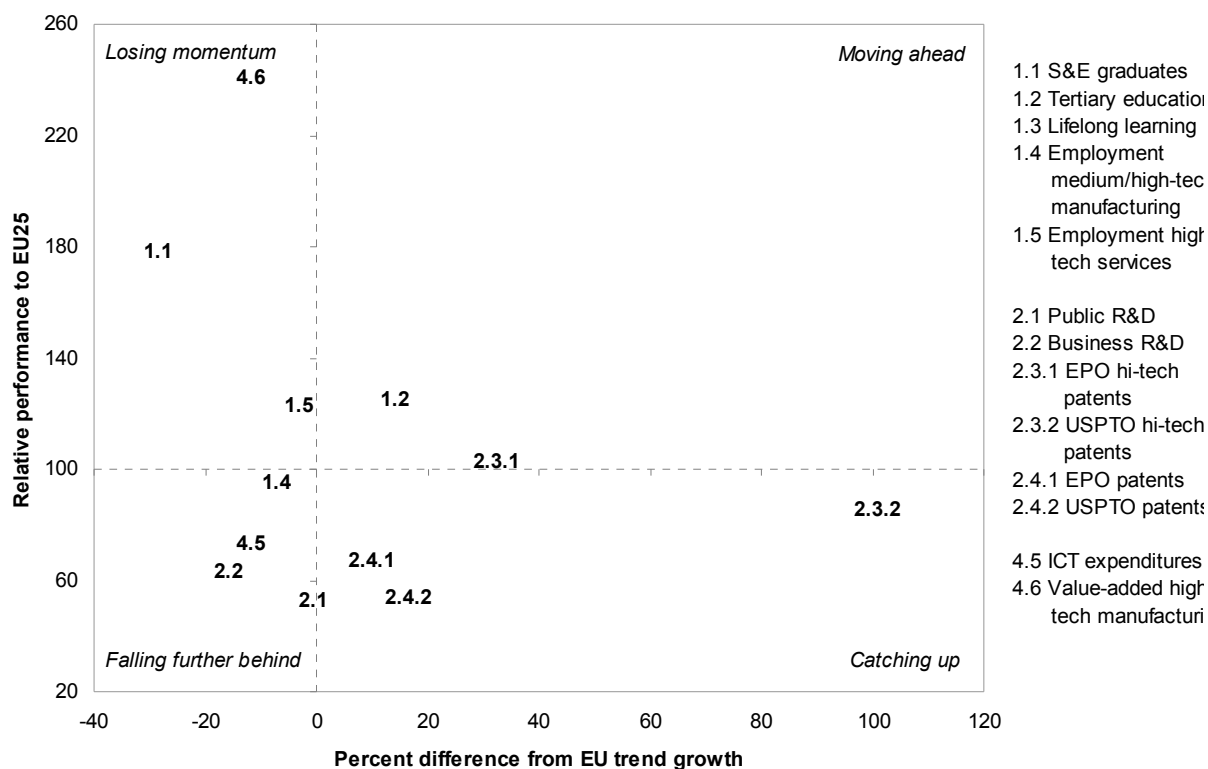
FRANCE										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	17.5	18.5	19.0	19.6	20.2	--	--	188	1	++	0
	<i>relative to EU15</i>	--	170	173	171	172	163	--	--				
1.2	Work pop w 3rd educ	--	--	20.1	20.9	21.6	22.6	23.5	23.1	109	16	0	0
	<i>relative to EU15</i>	--	--	117	102	102	105	108	--				
1.3	Lifelong learning	2.7	2.9	2.7	2.6	2.8	2.7	2.7	7.4	82	15	0	0
	<i>relative to EU15</i>	47	50	--	32	33	32	32	76				
1.4	Employment hi-tech manuf	--	7.10	6.97	7.23	7.23	7.16	6.82	6.50	98	11	0	0
	<i>relative to EU15</i>	--	93	90	95	95	95	93	92				
1.5	Employment hi-tech serv	--	3.57	3.58	3.83	3.86	4.07	4.06	4.07	128	6	+	0
	<i>relative to EU15</i>	--	121	120	120	114	113	114	117				
Knowledge creation													
2.1	Public R&D exp	0.89	0.83	0.82	0.80	0.82	0.82	0.83	0.83	124	4	+	0
	<i>relative to EU15</i>	127	122	121	119	121	121	120	--				
2.2	Business R&D exp	1.41	1.39	1.35	1.38	1.36	1.41	1.43	1.36	107	9	0	0
	<i>relative to EU15</i>	119	117	113	110	107	108	110	--				
2.3.1	EPO hi-tech patents	12.4	15.4	20.2	24.6	29.0	31.8	31.8	--	122	9	+	0
	<i>relative to EU15</i>	105	101	104	106	99	94	103	--				
2.3.2	USPTO hi-tech patents	8.1	7.3	10.5	10.9	10.7	11.9	12.1	--	128	9	+	-
	<i>relative to EU15</i>	145	136	123	120	112	109	107	--				
2.4.1	EPO patents	99.6	110.4	125.7	131.0	144.4	150.2	147.2	--	110	10	0	0
	<i>relative to EU15</i>	103	96	97	93	91	89	93	--				
2.4.2	USPTO patents	48.3	51.1	63.3	65.4	65.4	68.9	68.1	--	114	9	0	0
	<i>relative to EU15</i>	107	108	104	104	98	96	95	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	29.2	--	--	--	92	13	0	
3.2	SMEs innov co-operation	--	--	--	--	9.3	--	--	--	132	12	+	
3.3	Innovation expenditures	--	--	--	--	2.53	--	--	--	118	7	0	

3.4	SMEs non-tech innov	--	--	--	--	23	--	--	--	47	21	--	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	52	52	60	57	113	3	0	(3)
	<i>relative to EU15</i>	--	--	--	--	106	104	116	113				
4.2	Early stage venture capital	0.005	0.008	0.014	0.029	0.060	0.060	0.035	0.029	114	8	0	(3)
	<i>relative to EU15</i>	91	94	90	100	105	99	95	114				
4.3.1	New-to-market products	--	--	--	--	5.7	--	--	--	97	9	0	
4.3.2	New-to-firm products	--	--	--	--	11.7	--	--	--	70	12	-	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.34		--	17		
4.5	ICT expenditures	--	--	--	--	5.9	6.0	5.8	5.9	94	19	0	0
	<i>relative to EU15</i>	--	--	--	--	91	94	95	95				
4.6	Value-added hi-tech manuf	15.5	16.4	16.4	16.7	17.8	18.3	--	--	144	6	+	0
	<i>relative to EU15</i>	133	134	131	127	130	130	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	115	115	115	116	116	114				
Productivity per hour (EU15=100)		116	118	119	118	120	122	122	124				
Employment rate		60	60	60	61	62	63	63	63	100			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

IRELAND

2004 European Innovation Scoreboard - IRELAND

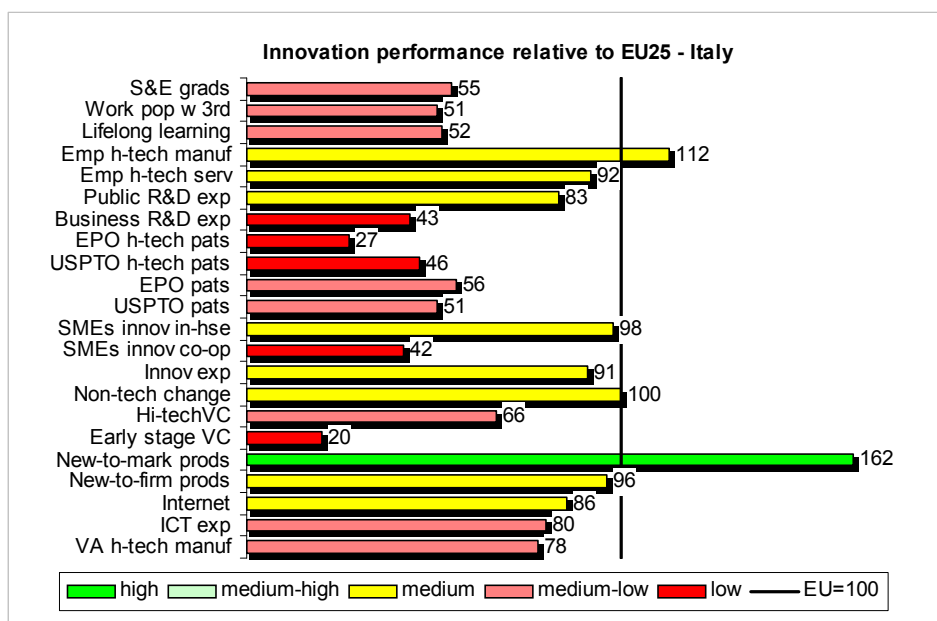
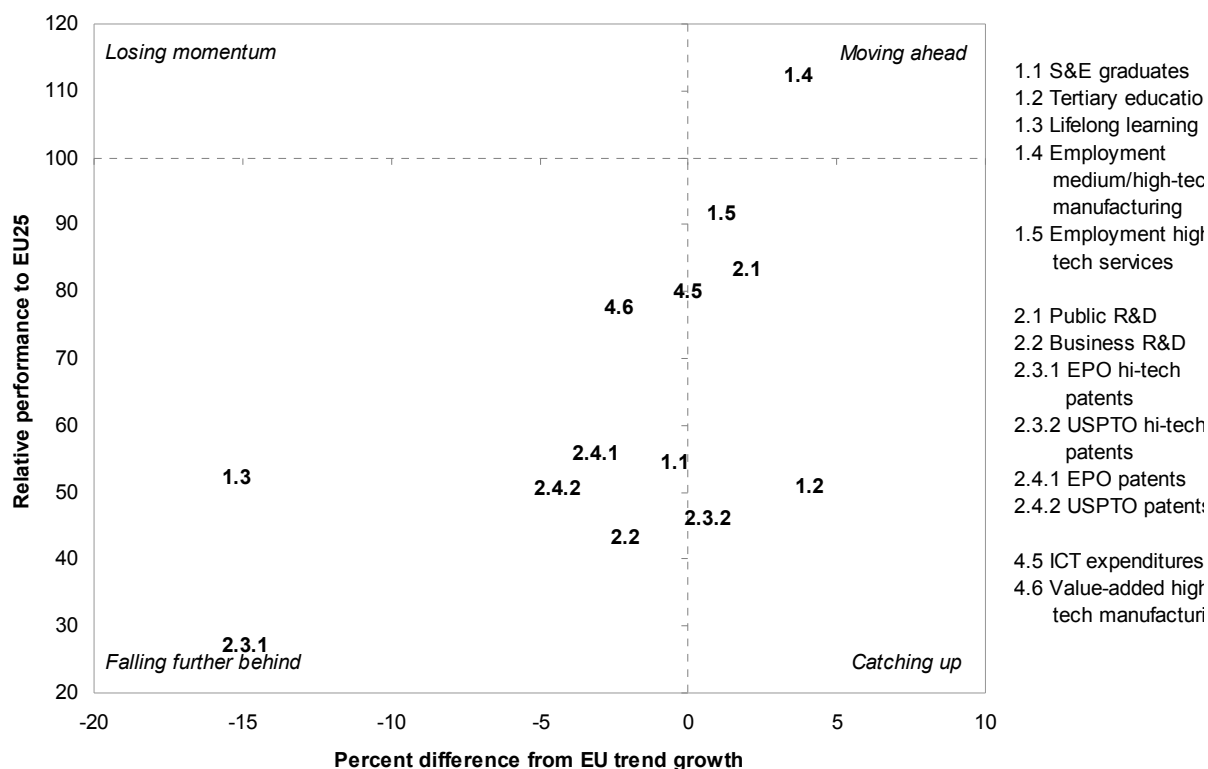


IRELAND										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	21.9	21.8	22.4	--	23.2	21.7	20.5	--	178	2	++	--
	<i>relative to EU15</i>	--	212	209	--	203	175	164	--				
1.2	Work pop w 3rd educ	--	--	--	20.4	21.9	23.7	25.4	26.5	125	11	+	+
	<i>relative to EU15</i>	--	--	--	100	103	110	117	--				
1.3	Lifelong learning	4.8	5.2	--	--	--	--	7.7	9.7	108	10	0	
	<i>relative to EU15</i>	84	90	--	--	--	--	91	100				
1.4	Employment hi-tech manuf	--	7.42	7.52	7.31	6.96	7.29	6.85	6.28	95	13	0	0
	<i>relative to EU15</i>	--	97	97	96	91	97	93	88				
1.5	Employment hi-tech serv	--	2.36	3.78	4.00	4.03	4.11	4.28	3.92	123	9	+	0
	<i>relative to EU15</i>	--	80	127	125	119	114	120	112				
Knowledge creation													
2.1	Public R&D exp	0.39	0.37	0.35	0.33	0.32	0.35	--	--	53	23	-	0
	<i>relative to EU15</i>	56	54	51	49	47	51	--	--				
2.2	Business R&D exp	0.93	0.91	0.90	0.87	0.83	0.80	--	--	63	15	-	-
	<i>relative to EU15</i>	79	76	75	70	65	62	--	--				
2.3.1	EPO hi-tech patents	7.0	8.2	10.2	15.2	30.2	35.2	26.8	--	103	11	0	++
	<i>relative to EU15</i>	60	54	53	65	103	104	87	--				
2.3.2	USPTO hi-tech patents	5.1	3.7	3.4	4.8	4.4	10.6	8.1	--	86	11	0	++
	<i>relative to EU15</i>	91	70	39	54	46	98	72	--				
2.4.1	EPO patents	39.3	43.7	55.2	69.9	95.4	92.9	89.9	--	67	14	-	0
	<i>relative to EU15</i>	41	38	42	50	60	55	57	--				
2.4.2	USPTO patents	21.7	20.3	20.4	26.0	34.1	36.9	32.4	--	54	14	-	+
	<i>relative to EU15</i>	48	43	33	41	51	51	45	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	--	--	--	--				
3.2	SMEs innov co-operation	--	--	--	--	--	--	--	--				
3.3	Innovation expenditures	--	--	--	--	--	--	--	--				

3.4	SMEs non-tech innov	--	--	--	--	--	--	--	--				
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	55	64	49	34	66	16	-	(3)
	<i>relative to EU15</i>	--	--	--	--	112	127	94	66				
4.2	Early stage venture capital	0.004	0.004	0.015	0.036	0.077	0.071	0.027	0.023	92	12	0	(3)
	<i>relative to EU15</i>	64	44	97	124	136	118	73	92				
4.3.1	New-to-market products	--	--	--	--	--	--	--	--				
4.3.2	New-to-firm products	--	--	--	--	--	--	--	--				
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.51		--	12		
4.5	ICT expenditures	--	--	--	--	5.7	5.1	4.6	4.6	74	24	-	-
	<i>relative to EU15</i>	--	--	--	--	88	80	75	74				
4.6	Value-added hi-tech manuf	28.5	29.9	31.0	30.6	30.2	30.6	--	--	241	2	++	-
	<i>relative to EU15</i>	244	245	248	233	220	216	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	118	123	127	130	138	131				
Productivity per hour (EU15=100)		95	102	105	107	108	110	118	112				
Employment rate		55	58	61	63	65	66	66	65	104			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - ITALY

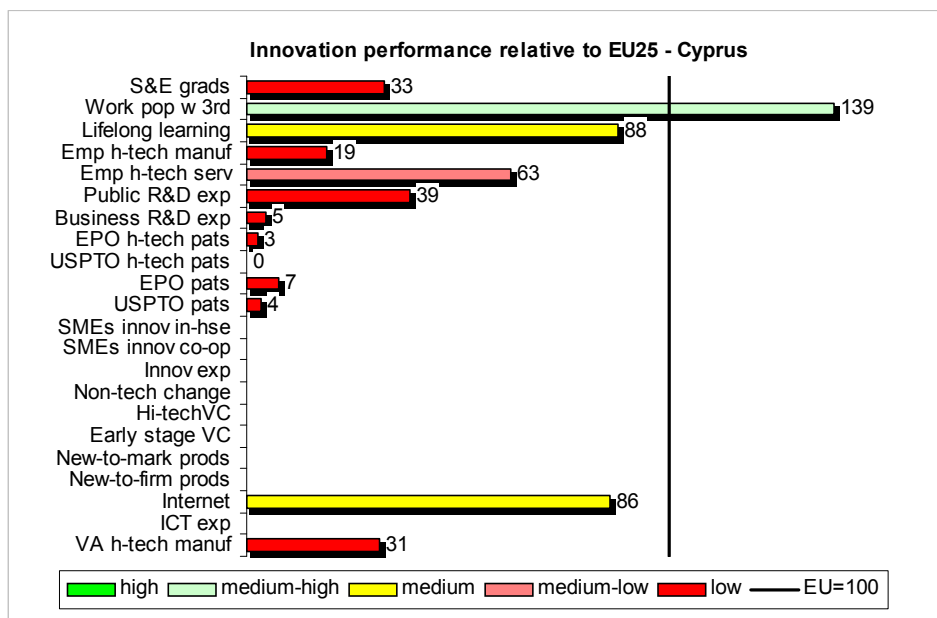
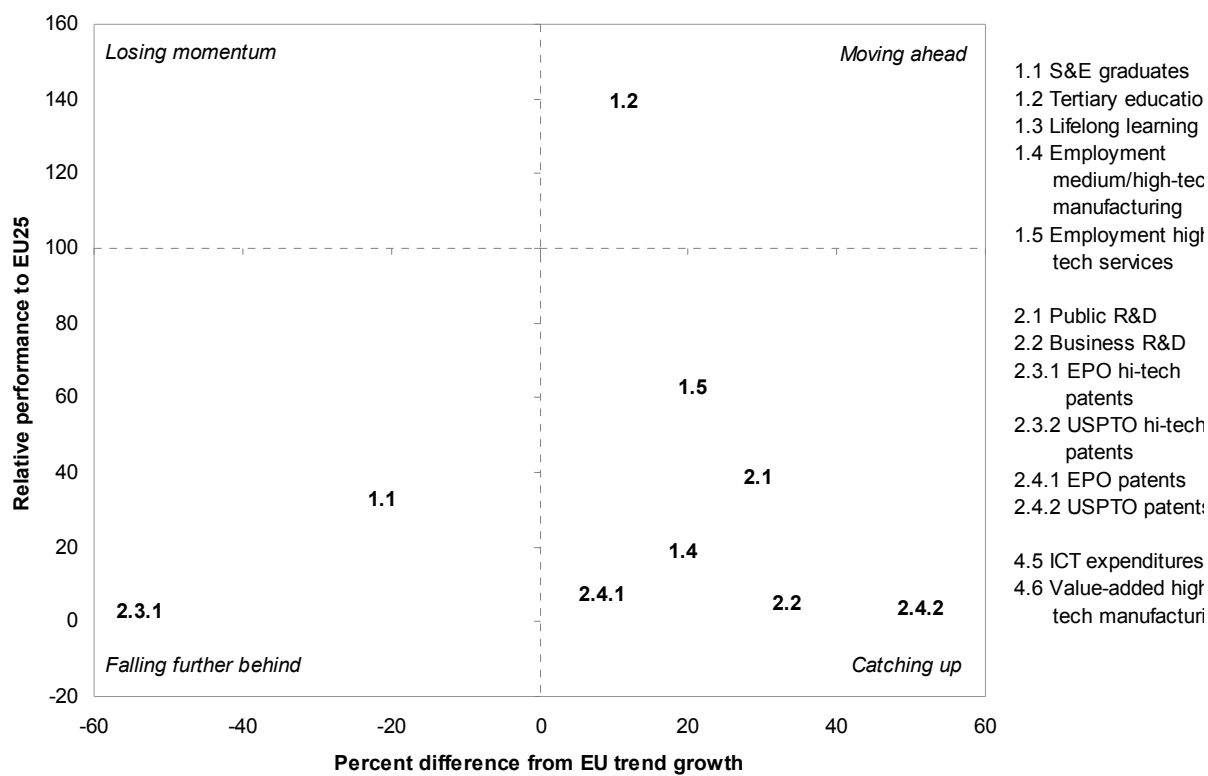


ITALY										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	4.1	5.0	5.1	5.4	5.7	6.1	--	--	55	21	-	0
	<i>relative to EU15</i>	--	49	48	49	50	49	--	--				
1.2	Work pop w 3rd educ	--	--	8.8	9.5	9.6	10.0	10.4	10.8	51	27	-	0
	<i>relative to EU15</i>	--	--	51	46	45	47	48	--				
1.3	Lifelong learning	4.4	4.9	4.8	5.5	5.5	5.1	4.6	4.7	52	24	-	-
	<i>relative to EU15</i>	77	84	--	67	65	61	54	48				
1.4	Employment hi-tech manuf	--	7.23	7.62	7.62	7.62	7.42	7.37	7.42	112	7	0	0
	<i>relative to EU15</i>	--	95	99	100	100	98	100	105				
1.5	Employment hi-tech serv	--	2.62	2.56	2.71	2.92	3.05	3.02	2.93	92	18	0	0
	<i>relative to EU15</i>	--	89	86	85	86	84	85	84				
Knowledge creation													
2.1	Public R&D exp	0.47	0.53	0.55	0.53	0.54	0.55	--	--	83	16	0	0
	<i>relative to EU15</i>	67	78	81	79	79	81	--	--				
2.2	Business R&D exp	0.54	0.52	0.52	0.51	0.53	0.56	0.54	0.55	43	18	--	0
	<i>relative to EU15</i>	46	44	43	41	42	43	42	--				
2.3.1	EPO hi-tech patents	4.7	4.7	5.4	5.7	6.8	7.2	7.1	--	27	15	--	-
	<i>relative to EU15</i>	40	31	28	24	23	21	23	--				
2.3.2	USPTO hi-tech patents	2.3	2.6	3.6	3.5	3.4	4.4	4.3	--	46	14	--	0
	<i>relative to EU15</i>	41	48	43	39	36	40	39	--				
2.4.1	EPO patents	50.7	56.8	64.4	68.1	76.8	80.6	74.7	--	56	15	-	0
	<i>relative to EU15</i>	52	49	50	48	48	48	47	--				
2.4.2	USPTO patents	20.9	21.9	27.8	26.1	29.5	29.9	30.3	--	51	15	-	0
	<i>relative to EU15</i>	46	46	46	41	44	42	42	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	31.0	--	--	--	98	12	0	
3.2	SMEs innov co-operation	--	--	--	--	3.0	--	--	--	42	23	--	
3.3	Innovation expenditures	--	--	--	--	1.95	--	--	--	91	10	0	

