Agenda

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0 Introduction

1 Technology & know-how

2 Talent

3 Market size

4 Connectivity

5 International business climate

6 Conclusions

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0 Introduction

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Objective

Insight and understanding of the competitive strenghts of Europe's tech cities

Methodology

1 Technology and know-how

2 Talent

3 Market size

4 Connectivity

5 International Business Climate

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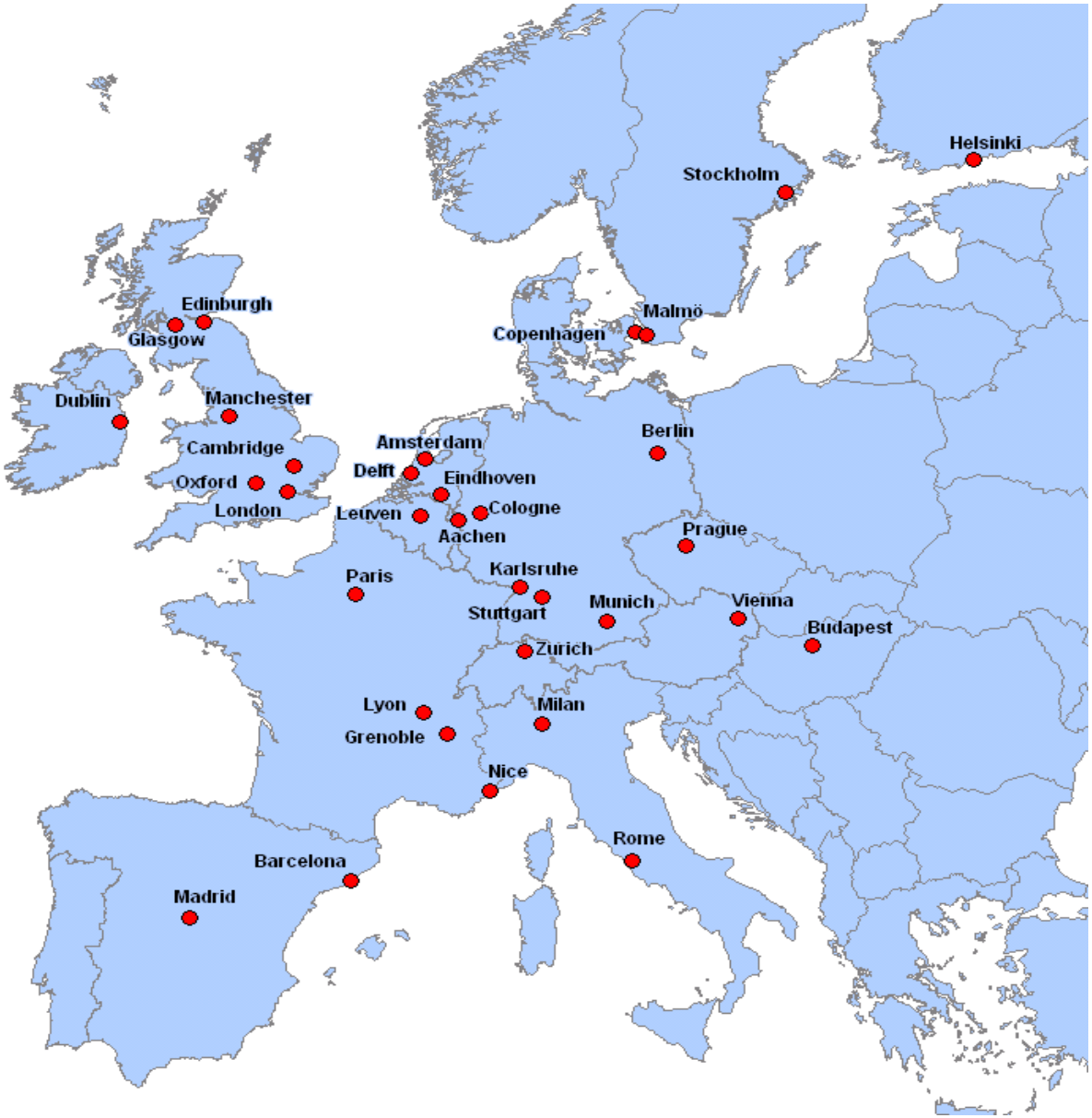

- 31 cities
- Data on
  - City level
  - Regional level
  - Country level

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Factors and indicators

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Factor	Weight %	Indicators	Weight %
1 Technology & know-how	20	1.1 R&D spendings	30
		1.2 Number of patent applications	25
		1.3 Ranking of universities	20
		1.4 Innovation index	25
2 Talent	35	2.1 Number of high skilled people	25
		2.2 Workers in R&D/tech industries	20
		2.3 Flexibility labour market	10
		2.4 Labour costs (for lab technicians, engineers and R&D supervisors)	45
3 Market size	10	3.1 Size regional market	35
		3.2 Size national market	65
4 Connectivity	20	4.1 Position in trans-European road network/ centrality index	35
		4.2 International accessibility by air	65
5 International business climate	15	5.1 Availability of venture capital	50
		5.2 Fiscal climate	30
		5.3 Risk forecast	20
	100		