3.4	SMEs non-tech innov	--	--	--	--	49	--	--	--	100	9	0	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	62	72	44	34	66	15	-	(3)
	<i>relative to EU15</i>	--	--	--	--	127	143	85	66				
4.2	Early stage venture capital	0.005	0.006	0.011	0.014	0.030	0.035	0.015	0.005	20	18	--	(3)
	<i>relative to EU15</i>	91	75	70	47	52	58	39	20				
4.3.1	New-to-market products	--	--	--	--	9.5	--	--	--	162	3	++	
4.3.2	New-to-firm products	--	--	--	--	16.1	--	--	--	96	5	0	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.43		--	15		
4.5	ICT expenditures	--	--	--	--	5.1	5.2	5.1	5.0	80	21	-	0
	<i>relative to EU15</i>	--	--	--	--	78	81	84	81				
4.6	Value-added hi-tech manuf	8.7	8.9	8.9	9.1	9.8	9.9	--	--	78	16	-	0
	<i>relative to EU15</i>	74	73	71	69	71	70	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	114	113	112	111	108	107				
Productivity per hour (EU15=100)		113	111	113	111	110	108	104	102				
Employment rate		51	51	52	53	54	55	56	56	89			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - CYPRUS

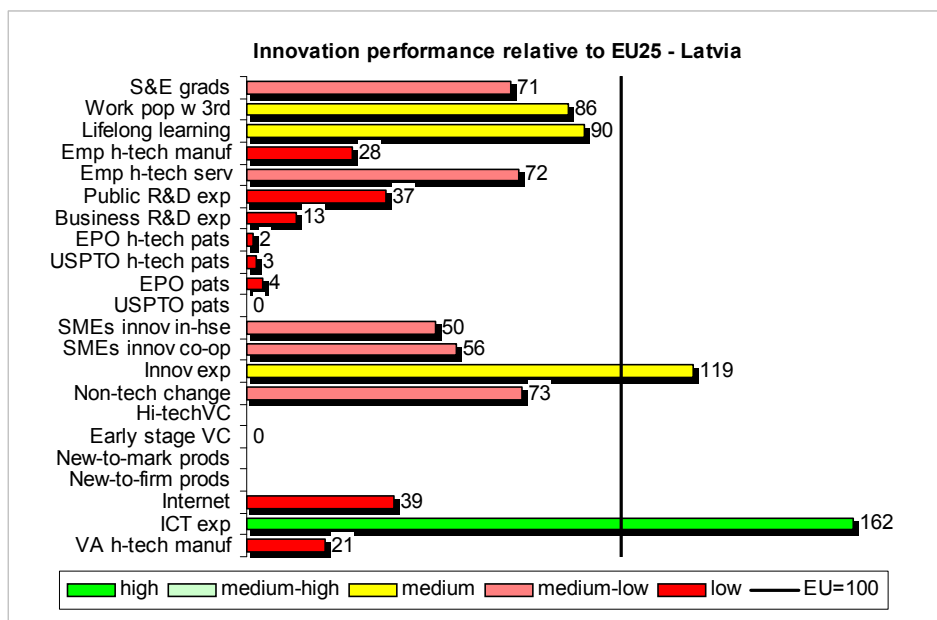
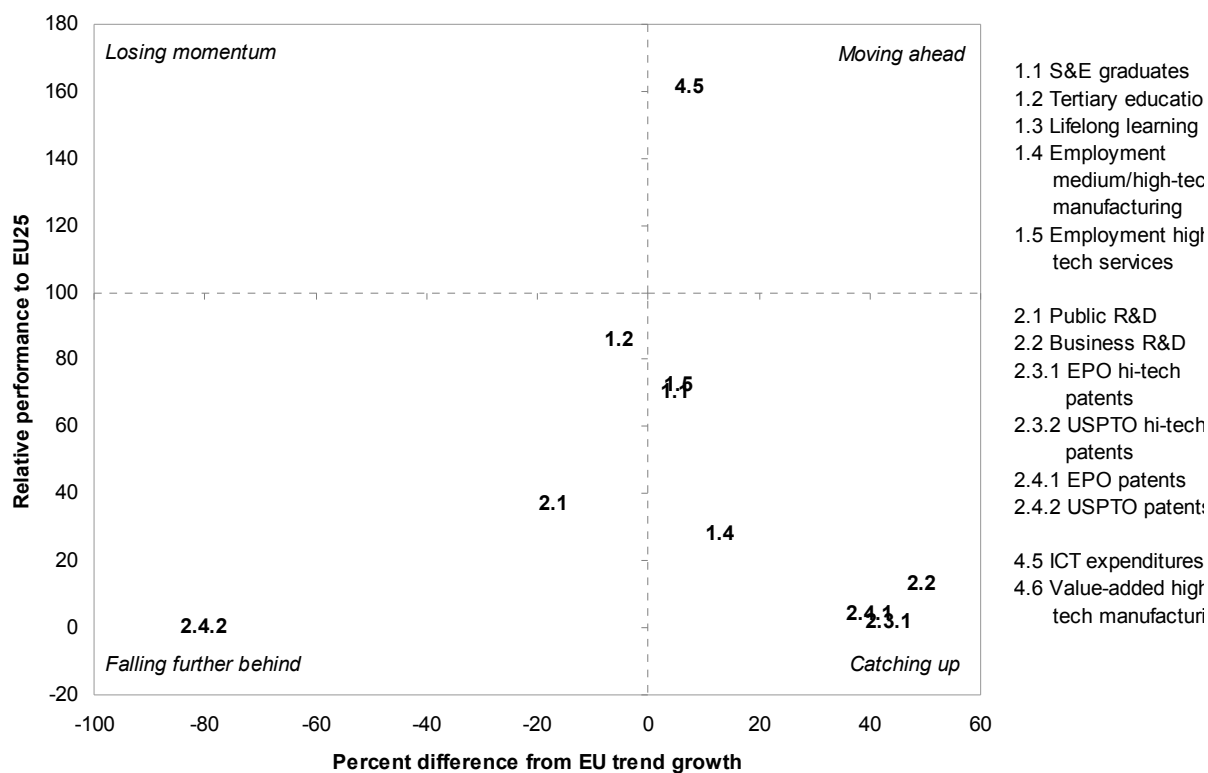


CYPRUS										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	--	--	3.8	3.4	3.7	--	--	33	26	--	-
	<i>relative to EU15</i>	--	--	--	34	30	30	--	--				
1.2	Work pop w 3rd educ	--	--	--	23.1	25.1	26.8	29.1	29.5	139	6	+	+
	<i>relative to EU15</i>	--	--	--	113	118	125	133	--				
1.3	Lifelong learning	--	--	--	2.6	3.1	3.4	3.7	7.9	88	13	0	
	<i>relative to EU15</i>	--	--	--	32	36	40	44	81				
1.4	Employment hi-tech manuf	--	--	--	1.08	1.16	1.03	1.11	1.24	19	27	--	+
	<i>relative to EU15</i>	--	--	--	14	15	14	15	17				
1.5	Employment hi-tech serv	--	--	--	1.47	1.67	1.83	1.90	2.00	63	24	-	+
	<i>relative to EU15</i>	--	--	--	46	49	51	53	57				
Knowledge creation													
2.1	Public R&D exp	--	--	0.20	0.20	0.20	0.22	0.26	--	39	24	--	++
	<i>relative to EU15</i>	--	--	29	30	29	32	38	--				
2.2	Business R&D exp	--	--	0.03	0.05	0.05	0.05	0.06	--	5	28	--	++
	<i>relative to EU15</i>	--	--	3	4	4	4	5	--				
2.3.1	EPO hi-tech patents	--	--	3.0	--	1.5	2.9	0.7	--	3	25	--	--
	<i>relative to EU15</i>	--	--	15	--	5	9	2	--				
2.3.2	USPTO hi-tech patents	--	0.0	0.0	--	0.0	0.1	0.0	--	0	25	--	
	<i>relative to EU15</i>	--	0	0	--	0	1	0	--				
2.4.1	EPO patents	3.1	3.0	13.3	13.2	10.1	20.0	9.9	--	7	21	--	0
	<i>relative to EU15</i>	3	3	10	9	6	12	6	--				
2.4.2	USPTO patents	--	5.6	0.8	--	1.5	1.5	2.1	--	4	22	--	++
	<i>relative to EU15</i>	--	12	1	--	2	2	3	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	--	--	--	--				
3.2	SMEs innov co-operation	--	--	--	--	--	--	--	--				
3.3	Innovation expenditures	--	--	--	--	--	--	--	--				

3.4	SMEs non-tech innov	--	--	--	--	--	--	--	--			
Innovation finance, output and markets												
4.1	Hi-tech venture capital	--	--	--	--	--	--	--	--			(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.2	Early stage venture capital	--	--	--	--	--	--	--	--			(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.3.1	New-to-market products	--	--	--	--	--	--	--	--			
4.3.2	New-to-firm products	--	--	--	--	--	--	--	--			
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.44		--	14	
4.5	ICT expenditures	--	--	--	--	--	--	--	--			
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.6	Value-added hi-tech manuf	--	--	--	--	--	3.9	4.0	--	31	24	--
	<i>relative to EU15</i>	--	--	--	--	--	28	--	--			
Macro-economic indicators												
GDP per capita (EU25=100)		--	--	82	82	84	87	84	84			
Productivity per hour (EU15=100)		--	--	--	--	--	--	--	--			
Employment rate		--	--	--	--	66	68	69	69	110		

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - LATVIA



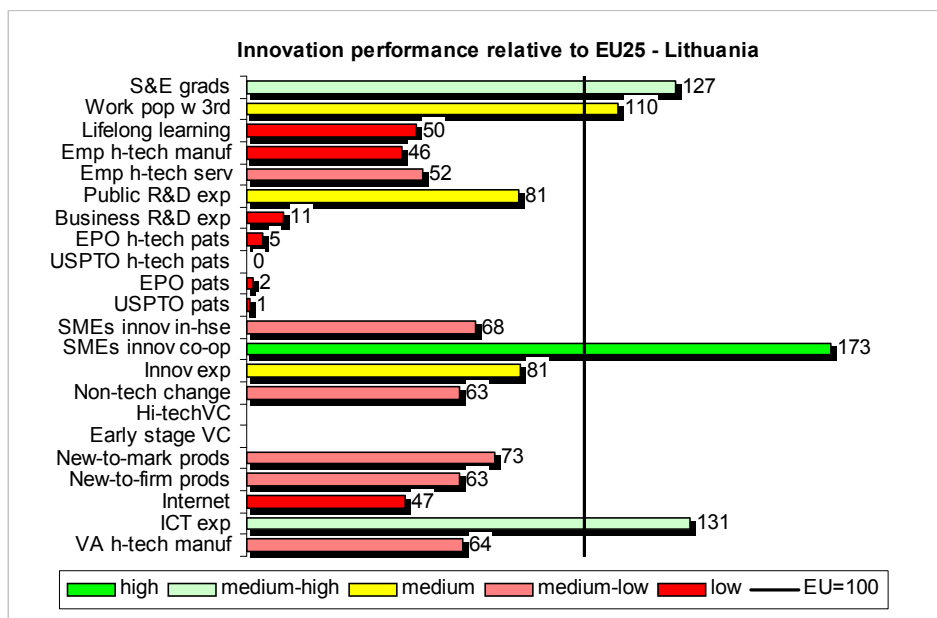
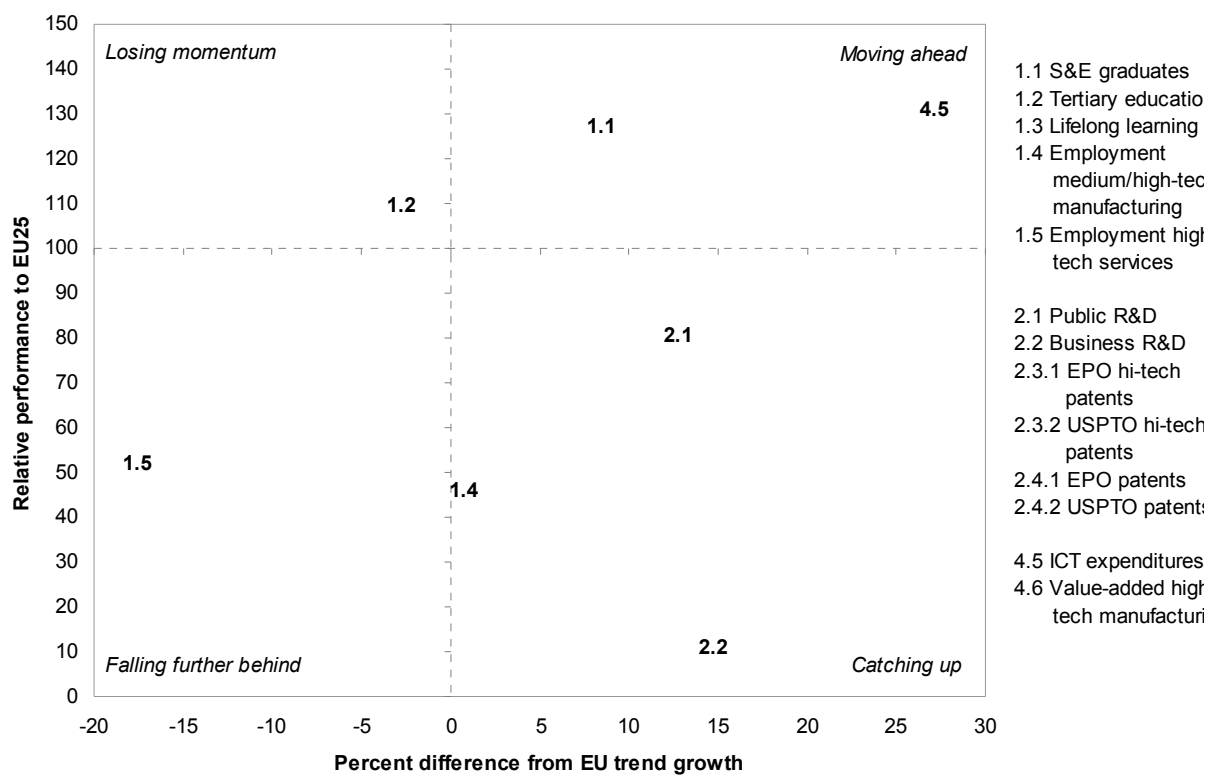
LATVIA										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	6.9	5.9	6.3	7.5	7.6	8.1	--	71	12	-	0
	<i>relative to EU15</i>	--	67	55	57	66	61	65	--				
1.2	Work pop w 3rd educ	--	--	17.0	17.8	18.0	18.1	19.6	18.2	86	17	0	0
	<i>relative to EU15</i>	--	--	99	87	85	84	90	--				
1.3	Lifelong learning	--	--	--	--	--	--	8.2	8.1	90	12	0	
	<i>relative to EU15</i>	--	--	--	--	--	--	96	84				
1.4	Employment hi-tech manuf	--	--	0.76	0.92	0.64	1.72	1.97	1.85	28	25	--	+
	<i>relative to EU15</i>	--	--	10	12	8	23	27	26				
1.5	Employment hi-tech serv	--	--	1.84	2.20	2.28	2.19	2.26	2.31	72	23	-	0
	<i>relative to EU15</i>	--	--	62	69	67	61	63	66				
Knowledge creation													
2.1	Public R&D exp	0.30	0.30	0.32	0.31	0.27	0.26	0.25	--	37	26	--	-
	<i>relative to EU15</i>	43	44	47	46	40	38	36	--				
2.2	Business R&D exp	0.12	0.09	0.09	0.06	0.18	0.15	0.17	--	13	24	--	++
	<i>relative to EU15</i>	10	8	8	5	14	12	13	--				
2.3.1	EPO hi-tech patents	0.4	0.4	--	0.3	0.6	0.5	--	--	2	27	--	++
	<i>relative to EU15</i>	3	3	--	1	2	2	--	--				
2.3.2	USPTO hi-tech patents	0.0	0.0	0.0	0.0	0.1	0.0	0.3	--	3	20	--	
	<i>relative to EU15</i>	0	0	0	0	1	0	2	--				
2.4.1	EPO patents	3.2	3.6	4.5	4.9	3.8	7.6	6.0	--	4	24	--	++
	<i>relative to EU15</i>	3	3	3	3	2	5	4	--				
2.4.2	USPTO patents	0.1	0.2	0.8	1.7	1.1	0.5	0.3	--	0	28	--	--
	<i>relative to EU15</i>	0	0	1	3	2	1	0	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	--	15.9	--	--	50	22	-	
3.2	SMEs innov co-operation	--	--	--	--	--	4.0	--	--	56	21	-	
3.3	Innovation expenditures	--	--	--	--	--	2.56	--	--	119	6	0	

3.4	SMEs non-tech innov	--	--	--	--	--	36	--	--	73	17	-	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	--	--	--	--				(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
4.2	Early stage venture capital	--	--	--	--	--	0.000	--	--	0	22	--	(3)
	<i>relative to EU15</i>	--	--	--	--	--	0	--	--				
4.3.1	New-to-market products	--	--	--	--	--	--	--	--				
4.3.2	New-to-firm products	--	--	--	--	--	--	--	--				
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.00		--	22		
4.5	ICT expenditures	--	--	--	--	9.6	9.7	10.2	10.1	162	2	++	0
	<i>relative to EU15</i>	--	--	--	--	148	152	167	163				
4.6	Value-added hi-tech manuf	--	--	--	--	2.8	--	--	--	21	26	--	
	<i>relative to EU15</i>	--	--	--	--	20	--	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	36	36	38	40	42	46				
	Productivity per hour (EU15=100)	--	--	--	--	--	--	--	--				
	Employment rate	--	--	60	59	58	59	60	62	98			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

LITHUANIA

2004 European Innovation Scoreboard - LITHUANIA



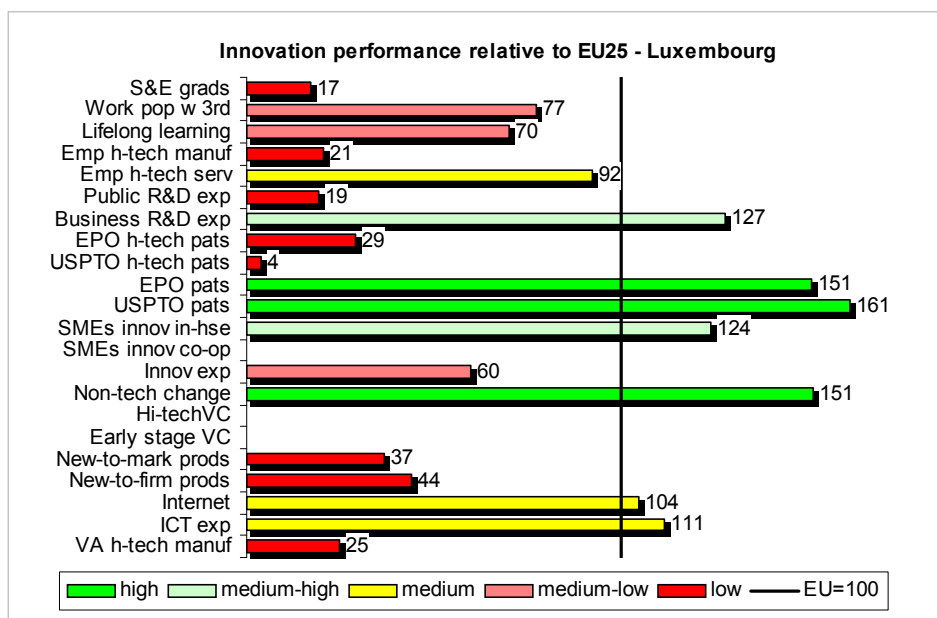
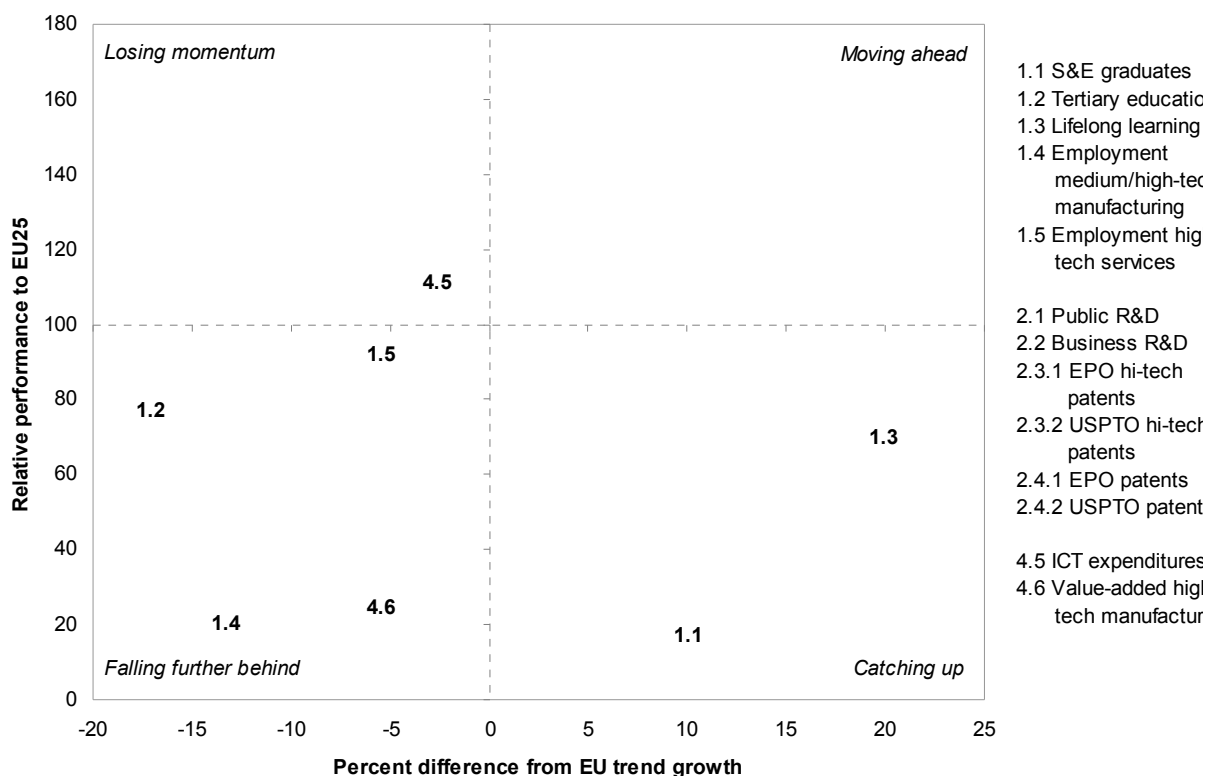
LITHUANIA										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	7.3	9.3	11.7	13.5	14.8	14.6	--	127	5	+	0
	<i>relative to EU15</i>	--	71	87	105	118	120	117	--				
1.2	Work pop w 3rd educ	--	--	41.0	42.6	41.8	22.4	21.9	23.2	110	15	0	0
	<i>relative to EU15</i>	--	--	239	208	197	104	100	--				
1.3	Lifelong learning	--	--	--	4.0	2.8	3.6	3.3	4.5	50	25	-	
	<i>relative to EU15</i>	--	--	--	49	33	43	39	46				
1.4	Employment hi-tech manuf	--	--	3.77	3.75	3.13	3.18	2.64	3.03	46	22	--	0
	<i>relative to EU15</i>	--	--	49	49	41	42	36	43				
1.5	Employment hi-tech serv	--	--	2.47	2.10	2.23	2.01	1.69	1.66	52	26	-	-
	<i>relative to EU15</i>	--	--	83	66	66	56	47	48				
Knowledge creation													
2.1	Public R&D exp	0.49	0.52	0.54	0.49	0.46	0.48	0.56	0.54	81	18	0	+
	<i>relative to EU15</i>	70	76	79	73	68	71	81	--				
2.2	Business R&D exp	0.02	0.03	0.01	0.02	0.13	0.20	0.11	0.14	11	25	--	+
	<i>relative to EU15</i>	2	3	1	2	10	15	8	--				
2.3.1	EPO hi-tech patents	--	0.9	0.3	--	0.3	0.5	1.3	--	5	21	--	
	<i>relative to EU15</i>	--	6	1	--	1	1	4	--				
2.3.2	USPTO hi-tech patents	--	0.2	0.0	0.1	--	0.0	0.0	--	0	25	--	
	<i>relative to EU15</i>	--	3	0	1	--	0	0	--				
2.4.1	EPO patents	1.6	2.2	1.1	0.6	1.4	2.6	2.6	--	2	28	--	
	<i>relative to EU15</i>	2	2	1	0	1	2	2	--				
2.4.2	USPTO patents	--	0.3	0.6	0.4	--	0.9	0.5	--	1	26	--	
	<i>relative to EU15</i>	--	1	1	1	--	1	1	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	--	21.5	--	--	68	18	-	
3.2	SMEs innov co-operation	--	--	--	--	--	12.3	--	--	173	6	++	
3.3	Innovation expenditures	--	--	--	--	--	1.74	--	--	81	13	0	

3.4	SMEs non-tech innov	--	--	--	--	--	31	--	--	63	18	-	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	--	--	--	--				(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
4.2	Early stage venture capital	--	--	--	--	--	--	--	--				(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
4.3.1	New-to-market products	--	--	--	--	--	4.3	--	--	73	15	-	
4.3.2	New-to-firm products	--	--	--	--	--	10.6	--	--	63	13	-	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.07		--	21		
4.5	ICT expenditures	--	--	--	--	6.3	6.9	7.6	8.2	131	6	+	++
	<i>relative to EU15</i>	--	--	--	--	97	108	125	132				
4.6	Value-added hi-tech manuf	--	--	--	--	--	8.1	8.1	--	64	17	-	
	<i>relative to EU15</i>	--	--	--	--	--	57	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	40	39	40	42	44	46				
Productivity per hour (EU15=100)		--	--	--	--	--	--	38	40				
Employment rate		--	--	62	62	59	58	60	61	97			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

LUXEMBOURG

2004 European Innovation Scoreboard - LUXEMBOURG

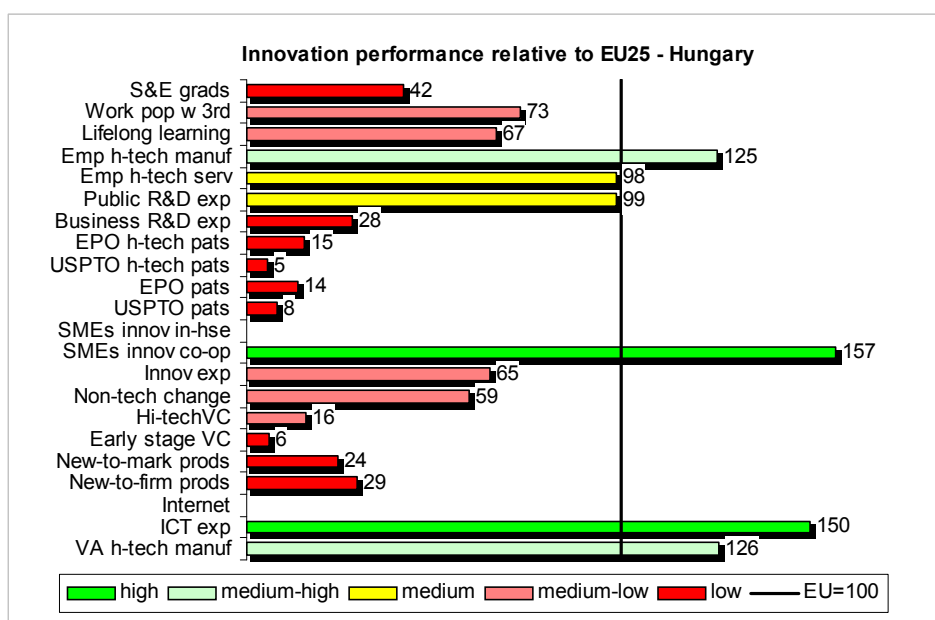
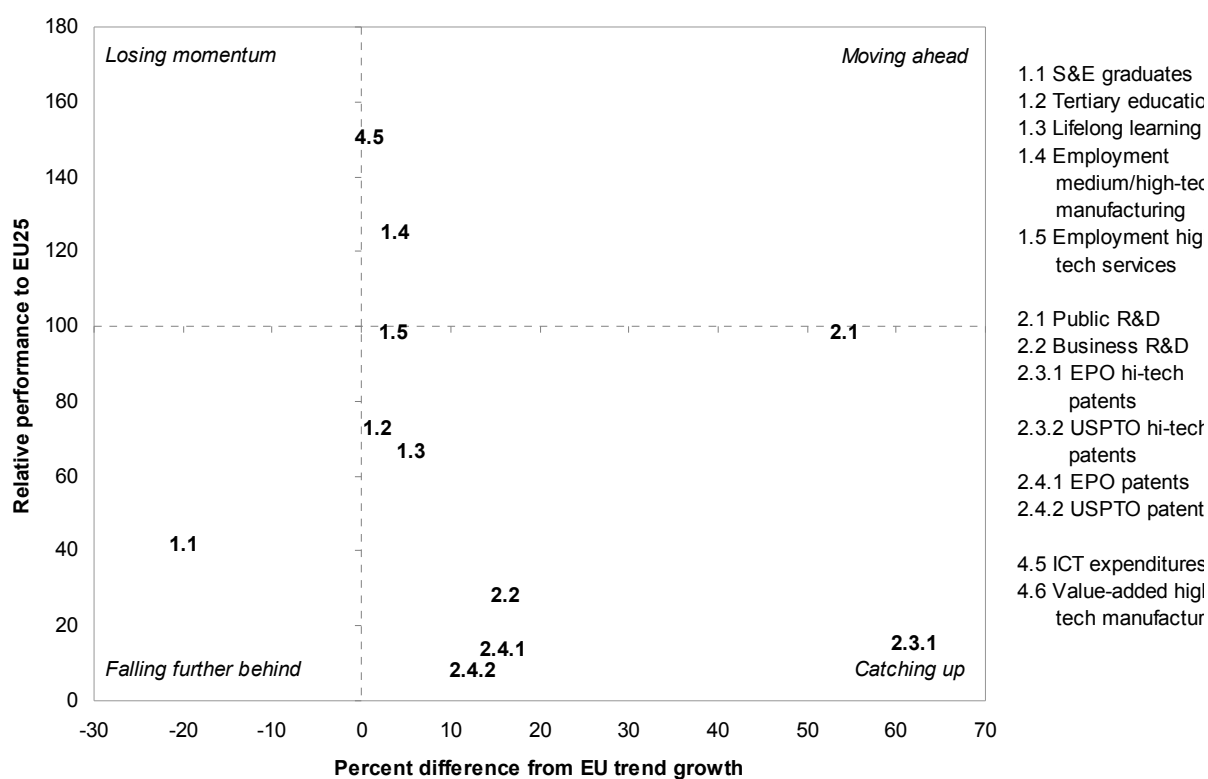


LUXEMBOURG										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	--	1.4	--	1.8	--	--	--	17	27	--	+
	<i>relative to EU15</i>	--	--	13	--	16	--	--	--				
1.2	Work pop w 3rd educ	--	--	--	18.2	18.5	18.1	18.8	16.3	77	21	-	-
	<i>relative to EU15</i>	--	--	--	89	87	84	86	--				
1.3	Lifelong learning	2.9	2.8	5.1	5.3	4.8	5.3	7.7	6.3	70	16	-	+
	<i>relative to EU15</i>	51	48	--	65	56	63	91	65				
1.4	Employment hi-tech manuf	--	1.95	1.62	1.80	2.03	1.19	1.22	1.36	21	26	--	-
	<i>relative to EU15</i>	--	26	21	24	27	16	17	19				
1.5	Employment hi-tech serv	--	2.33	2.51	3.59	2.66	3.06	2.24	2.94	92	17	0	0
	<i>relative to EU15</i>	--	79	84	112	78	85	63	84				
Knowledge creation													
2.1	Public R&D exp	--	--	--	--	0.13	--	--	--	19	27	--	
	<i>relative to EU15</i>	--	--	--	--	19	--	--	--				
2.2	Business R&D exp	--	--	--	--	1.58	--	--	--	127	8	+	
	<i>relative to EU15</i>	--	--	--	--	124	--	--	--				
2.3.1	EPO hi-tech patents	1.6	6.0	6.5	9.3	30.5	11.3	7.5	--	29	14	--	
	<i>relative to EU15</i>	14	39	33	40	104	34	24	--				
2.3.2	USPTO hi-tech patents	0.0	0.0	0.9	0.0	4.6	1.1	0.4	--	4	19	--	
	<i>relative to EU15</i>	0	0	11	0	48	11	3	--				
2.4.1	EPO patents	100.8	138.6	143.5	200.5	198.7	216.6	201.3	--	151	7	++	
	<i>relative to EU15</i>	104	121	110	142	125	129	127	--				
2.4.2	USPTO patents	42.2	48.7	45.5	44.5	90.4	77.0	96.3	--	161	5	++	
	<i>relative to EU15</i>	94	103	74	71	136	107	135	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	39.2	--	--	--	124	4	+	
3.2	SMEs innov co-operation	--	--	--	--	--	--	--	--				
3.3	Innovation expenditures	--	--	--	--	1.29	--	--	--	60	18	-	

3.4	SMEs non-tech innov	--	--	--	--	74	--	--	--	151	1	++	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	--	--	--	--				(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
4.2	Early stage venture capital	--	--	--	--	--	--	--	--				(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
4.3.1	New-to-market products	--	--	--	--	2.1	--	--	--	37	17	--	
4.3.2	New-to-firm products	--	--	--	--	7.3	--	--	--	44	15	--	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.61		--	10		
4.5	ICT expenditures	--	--	--	--	7.3	7.4	6.9	--	111	11	0	0
	<i>relative to EU15</i>	--	--	--	--	112	116	113	--				
4.6	Value-added hi-tech manuf	2.7	2.8	2.9	3.2	3.1	3.2	--	--	25	25	--	0
	<i>relative to EU15</i>	23	23	24	24	22	22	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	194	209	220	215	209	209				
Productivity per hour (EU15=100)		126	130	134	141	143	134	128	127				
Employment rate		59	60	61	62	63	63	63	63	100			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - HUNGARY



HUNGARY										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	5.0	5.0	5.1	4.5	3.7	4.8	--	42	24	--	-
	<i>relative to EU15</i>	--	49	47	46	39	30	38	--				
1.2	Work pop w 3rd educ	--	--	13.1	14.4	14.1	14.1	14.2	15.4	73	22	-	0
	<i>relative to EU15</i>	--	--	76	70	67	66	65	--				
1.3	Lifelong learning	--	2.9	3.3	2.9	3.1	3.0	3.2	6.0	67	18	-	0
	<i>relative to EU15</i>	--	50	--	35	36	36	38	62				
1.4	Employment hi-tech manuf	--	7.87	8.51	8.39	8.07	8.80	8.47	8.27	125	4	+	0
	<i>relative to EU15</i>	--	103	110	110	106	117	115	116				
1.5	Employment hi-tech serv	--	2.82	2.70	2.75	3.09	3.24	3.05	3.14	98	15	0	0
	<i>relative to EU15</i>	--	96	91	86	91	90	86	90				
Knowledge creation													
2.1	Public R&D exp	0.37	0.42	0.42	0.41	0.45	0.57	0.66	--	99	10	0	++
	<i>relative to EU15</i>	53	62	62	61	66	84	96	--				
2.2	Business R&D exp	0.28	0.30	0.26	0.28	0.35	0.38	0.36	--	28	19	--	+
	<i>relative to EU15</i>	24	25	22	22	28	29	28	--				
2.3.1	EPO hi-tech patents	0.8	0.7	1.3	2.0	3.9	5.4	4.0	--	15	16	--	++
	<i>relative to EU15</i>	7	5	6	8	13	16	13	--				
2.3.2	USPTO hi-tech patents	0.4	0.1	0.5	0.5	0.2	0.5	0.5	--	5	18	--	
	<i>relative to EU15</i>	6	1	6	5	2	4	5	--				
2.4.1	EPO patents	10.8	11.2	13.3	13.4	18.3	20.9	18.3	--	14	18	--	+
	<i>relative to EU15</i>	11	10	10	10	12	12	12	--				
2.4.2	USPTO patents	4.4	2.8	5.0	4.1	3.8	5.8	4.9	--	8	18	--	+
	<i>relative to EU15</i>	10	6	8	6	6	8	7	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	--	--	--	--				
3.2	SMEs innov co-operation	--	--	--	--	11.1	--	--	--	157	8	++	
3.3	Innovation expenditures	--	--	--	--	1.40	--	--	--	65	17	-	

3.4	SMEs non-tech innov	--	--	--	--	29	--	--	--	59	19	-	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	--	38	38	8	16	20	--	(3)
	<i>relative to EU15</i>	--	--	--	--	--	75	73	16				
4.2	Early stage venture capital	--	--	0.000	0.002	0.004	0.015	0.015	0.002	6	19	--	(3)
	<i>relative to EU15</i>	--	--	0	7	6	25	41	6				
4.3.1	New-to-market products	--	--	--	--	1.4	--	--	--	24	20	--	
4.3.2	New-to-firm products	--	--	--	--	4.9	--	--	--	29	20	--	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	--	--	--			
4.5	ICT expenditures	--	--	--	--	9.6	9.6	9.3	9.4	150	3	++	0
	<i>relative to EU15</i>	--	--	--	--	148	150	152	152				
4.6	Value-added hi-tech manuf	--	--	--	--	--	14.3	16.0	--	126	7	+	
	<i>relative to EU15</i>	--	--	--	--	--	101	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	52	53	54	57	59	61				
	Productivity per hour (EU15=100)	--	--	--	--	--	--	--	--				
	Employment rate	52	52	54	56	56	56	56	57	91			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