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1 Technology & know-how

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1.1 R&D spendings

1.2 Number of patent applications

1.3 Ranking of universities

1.4 Innovation index

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Top 10 R&D spendings

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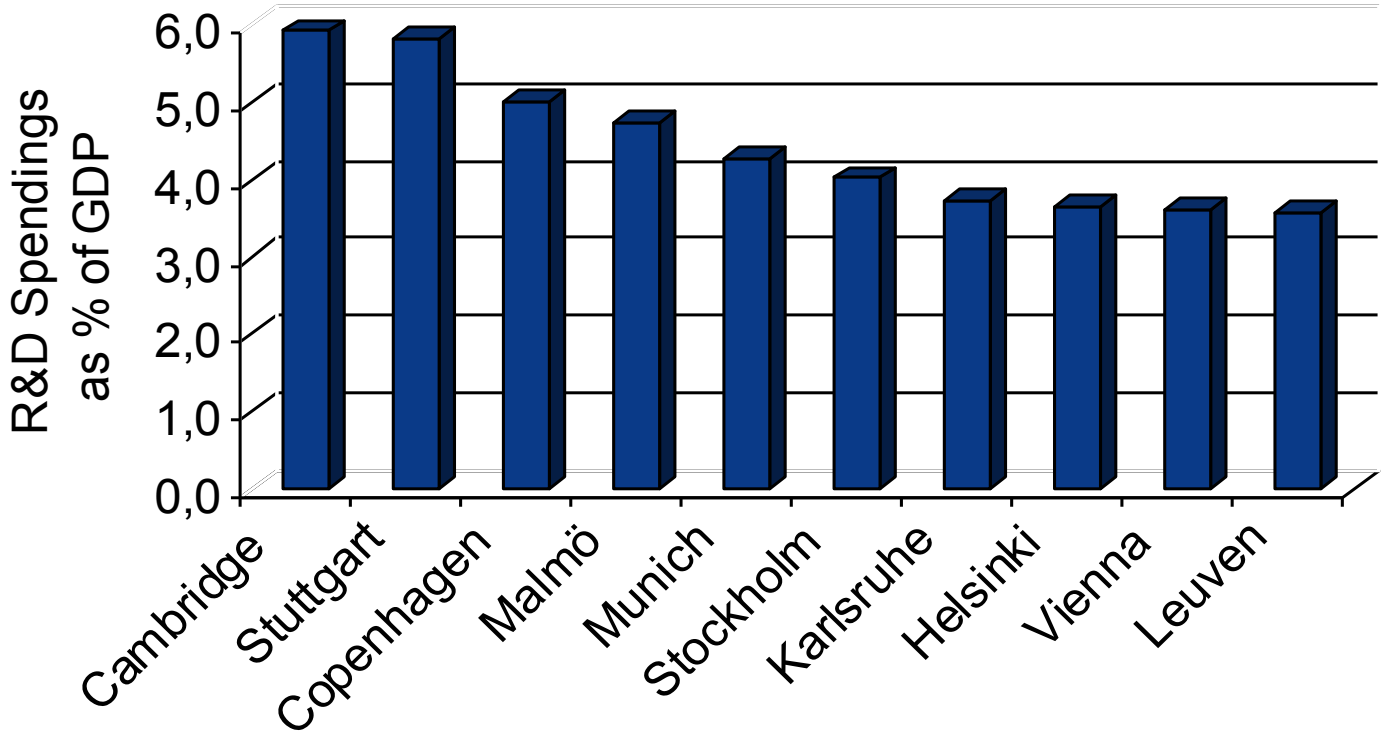

Source: Eurostat 2012

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Ranking of universities

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Shanghai Jiao Tong Top 500 universities 2011

Rank	City	University
1	Cambridge	University of Cambridge
2	Oxford	University of Oxford
3	London	University College London
4	Zurich	Swiss Federal Institute of Technology Zurich
5	London	Imperial College London
6	Manchester	University of Manchester
7	Paris	University Paris Sud
8	Paris	University Pierre Marie Curie
9	Copenhagen	University of Copenhagen
10	Stockholm	Karolinska Institute

Times World's Top 400 universities 2011-2012

Rank	City	University
1	Oxford	University of Oxford
2	Cambridge	University of Cambridge
3	London	Imperial College London
4	Zurich	Swiss Federal Institute of Technology Zurich
5	London	University College London
6	Stockholm	Karolinska Institute
7	Edinburgh	University of Edinburgh
8	Munich	Ludwig Maximilians universität
9	Lausanne	École Polytechnique Fédéral de Lausanne
10	London	London School of Economics & Political Science