ANNEX 2 bis

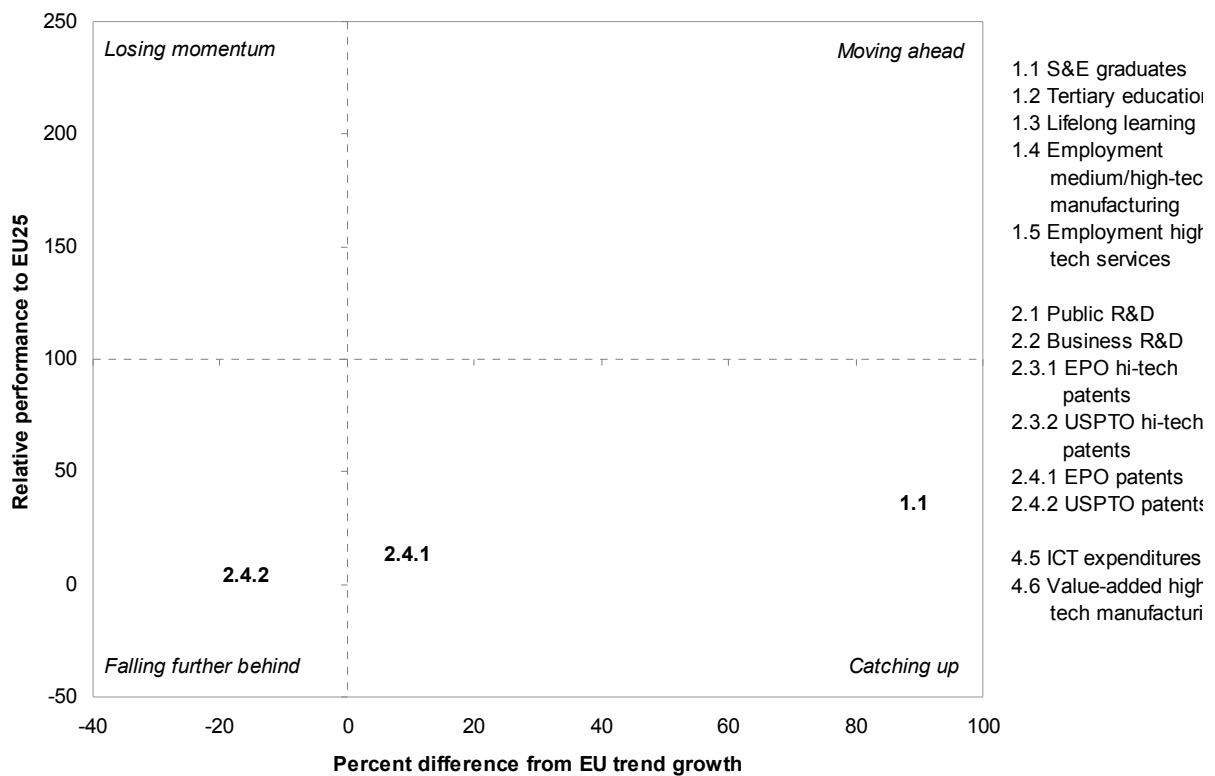
2004 European Innovation Scoreboard

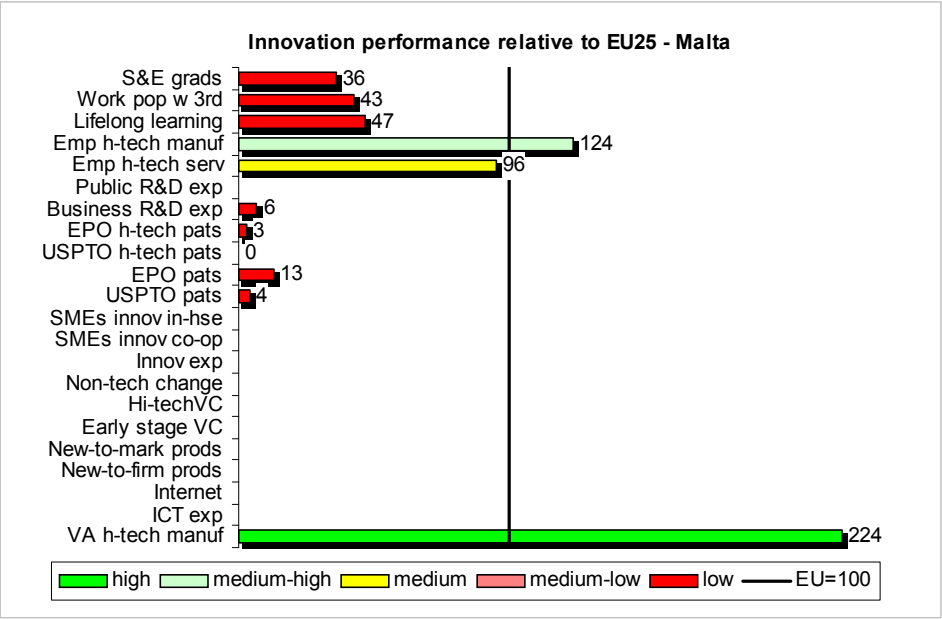
Country Pages

EU25 + Candidate countries

MALTA

2004 European Innovation Scoreboard - MALTA





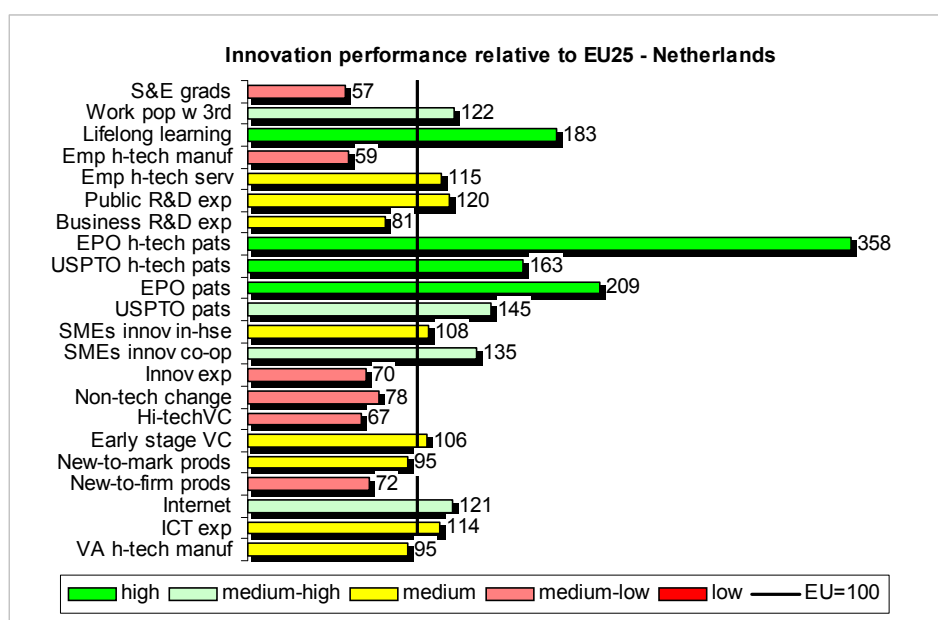
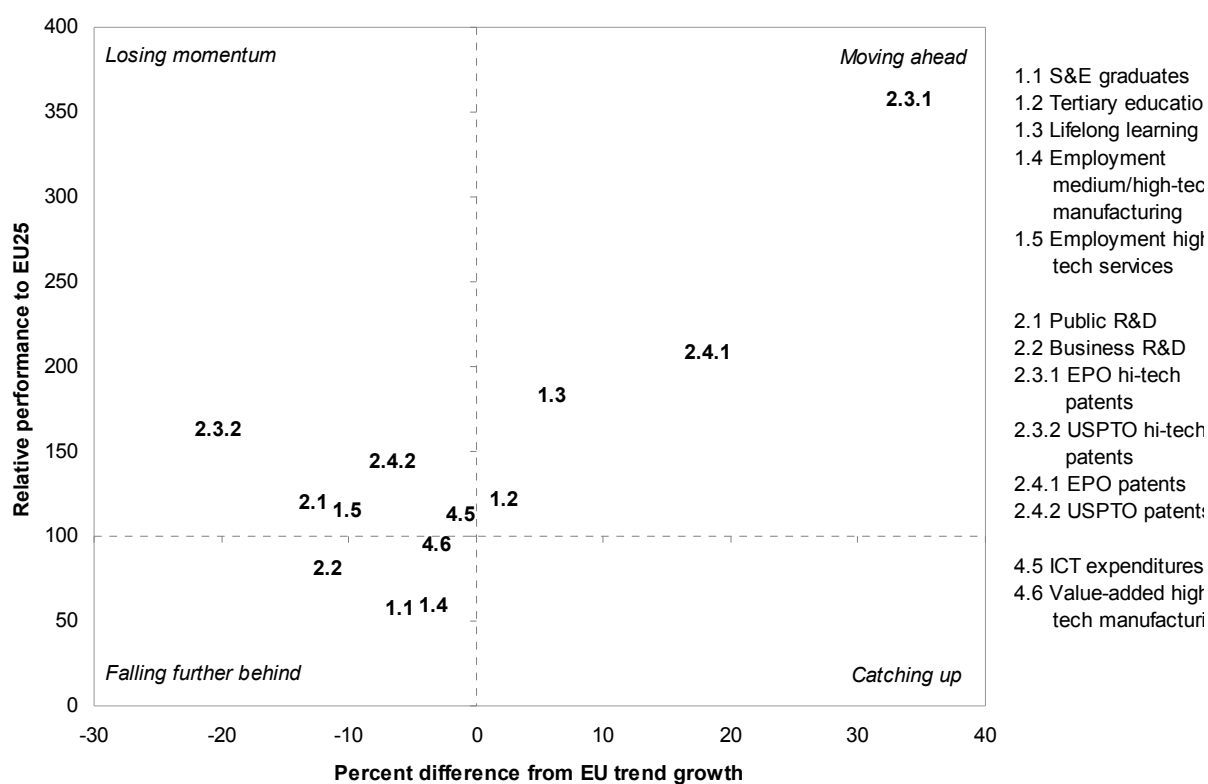
MALTA										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	--	--	1.3	3.8	2.7	--	--	36	25	--	++
	<i>relative to EU15</i>	--	--	--	12	33	22	--	--				
1.2	Work pop w 3rd educ	--	--	--	--	--	--	8.6	9.0	43	28	--	
	<i>relative to EU15</i>	--	--	--	--	--	--	40	--				
1.3	Lifelong learning	--	--	--	--	--	--	4.4	4.2	47	26	--	
	<i>relative to EU15</i>	--	--	--	--	--	--	52	43				
1.4	Employment hi-tech manuf	--	--	--	--	--	--	8.16	6.14	124	5	+	
	<i>relative to EU15</i>	--	--	--	--	--	--	111	86				
1.5	Employment hi-tech serv	--	--	--	--	--	--	3.05	2.96	96	16	0	
	<i>relative to EU15</i>	--	--	--	--	--	--	86	85				
Knowledge creation													
2.1	Public R&D exp	--	--	--	--	--	--	--	--				
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
2.2	Business R&D exp	--	--	--	--	--	--	0.07	0.08	6	27	--	
	<i>relative to EU15</i>	--	--	--	--	--	--	5	--				
2.3.1	EPO hi-tech patents	2.2	0.7	1.3	1.7	1.5	--	0.8	--	3	23	--	
	<i>relative to EU15</i>	18	5	7	7	5	--	3	--				
2.3.2	USPTO hi-tech patents	--	0.0	0.0	--	0.0	0.0	0.0	--	0	25	--	
	<i>relative to EU15</i>	--	0	0	--	0	0	0	--				
2.4.1	EPO patents	5.4	5.4	7.9	10.6	18.4	12.8	17.7	--	13	19	--	0
	<i>relative to EU15</i>	6	5	6	7	12	8	11	--				
2.4.2	USPTO patents	--	1.3	2.7	--	5.3	5.1	2.5	--	4	21	--	-
	<i>relative to EU15</i>	--	3	4	--	8	7	4	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	--	--	--	--				
3.2	SMEs innov co-operation	--	--	--	--	--	--	--	--				
3.3	Innovation expenditures	--	--	--	--	--	--	--	--				

3.4	SMEs non-tech innov	--	--	--	--	--	--	--	--			
Innovation finance, output and markets												
4.1	Hi-tech venture capital	--	--	--	--	--	--	--	--			(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.2	Early stage venture capital	--	--	--	--	--	--	--	--			(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.3.1	New-to-market products	--	--	--	--	--	--	--	--			
4.3.2	New-to-firm products	--	--	--	--	--	--	--	--			
4.4	Internet (comp. indicator)	--	--	--	--	--	--	--	--	--		
4.5	ICT expenditures	--	--	--	--	--	--	--	--			
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.6	Value-added hi-tech manuf	--	--	--	--	26.9	--	28.4	--	224	3	++
	<i>relative to EU15</i>	--	--	--	--	196	--	--	--			
Macro-economic indicators												
	GDP per capita (EU25=100)	--	--	--	78	79	76	76	74			
	Productivity per hour (EU15=100)	--	--	--	--	--	--	--	--			
	Employment rate	--	--	--	--	54	54	54	54	86		

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

NETHERLANDS

2004 European Innovation Scoreboard - NETHERLANDS

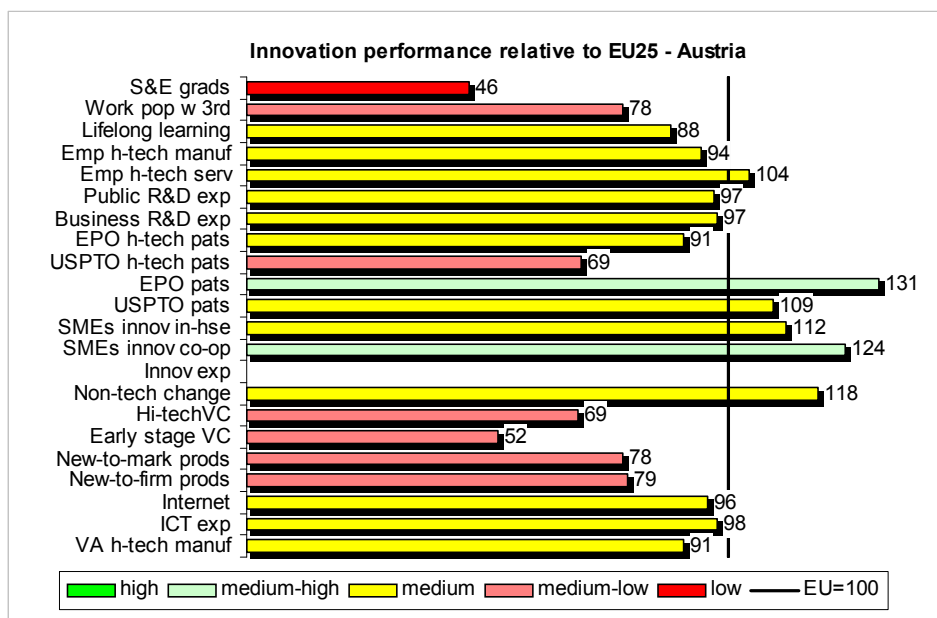
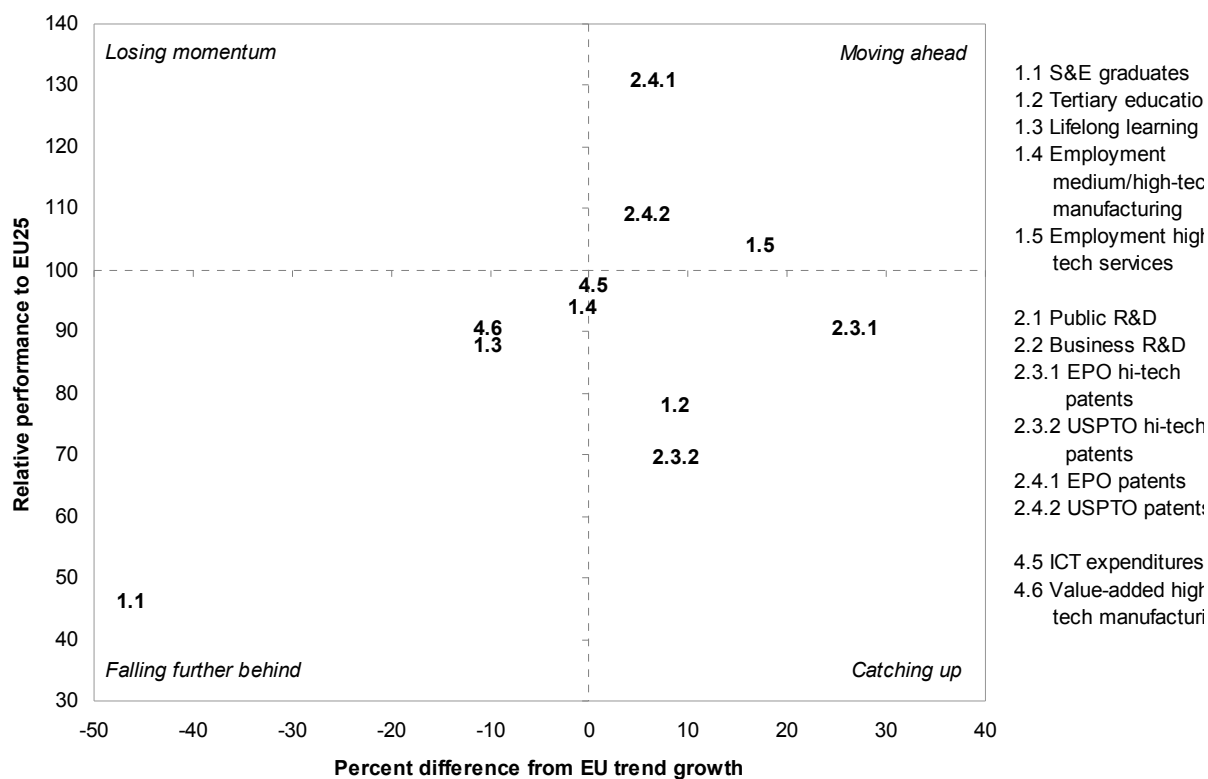


NETHERLANDS										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	6.6	--	6.0	5.8	5.8	6.1	6.6	--	57	19	-	0
	relative to EU15	--	--	56	52	51	49	53	--				
1.2	Work pop w 3rd educ	--	--	21.9	22.6	24.1	24.0	24.9	--	122	12	+	0
	relative to EU15	--	--	127	110	113	111	114	--				
1.3	Lifelong learning	12.5	12.6	12.9	13.6	15.6	16.3	16.4	16.5	183	8	++	0
	relative to EU15	219	217	--	166	184	194	193	170				
1.4	Employment hi-tech manuf	--	5.11	4.86	4.66	4.45	4.29	4.06	--	59	19	-	0
	relative to EU15	--	67	63	61	58	57	55	--				
1.5	Employment hi-tech serv	--	3.05	3.33	3.59	4.13	4.16	3.72	--	115	11	0	-
	relative to EU15	--	104	112	112	122	115	104	--				
Knowledge creation													
2.1	Public R&D exp	0.97	0.93	0.89	0.88	0.79	0.79	--	--	120	5	0	-
	relative to EU15	139	137	131	131	116	116	--	--				
2.2	Business R&D exp	1.06	1.11	1.05	1.14	1.11	1.10	1.03	--	81	12	0	-
	relative to EU15	90	93	88	91	87	85	79	--				
2.3.1	EPO hi-tech patents	23.0	32.3	38.4	48.0	61.2	73.3	93.0	--	358	2	++	++
	relative to EU15	197	213	197	207	208	218	301	--				
2.3.2	USPTO hi-tech patents	10.5	9.2	15.3	15.5	14.4	15.4	15.4	--	163	7	++	-
	relative to EU15	187	171	179	172	151	142	137	--				
2.4.1	EPO patents	136.1	165.0	178.3	197.3	228.8	255.4	278.9	--	209	5	++	+
	relative to EU15	140	144	137	140	144	152	176	--				
2.4.2	USPTO patents	51.8	53.1	80.1	80.3	80.0	83.1	86.6	--	145	6	+	0
	relative to EU15	115	112	131	127	120	116	121	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	34.1	--	--	--	108	11	0	
3.2	SMEs innov co-operation	--	--	--	--	9.6	--	--	--	135	11	+	
3.3	Innovation expenditures	--	--	--	--	1.50	--	--	--	70	15	-	

3.4	SMEs non-tech innov	--	--	--	--	38	--	--	--	78	15	-	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	46	42	39	34	67	14	-	(3)
	<i>relative to EU15</i>	--	--	--	--	93	83	76	67				
4.2	Early stage venture capital	0.026	0.037	0.047	0.074	0.096	0.068	0.044	0.027	106	10	0	(3)
	<i>relative to EU15</i>	473	463	313	253	170	113	119	106				
4.3.1	New-to-market products	--	--	--	--	5.6	--	--	--	95	10	0	
4.3.2	New-to-firm products	--	--	--	--	12.1	--	--	--	72	11	-	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.77		--	4		
4.5	ICT expenditures	--	--	--	--	7.6	7.2	7.0	7.1	114	10	0	0
	<i>relative to EU15</i>	--	--	--	--	117	113	115	115				
4.6	Value-added hi-tech manuf	10.6	11.3	11.0	10.9	11.9	12.1	--	--	95	12	0	0
	<i>relative to EU15</i>	91	93	88	83	87	85	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	122	121	123	125	123	120				
Productivity per hour (EU15=100)		114	113	114	114	112	118	114	113				
Employment rate		66	69	70	72	73	74	74	74	117			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - AUSTRIA



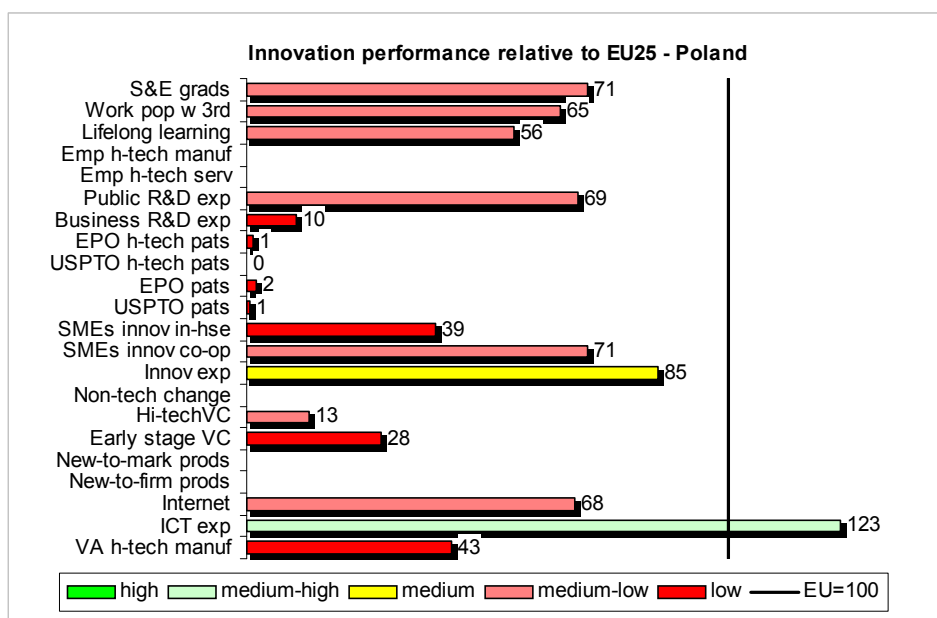
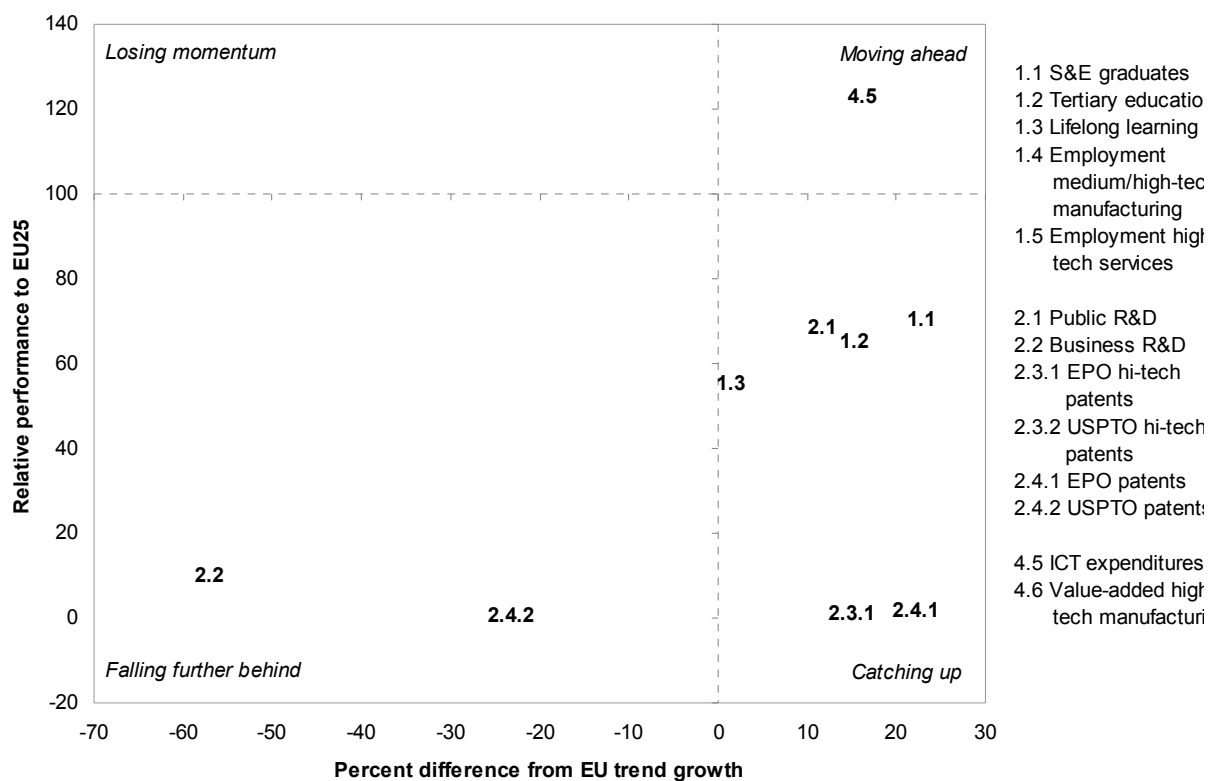
¹ The « S&E graduate » indicator for Austria has been calculated based on incomplete information in 2002. A calculation based on full information would have given a result equivalent to 2001 value. The impact on the calculation of the SII for Austria is less than 2%.