Source: Times Higher Education, 2011-2012, Shanghai Academic Ranking of World Universities, 2012

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Ranking of cities for Technology & knowhow

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Rank	City	Score
1	Munich	4.11
2	Stuttgart	4.09
3	Zurich	3.88
4	Stockholm	3.78
5	Cambridge	3.76
6	Copenhagen	3.64
7	Karlsruhe	3.48
8	Paris	3.45
9	Oxford	3.41
10	Berlin	3.39

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2 Talent

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2.1 Number of high skilled people

2.2 Workers in R&D / Tech industries

2.3 Flexibility of labour market

2.4 Labour costs

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Top 10 Employed in technology and knowledge intensive sectors

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Rank	City	Total number employed (x 1,000)
1	Paris	407.5
2	London	218.1
3	Madrid	213.9
4	Milan	199.7
5	Rome	149.2
6	Barcelona	145.5
7	Munich	135.8
8	Oxford	110.8
9	Berlin	110.4
10	Aachen/Cologne	109.4

Source: Eurostat 2012

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Flexibility of the labour market

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Top	Labour relations: productive-hostile	Cooperation in labour relations: cooperative - confrontational	Labour regulations: hinder business or not	Hiring & Firing regulations: regulated-flexible
1	Switzerland	Switzerland	Denmark	Denmark
2	Austria	Denmark	Switzerland	Switzerland
3	Denmark	Sweden/Netherlands	Austria	United Kingdom
4	Sweden	Austria	Ireland	Hungary
Bottom				
13	Spain	Spain	Belgium	France
14	Italy	Italy	Spain	Spain
15	France	France	France	Sweden

Source: IMD, 2011; WEF, 2011-2012

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Ranking of Cities for Talent

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Rank	City	Score
1	Madrid	4.15
2	Prague	3.96
3	London	3.91
4	Paris	3.89
5	Budapest	3.87
6	Barcelona	3.73
7	Oxford	3.72
8	Edinburgh/Glasgow	3.60
9	Dublin	3.59
10	Milan	3.50

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3 Market size

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3.1 Size regional market

3.2 Size national market

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Ranking of cities for Market size (3.1 + 3.2)

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Rank	City	Score
1	Paris	5.00
	Barcelona	5.00
	Madrid	5.00
	London	5.00
2	Milan	4.65
	Rome	4.65
3	Berlin	4.30
	Munich	4.30
	Manchester	4.30

Rank	City	Score
4	Nice	3.95
	Cologne	3.95
	Stuttgart	3.95
	Cambridge	3.95
	Edinburgh/Glasgow	3.95
	Oxford	3.95
5	Lyon/Grenoble	3.65

Source: Eurostat 2012

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4 Connectivity

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4.1 Centrality index

4.2 International accessibility by air

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Ranking Connectivity (4.1 + 4.2)

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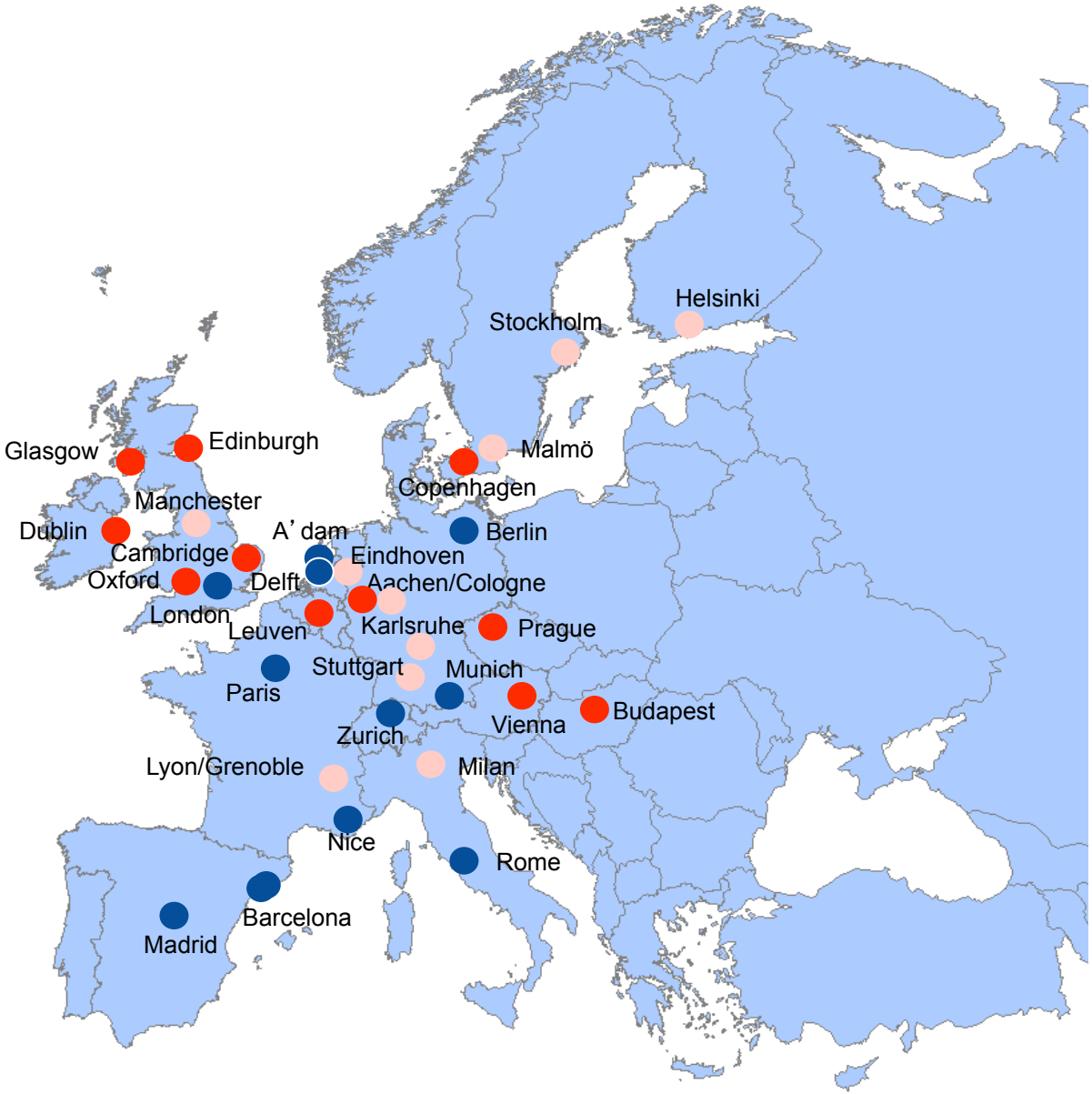

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5 International Business Climate

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5.1 Availability of venture capital

5.2 Fiscal climate

5.3 Risk

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Top 4 countries – Special corporate R&D tax regimes

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Top	Examples of special R&D Tax incentives programs
1 France	Tax credits, cash grants & accelerated depreciation such as ● Research tax credit of 30% for the first €100M of qualified R&D expenditures incurred during the tax year; plus an additional 5% of any amount in excess of the €100M Threshold ● Cash grants for R&D and acceleration of depreciation deductions for fixed assets used in qualified research
2 United Kingdom	● Super deduction & tax credit such as 130-175% volume based super deduction for resp. large and small/medium sized companies (SMEs)
3 Netherlands	Tax rate reduction and tax credits such as ● WBSO - Wage Tax Credit of 50% (can be as high as 60% for start-up companies) of the first €220K in R&D wage costs and 18% for the remaining wage costs (with a max. reduction of Euro 14 mln per taxpayer ● Innovation Box: reduced tax rate for revenue attributable to patents & innovation
4 Belgium	Special deduction such as ● Tax deduction of 13.5% (2011) of the value of qualifying R&D expenditures for investments in scientific research and development of new products or a current deduction of 20.5% of depreciation related to R&D assets ● Patent Income Exclusion

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Ranking International Business Climate

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Rank	Country	Score
1	Sweden	3.90
2	Switzerland	3.90
3	United Kingdom	3.83
4	Denmark	3.68
5	Belgium	3.68

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6 Conclusions

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Overview ranking total weighted scores tech cities

Rank	City	Score
31	Malmö	2.56
30	Budapest	2.63
29	Vienna	2.69
28	Eindhoven	2.73
27	Dublin	2.82
26/25	Karlsruhe	2.85
26/25	Milan	2.85
24	Cologne	2.86
23	Helsinki	2.89
22	Prague	2.94

Rank	City	Score
21	Aachen	2.95
20/19/18	Rome	3.06
20/19/18	Stockholm	3.06
20/19/18	Leuven	3.06
17	Nice	3.07
16	Zurich	3.08
15	Manchester	3.09
14	Lyon/Grenoble	3.11
13	Stuttgart	3.16
12	Edinburgh/Glasgow	3.17

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Overview ranking top 10 Tech Cities

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Rank	City	Score
1	Paris	3.89
2	London	3.73
3	Oxford	3.69
4	Berlin	3.61
5	Cambridge	3.60
6	Madrid	3.57
7	Munich	3.36
8	Copenhagen	3.29
9	Delft	3.23
11/10	Amsterdam	3.21
11/10	Barcelona	3.21

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