AUSTRIA										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	3.6	4.3	7.9	6.9	7.2	7.3	5.3	--	46	23	--	--
	<i>relative to EU15</i>	--	42	74	62	63	59	43	--				
1.2	Work pop w 3rd educ	--	--	8.2	14.3	14.2	14.5	16.9	16.5	78	20	-	0
	<i>relative to EU15</i>	--	--	48	69	67	68	78	--				
1.3	Lifelong learning	7.9	7.8	--	9.1	8.3	8.2	7.5	7.9	88	13	0	-
	<i>relative to EU15</i>	139	134	--	111	98	98	88	81				
1.4	Employment hi-tech manuf	--	6.44	6.47	6.62	6.77	6.48	6.59	6.21	94	15	0	0
	<i>relative to EU15</i>	--	84	84	87	89	86	89	87				
1.5	Employment hi-tech serv	--	2.34	2.49	2.67	2.79	3.03	3.47	3.32	104	12	0	+
	<i>relative to EU15</i>	--	80	84	83	82	84	97	95				
Knowledge creation													
2.1	Public R&D exp	--	--	0.65	--	--	--	--	--	97	11	0	
	<i>relative to EU15</i>	--	--	96	--	--	--	--	--				
2.2	Business R&D exp	--	--	1.13	--	--	--	--	--	97	11	0	
	<i>relative to EU15</i>	--	--	94	--	--	--	--	--				
2.3.1	EPO hi-tech patents	7.6	7.8	11.0	12.4	17.5	20.5	23.6	--	91	12	0	++
	<i>relative to EU15</i>	65	51	56	53	60	61	76	--				
2.3.2	USPTO hi-tech patents	2.9	3.0	5.3	4.9	6.5	8.1	6.5	--	69	12	-	0
	<i>relative to EU15</i>	53	56	62	54	69	74	58	--				
2.4.1	EPO patents	98.5	111.3	142.3	140.3	158.4	180.3	174.8	--	131	8	+	0
	<i>relative to EU15</i>	101	97	109	100	100	107	110	--				
2.4.2	USPTO patents	43.3	46.1	49.3	60.4	64.2	72.0	65.4	--	109	10	0	0
	<i>relative to EU15</i>	96	98	81	96	96	100	92	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	35.5	--	--	--	112	9	0	
3.2	SMEs innov co-operation	--	--	--	--	8.8	--	--	--	124	14	+	
3.3	Innovation expenditures	--	--	--	--	0.00	--	--	--				

3.4	SMEs non-tech innov	--	--	--	--	58	--	--	--	118	4	0	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	50	43	24	35	69	13	-	(3)
	<i>relative to EU15</i>	--	--	--	--	102	84	47	69				
4.2	Early stage venture capital	0.000	0.001	0.004	0.007	0.018	0.025	0.017	0.013	52	14	-	(3)
	<i>relative to EU15</i>	0	13	27	22	32	41	45	52				
4.3.1	New-to-market products	--	--	--	--	4.6	--	--	--	78	13	-	
4.3.2	New-to-firm products	--	--	--	--	13.2	--	--	--	79	10	-	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.53		--	11		
4.5	ICT expenditures	--	--	--	--	6.2	6.3	6.1	6.1	98	17	0	0
	<i>relative to EU15</i>	--	--	--	--	95	98	100	98				
4.6	Value-added hi-tech manuf	10.6	11.0	11.9	11.0	11.3	11.5	--	--	91	14	0	-
	<i>relative to EU15</i>	91	90	95	84	83	81	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	125	126	127	124	122	122				
Productivity per hour (EU15=100)		103	99	104	104	105	103	102	102				
Employment rate		68	68	68	69	69	69	69	69	110			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - POLAND



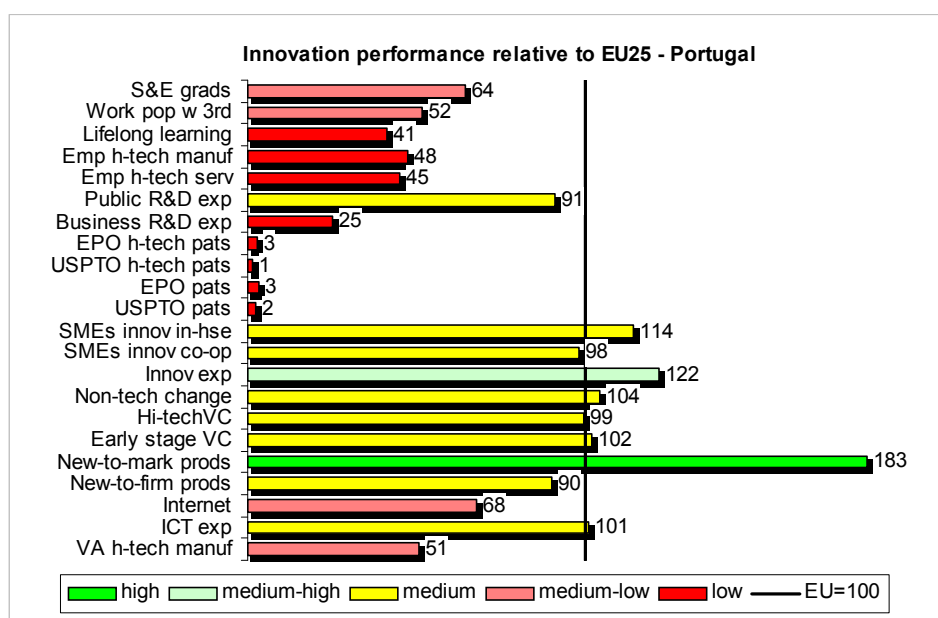
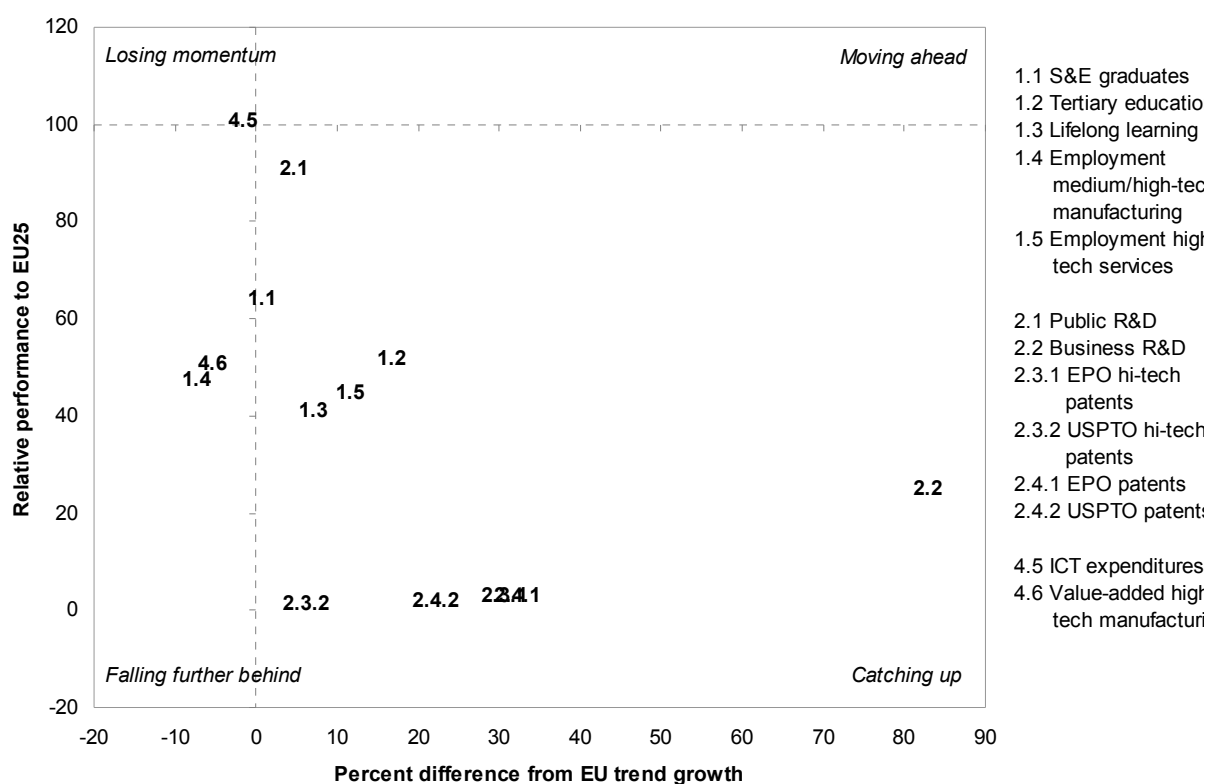
POLAND										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	3.8	4.9	5.7	6.6	7.4	8.1	--	71	12	-	+
	<i>relative to EU15</i>	--	37	46	51	58	60	65	--				
1.2	Work pop w 3rd educ	--	--	--	11.3	11.3	11.4	12.1	13.8	65	23	-	+
	<i>relative to EU15</i>	--	--	--	55	53	53	55	--				
1.3	Lifelong learning	--	--	--	--	--	4.8	4.3	5.0	56	22	-	0
	<i>relative to EU15</i>	--	--	--	--	--	57	51	52				
1.4	Employment hi-tech manuf	--	--	--	--	--	--	--	--				
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
1.5	Employment hi-tech serv	--	--	--	--	--	--	--	--				
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
Knowledge creation													
2.1	Public R&D exp	0.40	0.41	0.40	0.41	0.42	0.41	0.46	--	69	21	-	+
	<i>relative to EU15</i>	57	60	59	61	62	60	67	--				
2.2	Business R&D exp	0.27	0.26	0.28	0.29	0.24	0.23	0.13	--	10	26	--	--
	<i>relative to EU15</i>	23	22	23	23	19	18	10	--				
2.3.1	EPO hi-tech patents	0.0	0.1	0.2	0.2	0.4	0.4	0.3	--	1	28	--	+
	<i>relative to EU15</i>	0	1	1	1	1	1	1	--				
2.3.2	USPTO hi-tech patents	0.0	0.0	0.0	0.1	0.1	0.1	0.0	--	0	24	--	
	<i>relative to EU15</i>	1	1	0	1	1	0	0	--				
2.4.1	EPO patents	0.8	1.5	2.0	1.5	3.1	3.2	2.7	--	2	27	--	+
	<i>relative to EU15</i>	1	1	2	1	2	2	2	--				
2.4.2	USPTO patents	0.6	0.4	0.6	0.7	0.5	0.6	0.4	--	1	27	--	-
	<i>relative to EU15</i>	1	1	1	1	1	1	1	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	12.5	--	--	--	39	23	--	
3.2	SMEs innov co-operation	--	--	--	--	5.0	--	--	--	71	20	-	
3.3	Innovation expenditures	--	--	--	--	1.84	--	--	--	85	11	0	

3.4	SMEs non-tech innov	--	--	--	--	--	--	--	--				
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	--	42	30	7	13	21	--	(3)
	<i>relative to EU15</i>	--	--	--	--	--	84	59	13				
4.2	Early stage venture capital	--	--	0.028	0.020	0.017	0.018	0.009	0.007	28	17	--	(3)
	<i>relative to EU15</i>	--	--	187	67	30	29	23	28				
4.3.1	New-to-market products	--	--	--	--	--	--	--	--				
4.3.2	New-to-firm products	--	--	--	--	--	--	--	--				
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.27		--	19		
4.5	ICT expenditures	--	--	--	--	6.7	6.9	7.1	7.7	123	8	+	+
	<i>relative to EU15</i>	--	--	--	--	103	108	116	124				
4.6	Value-added hi-tech manuf	--	--	--	--	--	5.7	--	--	43	22	--	
	<i>relative to EU15</i>	--	--	--	--	--	40	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	45	46	46	46	46	46				
	Productivity per hour (EU15=100)	--	--	--	--	--	--	--	--				
	Employment rate	--	59	59	58	55	53	52	51	81			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

PORTUGAL

2004 European Innovation Scoreboard - PORTUGAL

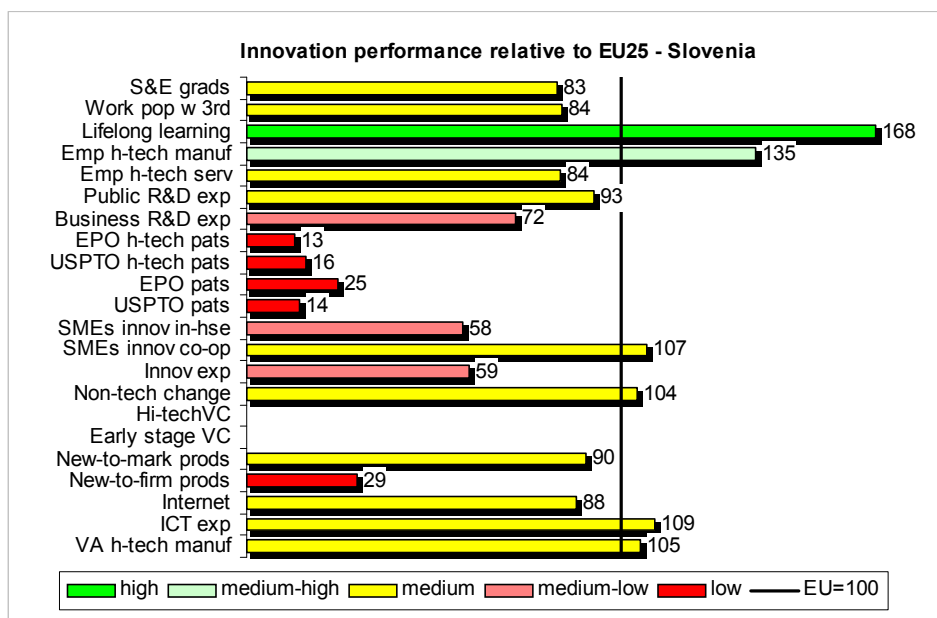
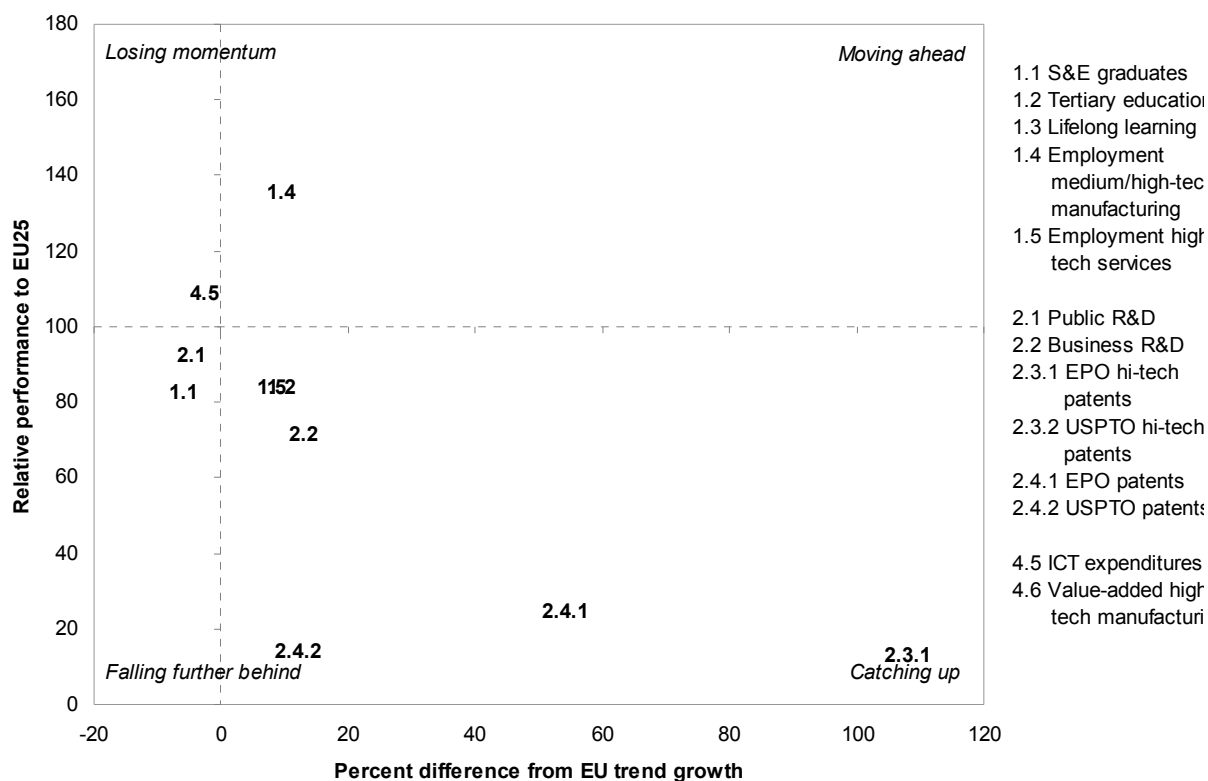


PORTUGAL										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	4.1	4.8	--	--	6.2	6.5	7.4	--	64	17	-	0
	<i>relative to EU15</i>	--	47	--	--	54	53	59	--				
1.2	Work pop w 3rd educ	--	--	9.3	8.7	8.9	9.1	9.3	11.0	52	26	-	+
	<i>relative to EU15</i>	--	--	54	42	42	42	43	--				
1.3	Lifelong learning	3.4	3.5	3.0	3.4	3.4	3.3	2.9	3.7	41	27	--	0
	<i>relative to EU15</i>	60	60	--	41	40	39	34	38				
1.4	Employment hi-tech manuf	--	--	3.56	3.57	3.66	3.57	3.33	3.14	48	21	--	0
	<i>relative to EU15</i>	--	--	46	47	48	47	45	44				
1.5	Employment hi-tech serv	--	--	1.38	1.21	1.20	1.43	1.45	1.43	45	27	--	+
	<i>relative to EU15</i>	--	--	46	38	35	40	41	41				
Knowledge creation													
2.1	Public R&D exp	--	0.48	--	0.58	--	0.58	0.61	--	91	13	0	0
	<i>relative to EU15</i>	--	71	--	87	--	85	88	--				
2.2	Business R&D exp	--	0.14	--	0.17	--	0.27	0.32	--	25	20	--	++
	<i>relative to EU15</i>	--	12	--	14	--	21	25	--				
2.3.1	EPO hi-tech patents	0.1	0.5	0.2	0.4	0.8	0.7	0.8	--	3	24	--	++
	<i>relative to EU15</i>	1	3	1	2	3	2	3	--				
2.3.2	USPTO hi-tech patents	0.0	0.0	0.1	0.2	0.2	0.2	0.1	--	1	23	--	0
	<i>relative to EU15</i>	0	0	1	2	2	2	1	--				
2.4.1	EPO patents	1.5	2.7	2.4	4.7	4.0	6.5	4.3	--	3	26	--	++
	<i>relative to EU15</i>	2	2	2	3	3	4	3	--				
2.4.2	USPTO patents	0.3	0.7	0.9	0.7	1.2	1.2	1.3	--	2	25	--	+
	<i>relative to EU15</i>	1	2	1	1	2	2	2	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	36.2	--	--	--	114	8	0	
3.2	SMEs innov co-operation	--	--	--	--	7.0	--	--	--	98	17	0	
3.3	Innovation expenditures	--	--	--	--	2.62	--	--	--	122	5	+	

3.4	SMEs non-tech innov	--	--	--	--	51	--	--	--	104	7	0	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	13	30	39	50	99	4	0	(3)
	<i>relative to EU15</i>	--	--	--	--	26	59	75	99				
4.2	Early stage venture capital	0.003	0.007	0.013	0.011	0.018	0.020	0.011	0.026	102	11	0	(3)
	<i>relative to EU15</i>	55	81	83	36	31	33	28	102				
4.3.1	New-to-market products	--	--	--	--	10.8	--	--	--	183	2	++	
4.3.2	New-to-firm products	--	--	--	--	15.1	--	--	--	90	7	0	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.27		--	20		
4.5	ICT expenditures	--	--	--	--	6.6	6.6	6.3	6.3	101	16	0	0
	<i>relative to EU15</i>	--	--	--	--	102	103	103	102				
4.6	Value-added hi-tech manuf	5.5	6.0	6.2	6.0	6.3	6.5	--	--	51	20	-	0
	<i>relative to EU15</i>	47	49	49	46	46	46	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	76	78	78	78	78	75				
	Productivity per hour (EU15=100)	56	57	58	59	60	60	60	59				
	Employment rate	64	66	67	68	68	69	68	67	107			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - SLOVENIA



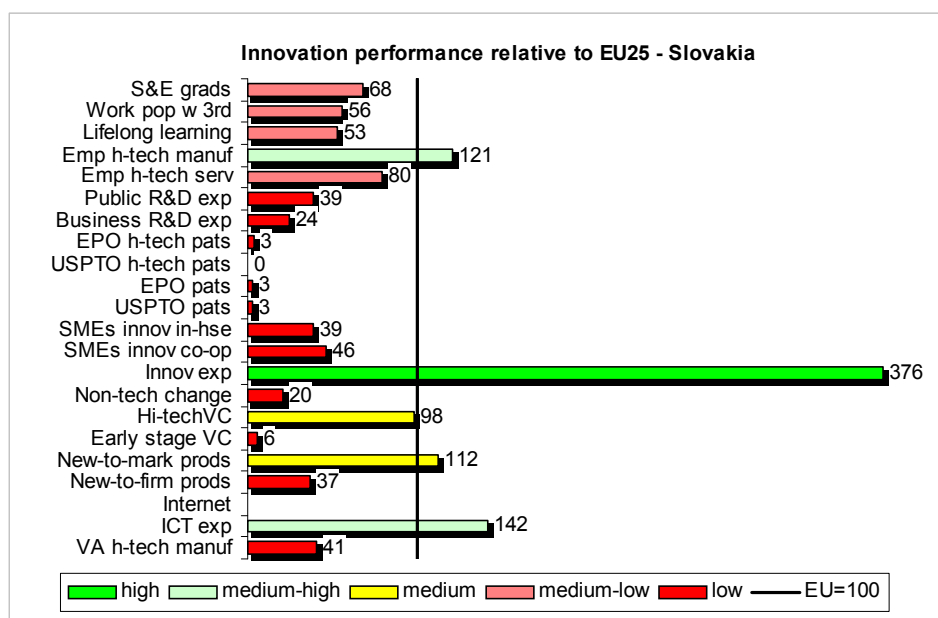
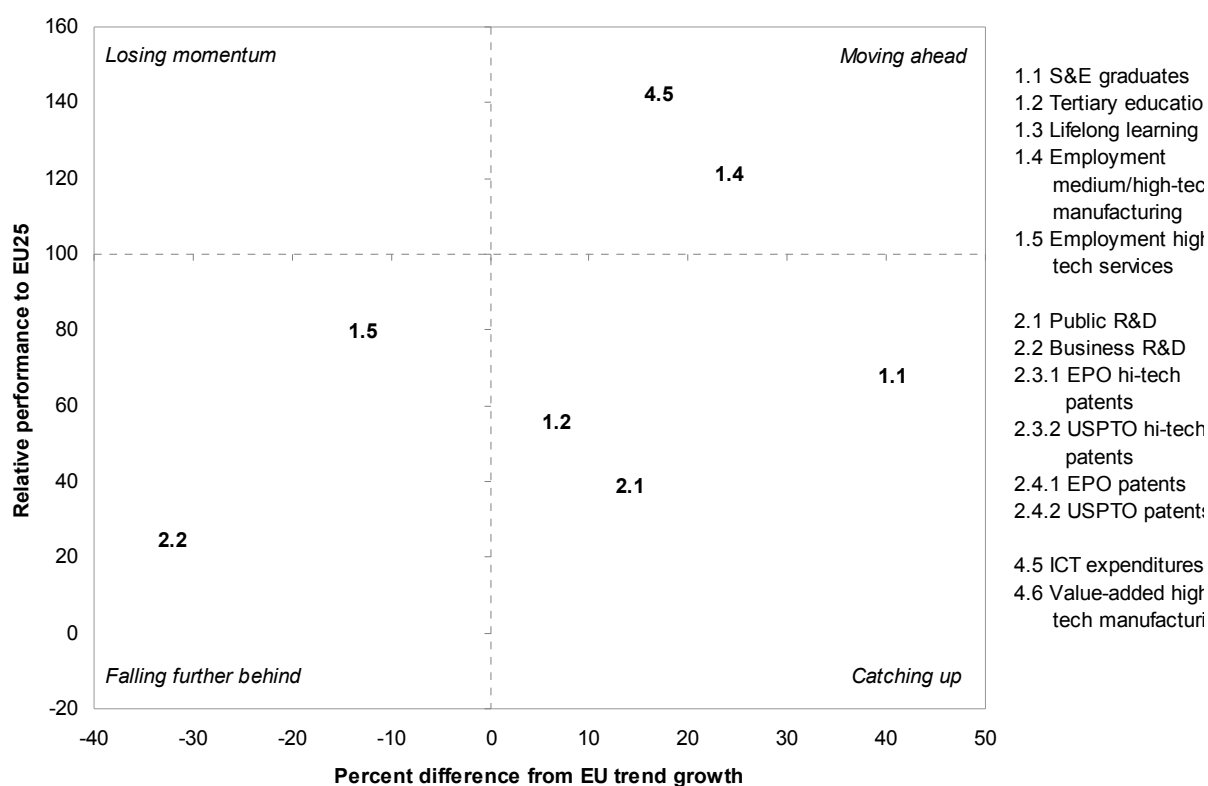
SLOVENIA										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	6.3	8.0	8.4	8.9	8.2	9.5	--	83	10	0	0
	<i>relative to EU15</i>	--	61	75	76	78	66	76	--				
1.2	Work pop w 3rd educ	--	--	14.4	15.6	15.9	14.4	15.2	17.8	84	19	0	0
	<i>relative to EU15</i>	--	--	84	76	75	67	70	--				
1.3	Lifelong learning	--	--	--	--	--	7.6	9.1	15.1	168	9	++	
	<i>relative to EU15</i>	--	--	--	--	--	90	107	156				
1.4	Employment hi-tech manuf	--	8.87	8.57	8.38	8.69	8.74	9.22	8.94	135	2	+	0
	<i>relative to EU15</i>	--	116	111	110	114	116	125	126				
1.5	Employment hi-tech serv	--	2.02	2.04	2.18	2.52	2.71	2.34	2.67	84	19	0	0
	<i>relative to EU15</i>	--	69	68	68	74	75	66	77				
Knowledge creation													
2.1	Public R&D exp	0.67	0.63	0.67	0.64	0.63	0.66	0.62	--	93	12	0	0
	<i>relative to EU15</i>	96	93	99	96	93	97	90	--				
2.2	Business R&D exp	0.68	0.70	0.72	0.78	0.81	0.90	0.91	--	72	14	-	+
	<i>relative to EU15</i>	58	59	60	62	64	69	70	--				
2.3.1	EPO hi-tech patents	0.8	1.3	3.4	1.6	1.8	7.7	3.4	--	13	18	--	++
	<i>relative to EU15</i>	6	9	17	7	6	23	11	--				
2.3.2	USPTO hi-tech patents	0.1	0.5	1.0	0.5	0.3	2.1	1.5	--	16	15	--	
	<i>relative to EU15</i>	2	9	12	6	3	20	13	--				
2.4.1	EPO patents	20.8	20.1	17.1	25.7	25.1	43.7	32.8	--	25	16	--	++
	<i>relative to EU15</i>	21	18	13	18	16	26	21	--				
2.4.2	USPTO patents	4.8	3.9	9.5	5.5	8.9	11.4	8.4	--	14	16	--	+
	<i>relative to EU15</i>	11	8	16	9	13	16	12	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	18.3	--	--	--	58	19	-	
3.2	SMEs innov co-operation	--	--	--	--	7.6	--	--	--	107	16	0	
3.3	Innovation expenditures	--	--	--	--	1.28	--	--	--	59	19	-	

3.4	SMEs non-tech innov	--	--	--	--	51	--	--	--	104	7	0	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	--	--	--	--				(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
4.2	Early stage venture capital	--	--	--	--	--	--	--	--				(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--				
4.3.1	New-to-market products	--	--	--	--	5.3	--	--	--	90	11	0	
4.3.2	New-to-firm products	--	--	--	--	4.9	--	--	--	29	21	--	
4.4	Internet (comp. indicator)	--	--	--	--	--	--		0.45	--	13		
4.5	ICT expenditures	--	--	--	--	7.3	7.1	7.0	6.8	109	12	0	0
	<i>relative to EU15</i>	--	--	--	--	112	111	115	110				
4.6	Value-added hi-tech manuf	--	--	--	--	11.7	12.6	13.3	--	105	10	0	
	<i>relative to EU15</i>	--	--	--	--	85	89	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	72	74	74	75	77	77				
Productivity per hour (EU15=100)		--	--	--	--	--	--	--	--				
Employment rate		62	63	63	62	63	64	63	63	100			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

SLOVAKIA

2004 European Innovation Scoreboard - SLOVAK REPUBLIC

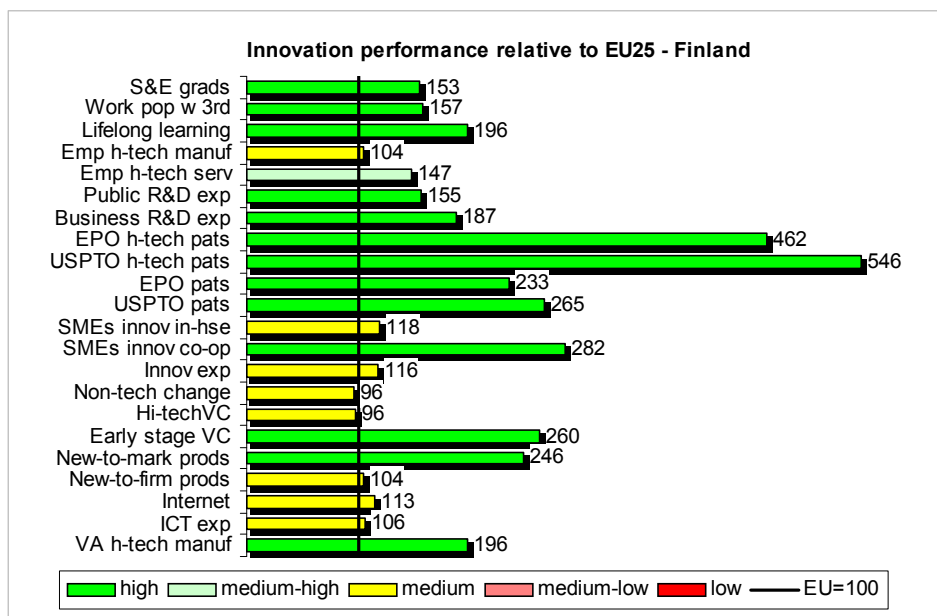
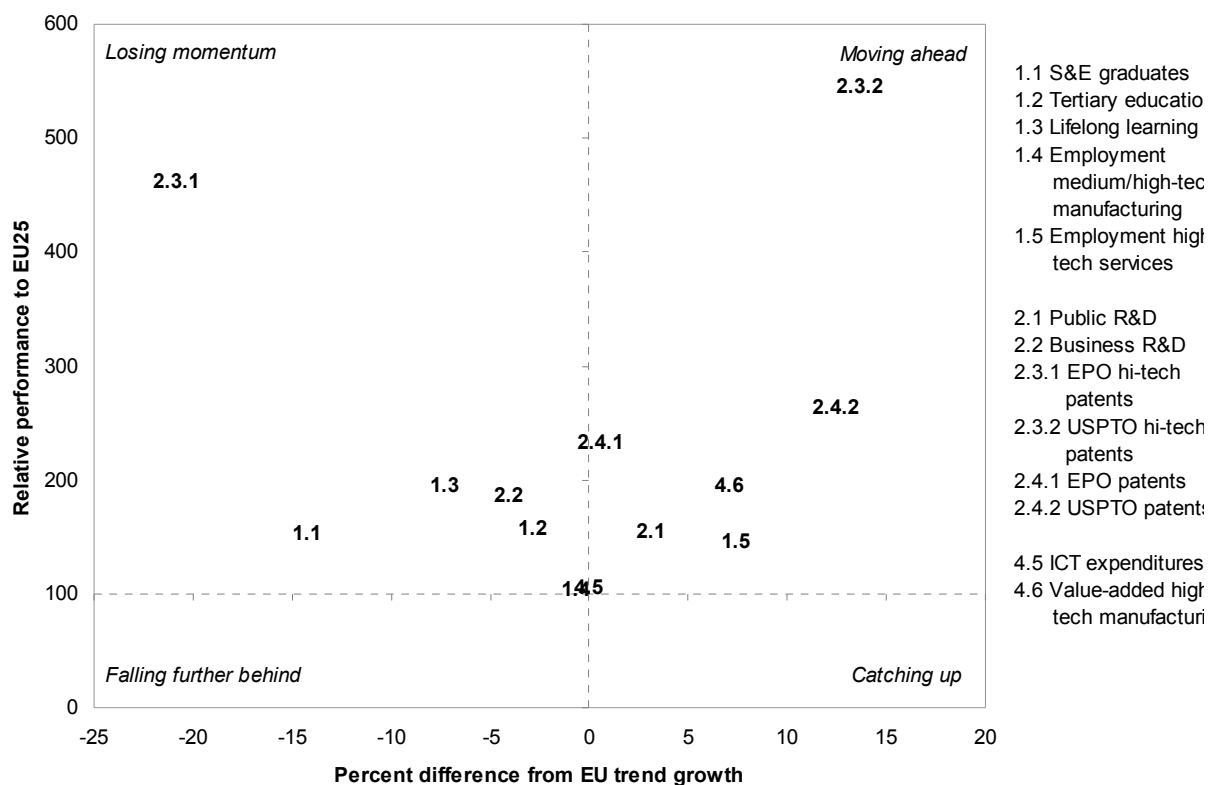


SLOVAKIA										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	4.9	4.3	5.1	5.3	7.5	7.8	--	68	15	-	++
	<i>relative to EU15</i>	--	48	40	46	46	61	63	--				
1.2	Work pop w 3rd educ	--	--	10.2	10.0	10.3	10.9	10.9	11.8	56	25	-	0
	<i>relative to EU15</i>	--	--	59	49	49	51	50	--				
1.3	Lifelong learning	--	--	--	--	--	--	9.0	4.8	53	23	-	
	<i>relative to EU15</i>	--	--	--	--	--	--	106	49				
1.4	Employment hi-tech manuf	--	--	--	6.61	6.87	6.75	8.20	8.00	121	6	+	+
	<i>relative to EU15</i>	--	--	--	86	90	89	111	113				
1.5	Employment hi-tech serv	--	--	--	2.74	2.97	3.02	2.83	2.54	80	20	-	-
	<i>relative to EU15</i>	--	--	--	86	88	84	79	73				
Knowledge creation													
2.1	Public R&D exp	0.40	0.27	0.27	0.25	0.22	0.21	0.21	0.26	39	25	--	+
	<i>relative to EU15</i>	57	40	40	37	32	31	30	--				
2.2	Business R&D exp	0.52	0.82	0.52	0.41	0.43	0.43	0.37	0.31	24	21	--	--
	<i>relative to EU15</i>	44	69	43	33	34	33	28	--				
2.3.1	EPO hi-tech patents	0.5	0.2	0.4	0.6	0.9	1.2	0.9	--	3	22	--	
	<i>relative to EU15</i>	4	1	2	3	3	4	3	--				
2.3.2	USPTO hi-tech patents	0.0	0.0	0.1	0.1	0.1	0.3	0.0	--	0	25	--	
	<i>relative to EU15</i>	0	0	1	1	1	3	0	--				
2.4.1	EPO patents	5.0	3.7	5.9	4.3	6.8	7.1	4.3	--	3	25	--	
	<i>relative to EU15</i>	5	3	5	3	4	4	3	--				
2.4.2	USPTO patents	0.2	0.6	0.7	1.6	1.4	0.6	1.9	--	3	24	--	
	<i>relative to EU15</i>	0	1	1	3	2	1	3	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	--	12.5	--	--	39	24	--	
3.2	SMEs innov co-operation	--	--	--	--	--	3.3	--	--	46	22	--	
3.3	Innovation expenditures	--	--	--	--	--	8.09	--	--	376	1	++	

3.4	SMEs non-tech innov	--	--	--	--	--	10	--	--	20	22	--	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	--	--	50	50	98	6	0	(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	96	98				
4.2	Early stage venture capital	--	--	0.004	0.003	0.001	0.006	0.008	0.002	6	19	--	(3)
	<i>relative to EU15</i>	--	--	27	9	1	10	20	6				
4.3.1	New-to-market products	--	--	--	--	--	6.6	--	--	112	7	0	
4.3.2	New-to-firm products	--	--	--	--	--	6.2	--	--	37	18	--	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	--	--	--			
4.5	ICT expenditures	--	--	--	--	7.3	8.3	9.1	8.9	142	5	+	+
	<i>relative to EU15</i>	--	--	--	--	112	130	149	144				
4.6	Value-added hi-tech manuf	--	--	--	--	--	5.6	5.2	--	41	23	--	
	<i>relative to EU15</i>	--	--	--	--	--	40	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	48	47	48	49	52	51				
	Productivity per hour (EU15=100)	35	36	38	39	41	42	45	44				
	Employment rate	--	--	61	58	57	57	57	58	92			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - FINLAND

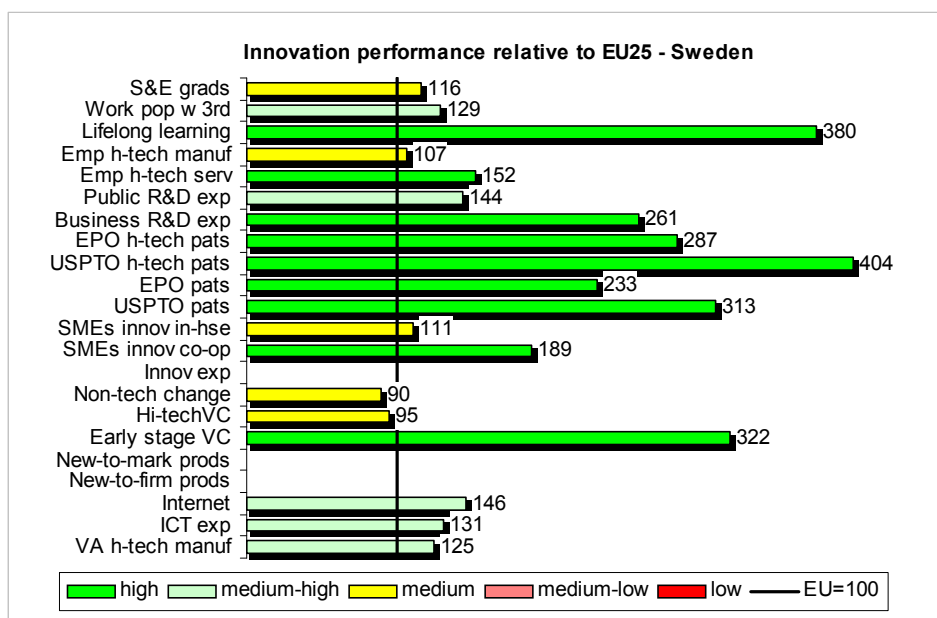
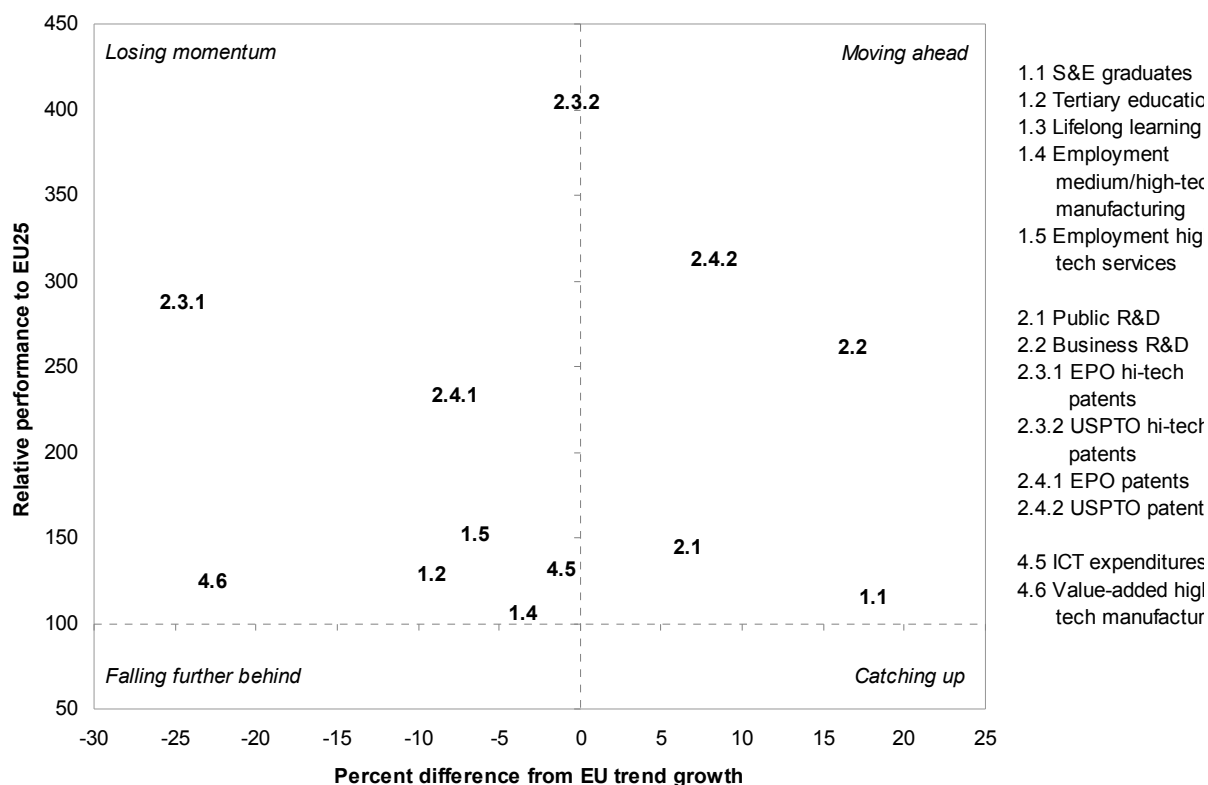


FINLAND										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	13.1	15.8	15.9	17.8	16.0	17.2	--	--	153	4	++	-
	<i>relative to EU15</i>	--	153	149	160	140	139	--	--				
1.2	Work pop w 3rd educ	--	--	28.9	31.3	32.3	32.3	32.4	33.2	157	1	++	0
	<i>relative to EU15</i>	--	--	168	153	152	150	149	--				
1.3	Lifelong learning	16.3	15.8	16.1	17.6	19.6	19.3	18.9	17.6	196	7	++	0
	<i>relative to EU15</i>	286	272	--	215	231	230	222	181				
1.4	Employment hi-tech manuf	--	6.94	7.21	7.23	7.23	7.44	7.38	6.85	104	10	0	0
	<i>relative to EU15</i>	--	91	93	95	95	99	100	96				
1.5	Employment hi-tech serv	--	3.46	4.60	4.26	4.39	4.40	4.73	4.68	147	3	+	0
	<i>relative to EU15</i>	--	118	154	133	129	122	133	134				
Knowledge creation													
2.1	Public R&D exp	0.86	0.92	0.94	1.03	0.99	0.99	1.05	1.04	155	2	++	0
	<i>relative to EU15</i>	123	135	138	154	146	146	152	--				
2.2	Business R&D exp	1.68	1.79	1.94	2.20	2.41	2.42	2.41	2.37	187	2	++	0
	<i>relative to EU15</i>	142	150	162	176	190	186	185	--				
2.3.1	EPO hi-tech patents	48.8	73.2	99.5	120.2	155.5	165.6	120.2	--	462	1	++	-
	<i>relative to EU15</i>	416	482	511	517	530	491	389	--				
2.3.2	USPTO hi-tech patents	15.0	15.3	30.6	37.8	36.9	44.1	51.4	--	546	1	++	+
	<i>relative to EU15</i>	269	286	359	419	388	406	457	--				
2.4.1	EPO patents	174.1	214.4	260.2	294.2	343.7	377.4	310.9	--	233	3	++	0
	<i>relative to EU15</i>	179	187	200	209	217	224	196	--				
2.4.2	USPTO patents	87.4	88.7	116.4	126.5	119.5	143.4	158.6	--	265	3	++	+
	<i>relative to EU15</i>	194	188	191	201	179	200	222	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	37.6	--	--	--	118	6	0	
3.2	SMEs innov co-operation	--	--	--	--	20.0	--	--	--	282	1	++	
3.3	Innovation expenditures	--	--	--	--	2.50	--	--	--	116	8	0	

3.4	SMEs non-tech innov	--	--	--	--	47	--	--	--	96	11	0	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	51	61	54	49	96	7	0	(3)
	<i>relative to EU15</i>	--	--	--	--	103	121	104	96				
4.2	Early stage venture capital	0.009	0.009	0.031	0.055	0.081	0.104	0.088	0.065	260	2	++	(3)
	<i>relative to EU15</i>	155	106	203	190	142	173	236	260				
4.3.1	New-to-market products	--	--	--	--	14.5	--	--	--	246	1	++	
4.3.2	New-to-firm products	--	--	--	--	17.5	--	--	--	104	3	0	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.69		--	8		
4.5	ICT expenditures	--	--	--	--	6.9	6.7	6.6	6.6	106	13	0	0
	<i>relative to EU15</i>	--	--	--	--	106	105	108	106				
4.6	Value-added hi-tech manuf	19.0	20.1	20.8	21.8	23.7	24.9	--	--	196	4	++	0
	<i>relative to EU15</i>	163	164	166	166	173	176	--	--				
Macro-economic indicators													
	GDP per capita (EU25=100)	--	--	114	112	115	115	112	111				
	Productivity per hour (EU15=100)	94	96	98	95	97	97	94	93				
	Employment rate	62	63	65	66	67	68	68	68	108			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

2004 European Innovation Scoreboard - SWEDEN



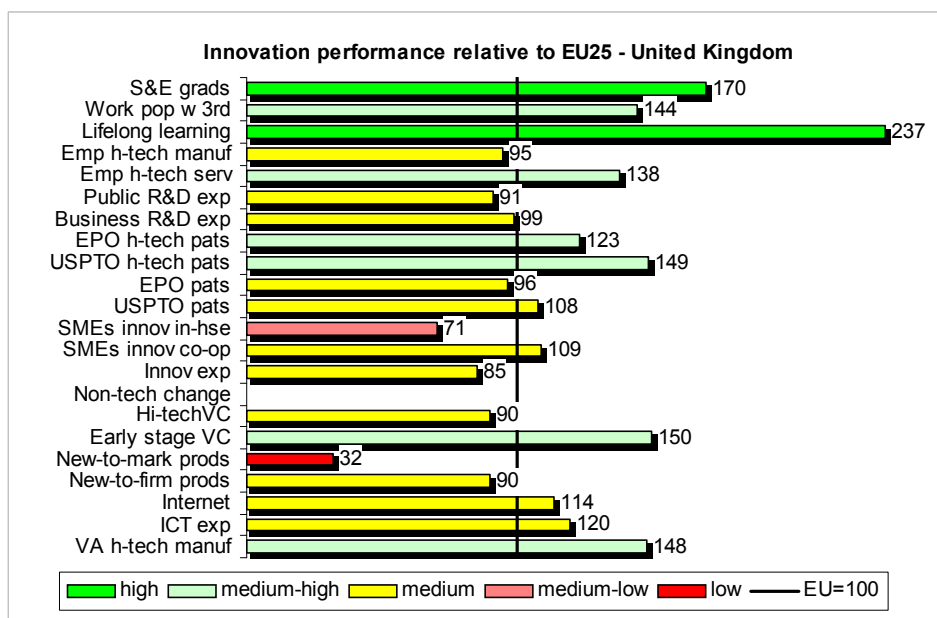
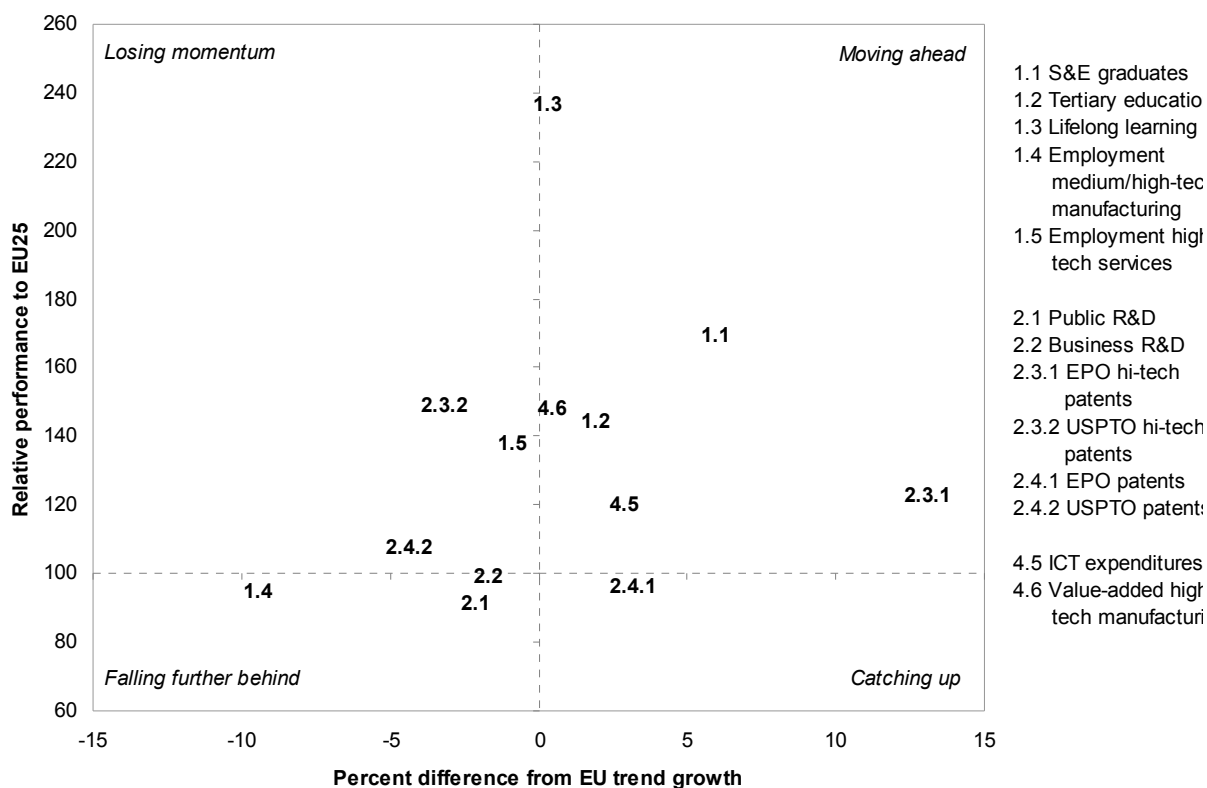
SWEDEN										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	7.4	7.8	7.9	9.7	11.6	12.4	13.3	--	116	6	0	+
	<i>relative to EU15</i>	--	76	74	87	102	100	107	--				
1.2	Work pop w 3rd educ	--	--	27.6	28.5	29.7	25.5	26.4	27.2	129	8	+	0
	<i>relative to EU15</i>	--	--	160	139	140	119	121	--				
1.3	Lifelong learning	26.5	25.0	--	25.8	21.6	17.5	18.4	34.2	380	1	++	
	<i>relative to EU15</i>	465	431	--	315	254	208	216	353				
1.4	Employment hi-tech manuf	--	8.62	8.63	8.26	7.90	7.72	7.27	7.03	107	9	0	0
	<i>relative to EU15</i>	--	113	112	108	104	102	99	99				
1.5	Employment hi-tech serv	--	4.04	4.38	4.76	5.13	5.18	5.22	4.85	152	1	++	0
	<i>relative to EU15</i>	--	137	147	149	151	143	147	139				
Knowledge creation													
2.1	Public R&D exp	--	0.89	0.86	0.91	--	0.95	--	--	144	3	+	0
	<i>relative to EU15</i>	--	131	126	136	--	140	--	--				
2.2	Business R&D exp	--	2.66	2.76	2.74	--	3.32	--	--	261	1	++	+
	<i>relative to EU15</i>	--	224	230	219	--	255	--	--				
2.3.1	EPO hi-tech patents	36.0	44.5	72.6	73.6	102.0	108.2	74.7	--	287	3	++	-
	<i>relative to EU15</i>	308	293	373	317	348	321	242	--				
2.3.2	USPTO hi-tech patents	17.1	16.4	24.6	30.2	37.8	37.3	38.1	--	404	2	++	0
	<i>relative to EU15</i>	305	307	288	335	397	344	339	--				
2.4.1	EPO patents	218.0	264.4	307.0	308.5	361.5	383.0	311.5	--	233	2	++	0
	<i>relative to EU15</i>	224	230	236	219	228	228	197	--				
2.4.2	USPTO patents	96.8	97.4	139.2	158.7	178.7	196.5	187.4	--	313	2	++	0
	<i>relative to EU15</i>	215	207	228	252	268	274	263	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	35.2	--	--	--	111	10	0	
3.2	SMEs innov co-operation	--	--	--	--	13.4	--	--	--	189	3	++	
3.3	Innovation expenditures	--	--	--	--	0.00	--	--	--				

3.4	SMEs non-tech innov	--	--	--	--	44	--	--	--	90	13	0	
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	46	48	53	48	95	8	0	(3)
	<i>relative to EU15</i>	--	--	--	--	95	94	102	95				
4.2	Early stage venture capital	0.003	0.003	0.007	0.057	0.095	0.093	0.097	0.081	322	1	++	(3)
	<i>relative to EU15</i>	55	31	43	195	168	154	262	322				
4.3.1	New-to-market products	--	--	--	--	--	--	--	--				
4.3.2	New-to-firm products	--	--	--	--	--	--	--	--				
4.4	Internet (comp. indicator)	--	--	--	--	--	--	1.00		--	2		
4.5	ICT expenditures	--	--	--	--	8.5	8.6	8.4	8.2	131	6	+	0
	<i>relative to EU15</i>	--	--	--	--	131	134	138	132				
4.6	Value-added hi-tech manuf	16.8	17.0	17.5	18.9	16.0	15.9	--	--	125	8	+	-
	<i>relative to EU15</i>	143	139	140	144	117	112	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	116	119	121	117	115	116				
Productivity per hour (EU15=100)		97	98	96	98	99	96	96	99				
Employment rate		70	70	70	72	73	74	74	73	116			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

UNITED KINGDOM

2004 European Innovation Scoreboard - UNITED KINGDOM



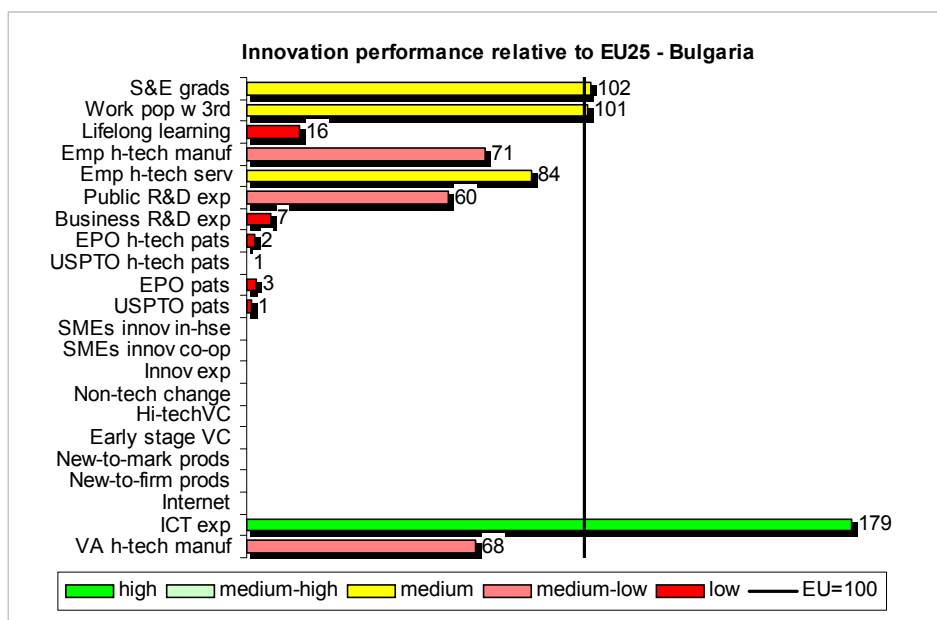
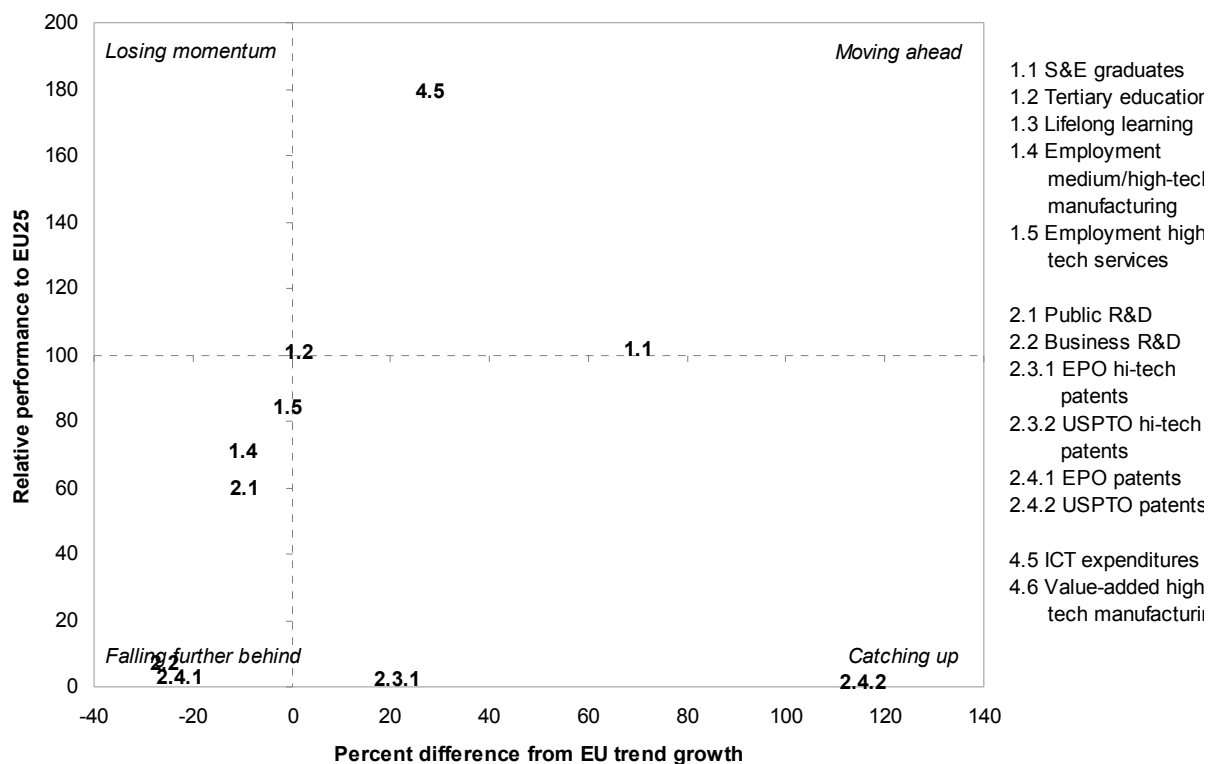
UNITED KINGDOM										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	14.3	14.5	15.2	15.6	16.2	19.5	19.5	--	170	3	++	0
	<i>relative to EU15</i>	--	141	142	140	142	158	156	--				
1.2	Work pop w 3rd educ	--	--	--	27.5	28.3	28.7	29.5	30.6	144	4	+	0
	<i>relative to EU15</i>	--	--	--	134	133	134	135	--				
1.3	Lifelong learning	--	--	--	19.2	21.1	21.7	22.3	21.3	237	4	++	0
	<i>relative to EU15</i>	--	--	--	234	248	258	262	220				
1.4	Employment hi-tech manuf	--	7.67	7.76	7.60	7.33	7.17	6.71	6.27	95	14	0	0
	<i>relative to EU15</i>	--	100	100	99	96	95	91	88				
1.5	Employment hi-tech serv	--	3.58	3.72	4.18	4.36	4.76	4.46	4.40	138	5	+	0
	<i>relative to EU15</i>	--	122	125	131	129	132	125	126				
Knowledge creation													
2.1	Public R&D exp	0.66	0.63	0.62	0.60	0.64	0.61	0.61	--	91	13	0	0
	<i>relative to EU15</i>	94	93	91	90	94	90	88	--				
2.2	Business R&D exp	1.24	1.19	1.19	1.25	1.21	1.28	1.26	--	99	10	0	0
	<i>relative to EU15</i>	105	100	99	100	95	98	97	--				
2.3.1	EPO hi-tech patents	13.6	15.8	18.5	22.9	28.7	37.2	32.0	--	123	8	+	+
	<i>relative to EU15</i>	116	104	95	98	98	110	103	--				
2.3.2	USPTO hi-tech patents	6.8	7.0	11.2	11.8	11.7	13.6	14.0	--	149	8	+	0
	<i>relative to EU15</i>	122	130	131	131	123	125	125	--				
2.4.1	EPO patents	82.3	90.4	101.0	111.2	128.4	138.4	128.7	--	96	12	0	0
	<i>relative to EU15</i>	85	79	78	79	81	82	81	--				
2.4.2	USPTO patents	42.2	45.9	59.1	60.7	61.9	66.5	64.5	--	108	11	0	0
	<i>relative to EU15</i>	94	97	97	96	93	93	90	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	22.4	--	--	--	71	17	-	
3.2	SMEs innov co-operation	--	--	--	--	7.7	--	--	--	109	15	0	
3.3	Innovation expenditures	--	--	--	--	1.83	--	--	--	85	12	0	

3.4	SMEs non-tech innov	--	--	--	--	--	--	--	--				
Innovation finance, output and markets													
4.1	Hi-tech venture capital	--	--	--	--	43	48	44	46	90	9	0	(3)
	<i>relative to EU15</i>	--	--	--	--	88	95	84	90				
4.2	Early stage venture capital	0.004	0.007	0.012	0.017	0.061	0.081	0.047	0.038	150	5	++	(3)
	<i>relative to EU15</i>	64	81	77	57	108	134	127	150				
4.3.1	New-to-market products	--	--	--	--	1.9	--	--	--	32	18	--	
4.3.2	New-to-firm products	--	--	--	--	15.1	--	--	--	90	6	0	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	0.69		--	7		
4.5	ICT expenditures	--	--	--	--	7.6	7.4	7.1	7.5	120	9	0	0
	<i>relative to EU15</i>	--	--	--	--	117	116	116	121				
4.6	Value-added hi-tech manuf	14.5	15.3	16.7	18.1	17.9	18.8	--	--	148	5	+	0
	<i>relative to EU15</i>	124	125	134	138	131	133	--	--				
Macro-economic indicators													
GDP per capita (EU25=100)		--	--	114	114	115	116	118	119				
Productivity per hour (EU15=100)		83	84	--	85	86	87	88	89				
Employment rate		69	70	71	71	72	72	72	72	114			

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

BULGARIA

2004 European Innovation Scoreboard - BULGARIA



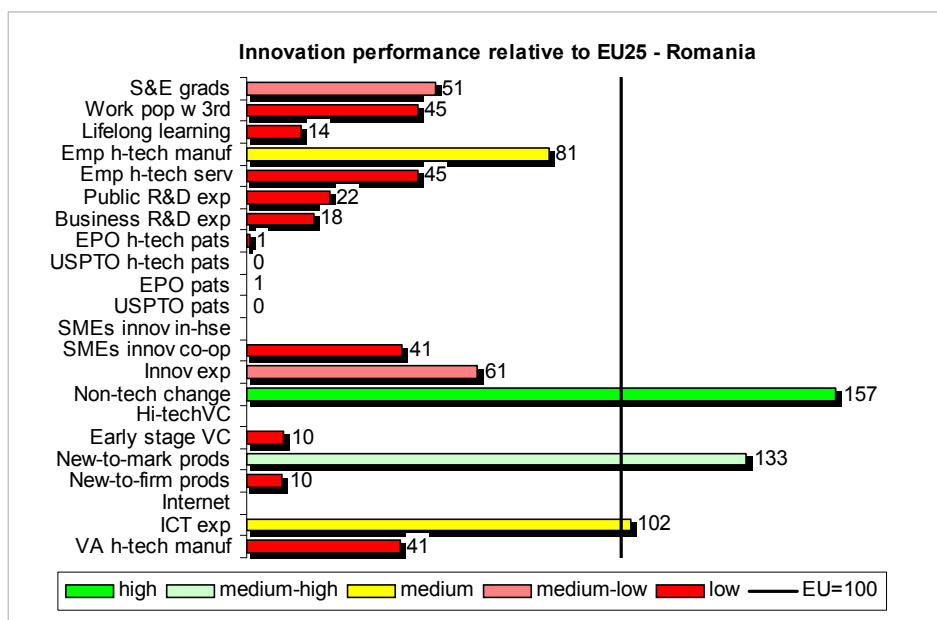
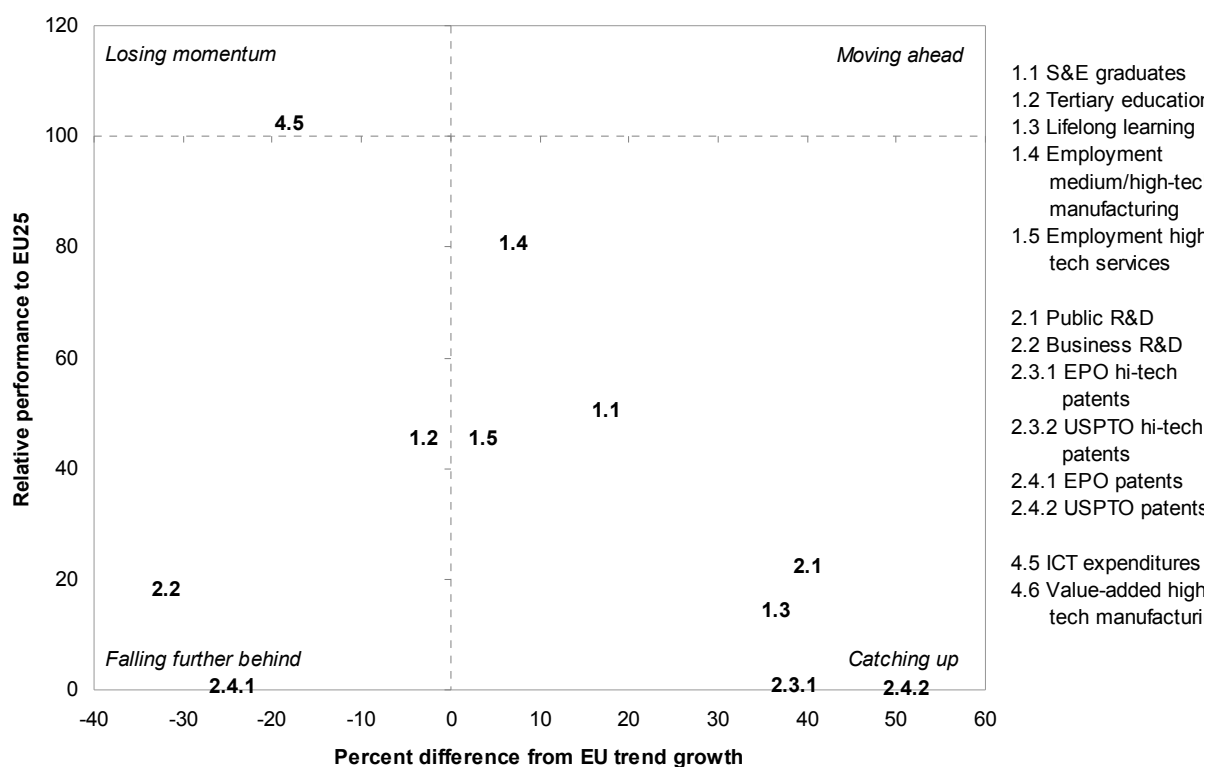
BULGARIA										Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources													
1.1	S&E graduates	--	6.0	5.5	6.5	6.6	7.9	11.7	--	102		0	++
	<i>relative to EU15</i>	--	58	51	58	58	64	94	--				
1.2	Work pop w 3rd educ	--	--	--	--	18.2	21.3	21.2	21.3	101		0	0
	<i>relative to EU15</i>	--	--	--	--	86	99	97	--				
1.3	Lifelong learning	--	--	--	--	--	1.4	1.3	1.4	16		--	
	<i>relative to EU15</i>	--	--	--	--	--	17	15	14				
1.4	Employment hi-tech manuf	--	--	--	--	5.61	5.50	5.33	4.66	71		-	0
	<i>relative to EU15</i>	--	--	--	--	74	73	72	66				
1.5	Employment hi-tech serv	--	--	--	--	2.51	2.71	2.66	2.69	84		0	0
	<i>relative to EU15</i>	--	--	--	--	74	75	75	77				
Knowledge creation													
2.1	Public R&D exp	0.21	0.39	0.46	0.45	0.41	0.37	0.40	--	60		-	0
	<i>relative to EU15</i>	30	57	68	67	60	54	58	--				
2.2	Business R&D exp	0.31	0.12	0.11	0.12	0.11	0.10	0.09	--	7		--	--
	<i>relative to EU15</i>	26	10	9	10	9	8	7	--				
2.3.1	EPO hi-tech patents	0.2	0.1	0.3	0.2	0.4	0.4	0.6	--	2		--	+
	<i>relative to EU15</i>	2	1	1	1	1	1	2	--				
2.3.2	USPTO hi-tech patents	0.0	0.1	0.1	0.0	0.1	0.0	0.1	--	1		--	
	<i>relative to EU15</i>	0	2	1	0	1	0	1	--				
2.4.1	EPO patents	2.3	2.0	3.1	3.0	4.2	2.6	3.7	--	3		--	-
	<i>relative to EU15</i>	2	2	2	2	3	2	2	--				
2.4.2	USPTO patents	0.4	0.6	0.2	0.5	0.2	0.6	0.8	--	1		--	++
	<i>relative to EU15</i>	1	1	0	1	0	1	1	--				
Transmission and application of knowledge													
3.1	SMEs innov in-house	--	--	--	--	--	--	--	--				
3.2	SMEs innov co-operation	--	--	--	--	--	--	--	--				
3.3	Innovation expenditures	--	--	--	--	--	--	--	--				

3.4	SMEs non-tech innov	--	--	--	--	--	--	--	--			
Innovation finance, output and markets												
4.1	Hi-tech venture capital	--	--	--	--	--	--	--	--			(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.2	Early stage venture capital	--	--	--	--	--	--	--	--			(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.3.1	New-to-market products	--	--	--	--	--	--	--	--			
4.3.2	New-to-firm products	--	--	--	--	--	--	--	--			
4.4	Internet (comp. indicator)	--	--	--	--	--	--	--	--	--		
4.5	ICT expenditures	--	--	--	--	8.7	9.2	10.3	11.2	179	++	++
	<i>relative to EU15</i>	--	--	--	--	134	144	169	181			
4.6	Value-added hi-tech manuf	--	--	--	--	--	--	8.6	--	68	-	
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
Macro-economic indicators												
	GDP per capita (EU25=100)	--	--	26	27	27	29	29	30			
	Productivity per hour (EU15=100)	--	--	--	--	--	--	--	--			
	Employment rate	--	--	--	--	50	50	51	53	83		

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

ROMANIA

2004 European Innovation Scoreboard - ROMANIA



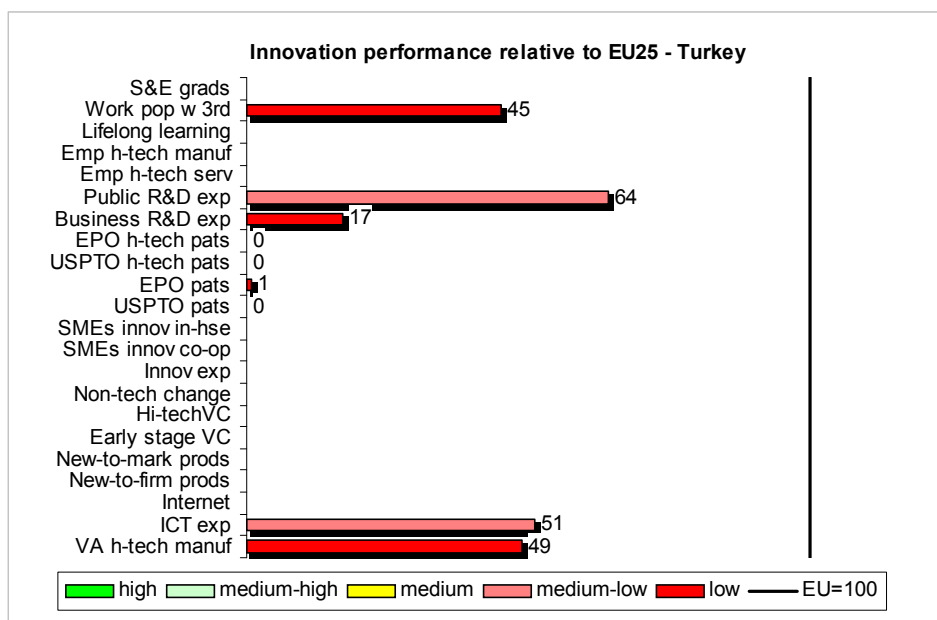
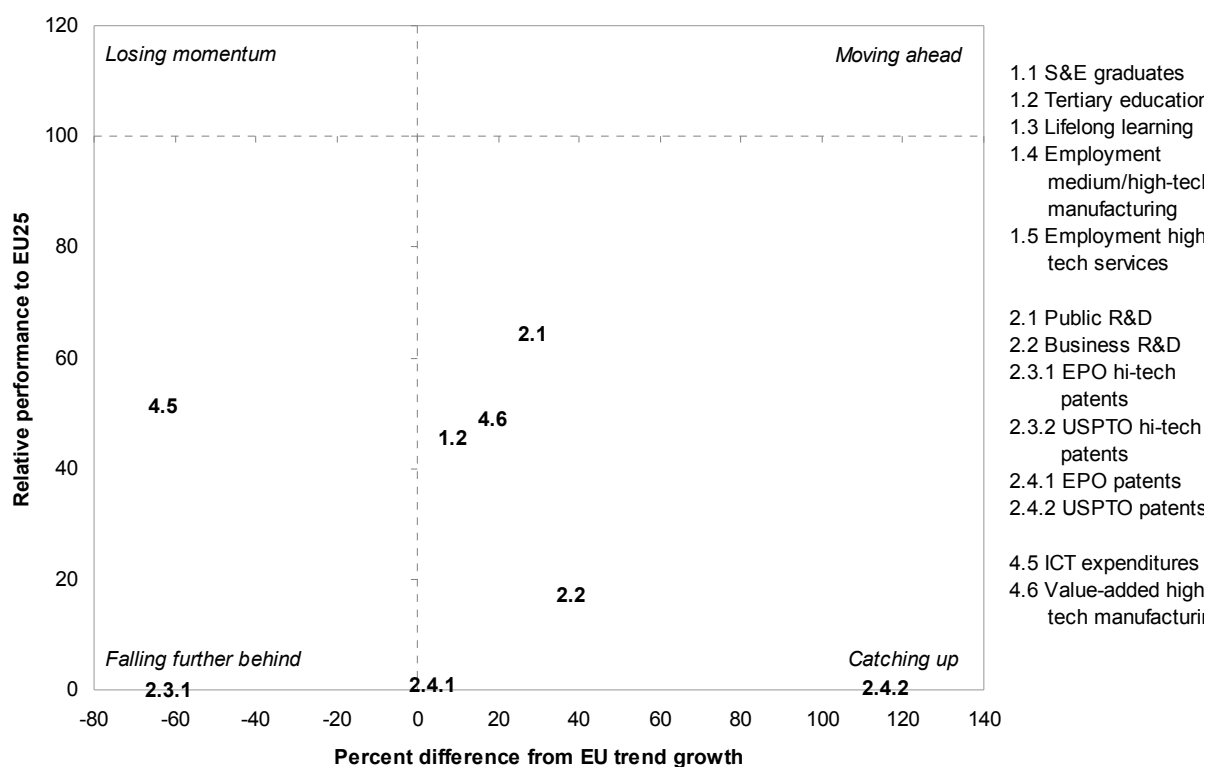
ROMANIA									Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources												
1.1	S&E graduates	--	5.9	4.2	4.1	4.5	4.9	5.8	--	51	-	+
	<i>relative to EU15</i>	--	57	39	37	39	40	47	--			
1.2	Work pop w 3rd educ	--	--	8.7	8.7	9.3	9.8	9.8	9.6	45	--	0
	<i>relative to EU15</i>	--	--	51	42	44	46	45	--			
1.3	Lifelong learning	--	0.9	1.0	0.8	0.9	1.1	1.1	1.3	14	--	++
	<i>relative to EU15</i>	--	16	--	10	11	13	13	13			
1.4	Employment hi-tech manuf	--	6.70	6.21	5.83	4.98	4.91	5.50	5.32	81	0	0
	<i>relative to EU15</i>	--	88	80	76	65	65	75	75			
1.5	Employment hi-tech serv	--	1.61	1.67	1.41	1.35	1.43	1.57	1.45	45	--	0
	<i>relative to EU15</i>	--	55	56	44	40	40	44	42			
Knowledge creation												
2.1	Public R&D exp	--	--	0.11	0.10	0.11	0.15	0.15	--	22	--	++
	<i>relative to EU15</i>	--	--	16	15	16	22	22	--			
2.2	Business R&D exp	--	--	0.38	0.30	0.26	0.24	0.23	--	18	--	--
	<i>relative to EU15</i>	--	--	32	24	20	18	18	--			
2.3.1	EPO hi-tech patents	0.0	0.0	0.2	0.1	0.1	0.2	0.2	--	1	--	++
	<i>relative to EU15</i>	0	0	1	0	0	1	1	--			
2.3.2	USPTO hi-tech patents	0.0	0.0	0.0	0.0	0.0	0.1	0.0	--	0	--	
	<i>relative to EU15</i>	0	1	0	0	0	1	0	--			
2.4.1	EPO patents	0.8	0.4	1.3	1.0	1.1	1.2	0.9	--	1	--	-
	<i>relative to EU15</i>	1	0	1	1	1	1	1	--			
2.4.2	USPTO patents	0.2	0.1	0.2	0.2	0.2	0.4	0.2	--	0	--	++
	<i>relative to EU15</i>	0	0	0	0	0	1	0	--			
Transmission and application of knowledge												
3.1	SMEs innov in-house	--	--	--	--	--	--	--	--			
3.2	SMEs innov co-operation	--	--	--	--	2.9	--	--	--	41	--	
3.3	Innovation expenditures	--	--	--	--	1.32	--	--	--	61	-	

3.4	SMEs non-tech innov	--	--	--	--	77	--	--	--	157	++	
Innovation finance, output and markets												
4.1	Hi-tech venture capital	--	--	--	--	--	--	--	--			(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.2	Early stage venture capital	--	--	--	--	0.003	0.004	0.005	0.003	10	--	(3)
	<i>relative to EU15</i>	--	--	--	--	5	6	12	10			
4.3.1	New-to-market products	--	--	--	--	7.8	--	--	--	133	+	
4.3.2	New-to-firm products	--	--	--	--	1.6	--	--	--	10	--	
4.4	Internet (comp. indicator)	--	--	--	--	--	--	--	--	--		
4.5	ICT expenditures	--	--	--	--	8.6	7.6	6.8	6.4	102	0	-
	<i>relative to EU15</i>	--	--	--	--	132	119	111	103			
4.6	Value-added hi-tech manuf	--	--	--	--	--	--	5.2	--	41	--	
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
Macro-economic indicators												
	GDP per capita (EU25=100)	--	--	--	--	26	27	29	30			
	Productivity per hour (EU15=100)	--	--	--	--	--	--	--	--			
	Employment rate	--	65	64	63	63	62	58	58	92		

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.

TURKEY

2004 European Innovation Scoreboard - TURKEY



TURKEY									Latest (EU25 =100)	Rank among EU25	Current (1)	Trend (2)
Human resources												
1.1	S&E graduates	--	--	--	--	--	--	--				
	<i>relative to EU15</i>	--	--	--	--	--	--	--				
1.2	Work pop w 3rd educ	--	--	7.5	8.1	8.5	8.6	9.3	45		--	0
	<i>relative to EU15</i>	--	--	44	39	40	40	42				
1.3	Lifelong learning	--	--	--	--	--	--	--				
	<i>relative to EU15</i>	--	--	--	--	--	--	--				
1.4	Employment hi-tech manuf	--	--	--	--	--	--	--				
	<i>relative to EU15</i>	--	--	--	--	--	--	--				
1.5	Employment hi-tech serv	--	--	--	--	--	--	--				
	<i>relative to EU15</i>	--	--	--	--	--	--	--				
Knowledge creation												
2.1	Public R&D exp	0.33	0.33	0.34	0.39	0.43	--	--	64		-	++
	<i>relative to EU15</i>	47	49	50	58	63	--	--				
2.2	Business R&D exp	0.12	0.16	0.16	0.24	0.21	--	--	17		--	++
	<i>relative to EU15</i>	10	13	13	19	17	--	--				
2.3.1	EPO hi-tech patents	0.0	0.0	0.1	0.2	0.1	0.2	0.0	0		--	--
	<i>relative to EU15</i>	0	0	1	1	0	1	0				
2.3.2	USPTO hi-tech patents	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0		--	
	<i>relative to EU15</i>	0	0	0	0	0	0	0				
2.4.1	EPO patents	0.3	0.6	0.7	1.1	1.2	1.3	1.0	1		--	0
	<i>relative to EU15</i>	0	1	0	1	1	1	1				
2.4.2	USPTO patents	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0		--	++
	<i>relative to EU15</i>	0	0	0	0	0	0	0				
Transmission and application of knowledge												
3.1	SMEs innov in-house	--	--	--	--	--	--	--				
3.2	SMEs innov co-operation	--	--	--	--	--	--	--				
3.3	Innovation expenditures	--	--	--	--	--	--	--				

3.4	SMEs non-tech innov	--	--	--	--	--	--	--	--			
Innovation finance, output and markets												
4.1	Hi-tech venture capital	--	--	--	--	--	--	--	--			(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.2	Early stage venture capital	--	--	--	--	--	--	--	--			(3)
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
4.3.1	New-to-market products	--	--	--	--	--	--	--	--			
4.3.2	New-to-firm products	--	--	--	--	--	--	--	--			
4.4	Internet (comp. indicator)	--	--	--	--	--	--	--	--	--		
4.5	ICT expenditures	--	--	--	--	13.1	5.6	4.1	3.2	51	-	--
	<i>relative to EU15</i>	--	--	--	--	202	88	67	52			
4.6	Value-added hi-tech manuf	--	--	--	--	--	--	--	--	49	--	+
	<i>relative to EU15</i>	--	--	--	--	--	--	--	--			
Macro-economic indicators												
	GDP per capita (EU25=100)	--	--	32	30	31	26	27	27			
	Productivity per hour (EU15=100)	--	--	--	--	--	--	--	--			
	Employment rate	--	--	--	--	48	47	46	--	73		

Value in **bold**: break in series. (1) Current strength “++” if relative to EU25 performance above 150, “+” if above 120, “0” if between 80 and 120, current weakness “-” if below 80, “--” if below 50. (2) Trend strength “++” if relative to EU25 trend above 25, “+” is above 10, “0” if between -10 and 10, trend weakness “-” if below -10, “--” if below -25. (3) Trend data for both venture capital indicators have not been used as these data suffer from high year-to-year fluctuations and are considered to be less reliable.